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INVESTING IN INFRASTRUCTURE: CREATING JOBS AND GROWING THE ECONOMY

HEARING

BEFORE THE

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS UNITED STATES SENATE

ONE HUNDRED ELEVENTH CONGRESS

SECOND SESSION

ON

EXAMINING JOB CREATION AND ECONOMIC GROWTH THROUGH INVESTMENT IN OUR NATION'S INFRASTRUCTURE

SEPTEMBER 21, 2010

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C O N T E N T S

TUESDAY, SEPTEMBER 21, 2010

WITNESSES

Additional Material Supplied for the Record

INVESTING IN INFRASTRUCTURE: CREATING JOBS AND GROWING THE ECONOMY

TUESDAY, SEPTEMBER 21, 2010

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, DC.

The Committee met at 10:03 a.m., in room SD–538, Dirksen Senate Office Building, Senator Jeff Merkley, presiding.

OPENING STATEMENT OF SENATOR JEFF MERKLEY

Senator MERKLEY. I call to order this meeting of the Banking, Housing, and Urban Affairs Committee. Colleagues, thank you for being here for this conversation about how to finance our critical infrastructure needs and, in particular, the role of a potential National Infrastructure Bank in helping to finance that infrastructure.

You have heard it before, and you will hear it again: Our Nation's infrastructure is a state of shameful disrepair. Yet by investing in our infrastructure and providing our communities and constituents with the physical building blocks of society, we can create hundreds of thousands of jobs. And just as importantly, we put in place a critical foundation for future economic growth.

The pipeline disaster in California 2 weeks ago now joins the I–35 disaster in Minnesota as yet another wake-up call alerting us to the state of our infrastructure. From our railroads to our water systems to our schools and universities, our backlog of needed maintenance and our failure to maintain modern infrastructure act as a drag on our economy. We have 4,000 dams deemed deficient. One in four of the Nation's bridges are either structurally deficient or functionally obsolete. The EPA estimates that an investment of $255 billion is needed over the next 20 years to update or replace water and wastewater systems. We have a backlog of $78 billion in our public transit systems, and one in three urban and rural roads are in just fair, mediocre, or poor condition.

Just as critical is this point: Right when our economy needs a boost in employment, maintaining that infrastructure would be a major source of jobs. Infrastructure projects put people to work immediately, particularly our construction sector that has been so hard hit. Infrastructure lays the groundwork for a strong and vibrant economy into the next generation. Our businesses cannot grow without a safe, reliable, and efficient transportation network, ready access to safe and clean water, reliable and safe delivery of energy.

We also know that with significant deficits to deal with, we need to look at innovative ways to finance this necessary investment in our infrastructure. One of the ideas that has been much discussed in recent months is the idea of a National Infrastructure Bank. Such a bank could make merit-based decisions to prioritize projects of regional and national significance. And by using tools such as loans and credit support and by bringing private capital into the market, the bank could bring new financing tools and hopefully additional financing to this area where our needs are so significant.

I thank our witnesses for being here. We look forward to all three panels, but we begin today with my friend Senator John Kerry, who has a strong interest in the challenges of maintaining and expanding our infrastructure here in America, and we look forward to his comments.

Welcome, Senator Kerry.

STATEMENT OF JOHN F. KERRY, SENATOR FROM THE STATE OF MASSACHUSETTS

Senator KERRY. Thank you very, very much, Chairman Merkley, and I apologize for being a moment late. I want to thank the other Members of the Committee. I am pleased to come back here as a former Member of this Committee. I think it served on it for 10 years and sat beside Chairman Dodd and worked with Senator Shelby in that period of time. And I have long advocated for the need for us to try to address the question of America's infrastructure.

"Infrastructure" is a horrible word. It is a lost word to many citizens. But when you see a bridge fall down over the Mississippi or you see, you know, airports clogged and our lack of adequate generation of radar and other things that we face, people begin to understand it.

The truth is, Mr. Chairman, that we are living off our grandparents' and parents' responsibility, sense of responsibility. We are living off prior generations' willingness to invest in America. There is a great book called "The Power Broker" about Robert Moses and New York, and it is a tremendous tale of how the Triborough Authority and all of the great bridges and roads that connected New York to Long Island and upstate New York and elsewhere provided for the economic development growth of that State.

The fact is that I believe a National Infrastructure Bank is the essential way for our country to catch up to the enormous infrastructure deficit that we face in this country. Rising economic powers around the world, our competitors—China, India, Brazil, Mexico, other countries—are all investing in their future, and they are all investing in their future much more significantly than the United States. The truth is we are moving at our current rate toward a secondary competitive status because of our inattention to the infrastructure of our country.

Now, there are a lot of ideas about the best way forward. I think we have to be candid in the beginning of this discussion and make it clear: Building infrastructure does not come on the cheap. But it is clear that the most efficient way that we could galvanize the private sector to actually provide the investment rather than a big Government approach is, in fact, to create an infrastructure bank for the United States. Already, a diverse bipartisan group supports the idea of a National Infrastructure Bank, including the Chamber of Commerce, the AFL–CIO, SEIU.

So I believe that if we create new and strong incentives for investment here in the building blocks for economic competitiveness, all of which are key to America remaining a great economic power—the roads, the bridges, the rail, aviation, other essential infrastructure. You know, countless communities—I was visiting Fall River, Massachusetts, the other day. They have a combined sewer overflow requirement by the courts. The courts have ordered it. They do not have the tax base, they have no ability to be able to build this on their own. Already, families that cannot afford it are paying an additional $800 for a system that the court has ordered that lasted over a hundred years, and they are going to be building it for the next hundred years. But none of that is reflected in the financing structure, which is all immediate and all sort of pay-as-you-go in the current budget.

President Eisenhower recognized, when he built the National Highway System, that it was good to bet on American ingenuity and American economic capacity, and it strengthened our hand in the cold war. Frankly, all of our infrastructure issues, whether it is our grid, which is barely existent as a national grid, or our lack of adequate ability to move people by rail after 9/11—remember, the only way you could really move people was by rail for the first few days. The truth is that infrastructure is directly related to America's economic strength, and economic strength is directly related to our projection of power on a global basis.

Now, we are going to disagree sometimes, as we all know. We are seeing it well exploited in the current political context, the question of the appropriate size of Government. I think we all agree that a smaller Government is better and that you want to try to reduce the size of bureaucracy and so forth. And we should not get tangled up in the demagoguery that surrounds that issue. Americans do not want big Government, but I will tell you what they do want. They want a Government that works for them effectively. They want as much Government as it takes to be safe and secure on roads and bridges and rail and highways and air travel. And businesses want as much Government as is required to efficiently and cheaply move goods, products, to market. That means upgrading our Nation's highway system, our rail, our maritime, our aviation, and modernizing our electric grid.

Now, just to get a picture of how much we need this, Mr. Chairman, in 2008, the National Surface Transportation Policy and Revenue Study Commission called for an annual investment in our country in infrastructure of $250 billion a year from Federal, State, and local governments for the next 50 years in order to meet just the bottom standard of what we need to bring our infrastructure up to par. We are talking about staggering sums of money here, and it clearly reflects how much we have neglected our infrastructure, and it clearly reflects the path of deterioration that we are on.

Well-functioning infrastructure is not a luxury. It is the key to connecting and protecting our people and to creating millions of middle-class jobs for American workers over the long term, though it is not a jobs bill. That is the ancillary, sort of side benefit of doing this. It is a bill directly related to economic strength, directly related to competitive strength, and directly related to national security. It is vital to our economic future in the face of global competition.

Quite simply, we are falling behind our main economic competitors, and the further we fall behind in this race, the harder it is to catch up and the easier it is for companies to decide, Well, I am not going to locate my company there because it costs me so much more to move my goods, it is so much more difficult to effect business; I am going to go somewhere where they have got a modern infrastructure capacity.

China. China's 2009 infrastructure spending is estimated to be 9 percent of GDP, or $350 billion a year, and growing at an annual rate of 20 percent. China's highway mileage is expected to surpass the United States' in under 3 years.

Europe's infrastructure bank—they have one—the European Investment Bank, financed $350 billion in projects from just 2005 to 2009 across Europe, across the continent, helping to modernize seaports, expand airports, build railroad lines, and reconfigure city centers.

Brazil. Brazil has invested over $240 billion in their infrastructure in the past 3 years alone, with an additional $340 billion planned in the next 3 years. They have unveiled major initiatives to invest in infrastructure ahead of hosting the World Cup and the Olympics. And, incidentally, the infrastructure bank was a central part of their strategy in attracting the World Cup and the Olympics. And they are using their infrastructure bank as a key tool to finance this massive expansion.

So to get back into the game, Mr. Chairman, Members of the Committee, we need something more than the municipal bond market system, which is already struggling to support over 80 percent of the infrastructure investment in the United States. A National Infrastructure Bank would complement existing infrastructure programs, not compete with it. This is not in lieu of the highway bill, not in lieu of the FAA bill and other things. It is a complement to it, and it is a complement that takes a small amount of public seed money, puts it into a revolving concept, and leverages anywhere from 6 to 10 times that amount of money so that you go from $25, $35, $40 billion of initial investment up to $600, $700, $900 billion of private sector stake. If done right, Mr. Chairman, this bank can change the playing field for our country. It would finance projects from high-speed rail to seaports. In today's newspaper, there is a big article—I cannot remember if it is the *New York Times* or the *Washington Post,* but it talks about the difficulties we are having right now getting high-speed rail out there. And one of the reasons is the freight competition for dedicated track. We need to build dedicated track for high-speed rail. That is what they have in France; that is what they have in Japan and Germany and places. And until we get there, we are not going to have a first-rate, modern transportation system for our country.

So I would just close by saying, you know, this can be run in an open, transparent manner by experienced professionals. It can have meaningful congressional oversight. We could even sunset it, which is something that I have proposed, so that nobody fears that we are building some long-term, eternal Federal bureaucracy but, rather, it has a purpose, it brings us back to par, and then we figure out whether we are going to be a country with a capital budget or how we are going to proceed in the future.

Americans have always been builders. We built the Transcontinental Railroad. We built the Panama Canal. We built the Interstate Highway System. We went to the Moon. But for the last 25, 30 years now, we have lacked adequate investments in that building ethic, and the result is we have been without a strategic plan for all of that period of time, and I believe a National Infrastructure Bank and the commitment of this Congress can change that and put us back onto the path that President Eisenhower noted when he signed the Interstate Highway System and he said, "Together, the united forces of our communication and transportation systems are dynamic elements in the very name we bear—United States. Without them, we would be a mere alliance of many separate parts."

That is the direction we have been moving in. I hope we will put an infrastructure bank in place, reverse the course, strengthen America's competitive posture in the world, and give our citizens the economy and the quality of life that they deserve.

Thank you, Mr. Chairman.

Senator MERKLEY. Thank you very much, Senator Kerry, both for painting the vision of the investment we need to make in our infrastructure to serve the next generation and create jobs, but also how the National Infrastructure Bank would play a critical role in making that happen. So you have kicked off our hearing very well. Thank you.

Senator KERRY. I appreciate it. Thank you.

Senator MERKLEY. While our second panel is coming up, I am going to ask Senator Shelby if he would like to make his opening statement.

STATEMENT OF SENATOR RICHARD C. SHELBY

Senator SHELBY. Thank you, Mr. Chairman. Thank you for putting together this hearing.

Today the Committee revisits the idea of a National Infrastructure Bank and the potential of infrastructure investment to create jobs and enhance economic growth. We have been told by many experts over the years that infrastructure spending is an ineffective means to stimulate the economy, although we know it is important on its own.

As early as January 2008, then-CBO Director Peter Orszag testified before Congress regarding public works projects. He stated, "Even those that are on the shelf generally cannot be undertaken quickly enough to provide timely stimulus to the economy." But the nonpartisan Congressional Budget Office has told us repeatedly that infrastructure spending has one of the lowest bangs for the buck in terms of job creation, if that is what we are trying to do.

Regardless, in early 2009, the Administration enacted, as we will recall, a massive stimulus program of over $800 billion with the promise that unemployment would not rise above 8 percent. Mr. Chairman, unemployment is 9.7 percent right now in my home

State of Alabama and higher than that of a lot of States. The unemployment rate nationally is 9.6 percent, well above the 8.2-percent rate when the stimulus was enacted and well above the Administration's promise of an 8-percent ceiling. This equates to 2.5 million payroll jobs lost since the stimulus was enacted.

The President has promised to create jobs. The only thing his policies have produced, in my opinion, is more Government, more debt, more regulation, and more unemployment. Americans are tired of the "borrow now and pay later" mentality of this Administration and its allies in Congress, and they want it to end.

I agree that investing in our infrastructure is important to our Nation. I think we all do that. It is a long-term proposition and one that must be considered carefully and constructed thoughtfully. Debt-funded infrastructure spending is not and never will be the most effective way to deal with shorter-term economic difficulties. Nor do I believe that we should create under the guise of innovation in infrastructure finance a new GSE-like structure where taxpayers are put on the hook for the risk of others.

We already have many ways of funding infrastructure projects. While they may not be perfect, most involve the process of appropriating funds through this Congress. I understand that it may not be as efficient to have Congress involved, but it does give the American taxpayer a voice in these multi-million-dollar spending decisions.

When advocates for a National Infrastructure Bank talk about leveraging taxpayer resources in partnership with the private sector, I hear private profit and public risk. When I hear that an infrastructure bank will not cost the taxpayers a dime, I wonder why Federal resources and guarantees are needed. When taxpayers are on the hook, Congress must have a role, I believe. We must agree that we must maintain and modernize our national infrastructure. It is a must. Neither the creation of a National Infrastructure Bank nor another $50 billion in spending would constitute a comprehensive plan for the future.

Rather than expose the American taxpayer to more risk and waste billions of dollars on ineffective, inefficient programs, I believe we need to develop a comprehensive long-term approach to infrastructure investment. I believe that we need an approach that encourages private sector participation and investment, one that demands efficiency, effectiveness, and reasonable return on investment.

But I also believe that we need to protect taxpayers and make sure that we do not again construct another Fannie and Freddie under the guise of a National Infrastructure Bank. I hope we have learned our lesson in that regard. We will see in the future.

Thank you, Mr. Chairman.

Senator MERKLEY. Thank you, Senator Shelby.

We will now hear from our first panel. First we will hear from the Honorable Roy Kienitz, the Under Secretary for Policy at the United States Department of Transportation. Mr. Kienitz assists the Secretary in formulating national policies affecting surface transportation and aviation. Prior to his appointment to the Department of Transportation, Mr. Kienitz served as the deputy chief of staff for Pennsylvania Governor Edward Rendell.

Next we will hear from the Honorable Alan Krueger, who currently serves as the Assistant Secretary for Economic Policy of the Treasury Department. He advises the Secretary on all aspects of economic policy, including current and prospective macroeconomic developments, development and analysis of the Administration's economic policy initiatives.

Thank you both for coming, and I ask that you keep your remarks to approximately 5 minutes. We look forward to hearing your thoughts. Thank you.

STATEMENT OF ROY KIENITZ, UNDER SECRETARY FOR POLICY, DEPARTMENT OF TRANSPORTATION

Mr. KIENITZ. Thank you, sir. Good morning, Mr. Chairman, good morning, Senators. Thanks for allowing us to appear today.

I would like to start by saying it is very appropriate that this hearing is entitled "Creating Jobs and Growing the Economy," because those are two things where we see a very powerful role for the type of infrastructure investment we are talking about here today. Obviously, the things that we do do create jobs in the short run. But as Senator Kerry said, that is not our principal aim. That is a wonderful thing to do, but the principal aim is to build projects that create long-term economic benefit over decades and generations.

If we select projects correctly, they decrease costs for business and they increase overall economic productivity, and that is something that lasts for generations. And that is really the lesson of the big infrastructure investments of the past, be they the Transcontinental Railroad, the Interstate Highway System, the airport system, these generations-long streams of benefits that the whole economy gets.

As folks here have alluded to, 2 weeks ago the President gave a speech in which he laid out the initial outlines of a vision for making a long-term investment in transportation infrastructure, and that combines both the goal of a long-term plan but something pretty quick now to get going in the current environment. And this is a signal that the Administration agrees with the Members of this Committee and most of the Members of the House and Senate that a 6-year reauthorization of surface transportation programs is important and we should get it done as quickly as possible. And it is a way to get rid of the long-term infrastructure backlog, but to make these kinds of investments that will give us long-term change in the economy.

To accomplish this, the program that we are going to be proposing will need a robust level of funding, significantly higher than the current baseline that is in the budgets going forward. And we are suggesting that a significant share of these new resources, as much as $50 billion, be frontloaded in the current environment in the first year. We see that money as part of the long-term plan, but the traditional method by which these bills—they are smallest in the first year and grow largest in the last year, and, now is when the economy needs help, and hopefully in 4 or 5 years from now the economy will be humming along. So we are looking at a different investment profile to start sooner.

Under the Recovery Act, we are finding that bid prices for a whole range of projects are coming in on average about 20 percent below prior estimates, so just from a bang-for-the-buck point of view, now is the perfect time to put in a large chunk of money because we are going to get the same projects for less money.

Some of the tangible accomplishments of the President's plan over the next 6 years we hope will be able to rebuild up to 150,000 miles of roadway; construct and maintain 4,000 miles of rail; and as part of our up-front proposal, we are proposing some aviation investments that potentially could help us rehabilitate or reconstruct 150 miles of runway. This aviation investment plan would not be part of the long-term plan. We are not proposing to merge the surface reauthorization and aviation bills, but we would like to do some of that as part of the up-front plan.

More generally, we want this to be part of a long-term plan. The programs at the Department of Transportation have been counted up over various times. We think on the surface side there are over 100 individual funding categories right now. That is traditional where you start with a small, streamlined program and it grows over time, and it has been 20 years since there has been a major pruning exercise, and we think that it is time to do much less in the way of categories and much more in the way of performance-driven budgeting, both at the Federal and the State level.

The Department in our Strategic Plan that the Secretary has put out, we have outlined the five strategic goals we want to pursue, which are all pretty simple: economic competitiveness, safety, state of good repair of existing assets, environmental sustainability, and community livability. And we want to have our investments both on the formula side and on the discretionary side driven by those priorities.

So the infrastructure bank for our purposes is a way to direct spending, *A,* at the strategic priorities we have in a much more concrete and specific way; and, *B,* to do it according to a set of principles of merit-based decisions on what project to pick and what mode to pick that project in rather than a set-aside slide of money for each individual category. You have to make that decision on a project-by-project basis and be driven by analysis to get the biggest bang for the buck for the country for these long-term economic gains.

So those are the core principles behind the infrastructure bank that we see. There are a lot of questions that need to be resolved. We have yet to make a specific proposal on all the points that Senator Shelby laid out, and I was glad to hear his statement; and I think if those are the markers you are laying down, I think we can meet those markers. But that will obviously be a conversation we have with this Committee and the other committees of Congress.

So those are, I think, the principal reasons why the President has been supportive of this, and then we want to work with the Members of this Committee and the rest of the Senate and the House to try to work out details that everyone can believe in.

Thank you.

Senator MERKLEY. Thank you very much.

Now we turn to our second testimony from Honorable Alan Krueger.

STATEMENT OF ALAN B. KRUEGER, ASSISTANT SECRETARY FOR ECONOMIC POLICY AND CHIEF ECONOMIST, DEPARTMENT OF THE TREASURY

Mr. KRUEGER. Thank you, Senator Merkley and Ranking Member Shelby and other Members of the Committee. I appreciate the opportunity to discuss proposals to improve our Nation's infrastructure investment.

The President has announced a bold plan to renew and expand America's transportation infrastructure through an up-front investment connected to a 6-year reauthorization of the surface transportation program.

In my testimony, I will discuss several aspects of the President's proposal. First, I will evaluate why focusing on infrastructure investment makes sense in the current economic environment. Second, I will discuss some of the long-term benefits from increasing our investments in infrastructure. I will then turn to the core ideas behind the Administration's proposed National Infrastructure Bank, which were heavily influenced by the bipartisan work of Chairman Dodd and former Senator Hagel. Finally, I will highlight a successful, innovative financing program, Build America Bonds, which could be a useful tool for the National Infrastructure Bank.

The recession that started with the financial crisis of 2008 has had an exceptionally large impact on the job market. From December 2007 to December 2009, our country lost over 8 million jobs. While there are positive signs of recovery in many sectors of the economy, additional steps are needed to ensure that the recovery stays on track. In this environment, accelerating infrastructure investment makes good economic sense for several reasons.

First, infrastructure investment will provide opportunities for workers who were disproportionately affected by the recession. Due to the collapse of the real estate market, the contraction of employment in the construction industry has been especially acute. One in five of the 8 million jobs lost was in the construction sector. The unemployment rate among construction workers is now 17 percent.

Second, a wide range of analysts, including the CBO, have concluded that additional spending on infrastructure is among the most effective policy options for raising output and employment.

Finally, during recessions it is common for State and local governments to cut back on capital projects, such as road construction, in order to meet balanced budget requirements. Past research has found that expenditures on capital projects are more than four times as sensitive to year-to-year fluctuations in income than is State spending in general. The Recovery Act provided crucial support for infrastructure during the recession.

Investing in infrastructure is not only important to our economy now; it is also crucial to the economy's long-term health. While economists have debated the magnitude of the various infrastructure investments, evidence from recent research points to a positive and significant effect of transportation infrastructure investment on productivity.

John Fernald's research, for example, has found that building the Eisenhower Interstate System corresponded with a significant increase in the productivity of vehicle-intensive industries compared to industries that did not heavily rely on vehicles.

One of the most promising ways to leverage scarce Federal resources while targeting our most productive investments is to establish a National Infrastructure Bank. Our current method of funding infrastructure lacks effective mechanisms to attract and repay direct private investment in specific projects. A National Infrastructure Bank would create the opportunity for greater private sector investment in infrastructure.

Second, with a few notable exceptions, Federal funding for infrastructure investments is not distributed on the basis of competition among projects using a rigorous economic analysis or cost/benefit comparison. The National Infrastructure Bank would develop a framework to analytically examine potential infrastructure projects based on benefit/cost analysis. It would prioritize the most effective and efficient investments.

I should acknowledge that creating a framework for project selection based on cost/benefit analysis is a challenge. Consider, for example, the problem of congestion. Americans waste an estimated 1 week of time sitting in traffic. Valuing the time lost due to traffic may appear simple at first, if the opportunity cost is lost income due to foregone work. However, it is not clear that time spent in congestion should be valued at the wage rate as not everyone sitting in traffic wants to work more hours or can find a job. Additionally, there are emotional and physical costs of commuting beyond lost working time. All of these potential costs of congestion should be factored into any cost/benefit analysis of infrastructure alternatives.

Identifying all of the benefits of potential infrastructure projects is also challenging as all the benefits do not necessarily accrue directly in the area where the infrastructure is built. For example, a project that improves the connectivity between a freight rail and a port to allow for quicker, cheaper, and more reliable service will be a benefit for the producers of those goods, even if they live very far away.

Another benefit of the National Infrastructure Bank arises because coordinating multimodal, multijurisdictional projects in the current system is extremely difficult. This is because each mode of transportation has a distinct Federal funding source, and there could be significant difficulty accessing the capital markets for local funding for jurisdictional projects. A National Infrastructure Bank would be able to bridge this gap.

Finally, in addition to improving the targeting of our infrastructure investment, we need to consider new ways to finance it. A National Infrastructure Bank should be at the forefront of innovative and sound ways for financing worthy projects. One such financing tool is Build American Bonds, which the President has proposed extending.

I am happy to answer any questions.

Senator MERKLEY. Thank you both very much for your testimony, and we will have about 5 minutes of questioning from each of our Members of the Committee.

I will begin just by noting, Mr. Kienitz, you referred to five goals: economic competitiveness, safety, state of repair, livability, and environmental sustainability. And, Mr. Krueger, you refer to financing worthy projects. Walk us through the vision of how an infrastructure bank makes its choices about what type of projects to fund. And I think, Mr. Kienitz, you referred also to getting away from the traditional stovepiping, which means everything is in competition with each other. So how does that get sorted out?

Mr. KIENITZ. It is a complex task and that is exactly the right question. We have started to try to figure that out, as some of you may know. We have a discretionary program that was created in the Recovery Act and has been continued since called the Secretary's Discretionary Grants, or the TIGER program. We have used this as a bit of a pilot to start doing exactly that, and we asked applicants who are asking for larger amounts of money to provide cost-benefit analysis along with their applications. Some of those analyses we got were thin and not very well done, and some of them were thick and expert.

And what we did is we weighed two sets of things, the first of which is what do we think the overall bang for the buck for this project is, all costs included and all benefits included. Second, do we think this project is meaningfully advancing our key national goals that we have set out, or, for example, so if you had two projects that had a very similar sort of bang for the buck and one of them advanced four of our strategic goals and another one only advanced one of our strategic goals, we might lean more heavily in its favor.

So it is a balancing act, but I would say the principal thing that we want to say about the strategic goals is in the past, the financing markets have often concentrated on can this project be financed? Do the numbers work? That is a very important consideration. We start actually with a different question, which is does this project achieve something of national importance? If it does, then we will look into, do the numbers add up, and in some cases, it can be financed entirely through debt. In some cases, part of it can be financed through debt, but it might need grants for part of it. And in some cases, if it is in a smaller community that has very little ability to pay but there is still a high return on investment, then a grant funded project is appropriate. So it depends on the specific circumstances of each project.

Senator MERKLEY. Mr. Krueger, do you want to add to that?

Mr. KRUEGER. Sure.

Senator MERKLEY. And specifically, nitty-gritty. Is there going to be a board that makes these decisions, or how are the proposals actually evaluated?

Mr. KRUEGER. Well, of course, all of those details remain to be worked out with the Congress. And as Under Secretary Kienitz said, I think it is a balancing act. One needs to weigh in any benefit-cost analysis the benefits of increased safety, for example. I know that is done in other realms and I think that can be done here, as well.

But the details of how the Infrastructure Bank would work would depend on the legislation that authorizes it, and, of course, we would be very happy to discuss those details further with you and your staff.

Senator MERKLEY. OK. Well, I will follow up with one other question here, and that is in the testimony, Mr. Krueger, you referred to the potential for an Infrastructure Bank to recognize and fund projects will have significant network effects. Can you talk about this in a little more detail, why such effects are important, but also why it is our current systems of funding don't adequately target projects with those types of network effects?

Mr. KRUEGER. Sure. I think much of the benefit from transportation infrastructure comes about because of the network effects, because one highway is connected to another or because a highway reaches an airport or a rail line or a port. And valuing those external benefits is very difficult. If a project is funded locally, the local government may be aware of some of those benefits, but it doesn't have the same incentive as the national Government does to take into account of those external benefits.

So taking into account of those external benefits, I think is extremely important, especially for projects of national significance where you are talking about projects that cut across, in many cases, cut across jurisdictional lines and cut across different modes.

Senator MERKLEY. Thank you very much.

With that, Senator Shelby.

Senator SHELBY. Thank you. One of my concerns, and I don't think I am the only one here, about an Infrastructure Bank is that it would involve private profit-seeking goals with Government backing, in other words, private profits socializing the risk. I fear that the bank will simply be a new GSE or something like it and we will face another Fannie and Freddie-type entity that will cost the taxpayers money down the road, maybe not immediately, but down the road.

Have you thought that out? In other words, if you are putting the Government guarantee there, you are exposing the taxpayers, but the people who invest privately will make the profit, not the taxpayer. Will we benefit from the infrastructure? Sure. We all do. We know that. But have you thought that out, the mechanics of how this would work? Your statement earlier seemed a little vague and like this is a work in progress. But I fear the GSE model.

Mr. KIENITZ. Yes, sir. The statement is vague and deliberately so because it is a work in progress. We are actively in discussions right now——

Senator SHELBY. Is it deliberately so because you don't know yet, or is it deliberately vague because you would rather not have the Congress know what is going on?

Mr. KIENITZ. We hope to make a very specific proposal——

Senator SHELBY. OK.

Mr. KIENITZ. ——but probably not for a while, and so we are currently discussing what that should be. I would say that the GSE model, I don't think is terribly high in favor with a lot of folks right now, just because Fannie and Freddie are obvious examples of something that looked like a good idea at the time and has since shown its weaknesses.

Up until now, we have been using the principles of what is called the Federal Credit and Scoring Act, where if we give a loan, for example, under the TIFIA program at DOT, we set aside a certain amount of money as coverage, and when you do a portfolio of loans, you are setting aside enough money. In the 15 years of that program, I think there has been one bankruptcy, which just occurred. In fact, we insist on, in the case of a bankruptcy, the Federal Government jumps to the head of the line in terms of the ability to get repaid, and our analysts are telling us that we may make a little bit of money in the bankruptcy of that loan, and it is the only one out of the entire history of the program that has ever gone bad.

So that system that exists right now works pretty well. It has been pretty safe. It is just way too small, and so part of the potential here is to—one model is to simply take that system and put a whole lot more money behind it and expand the scope.

Senator SHELBY. What you are talking about basically, and correct me if I am wrong, is leveraging this money. In other words, if you created a $50 billion, if you had an appropriation, I assume an appropriation of $50 billion——

Mr. KIENITZ. Right.

Senator SHELBY. ——I guess we would have to borrow it from the Chinese, and then they wouldn't be able to build their infrastructure, would they?

[Laughter.]

Senator SHELBY. But anyway, if we did that, what would you envision, seriously, to leverage with 50? Could you leverage it 10 times or 5 times?

Mr. KIENITZ. Our experience has been it is generally somewhere between 8-to-1 and 12-to-1, depending on what pledge we get.

Senator SHELBY. So let us say if it is 8-to-1, you are talking about $400 billion in infrastructure.

Mr. KIENITZ. Now, I would expect that some portion of that money would be grant money. I mean, the example Senator Kerry used of Fall River, Massachusetts, if they are going to do a water upgrade, some portion of that is going to be paid by the local ratepayers. There will be money there to pay back, because part of that will be loans. The issue is the level that the rates would have to be in that community is so astronomical that you can't realistically pay for the whole thing.

Senator SHELBY. Would that be like transit today, where we put up so much money and the cities put up so much money?

Mr. KIENITZ. Right, and so there might be a portion of its loan that is backed by local ratepayers and a portion of it that is grant——

Senator SHELBY. How would you limit, sir, or I will direct this to both of you, how would you limit the exposure of the taxpayer to this? Let us say they put up $50 billion. Is that an implicit guarantee for the $400 billion that you would leverage, say if it was eight times?

Mr. KIENITZ. Right now, the TIFIA program has one-third is the maximum that the Federal Government can put into any project, so someone else's money has got to be in there for two-thirds.

Senator SHELBY. I understand that.

Mr. KIENITZ. Also in this case——

Senator SHELBY. No, but I am talking about the liability. Let us go back to the ultimate liability of the taxpayers. Would they be liable for, either implicitly or explicitly, $400 billion or just for the $50 billion?

Mr. KIENITZ. Uh——

Senator SHELBY. And how would you sell that? I mean, you would be selling bonds, probably.

Mr. KIENITZ. Right. The model that exists now is the Treasury simply puts the actual cash into the deal and we hold back a reserve, and the reserves are pooled over multiple projects. So if one out of 20 projects goes bankrupt, but you are collecting one-20th of the project value from each one, it covers itself, and so far, it has worked well.

Senator SHELBY. Have you run numbers, and who has run those numbers, we would like to know, to see if all this could be actuarially sound?

Mr. KIENITZ. We have yet to do that because we haven't quite made a specific proposal——

Senator SHELBY. I know that, but isn't that important?

Mr. KIENITZ. Oh, absolutely. Absolutely.

Senator SHELBY. Secretary Krueger, do you want to comment?

Mr. KRUEGER. Just a couple of quick responses. I think this would be very different from the GSEs.

Senator SHELBY. How? Explain.

Mr. KRUEGER. And I would say that Under Secretary Kienitz used understatement in saying that the model was different——

Senator SHELBY. Would it be different because you would call it something different, or——

Mr. KRUEGER. Oh, no, no. Let me explain——

Senator SHELBY. ——in reality——

Mr. KRUEGER. Because it would be on-budget, first of all. Second, because it would use the Federal Credit Reform Act for scoring. Third, and probably most importantly——

Senator SHELBY. Explain what you meant there.

Mr. KRUEGER. This is related to what Under Secretary Kienitz said, that the scoring would be based on expected losses, and there would also be limits in terms of the leverage. I mean, I can give you an example. In my testimony, I described the Build America Bonds model, which as you know are direct subsidy bonds where the Federal Government pays right now 35 percent of the borrowers'—of the issuers' costs. That certainly limits the liability to 35 percent. The issuer is responsible for the rest of the borrowing costs, and this is one way of leveraging Federal resources which we are doing right now.

But the other point I want to make is with the GSEs, the GSEs were profit-seeking institutions. The Infrastructure Bank would not be. The Infrastructure Bank would be an institution that is seeking to make the best investments, but not trying to make itself a profit, which is part of the problem—a big part of the reason why the GSEs ran into trouble.

Senator SHELBY. One quick question. Who would decide who would get what under this bank? Would that be the Secretary of Commerce, the Secretary of Transportation, or somebody there, and would Congress have a role, or who would have a role, and how objective would that be?

Mr. KRUEGER. Well, Congress——

Senator SHELBY. How do you remove politics from it?

Mr. KRUEGER. Well, Congress would certainly have a role in designing the institution.

Senator SHELBY. What about giving out the money?

Mr. KRUEGER. Under Secretary Kienitz can talk more about that, but——

Senator SHELBY. Would that be up to the Secretary of Transportation?

Mr. KRUEGER. ——the proposal that we had was that the bank would be housed in the Department of Transportation but have input from other relevant agencies and departments. But as I said, that is a detail—that is an important detail that needs to be worked out with the Congress.

Mr. KIENITZ. As would the question of does this person—is it run by a Government appointee? Is that person confirmed by the Senate? There are many ways that you gentlemen are more familiar with than I do in which proper oversight and attention is given. And we are sorting through what we want to propose. We suspect whatever we propose will be adjusted here——

Senator SHELBY. Are you telling us basically it is an idea now that has got to be fleshed out and crystallized before you really make a concrete proposal?

Mr. KIENITZ. Correct——

Senator SHELBY. OK.

Mr. KIENITZ. ——and the second point, is we are trying to balance two things. We are trying to balance enough separation from politics so that they can make some tough calls, but enough connection that people feel like it is legit. And so I don't think that is an easy balance, but that is the balance it has to be.

Senator SHELBY. Thank you, Mr. Chairman.

Senator MERKLEY. Thank you.

Now we will turn to Senator Tester.

Senator TESTER. Yes. Thank you, Mr. Chairman, and I want to thank the panelists for being here. If I don't get a chance to say hi to Governor Rendell, I want to thank him for being here today, too. I very much appreciate it. I know how passionate you are about this issue.

A personal comment first, and then we will get to the questions. First of all, I think if we don't start investing in infrastructure, we are not going to be a leader in this world for much longer. I think it is critically important that we invest and it is going to cost money. Whether we pay for it at this level or we pay for it at the local level, it is going to cost some money. But we will all get benefits from that if it is done right, and that is critically important. I think as we look at our electrical transmission to water systems to our transportation system, whether that is road, highways, or air, there has to be an investment there or we will not be able to compete. That is just my comment.

Now I am going to talk about rural America, because I do have some concerns with an investment bank. We are going to try to make it as nonpolitical as possible and we are not going to have the Banking Committee oversee it, doggone it. I was hoping that would be the case, but it is not.

And you talked about, Mr. Krueger, you talked about cost-benefit analysis, and I think that on the surface, that sounds really, really good, especially if you are talking about people who are sitting in front of stoplights or whatever it may be. Now, we have got 950,000 people in the State of Montana, and Montana is a pretty good-sized

State. Traffic, for the most part, isn't an issue, although if you look for it, you can find some traffic problems, but you have to really look for it.

So in the area of highways, how does Montana get a fair shot at any sort of investment when, quite honestly, we don't have a population base that is the size of a place like Pittsburgh, much less a bigger city or a bigger State?

Mr. KRUEGER. Well, I think the principle of cost-benefit analysis applies in different regions and different types of economic conditions. The rural areas, I think, would also benefit certainly from connection, you know, the delivery of goods and services, transport of minerals or of cattle and so on to ports. Rural areas would certainly benefit from improvement in the ports, improvement of the freight rail lines——

Senator TESTER. No argument here.

Mr. KRUEGER. ——and I think that is exactly what you meant when you said that the State would benefit from the investment in infrastructure. Presumably, in many cases, that would pass benefit-cost analysis, which would help the State.

Senator TESTER. OK. Let me burrow down a little bit, and this may be unfair because we are just fleshing this thing out and it is just starting, and you can jump in if you want to, Ron. The issue is, I have been to Southern California. I mean, it is a nightmare to drive in that place. If you are looking at developing a mass transit system, you could take a whole pile of money and send it down to Southern California and Montana wouldn't even be a blip on the radar. How does Montana get to be more than a blip? And I know you are talking about shipping cattle, but when you are talking about votes and you are talking about the Electoral College and all those kind of things, fact be known, I mean, I don't care if you are talking about the Missouri River or you are talking about highways, that makes a difference.

How does that cost-benefit analysis—you are not going to be able to do everything all at once, don't have enough money. We are talking, if the figures are right I put in my head, I don't know how many, $60 trillion or something like that over an extended period of time, but how do we get to be a part of the equation? And then if there are minimums on the amount of dollars, like no project can be under $75 million, that puts us at another disadvantage. How is this going to work? Maybe you can touch on that.

Mr. KIENITZ. Yes, sir. We have thought about this a lot. An interesting thing that is going on, for example, in Southern California right now, they have gotten to the point where they have agreed to tax themselves to try to fund their transit infrastructure because, as you said, their needs are so large, even the Federal Government is not big enough to do it. They have to raise money locally, and so they have proposed a plan to raise $30 billion locally. Now, what they want help from us is loans to help front-load some of that money to get the projects done quicker, but not grants so much.

We held one of our outreach sessions on the surface reauthorization in Bismarck, North Dakota—far away, but close, if you get what I am saying——

Senator TESTER. Yes.

Mr. KIENITZ. ——and what we heard up there was extractive industries. That is the big growth area up there, and it is oil and gas and it is timber and it is grain and things like that. And interestingly, in the cost-benefit analysis we did on our TIGER grants, frankly, much to my surprise, the largest category of grants that we gave was the freight rail system. It wasn't urban transit. We did some of that. But it was the freight rail system because those are folks who have really good information about if we make this improvement and this improvement and this improvement, and we the private guys will pay half or two-thirds, there is enormous benefits that come to shippers over a wide area.

And so that is the type of thing that we can actually see a fair amount of helping in rural America, be it rural Kentucky on the short line railroads or the Great Plains on the major railroads. So that has, I feel like, been a bright spot for us. The question of how to make sure those benefits flow out everywhere rather than just to the sort of concentrated pockets is an issue. But as Mr. Krueger—you know, untangling the mess in Chicago is hugely beneficial to everything that is 1,000 miles west of there.

Senator TESTER. Right, and I have run out of time, but I would just like to say, I mean, I think this is a critically important conversation we are having. I think it is a conversation—I mean, since I took over the farm, which has basically been a little over 30 years ago, I haven't seen much infrastructure take place. It seems like the attitude has been about me instead of about all of us together. And I can tell you that if we don't address this, because I see it falling apart, I see the need there for water and sewer and highways and rail and—I mean, our rail system in the State of Montana is significantly less than it was 30 years ago. We have got rails that are shut down. We have got less access to markets than we had. And if this continues along this line, I mean, it is not healthy for the country overall and it is not good for our economy.

I appreciate you guys working on this. I hope we can come together, put the politics aside, and come up with something that is going to work for the country. I think this cuts across everybody, rich, poor, Democrats, Republicans, Libertarians, Independents. We have got to have something that works for this country.

Senator REED [presiding]. Senator Menendez.

Senator MENENDEZ. Mr. Chairman, I know that Senator—I was here before, but Senator Warner has been here, so I am happy to wait——

Senator REED. Thank you very much.

Senator Warner, you are recognized, please. Thank you, Senator Menendez.

Senator WARNER. I would like to thank the Senator for that distinguished moment of leadership.

Let me—a couple of quick comments, and I will try to be brief, recognizing that Senator Menendez is next.

One, I want to just reiterate what my friend, Senator Tester, said, kind of net-net. I think Senator Kerry mentioned this earlier. We have seen a 50 percent decline in infrastructure investment in America as a percentage of our GDP since the 1970s, and what used to be, as I know my good friend Governor Rendell pointed out, or will later, one of America's competitive advantages, infrastructure, now becomes a competitive disadvantage *vis-a-vis* nations around the world.

And while a lot of details need to be worked out, the concept we are talking about here of how we can use, with limited exposure of the public, part of the larger balance sheet to help finance infrastructure investments is not a radical concept. We do it right now with OPIC. We do it right now with the Export-Import Bank. We do it right now with the World Bank. We do it right now with a variety of municipal financing tools that are used.

We do it right now with the TIFIA grants, one of the things—let me get out a couple of questions here and then you can both address them. How what we are proposing here, what you are proposing here would differ from TIFIA, number one. Number two, before I got this job, I spent about a year working with the Bipartisan Policy Center with former Senator Gorton from Washington State on the question of how we do the evaluation so that, again, as Senator Tester mentioned, we don't go back just to VMT as your assessment and how we have these policy goals and real metrics on project selection, and I would commend the Administration to look at the Bipartisan Policy Center's work and AASHTO and a whole series of organizations have been involved in that, on that question. So I would like to hear a little bit more about what kind of metric evaluation we are going to use.

And then I would also like to make sure, if we thought through this and put this investment bank into reality, how would we ensure that there would be mode neutrality in the assessments? We still have, as a former Governor, and I know probably Governor Rendell will mention this, we all like to talk about at our State levels a goal toward pushing rail, pushing multimodal. In 90 percent of the States, the Highway Department still outweighs virtually everybody else. If we were going to create this Infrastructure Bank, how would we make assessments based on some level of mode neutrality?

Mr. KIENITZ. Thank you, Senator. From a structural point of view, mode neutrality is not that hard to imagine. The issue we have right now is there are dollars which are highway dollars and dollars which are transit dollars and so you don't ever have a conversation about how much highways and transit do I want, because it is all locked in stone, mostly at the State level and here at the Federal level, too.

So part of what we are proposing is a large amount of dollars which has no label on it, if we can agree to that. That has been a political difficulty, honestly, more than anything else, because all of the recipients of these dollars, the first thing they want is certainty. I want to know how much is before me, before we look at the projects. I want that decided first. Well, we have to let that be decided last. Once you create that structure, then the challenge is on us to say, how do you evaluate a freight rail project *versus* a transit project *versus* a highway project? That is a little bit hard. We are starting to do that in active year-by-year grant rounds with these modest dollars we have in our discretionary program, but it is the first test of how would you actually go and do that.

And what we find is that in the highway world, they are really good at evaluating one highway project against the other, and in the transit world, they are pretty good at evaluating one transit project against the other. And then when you ask the two folks to sit down and have one meeting, there is a little bit of talking past each other. The systems haven't ever been created to work together, and let alone high-speed rail and aviation and freight rail.

So what we are trying to do is start with the generic cost-benefit analysis as the leveling tool——

Senator WARNER. Would the bank——

Mr. KIENITZ. ——recognizing that it misses a lot and that you need to be able to say, what about CO2? That has to count, too. And what about safety? That has to count, too.

Senator WARNER. But the bank would not—the bank, as you envision, would not be broken into silos. You would have your traditional grant programs, which we all hope will get out of their silos. The bank would be one additional financing tool out there, hopefully leveraging private sector dollars——

Mr. KIENITZ. Yes.

Senator WARNER. ——in a much greater way with these policy goals that don't have the definition as strict as some of our silo approach now back to VMT——

Mr. KIENITZ. That is the hope.

Senator WARNER. ——with these policy goals, and again, I commend you to look at the Bipartisan Policy Group, which has spent 2 years looking at trying to come up on a way, because is a tough thing——

Mr. KIENITZ. Right.

Senator WARNER. These are great goals that are tough to kind of break down into how you then evaluate projects.

Again, my time has been expired and I thank my colleague and friend, Senator Menendez, for letting me jump here.

Senator REED. Senator Menendez, please.

Senator MENENDEZ. Thank you, Mr. Chairman.

Mr. Secretary, I want to get a sense, as someone who is a full supporter, I heard some of the comments earlier that suggest that this is somehow wasteful, that this is an effort at stimulus. It seems to me it is an effort at the future economy of this country. Just look at China. It understands how it is making its investments in such a way that it is going to yield enormous economic opportunities for that country, and it is readying itself for fulfillment of its capacity in this century. And so I think it is in that context that we would look at this, understanding that these are about investments that yield huge dividends in the long run and that leverage our opportunity to attract the private sector.

I remember in my days in the House of Representatives when I sat on the Transportation Committee, and if you came to visit my, what was then my district and now, of course, in my State, you would have seen abandoned railroad yards up and down the Hudson waterfront overlooking Midtown Manhattan. And it was the effort of myself and others who created an infrastructure and the high-speed nonpolluting light rail line along that same waterfront, and working to create sewage infrastructure and what not that now has a multi-million-dollar ratable base all up and down that waterfront, created tens of thousands of new jobs, and created an economic synergy in the region that is probably even in this current challenging economy, that is second to none.

And that was based in the first instance upon an investment in infrastructure. So it seems to me that the dividends that are yielded is rather significant and more than pays back on the investment.

So if we look at it in that way and eliminate the criticisms just on a partisan basis, my question goes, how does a National Infrastructure Bank help us particularly when we have large, important national—projects of national significance, and I will just cite one right now. I have labored very long and hard, along with Senator Lautenberg, to have a new trans-Hudson tunnel created from New Jersey to New York. It is the largest single Federal investment in our history. It creates 6,000 construction jobs and it ultimately generates by every analysis anywhere between 40,000 and 50,000 new permanent jobs.

Now, unfortunately, our Governor is in the midst of trying to cannibalize the State's contribution to that in order to fund his State Transportation Trust Fund, but in the process, we will lose the leverage of billions of dollars and the creation of an infrastructure project that has been noted as nationally needed and significant and has a ripple effect in our economy of huge proportions.

So part of the challenge has been moving that project from conception to where we are today, which is already started. How do you envision a National Infrastructure Bank being able to help us with projects of national significance move more efficiently?

Mr. KIENITZ. I will respond to that. I mean, as you mentioned, Senator, the ARC project is the largest commitment the Federal Transit Administration has ever made to any single project, and that is something that we hope has a future. I think we are all going to find out in the next month.

That was hard to fit into the budget of the Federal Transit Administration and it is going to create a big lump of cash-flow going out multiple years. Having a National Infrastructure Bank hopefully gives another window for folks who have those very large but very transformative projects to go to in a way that allows the more bread and butter run of the mill stuff to be funded out of the regular budget in the normal way. And then the question would really be, that project has high costs but huge benefits given the number of people who will use it, but there is a project in Florida and there is a project in Texas and a project elsewhere and those will all go in and their evaluations will get put together.

But to our point of view, it means that the Infrastructure Bank has got to be big enough that it can handle these big projects. And right now, the TIFIA program we have, which gives out loans for these programs, we tend to do $200 million, $400 million, $500 or $600 million is a really big loan out of there. And you can do some good stuff with that, but you don't do these big transformational things at that price tag. So that is, I think, part of what we are seeing. We just need—the magnitude has got to be sufficient to the costs of these big transformative projects. They are in the many billions now. That is just the reality of today.

Senator MENENDEZ. I just hope that as we look at this, after the vetting goes through and the determination is made of what is a project that is worthy of being funded, that we would look also at the mechanism of streamlining a process that ensures that we can, in essence, make the project a reality in a most cost efficient manner. In my mind, the bank can be a component of helping that become a reality, as well.

And finally, if I may, Mr. Chairman, Secretary Krueger, I mean, do we look at these investments from an economic paradigm that says they yield huge dividends and can be, in fact, part of creating a more robust economy for the future, or are we just looking at it as some road or highway or sewer system that we are dealing——

Mr. KRUEGER. Well, I think we look at investment in infrastructure now as helping us now and in the future. Our competitiveness will be improved in the future if we improve our infrastructure now. And given the underemployed resources we have currently in the construction sector, a 17-percent unemployment rate for construction workers, Roy mentioned that their projects are coming in 20 percent below cost from what they expected. That is an indication of the unemployed resources we have in the sector. This is the right time to invest. But we are investing because of the benefits that are yielded for the future and how they will help our country in the future as well.

Senator MENENDEZ. Thank you.

Thank you, Mr. Chairman.

Senator REED. Thank you very much, Senator Menendez.

Gentlemen, thank you for your testimony and also for your work. Just two areas I would like to focus on quickly. One, all of us, I think, are encouraged by the proposals for the creation of some type of infrastructure bank. Based on not just alone, but based on the TIGER process, there seems to be a focus on new projects, yet we all recognize there is a huge deficit in maintenance of existing road systems, sewer systems—you name the system, it has to be maintained.

In my home State of Rhode Island—and we are not unique—27 percent of our bridges are structurally deficient; 21 percent are functionally obsolete. We are closing parts of Route 95—are we doing or better or worse, Governor? Probably right in the middle. We are closing part of 95 now to truck traffic, the major north-south route, and we face another serious closure in the future of a major section in the middle of Providence, which could be devastating not just to the economy of Rhode Island but just the whole Northeast economy.

And so the question really is: How are we going to meet these obvious demands with an infrastructure bank? There is a suggestion, I think, in some of your comments that, well, when we do this, we can sort of focus on new projects and let the rest of the budget sort of deal with the maintenance, *et cetera.* But if you could just comment. I know this is not an easy yes–no, one-line answer. Some initial thoughts, at least, Mr. Secretary, then Mr. Secretary.

Mr. KIENITZ. I am happy to do so. I think that our hope—and I think this is a widely shared view—is that there has to a bread-and-butter program, these underlying formula programs, because the needs are so huge. I think one policy initiative that is outside the infrastructure bank is making sure that that money as necessary is going into these repair situations rather than repair needs but still going out and using that to build a big new thing. To the degree that that is happening, we have actually had some progress recently. In the last dozen years or so, road and bridge conditions have actually gotten better. It is a huge ship so turning it is slow, but it is kind of going in the right direction. And what that has meant, really, though, is the starvation of the funds that have normally gone into those new things.

So you are seeing somewhat of a division, but I will say, for example, in the TIGER program, the project we funded in Rhode Island was a redevelopment building for the future project, but in Oklahoma, their highest priority is deficient bridges. And so the project we funded in Oklahoma, they came to us and said, "This is our number one priority. Help us with deficient bridges." And so we funded a program in Oklahoma for deficient bridges.

So to some degree, Phoenix and Las Vegas, they have big new visions to accommodate all their new people, and, other States are going to have different priorities, and that is OK. And the bank needs to respect that. There are huge benefit costs—benefits that come from rebuilding existing and from building new if the projects are designed well.

So I would not want to go in with a doctrinaire approach to that question, but the thing that has been starved in recent years has been the ability to do new things. So I think there might be more of a focus in the infrastructure bank on that, but that would need to be worked out over time.

Senator REED. Let me just ask, before I turn to Secretary Krueger, you have to think, as you are—how you coordinate these two demands consciously. I mean, if we set up an infrastructure bank and give them separate directors that are approved by the Senate, then they go off doing their great things, but there is no device to integrate that with the Department of Transportation budget and the meat and potatoes of repair. So I do not think you have got an answer yet, but certainly that is a topic that you are going to give us an answer.

Mr. KIENITZ. I think our hope is that it be as integrated as possible so you get that kind of a coordination. But there will be many views on that topic.

Senator REED. Secretary Krueger, your comments?

Mr. KRUEGER. Well, I would just highlight that a lot of the economics research confirms what you said, that the return to investment in maintaining our existing transportation system tends to be very high. Ned Gramlich, a former Governor of the Federal Reserve Board—I am sure you knew him—published a study where he concluded that maintaining our system of infrastructure has a very high rate of return, not just adding to it but focusing on maintenance. So I think that confirms the point that you were making.

Senator REED. Thank you. Just on another topic, a quick topic. We tend to talk about roads, bridges, you know, port facilities. But the electrical grid is something that is vitally important up our way, could open up huge opportunities in terms of the alternate energy technologies that we all think are the next big thing. That I presume would be a topic of this infrastructure bank, too, that you would be looking at that.

Mr. KIENITZ. That is a policy question that I think will be a tough one. To the degree that there is some news on this front in the President's speech, he is proposing that the initial creation of this thing be done through the surface reauthorization bill that would move through this Committee and Environment and Public Works and the others here in the Senate and the Transportation Committee in the House. I think that will tend to give it a transportation focus just because of the jurisdictional issues there. It could certainly go more broadly than that. I am not an expert on the electrical grid. I think there will be a fear that the wider you make the need, the more money you need to put in, and then how are you raising that money. And so that will be the tension.

But we have not made a specific proposal on that. I think our goal is to have it be as broad as it can reasonably be given the amount of money we are putting in.

Senator REED. Thank you very much, gentlemen, and there are no further questioners so there are no further questions. Thank you very much.

Mr. KRUEGER. Thank you.

Mr. KIENITZ. Thank you, sir.

Senator REED. Let me ask the third panel to come forward, please.

Let me introduce our third panel in order of their presentations. First, we will hear from the Honorable Edward G. Rendell. Governor Rendell is the 45th Governor of Pennsylvania. He has been a strong advocate for increased infrastructure spending and the need for a National Infrastructure Bank.

Thank you very much, Governor, for being here today.

Then we will hear from Mr. Robert Wolf, the Chairman and CEO for UBS Americas. He is president of the UBS Investment Bank and a member of the UBS Group Executive Board. He is also a member of the President's Economic Recovery Advisory Board.

Thank you very much, Mr. Wolf.

And then, finally, we will hear from Mr. Donald Shubert, president of the Connecticut Construction Industries Association, and he was also appointed by Governor Rell to her task force on reforming State contracting.

Thank you and welcome, a neighbor of Rhode Island. Thank you very much, sir.

Governor Rendell, your comments, please.

STATEMENT OF EDWARD G. RENDELL, GOVERNOR, COMMONWEALTH OF PENNSYLVANIA, AND COCHAIR, BUILDING AMERICA'S FUTURE

Governor RENDELL. Good morning, Mr. Chairman. I am going to start actually answering some of the questions you asked of the first panel. The problem with sitting there is, you know, you are chomping at the bit to answer the questions, and the questions were very important. Unfortunately, some of the Members who asked them are not here, but let me answer what Senator Shelby said.

First of all, I want you to understand I am here both as the Governor of the Commonwealth of Pennsylvania and also Cochair of Building America's Future, an organization that I had with Governor Schwarzenegger of California and Mayor Bloomberg of New York. It is a 501(c)(4) and (3), and we are dedicated to revitalizing this country's infrastructure.

First, I think Senator Shelby is absolutely right. The infrastructure bank is a small piece of the infrastructure puzzle. It is an important piece of the infrastructure puzzle. In many ways, it could be a linchpin to fixing and solving the puzzle, but it is a small piece. And we all agree that $50 billion does not begin to scratch the surface that the President has recommended. That has got to be an up-front payment on a larger reauthorization of surface transportation and other things, like water and wastewater and levees and dams and you name it. So that is number one.

Number two, Senator Shelby can rest at ease that we are not trying to create a GSE with the infrastructure bank, and the guarantees that will be given by the Federal Government are very similar, as Deputy Secretary Kienitz said, to the guarantees we give in the TIFIA program or the BABs program or anything else that is underway right now. We are not becoming the—we are not putting the Federal credit behind all of these investments.

In fact, the bank, because it will leverage private sector investments in most cases, I think you will see a higher scrutiny on projects because the private sector is interested in the rate of return. And for the rate of return to be successful, the project has to be successful. So you will not only have some level of Government oversight, but you will have the investor oversight as well. And I think that will even tighten and reduce the risk and also spread the risk out. No question about that. Private–public partnerships do, in fact, spread the risk out and take a lot of the risk off the shoulders of Government.

Second, Senator Tester was absolutely right—and Senator Warner—about a competitive disadvantage. If we do not do something about infrastructure in this country, we are cooked as an economic power. The ten biggest ports in China take three-and-a-half times the throughput of the ten biggest ports in the United States. Only two American ports—Los Angeles Long Beach and the Port of New York—would rank in the top ten in China. Unless we can find a way to competitively move goods and get goods in and out, we are not going to get investment, domestic or foreign investment, in this country. Goods movement is absolutely critical. Economic competitiveness depends on a vital and vibrant infrastructure.

To your question, Senator Reed, the infrastructure bank is only a component. There still has to be your basic transportation bill. The smaller States, the rural States, are going to still get their money through the reauthorization of ISTEA. Nothing is going to change to that effect. In fact, by taking some of the larger projects out of the normal highway trust fund, you may have more money to spend for local and regionals. But the real answer to how we are going to maintain, the question of maintenance, *versus* new construction is you must—with the next transportation bill, you must totally lift the restriction on States tolling previously Federal accredited highways. You must lift that restriction. If you want maintenance, the only way we are going to maintain I–80 or I–95 through Pennsylvania or through Rhode Island is if we have the right to toll it. That restriction makes no sense. The theory is: Why make the taxpayers pay for it twice? Well, when you buy a car, you pay for it. But you also pay to maintain it, right? Same thing with infrastructure. And the only way, unless you are going to come up with a whole lot more money than I think you are going to come up with, is you have got to lift that restriction. That is the single most important thing we can do for maintaining what we have. It is as simple as that.

I think the infrastructure bank—and BAF does as well—has to include more than just transportation. To ignore the needs of the electric grid, to ignore the needs of broadband—I assume—and I am sorry Senator Tester is not here. But broadband reaching some of the rural areas of Montana—I guess there is nothing but rural areas in Montana. But to reach those rural areas, there has to be broadband buildout, and that has to be financed, and it has to be financed through accommodation, I think, of private and public investment. So if you expand the infrastructure bank beyond transportation, it opens up a lot of new avenues that are, I think, very attractive to the smaller States and the rural States as well.

Now, we need this bank for so many different reasons but, first of all, because the public wants it. Interestingly, BAF has taken a series of polls to find that the public, Republicans and Democrats alike, want to invest in infrastructure. Two years ago, 81 percent said they would be willing to pay 1 percent more in Federal income tax for investments in infrastructure, but only if they knew that the investments were not going to be distributed through the normal political process but would be distributed based on some merit cost-based analysis. Public support for infrastructure is there. They can see it, they can feel it. They can ride on it. It is different than almost any other type of Government spending. But they want it to be distributed in a way that makes sense.

Congress can control the performance measures. You put into the act setting up an infrastructure bank what the criteria are that the bank should make its decisions on. That is where your control comes in. And, of course, your oversight. But you can control the criteria. You can control the scoring by what you do in the act itself. So it is not a question of losing political control, but it is a question of gaining the public's confidence in these projects.

Why do we need an infrastructure bank? Well, first and foremost, until the stimulus, there have been no real vehicles for multi-State, regional, and projects of national significance. Let me give you a project that Senator Corker is familiar with and Senator Shelby, were he still here, would be familiar with, and that is Crescent Corridor. Six States and Norfolk Southern combined on what is an incredible home run for rail freight, taking from the southern ports going up the country to Pennsylvania and winding up in Bethlehem, Pennsylvania, a rail system that will add tens of thousands of jobs.

Senator Corker, since you are here, I can tell you with much satisfaction that your investment in the TIGER grant will create for Tennessee 5,100 jobs, 573 trucks diverted off the roads for Tennesseans; in Alabama, 8,600 jobs, 578,000 trucks diverted from there.

I became the lead Governor. Norfolk Southern came to me. I convinced my fellow Governors to invest. It is basically a one-third, one-third, one-third: one-third Federal investment they are hoping to get from TIGER, and they got part of that in the first round; one-third from the States, all the States ponied up and we put up our third; and one-third from NS. It is the way we have got to do this. There has got to be private sector investment in these things, and the bank is a perfect vehicle to do it, because TIGER is going to go away. I assume you are not going to reauthorize the stimulus bill. That is just a hunch I have. So I think stimulus is going away, and there has got to be something to replace it. TIGER has been enormously successful.

There is another project with NS called National Gateway, which goes the other way, from the Florida coast all the way through Pennsylvania and Ohio. We happen to be involved in both projects. It also receives some TIGER funding. There is no vehicle for that. If we are going to build a true high-speed rail system in this country, you cannot go on giving Florida some money for its high-speed rail, California some money for its high-speed rail. There has to be coordination, because there are all different types of high-speed rail. There is Maglev; there is more conventional high-speed rail. Well, if part of the national chain does Maglev and the other part does conventional, it will not work. If Pennsylvania does Maglev and Ohio does conventional, you will have to get on another train. It does not work. These projects have to go through some vehicle. An infrastructure bank is the vehicle to do it. We can leverage private assistance, and there is so much we ought to do.

You heard Deputy Secretary Kienitz say TIFIA is a great program. It is a loan program. It has been enormously successful. It goes in as sort of the last piece of the money when the equity cannot do the entire deal, and it has been very successful. But it has got limits on it. We need to enhance the TIFIA program dramatically right now. And we do not spend the Federal money. We get that money back in loan repayments.

Private activity bonds, you have got a cap, I think it is $15 billion nationally. That is a drop in the bucket. Raise the cap significantly or uncap private activity bonds.

Building America's Bonds, I think the President is right. We ought to make it permanent. It has been hugely successful.

Pennsylvania just did a $1.1 billion infrastructure bond that was about 55 percent BAB. We got our lowest interest rate in the history of the Commonwealth, 3.1 percent interest, saving the citizens of the Commonwealth a tremendous amount of money in interest. But all this private investment can be funneled through the infrastructure bank.

Senator Menendez, to your question, if we were starting that project over, if we were starting the project over, what a good idea, since I assume it is going to be told, your tunnel.

Senator MENENDEZ. It is a passenger rail tunnel.

Governor RENDELL. Well, you could use the passenger rail ticket price and some form of availability payments from the State and Federal Government and get a private company to come in, private investors to come in, up-front the money, and they get repaid by the fare price and by the availability payments from the Federal and State governments over the course of time. But we do not up-front it. We do not take the risk. A private company can do that. We have got to do it.

And, by the way, Congressman Oberstar is a hero to all of us who believe in infrastructure. There is a part in his bill to reauthorized ISTEA. The Office of Public Benefit, that would be very damaging to involving private dollars in infrastructure. We are going to take a hard look at that and either get rid of it or frame it in a different way.

So there is so much that we need to do, and we need to do it. I know there are always questions about deficit spending and can we afford to do this. Gentlemen, we cannot afford not to do it. Unless we want to consign ourselves, as Senator Menendez says, and as Senator Tester said, and Senator Warner, to being a second- or third-rate economic power, we have got to invest. And there is a difference between investing and spending.

Let me close, because we have some great businessmen on this panel, by saying there is not a business in America that has grown successful without investing in its own future. Most of the time that has been prudent borrowing, sometimes from capital reserves, but investing in its own future. We have to find a way to do that.

There is so much that we would love to talk to you about in BAF. I think we need a Federal capital budget as a means for investing in infrastructure. But regardless of what route you choose, we better start investing in our infrastructure, our dams, our levees. You know, New Orleans, to repair the levees in New Orleans would have cost $700 million. You are winding up spending $14.8 billion of Federal money. Good idea not to invest that $700 million? I do not think so. It is a 20:1 ratio that you have lost Federal dollars by not investing at the right time. And infrastructure spending is like that old Fram oil filter commercial, remember? A greasy mechanic holds up a Fram oil filter and says, “You can pay me now, $17.28.” He points to a wrecked car, and the screen flashes $4,326. “Or you can pay me later.”

Let us pay it now. Let us do it right. Let us invest in infrastructure. Let us create—Senator Kerry is a great man, but he is wrong. If we did a 10-year infrastructure revitalization program, that would revitalize this Nation’s economy and American manufacturing. There is no excuse not to do it. The infrastructure bank is an important component. You can control it by what you put into the bill. You are not going to lose control. You are going to decide what the performance measures are. You are going to decide what the make-up of the board is. You are going to decide about congressional oversight. Let us not let these small problems stand in the way of a great opportunity.

Senator REED. Thank you, Governor, very much. Thank you.

Mr. Wolf, please.

STATEMENT OF ROBERT WOLF, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, UBS AMERICAS

Mr. WOLF. Good morning, Chairman Reed, and distinguished Members——

Senator REED. Could you put your microphone on, please?

Mr. WOLF. Oh, I am sorry. Good morning, Chairman Reed and distinguished Members of the Committee. I am grateful for the opportunity to offer testimony in support of a National Infrastructure Bank. My name is Robert Wolf, and I am chairman and CEO of UBS Americas and president of the global Investment Bank.

I have worked in the financial services industry since receiving my undergraduate degree in economics from Wharton in 1984. My career has focused predominantly on fixed income at two firms—Salomon Brothers and UBS.

As a member of the President's Economic Recovery Advisory Board, I have worked with fellow Board members to develop a considered approach to creating a National Infrastructure Bank. Today, I am here to share my own views, as a 26-year veteran of the markets, on why I believe a National Infrastructure Bank is in our Nation's best interest.

Let me say at the outset that creating a National Infrastructure Bank at this time makes sense for two main reasons:

One, it will attract private investments to help fund badly needed infrastructure improvements critical to America's competitiveness and economic growth.

The NIB would vet projects carefully, lend to fund the highest priority projects and help attract private sector capital to augment Government funding. Preqin, a private equity industry consultant, estimates that there is over $180 billion dollars of private equity and pension fund capital focused on infrastructure equity investments. This capital can play an important role in bridging State and local budget gaps.

And, two, it will create jobs.

The U.S. Department of Transportation and the Milken Institute both estimate $1 billion of Federal and State spending on transportation infrastructure creates 25,000-plus jobs. Many of these jobs are in the construction industry and related sectors that have sustained the largest losses in the economic downturn. Our hope is that new jobs will be created in the building industry as well as for engineers, architects, urban planners, scientists, and industrial production businesses.

To achieve these goals, it is crucial that an NIB be chartered with a clear and achievable mission and strict operational guidelines.

The NIB should be:

One, policy driven. It should be a vehicle for attracting public and private funding to projects of considerable merit that will modernize our Nation's infrastructure.

Two, loan focused. It should focus on making loans that will generate returns, which means funding primarily projects with user fees or dedicated revenue sources.

And, three, it must be merit based. It is crucial that the NIB allocate its funds on the basis of a rigorous cost/benefit analysis conducted by experienced industry experts and be focused on those projects that will deliver the most value for its dollars. This process must be totally transparent.

The NIB should not be:

One, a project equity investor. Consistent with the focus on lending, the NIB should primarily offer loans and loan guarantees at the project level, not project equity capital.

Nor should it be a substitute for existing infrastructure funding programs. Rather, the NIB should complement successful programs like the TIFIA loans, private activity bonds, Build America Bonds, and municipal bonds.

Nor should it be solely focused on transportation. Instead, it should make funds available for projects of regional or national significance in other qualified sectors such as energy, broadband, water, and sewerage.

Finally, in order to achieve this mission, the NIB must be properly structured.

In my view, the NIB should be established as wholly owned Government corporation, allowing it to serve a broad range of infrastructure sectors, such as transportation, energy, and water. The NIB decision makers must have the independence to make loan decisions based on project merit. And it should be capitalized with equity capital that comes solely from the U.S. Government via the Treasury.

In closing, creating a National Infrastructure Bank is an idea whose time has come. I do not think anyone disputes that our country's infrastructure needs are extraordinary. The NIB would mobilize the capital markets to fund new projects, leading to sustainable economic growth and create jobs.

Again, Chairman, thank you for providing me with this opportunity to appear before the Committee today. Thank you.

Senator REED. Thank you, Mr. Wolf.

Mr. Shubert, please.

STATEMENT OF DONALD SHUBERT, PRESIDENT, CONNECTICUT CONSTRUCTION INDUSTRIES ASSOCIATION, INC.

Mr. SHUBERT. Good morning, Mr. Chairman Dodd, Members of the Committee. Thank you for this opportunity to testify today.

Mr. Chairman, I commend you and the Members of the Committee for convening today's hearing on how infrastructure investments can help generate American jobs and strengthen the economy.

Congress identified infrastructure investments as an agent for economic change during the debate over the American Recovery and Reinvestment Act. During those discussions it was widely endorsed that infrastructure investments create well-paying jobs for skilled workers. Through my organization, CCIA, we work closely with the basic building trades. We know that there is a skilled workforce in our industry that could be a powerful economic engine that is sitting idle.

Nationally, the unemployment rate in our industry is 17 percent. Since 2006, 2.1 million construction jobs have been lost. Just to put this into perspective, almost one-third of all jobs lost in the U.S. during the 2007 to 2009 recession were construction jobs. The Recovery Act put many people to work; however, there are many more workers ready to go who are standing idle.

It was also widely endorsed that infrastructure investments drive long-term economic growth. We know that the business community relies on an efficient and safe infrastructure system. Chambers of Commerce constantly tell us that mobility increases competitiveness; however, congestion disrupts the supply chain, increases the cost of doing business, and threatens the ability to attract and retain employees.

Our Nation has tremendous infrastructure needs in all modes of transportation, and significant funding is needed to meet those needs. We must rebuild and maintain our current infrastructure in a state of good repair and add capacity across all modes of transportation to improve mobility and address growing congestion. My statement provides details on those needs and the costs to address them.

The Recovery Act is playing a major role in meeting the Nation's infrastructure challenges. From an industry perspective, the Recovery Act stabilized what may have been a devastating construction season. With little work available in other sectors of the construction industry, it provided a lifeline to many large and small construction companies and their employees. The most important discussion to have about the Recovery Act investments at this point is that those investments are coming to an end. If it is allowed to end without new funding in place, the construction industry will be decimated, our infrastructure will continue to fall into a state of good repair, and congestion will mount while State transportation departments cut back programs and wait for long-term stable funding.

The authorization of a long-range surface transportation bill is critical not only to our industry, but to the safety of the traveling public and the competitiveness of America's business community. To fully fund a reauthorization bill, Congress and the Administration need to make tough decisions on infrastructure funding. In the near future, Congress will have to decide whether to scale back transit and highway investments, add to the deficit, or raise new revenues. We are willing to work with you and stand by you as these decisions are being discussed.

A National Infrastructure Bank should be part of those discussions. An infrastructure bank can provide for megaprojects that are not easily supported under existing programs, draw outside dollars into the transportation funding scheme to fund large projects and preserve more core funding for basic needs, and create a competitive process that would ensure the best projects are funded.

Mr. Chairman, we commend the Committee for advancing the discussion on a National Infrastructure Bank. I can assure you that the construction industry, labor unions, and Chambers of Commerce in Connecticut stand ready to help you as these discussions go forward.

Again, thank you for this opportunity, and I would be happy to respond to any questions.

Senator REED. Thank you very much, gentlemen.

Let me first recognize Senator Warner, then Senator Corker; then if no one arrives, I will conclude. Senator Warner.

Senator WARNER. Thank you, Mr. Chairman. I would like to thank the panel for their very good comments. I also feel if we could only get Governor Rendell a little bit excited about this issue, it would be helpful.

Let me also acknowledge something that I think everybody said. This concept of bringing public capital and private capital together is critical, and I would add, Governor, that the Commonwealth of

Pennsylvania has done some extraordinary things, but the real leader in public–private partnerships has been the Commonwealth of Virginia. We go back a decade-plus on some of these initiatives in terms of trying to draw together—trying to get private sector capital into our infrastructure. And Lord knows anybody that has driven in Northern Virginia knows we have not solved that problem yet. But it is a tool.

I have got two questions. The first question is: My sense—and I think this panel has reflected that the idea of the National Infrastructure Bank really means it is one tool particularly for some of these larger, more expansive projects. And the key here is to get, again, the private sector at the table, and I particularly want to thank my friend Mr. Wolf for his leadership on this issue for some time, particularly in terms of rallying some of his colleagues on Wall Street.

One of the things I have thought about for some time—and this would have some controversy perhaps more on my side of the aisle. But as we think about these national infrastructure projects of significant importance, if the National Infrastructure Bank was to target in on some of these, have you all given any thought to the notion that, you know, part of the price of, in effect, qualifying for the infrastructure bank to participate might be an expedited regulatory process?

One of the biggest challenges we have for any kind of transportation project—as someone who has still got the scars of working for 20 years trying to get rail to Dulles—is that the regulatory overhaul—the appropriate environmental reviews, other process reviews—becomes such an added transaction cost, that something that might make sense in terms of the actual dollar construction cost gets put into financial uncertainty because of the enormous regulatory burden and uncertainty.

And, Governor Rendell, in your efforts, have you talked about any kind of notion that those projects that would qualify for an infrastructure bank funding or potential funding, that part of the *quid pro quo* from the localities and States involved might be an expedited regulatory review?

Governor RENDELL. In fact, Senator, BAF—that is one of our principles on our basic goals for the system—is we can and we should do this, and I think the post-bridge collapse in Minnesota, it was our hope that that would shock the Nation enough to get us really involved in a real comprehensive infrastructure program. It didn't do that. But the only benefit that came from that tragedy was do you know how long it took Minnesota to rebuild its bridge? Nine months. Nine months. Most EISes alone for transportation projects take a year, year-and-a-half. They did it in 9 months.

We can do things like that. The regulatory process doesn't need to take the time that is built in. If we are willing to invest the effort, we can slice through that regulatory process, save money by doing it, at the same time preserve the basic things that the regulatory process was intended to protect and do it quickly. And I think that would, and maybe Mr. Wolf wants to comment on this, but I think that would excite the private sector because it would be a quicker return on their investment.

Senator WARNER. Let me just add one thing before I get to Mr. Wolf's comment, and let me just echo and agree with you. I also agree with your notion about the ability for us to lift the restrictions in a reasonable way on Federal interstates. We looked at that opportunity, I–81, which goes through your State and mine.

There was recently a conversation a number of Senators had with a very senior member of the Administration. We were talking about China's move on putting in a major high-speed rail link within 3 years and kind of the comment was, well, that couldn't happen in America. Whenever we get to the point where we say, that couldn't happen in America because of the processes we have set up, well, that is a very different America than I think either of us grew up in——

Governor RENDELL. No question.

Senator WARNER. ——or want and——

Governor RENDELL. We used to be the "can do" country for the world.

Senator WARNER. Amen. And listen, we need appropriate regulatory oversight, but sometimes this becomes a transaction cost that makes otherwise fundable projects not fundable.

Very quickly for Mr. Wolf, and again, I want to thank Robert for your leadership on this issue, you are out there on this, but how do we get—clearly, your colleagues have done pretty well. I often think that one of the *quid pro quos* maybe of the TARP ought to have been really challenging Wall Street to come up with a $2 trillion private sector Infrastructure Investment Bank as the payback for the taxpayers rescuing the financial system.

But how do we make sure that we get not only your institution, but the best minds on Wall Street really engaged in this issue in a way they can make reasonable returns, not make perhaps outrageous returns, but reasonable returns to get those minds to the table?

Mr. WOLF. Thank you, Senator. I think, one, it would be important to make sure that the model is right, so it would have to be a project that is deemed to be having sustainable user fees or revenues that theoretically are paid for, so not a grant process but based much more on user and revenue driven.

I think, second, there would have to be a capital market structure at the project level. I mean, this is not going to be anything like a GSE. This is going to be at the project level. It is almost like project finance. And so our view would be that the NIB would normally come in, possibly at more like a subordinated debt-type level, which they have done in the past. You would have senior debt, you would have sub-debt, and then you would probably have some mezzanine debt and equity.

And then, therefore, for the Government, OK, they would be able to maximize their dollars by getting private institutions, but more importantly, their risk is defined. Now, the best thing about doing it at the project finance level is if it goes well, great. Everyone is happy, because the returns are based on the cash-flow of the user fees and the time to finish. So to your point, regulatory would have to be governed because that would—you know, if it postponed because of all these different hurdles, then that would be a negative.

On the flip side, let us just say it didn't go well, which is not what we would want, but you would restructure the financing at the project level, OK. And where you restructure, I mean, to be blunt, private equity loses first. And so I can give you examples of how we would structure it that would limit the Government risk, OK, and make sure that there was no type of guarantee on the whole project.

So at the end of the day, it has to be based on what we would say either the appropriate revenues or the right availability process.

Senator WARNER. Thank you. Thank you, Mr. Chairman.

Senator REED. Senator Corker.

Senator CORKER. Mr. Chairman, thank you, and thanks for your courtesy and to each of you for your testimony.

Governor, we have been on a number of media programs together and you always talked in a rational way, so I thank you for that. I don't know what you do when I am not around——

[Laughter.]

Senator CORKER. ——but I certainly have seen you talk in a rational way and I thank you for that and have added to a constructive debate. And, Mr. Wolf, it is good to see you again.

I am actually here for one reason. I have read the testimony and all of that, but I really want to follow up on the last comment Mr. Wolf made. I just want to—I don't understand exactly how it works, OK, so the mechanics of how the whole transaction would work. So I would love it—I don't know if it is appropriate for the Governor or Mr. Wolf just to walk me through sort of a standard, typical transaction, because I think that would be really educational for all involved.

Mr. WOLF. So, great. Thank you. Good to see you, as well.

Senator CORKER. Yes. Thank you.

Mr. WOLF. So I think I will bifurcate the answer into understanding the capitalization and then understanding how a funding of a project.

But from the capitalization perspective, my recommendation would be that the NIB would borrow debt and that it would not be guaranteed by the Government. It does not have to borrow debt, but that would be my recommendation, and the leverage, very different than a GSE, would be capped at two, two-and-a-half times, which is where the European Investment Bank was. So there would be a defined leverage.

Senator CORKER. Instead of that, why don't you just walk through a deal.

Mr. WOLF. A deal——

Senator CORKER. Give me a specific deal and just sort of walk through it so——

Mr. WOLF. So let us just say there was a $1 billion project for something that had some sort of user fees. There would be likely four different types of investors. You would have $200 million at the State or local level. Then you would have billion at the National Infrastructure Bank level. And you would probably have somewhere around $350 billion at private debt. And then you would have $250 billion at private equity. And it would be completely focused on the cash-flow of that project, OK——

Senator CORKER. So every deal, if we could have a little bit of exchange, each deal that one would look at would need to have some type of user-fee generation for it to work.

Mr. WOLF. Or availability, but predominately user-feedriven. That would be the preference of this.

Governor RENDELL. So Mr. Wolf is correct. It needs a rate of return. But Deputy Secretary Kienitz before you talked here talked about Measure R in Los Angeles. Mayor Villaraigosa persuaded 64 percent of Los Angeles County residents to vote to raise their sales tax by half a cent over a 30-year period. They were to generate enough money to do a number of projects, but the most important one was to radically expand their light rail system.

I think, and these figures may not be dead on, but I think the project itself, that project was like an $18, $20 billion project. In the first 10 years, the sales tax will generate about 8 of the 18. What they would seek to do is come to the Infrastructure Bank and say, this is a little different from what Mr. Wolf was saying. They would say, look, a half cent on the sales tax for Los Angeles County, you can gauge what that return is going to be.

But we want to get this done in 10 years, not 30. So can you loan us, and we are willing to repay you, can you loan us the money in the first 10 years of the existence of this project so we can finish it in 10 years? You will get your money back by the guaranteed rate of return, by the half-penny increase in the sales tax. That will be pledged to repay the Infrastructure Bank with the loan.

So it can be conventional things where the private sector is involved or it can be where the Government is going to do a rate of return. When Mr. Wolf talked about availability payments, it is a very important concept. Assume that I wanted to do, and I do, but I'm going to run out of time, I want to do something called the Schuylkill Valley Metro. That is a high-speed rail line from Reading, Pennsylvania, all the way through the Western suburbs of Philadelphia into the city. It would be, I think over time, be a money maker. But there is no way I can get a private company to invest if I say you can have all the fares and you can have some of the right of ways at the stations. It is just too much of a risk.

But if I said to the private company—maybe Mr. Wolf and I can do the deal right here today—if I said, Pennsylvania is willing to give you, in addition to all the fares and the retail, we are willing to give you X-amount of million dollars a year, can you build it—it is a $1.1 billion project—can you build it? Well, with that availability payment and the fares, he might be able to take that risk.

So the thing about it, Senator, is it can respond to all sorts of needs like this. And again, I know—look, I have been in Government all my life and I know there is always a tendency to not want to lose control because you think your ideas are the good ones, and usually they are. But you can structure this——

Senator CORKER. Actually, I think if we lost control of a lot of things around here, it would be good, so——

[Laughter.]

Governor RENDELL. Well, we lost control of the airline industry. That didn't work out so well.

Senator CORKER. Yes.

Governor RENDELL. But if we could—I mean, you can put in the criteria. You can put in the framework. But the beauty of the bank is, it can be responsive to creative solutions. And again, what Mr. Wolf said is so important, and I wish Senator Shelby was here—I don't know if you heard his opening statement or read it. He was worried about this becoming another GSE. It isn't. It isn't. And the Government——

Senator CORKER. How does the entity—I know my time is over, and probably you have a noon meeting. How does the entity borrow money without Federal backing? I don't get that.

Governor RENDELL. It borrows money up to the State and the Federal investment, but you do that right now in TIFIA. You put in $400 million in a TIFIA loan to a project. That is your risk. But $400 million is a very small piece of the project.

Mr. WOLF. Well, it would be very clear. I mean, our creation of a National Infrastructure Bank would be the Treasury would put in, say, $25 billion, $5 billion a year for 5 years, and that would be their equity. And then I would propose a slight leverage at maybe two times. That is $75 billion of funding toward the National Infrastructure Bank, which we think can get you $400 billion of project.

Senator CORKER. Yes. You know what would be good? First of all, I thank you for the courtesy. I know I am a minute and 57 over. I think what would be good for me would be just if you all could send like three examples on different types of projects as to how your standard, typical deal would work.

And again, I thank each of you for your testimony and for coming up here today. It is rare that we are actually, during this period of time, focused on something that is substantive, so we thank you for giving us a break in that regard.

Senator REED. Thank you, Senator Corker.

Thank you, gentlemen, for your testimony. Governor, I will start with you, but a question I want to pose to every member of the panel, an important part of this concept is a local contribution. You have done a remarkable job in Pennsylvania of coming up with local contributions, but there are lots of parts of the country where States and cities and municipalities have no capacity or very little capacity to match. They have the projects. You can show on paper their rate of return is huge. But they don't have that kind of match. So it raises a—or they are going to borrow from Peter to pay Paul. They will take from an existing program and they will wash the money through something and, *voila,* so you lose out on something else.

So the question really is, when we think about this, how do we make sure, one, that there is a real local match, and two, we don't sort of borrow from other things that have to be done, and essentially it is new money, matching this new money going forward. I will start with you, Governor, and then Mr. Wolf, and then Mr. Shubert, please.

Governor RENDELL. Well, I think part of the answer to that is to get the private sector involved, that heretofore basically hasn't been involved in transportation at all. But I think the wastewater and water and sewer example, there often is private sector involvement, and there, the Government guarantees some of the loans at fairly low interest and it works.

But remember, we all have borrowing capacity, and in most cases, in most cases, even in this tough recession, our borrowing capacity is in fairly good shape. Not everywhere, obviously. There are some municipalities who are really up against it.

Take Pennsylvania, for example. I have borrowed a lot of money to invest in infrastructure and other projects critical for the Commonwealth. To hear some of my citizens talk about it, I have borrowed every dime ever borrowed in the history of the Commonwealth. Not necessarily true, but we are barely over 25 percent of our constitutional borrowing authority in Pennsylvania. We are at about $11 billion and it is a $40 billion authority. We are still doing very, very well in terms of Wall Street's analysis of our debt capacity.

There is debt capacity. I mean, the Federal Government is so hamstrung by not having your own capital budget. The only part of the Federal—DOD, as you know, has a small capital budget built in, but it is the only part of the Federal Government that has a capital budget. Rhode Island could never have done any of the things that it did without a capital budget. And my guess is, you match the Federal transportation money in Rhode Island by some form of borrowing to come up with the State share. That is what we do in Pennsylvania and what most States do.

So I think having a capital budget gives us the ability even in difficult times to continue moving forward, and as my colleague from the Connecticut building trades said, the borrowing gets a great return on investment.

You know, one of the things that has always rankled me is the CBO scores everything up here and they will score a $400 billion infrastructure program at $400 billion, and yet it is easy to demonstrate how in increased individual taxes that these workers who are now earning nothing would pay, in additional corporate taxes, in the avoidance of unemployment compensation, that most of these 70 percent unemployed guys are, that $400 billion, my guess is the Federal Treasury would get back $100 or $125 billion, and yet it is scored at $400 billion.

Senator REED. Mr. Wolf? Thank you.

Mr. WOLF. Thank you, Senator. One, the creation of a National Infrastructure Bank would be more for the large regional and national projects, but to answer the question more on local, first, the burden of local governments is just too high. They are funding 75 percent of the infrastructure. It is just disproportionately too big.

Governor RENDELL. State and local.

Mr. WOLF. State and local. And then, second, I think that you really have to look at the projects that are being put forward. They have to be merit based. So it has to be either user based, availability based, but it has to have some sort of sustainable perspective for a National Infrastructure Bank. If you are going to the grant process, my recommendation would be to work more with the agencies.

Senator REED. Mr. Shubert, from your perspective on the ground.

Mr. SHUBERT. Thank you, Senator. From our perspective, and being from Connecticut, we see large megaprojects. We are to the point now in Connecticut where four megaprojects are basically devouring our transportation program. And as our State starts looking for new revenue sources to start funding megaprojects in the future—like Rhode Island, we are in the Northeast. We have an old system. It is running over capacity. The winter weather, everything affects our system. It is falling into disrepair faster than we are addressing it.

We are going to have a line of these megaprojects into the future. If we can fund some of those megaprojects through an Infrastructure Bank, that will free up more regular formula funding for us to apply toward our basic needs. And also, across the country, the same thing would apply. If there is more and more use of an Infrastructure Bank, that is taking projects out of the core system, which leaves more money in the core system overall for all the States.

Governor RENDELL. And, Senator, one other thing. Building America Bonds have been a great help to municipal and State governments. We couldn't have financed a number of the major construction projects we have done in the teeth of the recession within BABs and they should be, whether it is at 35 percent or 28 percent, they should be reauthorized.

Senator REED. Well, thank you, Governor, not only for your testimony, but for your great leadership in Pennsylvania. And Mr. Wolf and Mr. Shubert, thank you for your excellent testimony here today.

My colleagues might have additional questions. You could get them. We will send them to you, and please respond in a prompt manner for additional questions.

But thank you again for your insightful testimony and the hearing is adjourned. Thank you.

[Whereupon, at 11:58 a.m., the hearing was adjourned.]

[Prepared statements, responses to written questions, and additional material supplied for the record follow:]

PREPARED STATEMENT OF CHAIRMAN CHRISTOPHER J. DODD

I call the Committee to order. Today, we are here to discuss how investing in our public infrastructure can help to strengthen our economic recovery and create well-paying jobs for American workers.

In 1955, President Dwight Eisenhower sent a message to Congress. In it, he called on Congress to meet the challenge presented by a national economy that was rapidly outgrowing its capacity to transport people and goods. The result of that message was a monumental Federal investment in our national infrastructure—our Interstate Highway System.

Eisenhower's initiative was broad in scope, and bold in conception. It built upon over a century of investments in our railroads, ports, water and sewer systems, and other infrastructure. These investments helped build the world's strongest economy.

Now other nations are catching up and focusing a greater share of resources on infrastructure investment than the United States. China puts 9 percent of its GDP towards infrastructure projects and India contributes 5 percent.

These countries are focused on providing their citizens with fast, reliable transit options. They are lowering their reliance on fossil fuels.

They are making investments on the scale that our Nation made early in the 20th century—but they are focusing on the needs of a 21st century economy.

We can't settle for second place.

We need to do better. This includes passing a long-term surface transportation bill which will remain the backbone of our transportation policy. Only a long-term bill can give our State and local governments the certainty they need to ramp up investments in our road, transit, and rail infrastructure. While these investments are vital to the health of our transportation systems, we also need a new approach to infrastructure finance.

A National Infrastructure Bank will build on our Nation's legacy of bold, innovative investments in public infrastructure. It would complement our current infrastructure financing programs in a manner that delivers taxpayers the best bang for their buck.

First, an infrastructure bank would create a competitive, merit-based process to distribute money. Projects would be subject to cost-benefit analysis to determine their national and regional economic impact.

Second, a well-designed National Infrastructure Bank would leverage State, local, and private funds to support these investments. With the current system of formula grants, States often simply substitute Federal funding for State funding. The Infrastructure Bank's competitive selection process can reward those projects that best leverage new public or private funding to expand the pie, not just rearrange the slices.

Lastly, it would allow us to shift our focus from the near-term to the long-term. This will provide opportunities to fund large projects of national and regional significance, projects that require vision and patience. Investments like these will fuel our economy and create jobs over the long-term.

With my former colleague Senator Chuck Hagel, I originally proposed legislation that would have established such a bank on August 1st, 2007. Our announcement received little notice or fanfare—until a few hours later when the tragic I-35 bridge collapse happened in Minnesota. I'd like to applaud President Obama—who cosponsored my 2007 legislation—for his continued support of this important idea.

This is our opportunity to embrace the legacy of big-picture thinking that led to investments on the scale of the Interstate Highway System. By establishing a National Infrastructure Bank, we're affirming our commitment to building a prosperous 21st century economy.

I look forward to today's testimony, and I'd like to turn it over to Senator Shelby for his remarks.

PREPARED STATEMENT OF SENATOR TIM JOHNSON

Mr. Chairman, thank you for holding this hearing today regarding the need to invest in our Nation's infrastructure. I commend your focus on infrastructure as an investment in jobs and our economy. I am also pleased that President Obama has focused national attention on strengthening our transportation systems and other infrastructure to ensure long-term economic growth and competitiveness.

This hearing examines an important topic. Throughout my congressional career, I have worked to improve South Dakota's highways and transit systems, water systems and stock of affordable housing. Infrastructure investments are needed across the State—in Indian Country, in our rural areas, and in our cities—and those investments are in the national interest.

Mr. Chairman, in the 110th Congress you introduced legislation to address infrastructure concerns in housing, water, and transportation. This Committee held a hearing on the legislation in March of 2008.

I'd like to reiterate an issue I raised in my statement at that hearing. Specifically, I want to ensure that we take rural as well as urban concerns into account in examining investment needs and developing any response. For example, in my State we have important needs but relatively few projects that would involve a minimum $75 million Federal commitment, a minimum threshold that has been suggested in the past. Also of concern are project criteria that emphasize leveraging. In low population density States, the ability to provide meaningful financial leverage and to attract outside investors may be quite limited. Small numbers of people not doing especially well economically are not as well equipped to contribute to projects as large numbers of workers in large metro areas. This is especially a concern in Indian Country and in other poor rural areas. The citizens in these less populated States still have important needs in housing, in water systems, in transportation that should be of concern to this Committee.

So, as we examine the issues of infrastructure needs and possible responses, I hope that any solutions we develop would provide meaningful opportunities for investment in States like South Dakota, as well as in more populous areas of the country.

Mr. Chairman, thanks for your efforts on this issue. I look forward to working with you.

PREPARED STATEMENT OF SENATOR MIKE CRAPO

Mr. Chairman, today the Committee hears testimony on infrastructure investment needs and possible responses, including a possible infrastructure bank.

In my time in public service I have worked consistently to support needed highway, transit, and other improvements to infrastructure in Idaho and I agree that infrastructure deserves the attention of the Committee. From my work in this area, I can assure my colleagues that the infrastructure investment needs our Nation faces include needs in a relatively rural State like Idaho as well as in large metropolitan areas.

So, as we hear testimony and consider possible approaches to this issue, I will be interested in learning how we can ensure that any proposed solutions that we develop would be responsive to needs in a State like mine as well as to other needs.

For example, in infrastructure bank legislation that was introduced in 2007 there was a Federal project amount minimum of $75 million. That might not seem high in big States and cities but it is an amount that looms as a possible barrier to participation for smaller States. Also of concern are project criteria that emphasize leveraging and revenue streams. With respect to transportation projects, a revenue stream may well mean toll roads. Those are not feasible with the traffic levels prevalent in lower population density States.

So, as we consider infrastructure issues, we need to keep in mind the concerns and needs of rural States as well as those of large metropolitan areas.

Mr. Chairman, thanks for your interest in this issue. I look forward to hearing from the witnesses.

PREPARED STATEMENT OF SENATOR JOHN F. KERRY

Mr. Chairman and Senator Shelby, I wanted to thank you for the opportunity to testify at this hearing to explore ways to develop a National Infrastructure Bank. Rising economic powers around the world are investing in their future—we need to do the same before we are left behind.

Chairman Dodd, I also wanted to take this opportunity to thank you for your efforts to enact historic financial reform and for your great work as Chairman and as a Member of this Committee for the past 30 years. As a former Member of the Senate Banking Committee, I know your efforts have helped to restore confidence in our capital markets and our financial institutions and provided critical new protections to consumers from financial fraud and abuse.

Mr. Chairman, I also want to thank you for your leadership in bringing attention to the critical need to renew and expand America's infrastructure. I believe we must work together in a bipartisan manner to find new ways to finance infrastructure projects that create jobs and increase our economic competitiveness.

There are many ideas about how to do this. However, the costs of tackling this problem are high and it's clear to me that the best way—and the most efficient way—is to create an infrastructure bank for the United States. Already, a diverse bipartisan group supports the idea of a National Infrastructure Bank including the Chamber of Commerce, the AFL–CIO, and SEIU.

We need to create new and strong incentives for investment here in the building blocks for economic competitiveness—roads, bridges, rail, aviation, and other essential infrastructure.

This is an idea whose time has not just come but is long overdue. And Americans know it. Every day, during their commute to work, they drive on broken roads and crumbling bridges. They are paying more to fly and spending more time in the air than they should because we have failed to invest in modern radar and upgrades to our airports. They travel a rail system that is, for the most part, the product of another century. And they live in communities that too often are unable to properly manage their natural resources.

How bad is it? Our infrastructure earned a "D" rating from The American Society of Civil Engineers, who has estimated that it would cost more than $2 trillion to bring our country's existing infrastructure to an acceptable level. We are talking about staggering sums here, and it clearly reflects just how much we have neglected our infrastructure—and just how much we need to do in the years ahead. To bring that level of investment to market will require a partnership with the private sector and the proper delivery of private capital catalyzed by public funds and loan guarantees.

Well-functioning infrastructure is not a luxury—it is the key to connecting our people and creating millions of middle-class jobs for American workers over the long term. And it is vital to our economic future in the face of global competition. Our growth and exports are directly tied to how our infrastructure operates. Quite simply, we are falling behind many of our main economic competitors, and the further we fall behind in this race, the harder it will be to catch up.

For example, China's 2009 infrastructure spending is estimated at 9 percent of GDP, or $350 billion, and is growing at an annual rate of 20 percent. China's highway mileage is expected to surpass the United States' in under 3 years.

Europe's infrastructure bank, the European Investment Bank, financed $350 billion in projects from just 2005 to 2009 across the European continent, helping modernize seaports, expand airports, build rail lines, and reconfigure city centers.

And Brazil has invested over $240 billion in their infrastructure in the past 3 years alone, with an additional $340 billion planned for the next 3 years. Brazil has unveiled major initiatives to invest in infrastructure ahead of hosting the World Cup and Olympics, using their own infrastructure bank as a key tool to finance this massive expansion.

To get back in the game we need more than the existing municipal bond market system, which is already struggling to support over 80 percent of infrastructure investment in the United States. We have to do more than our existing Federal Government programs, which have been squeezed by the recent economic downturn and budget deficits. Fundamentally, what we need is an American infrastructure bank that complements our public efforts and acts as a catalyst for significant private investment.

If done right, I believe an infrastructure bank can change the playing field. It would finance projects from high-speed rail to air and sea ports, all with the expectation of being repaid. It would lend directly to economically viable projects of both national and regional significance, without political influence. It would be run in an open and transparent manner by experienced professionals and have meaningful Congressional oversight.

Americans have always been builders. We built a transcontinental railroad. We built an interstate highway system. We went to the Moon. But for too long now, we have lacked adequate investments in our infrastructure and what building we have done has been without a long-term strategic plan. A National Infrastructure Bank will change that. A National Infrastructure Bank will make Americans builders again.

In deciding whether to create a National Infrastructure Bank, we should also consider this: When President Eisenhower signed the law creating the Interstate Highway System; he noted that, "Together, the united forces of our communication and transportation systems are dynamic elements in the very name we bear—United States. Without them, we would be a mere alliance of many separate parts." What was true then is still true today.

PREPARED STATEMENT OF ROY KIENITZ

UNDER SECRETARY FOR POLICY, DEPARTMENT OF TRANSPORTATION

SEPTEMBER 21, 2010

Chairman Dodd, Ranking Member Shelby, and Members of the Committee, thank you for inviting me to appear before you today to discuss how investing in transportation infrastructure can create jobs and grow the economy.

It's particularly appropriate that the Committee has titled the hearing "Creating Jobs and Growing the Economy," because transportation infrastructure investment has both effects, and the two effects are closely related but separate. Infrastructure investment creates jobs by creating work opportunities in construction and related industries. These jobs are temporary—lasting from less than a year for simple projects to several years for complex projects. After the project is complete, it creates—if it is well-designed and well-chosen—decreases in cost and increases in productivity that will spark economic growth. Our goal at the Department of Transportation is to make sure that both objectives—the short-term goal of creating jobs and the long-term goal of growing the economy—are achieved in our infrastructure investments.

The President's Infrastructure Investment Proposal

Two weeks ago, the President laid out a bold vision for renewing and expanding our transportation infrastructure—in a plan that combines a long-term vision for the future with new investments today. It is time to authorize a new 6-year program for transportation infrastructure investment, and the President has called for a 6-year authorization that would help restore job growth and economic prosperity today while reducing our long-term infrastructure deficit. To accomplish this, the program will need a robust level of funding, higher than our current baseline, and, with the current state of the economy in mind, the Administration proposes that $50 billion—a significant share of the new investments—be frontloaded in the first year.

Some of the tangible accomplishments of the President's plan over the next 6 years will include rebuilding 150,000 miles of roads; constructing and maintaining 4,000 miles of rail; and rehabilitating or reconstructing 150 miles of runway.

More generally, our new surface transportation program needs to be part of a long-term framework that reforms the infrastructure investment process and expands our levels of investment so that we can build a truly world-class transportation system. We need to streamline, modernize, and prioritize our transportation investments, consolidate our dozens of programs into a coherent program structure that reflects national needs, and foster a culture of competition and performance that will drive investments that will produce better transportation outcomes and more livable communities for the American people.

This program must have a number of key elements. We need to continue the commitment by the President and the Congress to expand our high-speed rail program. As the Secretary has traveled around the country meeting with people in outreach sessions on our surface transportation program, a recurring theme is that people want high-speed rail. They don't want to have to wait in crowded airports or drive for hours on congested highways to get where they want to go. They want another choice. They want high-speed passenger rail.

We need to make achieving a state of good repair in our transportation infrastructure a national priority. Our highways, our bridges, our transit systems, our waterways, our ports, and our railroads have in some cases been allowed to deteriorate to the point that they are not safe, are not reliable, and don't provide an adequate level of performance for the American people. As we repair and rehabilitate our infrastructure, we can build in new safety features and new technology that will improve our transportation system's performance, so that, in every mode, we have a truly 21st Century transportation system.

We need to make livable communities a central part of our transportation program. That means we need to invest in better transit—in both urban and rural communities—to give people the transportation choices they want. We need to give people the option of walking or bicycling on short trips without putting their lives at risk by walking or bicycling in the street. We need to give people more fuel-efficient options to get where they want to go, and allow people easier access to jobs and housing.

We also need to take advantage of the technological breakthroughs of the past 20 years in Intelligent Transportation Systems. Advanced technology can multiply the effectiveness of our investments, so that we get more safety, more congestion relief, and more performance from each dollar of our investments than we could with conventional technology. We have spent billions of dollars on developing new technology; now we need to deploy it to reap the returns on our research and development investment.

The reauthorization proposal needs to address our key priorities, and that means that it needs an appropriate division of responsibility between the Federal Government, States, and local governments. Each State and metropolitan area has transportation needs, and Federal assistance should help them meet those needs and grow their economies while also addressing national priorities. While formula programs can provide basic financial support to States and localities to maintain and expand their transportation infrastructure, there are some national goals that the Federal Government is uniquely suited to address. The Federal Government should address critical freight transportation problems that affect our national economic competitiveness and the prosperity of communities all across the country. The Federal Government should focus on the nationwide environmental sustainability challenges that affect the environmental quality of the world that we pass on to our children and grandchildren. Competitive Federal programs would allow the Federal Government to direct funds toward projects that can have the best regional and national impacts on our economy, our environment, and our other critical national goals. For too long, these critical national needs have been falling through the cracks of our stovepiped transportation programs. We need a truly national transportation program to address national needs.

Moreover, competitive programs can promote an environment where projects competing with one another for support are forced to demonstrate how they can be more effective in advancing our performance measures and strategic goals. As projects that are most cost-effective, most innovative, and based on the best analysis show that they can win additional financial support, the entire culture of transportation infrastructure investment is pushed toward a more data-driven, outcome-oriented framework.

The Secretary has proposed five national transportation goals as part of the Department's Strategic Plan—Economic Competitiveness, Safety, State of Good Repair, Livability, and Environmental Sustainability. If we want to achieve these goals, we need to be able to direct our transportation funds toward whichever mode of transportation—or combination of modes of transportation—can most effectively achieve those goals. So we need to step away from the traditional stovepiped approach to transportation funding. An Infrastructure Bank provides an important opportunity to compete projects in a way that breaks away from these stovepipes.

Finally, we need to make sure that the process of deciding which projects to invest in is based on the best analysis possible. If we want to use transportation infrastructure to grow the economy, we need to use economic analysis to find out which projects will have the greatest impact on economic growth. In order to achieve and maintain a state of good repair for the Nation's transportation infrastructure, we need to use asset management systems to develop a complete inventory of our transportation assets and analyze what stream of maintenance, repairs, and rehabilitation will maintain a state of good repair over the life-cycle of the infrastructure at the lowest possible cost. If we have specific goals that we are trying to achieve, we need to use economic analysis to determine which projects will achieve those goals in the most cost-effective way possible.

The surface transportation program also needs to take advantage of all the financing options available to us. Some parts of the transportation system can generate a revenue stream that can pay for the project without tax revenues. For these projects, the Government may need to advance the money up-front, at least in part, but then the taxpayer can be paid back from the revenue stream that the project generates.

So we need a financing institution that can provide a range of financing options—grants for projects that by their nature cannot generate revenue, and loans and loan guarantees for projects that can pay for their construction costs (or part of their construction costs) out of a revenue stream. In short, we need the Infrastructure Bank that the President has proposed.

The Infrastructure Bank can be designed to embody all of the key elements I have described. It can avoid the excessive stovepiping of funds into narrow categorical programs. It can be focused on directing its investments toward achieving the strategic goals that the Congress designates. It can be provided with a professional staff that can focus its attention on meeting national and regional transportation needs. It can have a broad modal scope, so that it can invest funds in whichever mode of transportation—land, water, or air—is most suited to achieving our strategic goals. It can apply the tools of economic analysis to select projects that can be demonstrated to have the greatest possible impact on those goals. It can foster an environment of competition and innovation that will encourage the best projects to be funded. And it can offer the combination of financing options—grants, loans, and loan guarantees—that will allow it to leverage public funds and get the best results from our limited budgetary resources.

We recognize that these proposals represent a major change in how we have envisioned our transportation program in the past. But we pledge to work with the Congress to design this program and to figure out the best way to pay for it.

Creating Jobs

The President's new plan will build on what we have already accomplished in the American Recovery and Reinvestment Act. That Act embodies these twin goals in its title—short-term job opportunities to achieve recovery, and long-term economic growth based on reinvestment.

We are making good progress on using our Recovery Act investments to create jobs. As you know, the measurement of the jobs created under the Recovery Act is subject to two different sections of the Act, each of which calls for a slightly different measure of the number of jobs created. Section 1201 of the Act (which applies only to the Department of Transportation) calls for DOT to measure the number of "job-years" created by the Act. A "job-year" is one person working for one year. So if a project keeps 100 people working for 2 years, it creates 200 job-years. Section 1512 of the Act is less clear—it asks us simply to measure the number of "jobs." This has been interpreted as meaning the number of full-time-equivalent jobs that have been created by the Act. Returning to our example, if 100 people are employed for 2 years on a project, then the full-time-equivalent number of jobs is 100. So it is easy to see that the varying statutory language in the two sections of the Act can result in two different measures of the number of jobs created.

But the important point is that jobs have been created, by either measure. Our measure of the number of job-years created has risen steadily as more projects have been started and completed. In our first report on job-years created, as of April 30, 2009, the program had just started, and only a few projects had broken ground. We recorded only 130 job-years. In our second report, as of July 31, 2009, we had begun to make a real impact, with 15,000 job-years created. In our third report, as of January 31 of this year, we were up to 95,000 job-years. As of September 10, we estimate that we had created over 208,000 job-years.

The number of full-time-equivalent (FTE) jobs, by contrast, is higher during the peak construction season in the summer, and then falls during the off-peak period in the winter. Unlike job-years, FTE jobs can't be added from one time period to another—they are a snapshot of the number of people working the equivalent of full-time at any one point in time. So our first report, for the period through September 30, 2009, showed an average of 46,000 people employed full-time between when the Act was signed on February 17th and the end of September. In our second report, for the period through December 31, 2009, FTE employment had fallen to 40,000 employees, because projects were shutting down for the winter. The numbers for the first quarter of 2010 showed an even lower estimate, 34,000 employees, because two of these three months were winter months. The most recent estimate, for the second quarter of 2010, showed FTE jobs bouncing back up to 62,000 as spring and early summer weather made it possible for construction projects to get started again, especially in the northern States. Moreover, in creating jobs we are also creating skills. These jobs provide on-the-job training for our construction workforce that will make it easier for them to find good-paying jobs in the future.

While we have created thousands of jobs already, additional opportunities remain. Almost all of the funds appropriated to DOT under the Recovery Act have been committed to specific projects, but much of the project funding will continue to be spent over the coming year, creating hundreds of thousands of new jobs. Some States emphasized the "Recovery" part of the Act, and spent their money quickly on projects that could be started and completed in a few months. Other States emphasized the "Reinvestment" part of the Act, and chose to spend their funds on more complex projects that could create greater long-term improvements to their economies, but which took longer to plan and execute. These projects will not be completed until next year, and they will continue to create jobs through 2011. We knew when the Recovery Act was designed that this would be a long recession. The Recovery Act will continue to create jobs in 2011 and 2012 and continue to help the economy to recover. We estimate that the DOT portion of the Recovery Act will create 523,000 job-years, so we have plenty of jobs left to create in 2011 and 2012.

Growing the Economy

Infrastructure investment doesn't just create jobs—it grows the economy over the long term. There is an extensive economic literature that bears out this observation. Let me give you a few examples.

First, if you look back in history, the effect of our transportation investments on growing the economy is undeniable. In the 19th Century, investments in canals and railroads opened up the agricultural lands of the Midwest and allowed the productive bounty of that land to be shipped to markets in the East and abroad. In the 20th Century, the construction of the Interstate Highway System and our network of hub airports made possible convenient, long-distance automobile transportation and high-speed, long-distance air passenger transportation. The taming of the Mississippi River system with locks and dams made possible low-cost barge transportation of Midwest grain to export ports. More than 200 years ago, Adam Smith grasped the essential role of transportation in the economy when he observed that

> The greatest improvements in the productive powers of labor . . . seem to have been the effects of the division of labor, [and] the division of labor is limited by the extent of the market.

He then went on to explain how transportation improvements in 18th century Britain expanded the extent of the market and allowed the British economy to grow.

Second, the Department has sponsored research that quantifies the impact of transportation investments on the growth of the economy. In a series of studies conducted by Ishaq Nadiri and Theofanis Mamuneas, our research has estimated that our expenditures on transportation infrastructure have had a huge payoff on economic productivity.[1] On the average, from 1949 to 2000, investments in transportation infrastructure had a 31 percent rate of return. This rate was particularly high when we were first building the interstate highway network, when we had rates of return as high as 48 percent. But even more recently, in the 1990s and 2000s, we have had rates of return of 6–16 percent.

Third, in urban areas, improvements in transportation infrastructure have impressive economic effects. Studies by Glen Weisbrod and his colleagues in the Chicago and Philadelphia metropolitan areas showed that investments in transportation infrastructure that reduced travel times by as little as 10 percent would reduce business operating costs in Chicago by $980 million and in Philadelphia by $240 million each year.[2]

Fourth, more recent research by Daniel Graham of Imperial College, London, has shown that, in urban areas, "agglomeration effects" of reducing the costs of travel and freight transportation increase productivity.[3] Businesses are more productive when it is easy for them to ship goods to one another and to travel to one another's offices and facilities. Even after taking into account the time savings for freight and passenger transportation from transportation investments, there is a further 25-percent increase in productivity resulting from these agglomeration effects.

We have seen these effects in the transportation projects we have reviewed as part of our TIGER Grants program. When the Congress authorized the TIGER Grant program last year, and we issued guidance to applicants, we wanted to make sure that we could choose the best projects possible. To achieve this, we required applicants, at least for the larger projects, to do a careful analysis of the benefits and costs of their proposed projects. We then organized a team of economists from within the Department to review those analyses and make sure that their estimates were valid. The results gave us confidence that the projects we were selecting were truly the best projects available.

We repeatedly found projects that had measurable benefits well in excess of their costs. For example, the Priority Bus Transit project for Washington, DC, had benefits as much as six times its costs. The Kansas City Transit Corridors project had benefits equal to at least twice its costs. Several other projects were in the same range. We can invest in these projects confident that we are getting our money's worth.

We want to emphasize that growing the economy is not the only factor that influences our choices of transportation projects. Not all of the benefits of transportation projects can be translated into dollars and cents. Many of the elements that make our urban areas more livable—sidewalks and trees and multiple transportation options—are difficult to assign dollar values to. And we take these kinds of benefits seriously, too. But we also pay attention to the effects of transportation on increas-

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[1] The most recent of these is Theofanis P. Mamuneas, "Contribution of Highway Investment to National Economic Growth" (Federal Highway Administration, July 2008).

[2] Glen Weisbrod, Donald Vary, and George Treyz, "Economic Implications of Congestion", National Cooperative Highway Research Program Report #463 (Transportation Research Board, 2001).

[3] Donald J. Graham, "Agglomeration, Productivity, and Transportation Investment", *Journal of Transport Economics and Policy,* v. 41, pt 3 (September 2007), pp. 317–343.

ing the number of dollars in our pockets—dollars that enhance our economic security and our sense of well-being.

It's plainly apparent that the Nation's economy is not producing the prosperity that we all expect. There are, of course, many reasons for that, including defects in our financial markets and excessive financial leverage that many consumers were encouraged to engage in during recent years. But clearly one contributing factor is that we have not allocated the Nation's public investment well. We have not invested enough in the public infrastructure that generates demonstrable returns in increased productivity, while we have invested too much in projects whose value was supported more by speculative expectations than by demonstrable contributions to productivity. It's time to refocus our investment priorities toward projects of enduring value—projects that make a solid contribution to our Nation's economic well-being. The Department of Transportation stands ready to play its part in that effort.

Thank you, Mr. Chairman, for this opportunity to appear before you. I would be happy to respond to any questions that you have.

PREPARED STATEMENT OF ALAN B. KRUEGER

ASSISTANT SECRETARY FOR ECONOMIC POLICY AND CHIEF ECONOMIST, DEPARTMENT OF THE TREASURY

SEPTEMBER 21, 2010

Introduction

Thank you Chairman Dodd, Ranking Member Shelby, and distinguished Members of the Committee for inviting me to testify before your Committee today. I appreciate the opportunity to discuss proposals to improve our Nation's infrastructure investment and finance system.

Infrastructure is an essential part of the U.S. economy. Publicly owned transportation infrastructure—including the roads, rail lines and airports that businesses use to transport and deliver goods, and that people use to commute to work, visit their families and travel the country—makes up nearly 13 percent of our total nonresidential capital stock according to the Bureau of Economic Analysis. In addition, spending on public infrastructure is a significant part of Government activity. According to the Congressional Budget Office, public investment in transportation infrastructure in 2006 was approximately $140 billion (6.4 percent of total Government spending), which was split roughly equally between the Federal Government and State and local governments.

The President has announced a bold plan to renew and expand America's transportation infrastructure through an up-front investment connected to a 6-year reauthorization of the surface transportation program. Under Secretary Kienitz is providing an overview of that plan.

In my testimony, I will discuss several aspects of the President's infrastructure proposals. First, I will evaluate why, from an economist's perspective, focusing on infrastructure investment makes sense, especially in the current economic environment. Second, I will discuss some of the long-term benefits from increasing our investment in infrastructure. I will then turn to the core ideas behind the Administration's proposed National Infrastructure Bank, which were heavily influenced by the bipartisan work of Chairman Dodd and a distinguished former Member of this Committee, Senator Hagel. Finally, I will highlight an innovative financing program, Build America Bonds, which has provided an efficient new way to provide Federal support for financing State and local government infrastructure investments and could be a useful tool for the National Infrastructure Bank.

Infrastructure Investment in the Short-Term

The recent recession that started in late 2007 had an exceptionally large impact on the labor market. The U.S. lost over 8 million jobs between December 2007 and December 2009, and the unemployment rate currently stands at 9.6 percent. One in five jobs that were lost in the 2-year period beginning in December 2007 was in the construction sector. While there are positive signs of recovery in many sectors of the economy, additional steps are needed to ensure that the recovery stays on track. In this economic environment, accelerating infrastructure investment—building on what we have already accomplished in the American Recovery and Reinvestment Act—makes good economic sense for several reasons.

First, infrastructure investment will provide opportunities for workers who have been disproportionately affected by this recession. Due to the collapse of the real estate market, the contraction of employment in the construction industry has been especially acute. Since December 2007, the construction industry has lost 25 percent of its total payroll jobs. In August 2010, the unemployment rate for construction workers stood at 17 percent. This is over three times higher than it was 3 years ago. We should move quickly to provide an opportunity for construction workers to productively apply their skills and experience. Investment in infrastructure is well targeted to that goal, and will take advantage of underutilized resources in the construction sector.

Second, a wide range of analysts, including economists at the Congressional Budget Office, have found that additional spending on infrastructure is among the most effective policy options for raising output and employment. [1] Investment in infrastructure directly increases employment because workers are hired to undertake construction projects. Additionally, it adds to demand for goods and services through purchases of material and equipment and through additional spending by the workers who are hired. This in turn further increases employment and output throughout the economy.

In addition, during recessions it is common for State and local governments to cut back on capital projects, such as building schools, roads and parks, in order to meet balanced budget requirements. Past research has found that expenditures on capital projects are more than four times as sensitive to year-to-year fluctuations in State income than is State spending in general. [2] Tax receipts at the State and local level contracted for four straight quarters at the beginning of this recession and are still below prerecession levels. The American Recovery and Reinvestment Act provided crucial support for infrastructure during the recession. However, we must do more to ensure that investment in infrastructure is not reduced for the wrong reasons, as the need for improved and expanded infrastructure is just as great during a downturn as it is during a boom.

Finally, we have long been underinvesting in the Nation's infrastructure—and, as I will explain in the next section of my testimony, addressing this shortfall with investments we make today could help spark growth not only now but also in the long-term. The American Society of Civil Engineers (ASCE) estimates that we face a $2.2 trillion need for infrastructure investment over the next 5 years. We would need to roughly double our current level of investment in order to reach the levels they recommend. While that analysis might not be an authoritative guide for the most efficient investment of public resources, it strongly suggests that additional funding can be put to good use. Given the stark difference between their assessment of the need for investment and what we are doing, it is not surprising that these engineers have given us a "D" for our current efforts. It doesn't take a professor to know that this grade is unacceptable.

Infrastructure Investment in the Long-Term

As I just mentioned, investing in infrastructure is not only important to our economy now; it also is crucial to the economy's long-term health. Investment in infrastructure can have a sustained impact on aggregate output by improving economic efficiency and productivity. There have been several major infrastructure investments throughout American history that have allowed goods to be transported more quickly and at lower costs, resulting in both lower prices for consumers and increased profitability for firms. Examples include the building of the national railroad system in the 19th century and the creation of the Eisenhower Interstate System in the 1950s and 1960s.

While economists have debated the magnitude of the productivity gains from various infrastructure investments,[3] [4] evidence from recent research clearly points to a positive and significant effect of transportation infrastructure investment on productivity. In a 1999 paper published in the American Economic Review, John Fernald finds that the large infrastructure investments made during the construction of the interstate highway system in the 1960s corresponded with a significant increase in the productivity of vehicle-intensive industries (such as transportation and gas utilities), relative to industries that do not depend heavily on vehicles (such as apparel and textiles and plastics). [5] Fernald's findings suggest that, in the past,

[1] Congressional Budget Office, "Policies for Increasing Economic Growth and Employment in the Short Term", January 2010.

[2] *See,* James R. Hines, Hilary Hoynes, and Alan Krueger, "Another Look at Whether a Rising Tide Lifts All Boats", in *The Roaring '90s: Can Full Employment Be Sustained?,* edited by Alan B. Krueger and Robert Solow, Russell Sage and Century Fund, 2001.

[3] Munnell, Alicia, "Policy Watch: Infrastructure Investment and Economic Growth", *Journal of Economic Perspectives,* Vol. 6, No. 4, (Fall 1992), pp. 189–198.

[4] Gramlich, Edward, "Infrastructure Investment: A Review Essay", *Journal of Economic Literature,* Vol. 32, No. 3 (Sept., 1994), pp. 1176–1196.

[5] Fernald, John G., "Roads to Prosperity? Assessing the Link Between Public Capital and Productivity", *The American Economic Review,* Vol. 89, No. 3 (Jun. 1999), pp. 619–638.

investment in infrastructure led to substantial productivity gains, and they point to the potential for further increases in productivity through additional, well-targeted investment.

In addition to improving productivity, infrastructure is a public good that provides lasting benefits to consumers and households. Evidence from economics research, including preliminary evidence from a randomized experiment involving road paving in Mexico, suggests that infrastructure investment can raise housing values, which reflects an improvement in living standards.[6] [7]

Of course, policy should adjust to take advantage of new investment opportunities made available by technological progress and we must be mindful of the fact that at some point, the economy reaches the point of diminishing returns from further investments in a particular area. As Fernald observed, "Building an interstate network might be very productive; building a second network may not."

The Case for a National Infrastructure Bank

A well designed National Infrastructure Bank could help achieve three major policy objectives. It could:

- increase overall investment in infrastructure, and, specifically, attract private capital to coinvest in specific infrastructure projects;
- improve the efficacy of our infrastructure investment by having a merit-based selection process for projects; and
- fill in the gaps in our infrastructure funding system, which currently disadvantages investments in multimodal and multijurisdictional infrastructure projects.

As I indicated earlier, there is a large gap between our current level of investment in infrastructure and the level that outside experts assess is needed to maintain our transportation infrastructure. We are also investing less than other countries as a percentage of GDP. Last week, President Obama noted that our total infrastructure investment as a share of GDP is much less than infrastructure investment in Europe and China. While we are investing 2 percent of our GDP, Europe is investing roughly 5 percent and China is investing 9 percent.

One way to address the need for more infrastructure investment is to attract more private capital for direct investment in transportation infrastructure. There is currently very little direct private investment in our Nation's highway and transit systems. The lack of private investment in infrastructure is in large part due to the current method of funding infrastructure, which lacks effective mechanisms to attract and repay direct private investment in specific infrastructure projects. It also results because the private benefit for investors is less than the benefit for society as a whole, because of externalities from infrastructure. The National Infrastructure Bank could address these problems by directly funding selected projects through a variety of means. The establishment of a National Infrastructure Bank would create the conditions for greater private sector coinvestment in infrastructure projects.

Secondly, with a few notable exceptions, Federal funding for infrastructure investments is not distributed on the basis of a competition between projects on the basis of rigorous economic analysis or any cost-benefit comparisons. The current system virtually ensures that the distribution of investment in infrastructure is suboptimal from the standpoint of raising the productive capacity of the economy.

To address the lack of merit-based funding, the National Infrastructure Bank would develop a framework to analytically examine potential infrastructure projects based on cost-benefit analysis, and evaluate the distributional impact of both the costs and benefits of each project. Of course, not all of the costs and benefits can be quantified, but an effort should be made to quantify what can be quantified and to take account of any additional benefits and costs to society. A rigorous analytic process would result in support for projects that yield the greatest returns to society, and would avoid investing taxpayer dollars in projects where total costs exceed total societal benefits. The National Infrastructure Bank would select projects along a sliding scale of support that most effectively utilizes the bank's limited resources, targeting the most effective and efficient investments.

I should clearly acknowledge that creating a framework for project selection based on cost-benefit analyses of competing infrastructure projects is challenging. For example, consider the well publicized cost of congestion. The Texas Transportation Institute recently estimated that in 2007 some 4.2 billion hours were spent sitting in

[6] Haughwout, Andrew F., "Public Infrastructure Investments, Productivity, and Welfare in Fixed Geographic Areas", *Journal of Public Economics,* Vol. 83, No. 3, (Mar. 2002), pp. 405–428.

[7] Quintana-Domeque, Climent, and Marco Gonzalez-Navarro, "Street Pavement: Results from an Infrastructure Experiment in Mexico", Industrial Relations Section, Princeton University, Working Paper No. 556, (Jul. 2010).

traffic in 439 urban areas, which they calculate is equivalent to nearly one full work week for the typical American. Valuing the time lost due to being stuck in traffic may appear simple at first, if you only think about the cost of that time as equal to the lost income (*i.e.,* valued at the marginal wage rate). However, not everyone can find a job or wants one, so it is not clear that time spent in congestion should be valued at the wage rate. The Department of Transportation, in its guidance on this matter, recommends a variety of values of time, depending on whether the travel takes place as part of paid business travel, local commuting travel, or long-distance leisure travel. The value of time in freight transportation is even more complex, varying with the value and "perishability" of the cargo that is being transported. Additionally, there are costs of commuting beyond lost time. A recent survey by Gallup, for example, found that those with long commutes are more likely to experience back and neck pain. All of these potential costs of congestion—and corresponding benefits of alleviating congestion—should be factored into any cost-benefit analysis of infrastructure alternatives.

Finally, in addition to the lack of merit-based funding within one mode of transportation, coordinating multimodal projects in the current system is extremely difficult because each mode of transportation has distinct funding sources. Each of these funding sources has different requirements, Federal and State matching limits, and other restrictions. Complicating matters further, if a multimodal project crosses State lines, there could be significant difficulty accessing the capital markets for local funding given the difficulty inherent in multi-State debt issuances. Because of the current criteria underlying infrastructure investments, we have lost sight of the larger rationale for national infrastructure investment.

As a result, there has been an underinvestment in multimodal and multijurisdictional infrastructure projects, compared with single modes and single jurisdictional projects. A National Infrastructure Bank would be tasked with assisting projects that are multimodal and/or cross jurisdictional boundaries.

A corollary to this point is the potential value that can be generated from so-called "network effects." Network effects suggest that investments in certain areas, such as infrastructure, can lead to increasing returns based on the size and interconnectivity of the broader network. A classic example is telephones: if only one person has a telephone, the value is much less than half as great than if two people have telephones. This is particularly important when one considers the new types of investments that can be financed by the National Infrastructure Bank. Multimodal, multijurisdictional investments will improve the connections between our existing infrastructure networks, such as better links between our ports and our freight rail lines, or connecting our airports and intercity passenger rail lines to individual cities' public transit systems.

As infrastructure investments often have broad benefits for society as a whole, it is incorrect to simply assign the benefits of a project directly to the area where the infrastructure is built. For example, a project that improves the connectivity between a freight rail line and a port to allow for quicker, cheaper and more reliable service will be a benefit for the producers of goods, who will use the rail line to send their goods to the port for export. Those producers may be thousands of miles from the actual infrastructure investment, but they will enjoy a portion of its benefits.

Innovative Financing

In addition to improving the targeting of our infrastructure investment, we need to consider new ways to finance it. A National Infrastructure Bank should be at the forefront of innovative and sound ways for financing worthy infrastructure projects. According to the Congressional Budget Office, there is little direct private investment in our Nation's surface transportation infrastructure system, and this is a challenge that the National Infrastructure Bank would be able to address.[8] However, State and local governments often turn to the private capital markets to finance infrastructure investment through the municipal bond market, a long standing practice which the Federal Government subsidizes by allowing tax-exempt bond status.

I'd like to highlight an innovative financing tool that was introduced in the Recovery Act and has helped hundreds of States and local governments fund infrastructure projects thus far—Build America Bonds, or BABs. BABs are an alternative for issuers who traditionally have issued tax exempt bonds, such as State and local governments. A Build America Bond is a taxable bond for which Treasury pays a 35 percent direct subsidy to the issuer in lieu of the traditional extension of tax exempt status. (Other Recovery Act bonds, which utilize the BABs model, have an even

[8] Kile, Joseph, "Issues in Infrastructure Investment", National Tax Association Conference. Congressional Budget Office, Philadelphia, 26 Sep. 2008. Address.

deeper subsidy, such as Recovery Zone Facility Bonds.) BABs have enjoyed a very positive reception from both issuers and investors. Between the program's launch on April 3, 2009, and August 31, 2010, over $126 billion of BABs have been issued by State and local governments in 49 States and the District of Columbia. Last spring, the Department of the Treasury estimated that for the $90 billion of Build America Bonds issued through March 31, 2010, State and local governments will save over $12 billion in present value borrowing costs compared with issuing traditional tax-exempt bonds. This figure has grown since then.

Given the success of the program, the Administration has proposed to extend the BABs program at a subsidy rate of 28 percent, which we estimate would be revenue-neutral for the Federal Government. In addition, the Administration has proposed to expand the eligible uses of BABs, allowing them to support financing for non-profits and a wider range of municipal borrowing. This is an example of both building off the successes of the Recovery Act as well as creating innovative financing tools for infrastructure investment. We look forward to working with Congress to extend this innovative program. Indeed, the value of extending BABs would be even greater if a National Infrastructure Bank were in existence to spur public–private investments in infrastructure projects.

Conclusion

To summarize, a strong economic case can be made to increase our infrastructure investments and to accelerate those investments to put people back to work, to partner more with the private sector in funding infrastructure projects, and to take benefits and costs into account in allocating infrastructure investments. The creation of a National Infrastructure Bank would be a major step toward achieving these goals.

Mr. Chairman, this concludes my prepared testimony. I thank you for your leadership on these issues. I will be pleased to answer any questions you or other Members of the Committee may have.

PREPARED STATEMENT OF EDWARD G. RENDELL

GOVERNOR, COMMONWEALTH OF PENNSYLVANIA, AND COCHAIR, BUILDING AMERICA'S FUTURE

SEPTEMBER 21, 2010

Introduction

Good morning and thank you Chairman Dodd and Senator Shelby for welcoming me to the Senate Banking, Housing, and Urban Affairs Committee. Given the President's recent infrastructure investment announcements, and the interest from people across America, I am very grateful to be here to testify about the need to create a National Infrastructure Bank to help finance critical investments in our Nation's crumbling infrastructure.

Building America's Future

I am here both in my capacity as the Governor of Pennsylvania and as Cochair of Building America's Future, which I am honored to lead along with Governor Arnold Schwarzenegger of California and Mayor Mike Bloomberg of New York City. Building America's Future is a growing, bipartisan, nonprofit organization of State and local elected officials from across the United States who believe that we must reform how we pay for infrastructure and that additional resources must be invested more wisely.

Our members include 18 sitting governors, 44 mayors of major cities, and 47 other State and local elected officials. They are republicans, democrats, and independents each working in their own communities to figure out how to repair and rebuild our crumbling infrastructure. Given the economic downturn, the decreased budgets in States and cities, and the rising unemployment rate, many of us are searching for responsible ways to invest more while spurring additional job growth.

The Need for Additional Investments in Our Infrastructure

I am struck by what happens every time there is another infrastructure catastrophe in this country. For 24, 48, or 72 hours there is a barrage of news videos and articles about those catastrophes but when the cameras leave our collective attention is turned to other issues while the victims and local leaders are left to contend with the aftermath of the disaster.

Take the recent gas pipeline explosion in San Bruno, California that killed at least four people, injured about 50, and destroyed or damaged more than 80 homes. Media reports indicate that the pipeline was first installed in 1956. As of now, we do not know the cause of that horrible explosion since the National Transportation Safety Board and the Pipeline and Hazardous Materials Safety Administration continue investigating. But we do know that many of our pipelines and underground systems, such as our drinking water and waste water systems, are old and could fail at any moment.

The question for all of us here today is whether or not we will act in the aftermath of this recent crisis in California or must we wait for another catastrophic event to occur before we realize the need to move now and make investments to repair and rebuild infrastructure that was installed during the Eisenhower Administration?

I do not want to sound alarmist but I know firsthand that an accident of this magnitude—or worse—could happen in many other communities whether it is another gas pipeline, a structurally deficient bridge, aging dams, or leaking water pipes. Part of the reason many people do not think a problem exists is because these assets are hidden or underground. It is only after a disaster occurs do we pay attention to that infrastructure but by then it is too late.

Many of you may recall back in March of 2008 when I had to shut down I-95 in both directions just north of the Philadelphia central business district. An inspector from the Pennsylvania Department of Transportation just happened to be in the area during lunch and discovered a major crack in one of the main concrete support pillars of I-95. We had to shut down the highway for fear that if that concrete pillar collapsed several hundred people could have been hurt or killed because 190,000 vehicles per day travel over that section of I-95. Thank goodness that inspector happened to discover that crack or the consequences could have been devastating.

In the past few years we have seen the I-35W bridge collapse in Minneapolis, dams fail in Cedar Rapids, widespread power outages in the Northeast and parts of the Midwest, and the levees fail in New Orleans. The cost of the search and rescue and clean-up efforts is in the billions where had we made the necessary investments we may have been able to avoid the costs in dollars and human lives lost. The aftermath of Hurricanes Katrina and Rita have already totaled over $15 billion in Federal Emergency Management Agency assistance alone according to the Department of Homeland Security. Had we invested more in those levees perhaps we could have avoided the painful aftermath.

We should not wait for another disaster to take action and that is part of the reason why I am here today to discuss how a National Infrastructure Bank can help our Nation.

Building America's Future has been fighting for additional investments in our Nation's roads, bridges, transit systems, dams, levees, ports, drinking water and waste water facilities, broadband and electricity systems and other infrastructure. We believe that we must not only invest more but we must do so more wisely and with a longer-term vision. We must do more if the United States is to remain competitive in a global economy. A first class infrastructure system is one way to ensure our success in that effort.

I would also like to include a letter for the record that is signed by many of our fellow Building America's Future governors, mayors, and other local elected officials. Whether it is Los Angeles' "30/10" transit initiative, the construction of high speed rail in Florida or California, the public–private Crescent Corridor rail project connecting the South and the Northeast, or the need to address our crumbling bridges, dams and levees in other parts of the country we know that the needs for more investment already exists.

It is my opinion that you can help address that need by passing legislation before this Congress adjourns to establish a National Infrastructure Bank.

President Obama's Announcement

That is why I was extremely encouraged with President Obama's recent announcement that he is asking Congress to create a National Infrastructure Bank, provide an additional $50 billion on top of existing funding levels for transportation infrastructure, and that he seeks a reformed, robust transportation bill as quickly as possible. By doing these three things we can ensure that America's infrastructure—our transit systems, highways, bridges, runways, pipelines, water and energy systems, and high speed rail network—is of the highest caliber for its owners, the American people. We will create millions of jobs and boost our economy.

As I understood the President's announcement he seeks an additional $50 billion on top of existing surface transportation funding levels and some of that money would go toward capitalizing a National Infrastructure Bank for projects of regional and national significance. What I think is important about this proposal is that the cost of such projects will not be shouldered by the Federal Government alone but rather the Bank would seek to establish partnerships with Federal, State, and local governments as well as more robust private sector involvement. If we do this quickly and properly we can make great progress toward repairing and rebuilding our Nation's crumbling infrastructure.

The idea of a National Infrastructure Bank is not new. It is a concept that has been around for many years and versions of it have been implemented successfully in several States like California and South Carolina. And across the pond the European Investment Bank has been financing infrastructure projects since 1958.

The Need for a National Infrastructure Bank in the United States

What is missing at the Federal level is a long-term vision about budgeting and planning for large-scale infrastructure projects. We do not have a Federal capital budget and because of that investments are typically made on an annual basis. We must change that investment strategy so that we invest the taxpayers' dollars in the most meritorious projects that have the most economic impact.

Building America's Future believes that the United States must create a National Infrastructure Bank so that we can have a single entity, staffed by experts, who can work to attract and leverage dollars from State and local governments as well as the private sector. The Bank will focus on projects of regional and national significance, will remove politics from the process, subject all requests to a benefit-cost analysis, and set the standard for accountability and transparency.

I recently hosted a forum in Pennsylvania to discuss the future of the transportation bill and other infrastructure needs. I was pleased that former Governor Jon Corzine, with whom many of you served here in the Senate, came to talk about the billions of dollars in private investment funds that are waiting to be invested in the United States. These investment funds represent a significant opportunity to be creative in how we go about repairing and rebuilding our infrastructure because they will allow us to leverage the Federal dollars that are used to capitalize the bank. If we can marshal this private capital then I believe we can make a significant dent in the $2.2 trillion funding shortfall that the American Society of Civil Engineers says exists in the United States just to bring our systems into a State of good repair.

Many are rightly concerned about our growing Federal deficit but I believe more people are concerned about the growth of our economy. We must invest where it makes sense and that means more resources for our transit systems, the creation of high speed rail, and removing bottlenecks in and around our ports and cities so that people and goods move more quickly, use less gas, and keep costs down.

If we do this through the National Infrastructure Bank we will create millions of more jobs not only on the construction sites but back in the factories that produce the concrete, asphalt, aggregate, steel, wood, and other materials that go into these projects. We are used to building things in this country and we can do so again by standing up the National Infrastructure Bank now.

One other point I would like to make. Many detractors of a National Infrastructure Bank say that we cannot afford to do this. I say we cannot afford not to do it. I would like to know what successful company in the United States has grown itself without investing money back into its business. Some say that there should be no more spending, no more borrowing, and no more investing. If that argument wins the day then I think we will look back upon these times of 9.7 percent unemployment with envy because it will mean not only significantly more unemployment but a complete degradation of our infrastructure. Companies will leave our shores and we will import more than we export. That cannot be the way of our future. That is not the America we know and love.

National Infrastructure Bank Structure

We believe that a National Infrastructure Bank should be created with the following basic concepts:

- Establish the Bank as an independent entity with the greatest flexibility to finance and fund only projects of regional and national significance.
- Allow the Bank to fund projects beyond just transportation such as ports, drinking and waste water, electrical grid, broadband and others that make sense.
- Enable merit-based selection of projects by experts so that the most critical and feasible projects proceed by employing benefit-cost analysis methods.
- Ensure Federal assistance at a significant enough scale to make these major projects financially viable.
- Ensure that the Bank has the authority to employ a range of finance and funding tools including, but not limited to: grants, credit assistance, low interest loans, tax incentives, Build America Bonds, Private Activity Bonds, enhanced TIFIA authority, and others to be determined.

- Create a method for leveraging public investments with private capital.
- Establish clear performance measurement standards such as completing projects on time and within budget, reducing traffic delays for passengers and goods movement, reducing carbon emissions, and improving safety.
- Provide project expediting capability by eliminating redundancies to speed completion of projects while still ensuring the environment remains protected.

President Obama's fiscal year 2010 budget proposed $5 billion per year for 5 years for a total initial capitalization of $25 billion for the National Infrastructure Bank. In fiscal year 2011 that proposal was modified to be an infrastructure fund administered by the Department of Transportation. However, Congress has not appropriated these dollars primarily because the Bank has not been authorized. I give the President credit for supporting this concept with real dollars as it is a sign of his commitment to the long-term vision of rebuilding this country through smart, targeted investments.

It is incumbent upon this Congress to pass a National Infrastructure Bank authorization bill this year so that it can be stood up properly next year. And I believe that the Obama Administration must engage with the House and Senate in the details of this legislation in the coming days.

We have heard some concerns about whether or not a National Infrastructure Bank means rural States will be ignored to the benefit of urban areas. I do not think that is true at all. The Bank will look at projects on a regional and national basis. That may mean investments in areas that expand beyond any major city because of the long-term vision. For example, we need to expand our exports and by investing in our ports now we can ensure that agriculture products that come from our rural areas can get to those foreign markets more efficiently and quickly. This would mean a benefit not only to the port in the city in which it is located but to the farmers and ranchers who depend upon proper delivery to earn their wages.

One other way that rural areas will benefit is if existing grant programs that fund large-scale projects would concentrate on smaller projects. For example, the Highway Trust Fund has recently been under threat of depletion and insolvency. Transfers of funds from the general fund into the Highway Trust Fund have kept the program alive. I believe that if the National Infrastructure Bank stands up it could ease the current strain on the Highway Trust Fund by funding the larger-scale projects through the Bank. Therefore, allowing more Highway Trust Fund dollars to remain available for smaller projects in rural areas. I think that is a benefit that must be studied and explored.

Ultimately this is about what we are going to do for the American people. The average American loses 60 hours a year stuck in traffic. That is time that people can never get back and it is time that they cannot spend with their families and friends. And it's costing us $87.2 billion in lost productivity and 2.8 billion gallons in wasted fuel each year.

We must stop this cycle.

We can do this. This is not rocket science. But we must do so on a good-faith, bipartisan basis and with the goal of assuring the Bank's success. If the Bank is successful then our cities, States, and regions will be more successful.

Conclusion

Our hope is that if the National Infrastructure Bank is capitalized at the right level the Bank will make significant progress towards addressing some of the larger projects and outstanding needs in the country while Congress moves forward with significant reforms of existing funding silos, policy decisions, and the creation of a national vision.

We believe that Congress must also pass a robust, reformed transportation bill that will address our surface transportation needs for the next several years. This program needs reforms and I was extremely encouraged that the President recognized that fact and intends to offer a proposal in the coming weeks.

I know that many of you are hearing from people in your States as I have in the Commonwealth of Pennsylvania about the economy and unemployment. People are hurting. The construction industry is at 20 percent unemployment and future job creation is uncertain at best. As Governor of the sixth largest State in the Nation I have done what I can to make smart investments and I can tell you investments in infrastructure have created and saved thousands of jobs. What that means is that a worker can make the car and mortgage payments, put food on his or her family's table, and contribute to the tax base. It means less people on unemployment and more people being productive as part of our workforce.

That is the fabric of America.

Is a National Infrastructure Bank going to be the single solution to our unemployment or crumbling infrastructure problems? No, it is not. There are no silver bullets. But we must fight this battle with as many bullets and weapons as possible to defeat it.

Thank you and I look forward to answer any of your questions.

PREPARED STATEMENT OF ROBERT WOLF

CHAIRMAN AND CHIEF EXECUTIVE OFFICER, UBS AMERICAS

SEPTEMBER 21, 2010

Good morning Chairman Dodd, Ranking Member Shelby, and distinguished Members of the Committee. I am grateful for the opportunity to offer testimony today in support of a National Infrastructure Bank (NIB). My name is Robert Wolf, and I am Chairman and CEO of UBS Americas and President of the global Investment Bank. I am also a member of the Group Executive Board of UBS AG, our parent company.

I have worked in the financial services industry since receiving my undergraduate degree in economics from Wharton in 1984. My career has focused predominantly on fixed income specializing in the credit markets, principally at two firms—Salomon Brothers for approximately 10 years and UBS for 16 years.

As a member of the President's Economic Recovery Advisory Board, I have worked with fellow board members to develop a considered approach to creating a National Infrastructure Bank. Today, I am here to share my own views, as a 26-year veteran of the markets, on why I believe a National Infrastructure Bank is in our Nation's best interest. I will also offer specific recommendations on how the proposed bank should be structured to achieve its goals in an optimal manner.

Let me say at the outset that creating a National Infrastructure Bank at this time makes sense for two main reasons:

(1) It will attract private investment to help fund badly needed infrastructure improvements critical to America's competitiveness and economic growth

State and local governments account for about 75 percent of public infrastructure spending, and many of these governments are under severe fiscal strain. A number of important projects have been delayed or sidetracked, especially those with high capital cost or those which cross State boundaries. A National Infrastructure Bank would vet projects carefully, lend to fund the highest priority projects, and help attract private sector capital to augment Government funding. Preqin, a private equity industry consultant, estimates that there is over $180 billion dollars of private equity and pension fund capital focused on infrastructure equity investments. This capital can play an important role in bridging State and local budget gaps.

(2) It will create jobs

The U.S. Department of Transportation estimates that $1 billion of Federal and State spending on transportation infrastructure creates 27,400 jobs. Similarly, the Milken Institute estimates that $1 billion of spending creates 25,000 jobs. Many of these jobs are in the construction industry and related sectors that have sustained the largest job losses in the economic downturn. Greater employment in these areas is essential to any sustained and accelerated economic recovery. A National Infrastructure Bank will provide funding for new projects that put people to work now—not just transportation-related jobs, but jobs that build durable infrastructure with lasting economic benefit, including projects in energy and electricity, water and wastewater, and telecommunications and broadband. Our hope is that new jobs will be created not only for construction workers, but also for engineers, architects, urban planners, scientists and many industrial production businesses.

To achieve these goals, it is crucial that a National Infrastructure Bank be chartered with a clear and achievable mission and strict operational guidelines.

I have looked at other Government-sponsored infrastructure institutions from around the world and have developed views on what the National Infrastructure Bank's mission should and should not be.

The National Infrastructure Bank SHOULD be:

(1) Policy driven

It should be a vehicle for attracting public and private funding to projects of considerable merit that accomplish broader policy goals like relieving congestion, minimizing environmental impact, improving mobility, enhancing transportation networks, and increasing our national or regional economic competitiveness.

(2) Loan focused

It should focus on making loans that will generate returns, which means funding primarily projects with user fees or dedicated revenue sources.

(3) Merit based

It is crucial that the National Infrastructure Bank allocate its funds on the basis of a rigorous cost-benefit analysis conducted by experienced industry experts and be focused on those projects that will deliver the most value for its dollars. Transparency is critical throughout the decision-making process. If a project cannot generate revenues sufficient to pay the principal and interest on the loan, and there is no other dedicated revenue source or local availability payments for that purpose, the loan should not be made.

The National Infrastructure Bank should NOT be:

(1) A project equity investor

Consistent with its lending focus, the NIB should primarily offer loans and loan guarantees at the project level, not project equity capital.

(2) A substitute for existing infrastructure funding programs

Rather, the National Infrastructure Bank should complement successful programs like loans under the Transportation Infrastructure Finance and Innovation Act (TIFIA), Private Activity Bonds, Build America Bonds and municipal bonds. It should act to leverage other public and private sector funding sources at the project level, and it should complement the traditional appropriations process, not replace it.

(3) Focused solely on transportation

Instead, it should make funds available for projects of regional or national significance in other qualified sectors such as energy, broadband, water and wastewater.

Finally, in order to achieve this mission, the National Infrastructure Bank must be properly structured.

In my view, the National Infrastructure Bank should be established as a wholly owned Government corporation, allowing it to serve a broad range of infrastructure sectors, such as transportation, energy and water. The NIB decision makers must have the independence to make loan decisions based on project merit. Independence will permit faster, more transparent and objective project selection supported by detailed cost-benefit analysis.

It should be capitalized with equity capital that comes solely from the U.S. Federal Government via the U.S. Treasury. Funding its equity in this manner will avoid the problems seen with the Government Sponsored Enterprises, such as Fannie Mae and Freddie Mac, which are hybrid organizations chartered to be owned by private shareholders while benefiting from Government sponsorship. By contrast, the National Infrastructure Bank should be fully owned by the Federal Government with no private shareholders.

In closing, creating a National Infrastructure Bank is an idea whose time has come. I don't think anyone disputes that our country's infrastructure needs are extraordinary. The NIB would mobilize the capital markets to fund new projects, leading to sustainable economic growth—and new jobs.

Again, Mr. Chairman, thank you for providing me with this opportunity to appear before the Committee today to discuss my views, and I am happy to answer any questions you and other Members may have.

PREPARED STATEMENT OF DONALD SHUBERT

PRESIDENT, CONNECTICUT CONSTRUCTION INDUSTRIES ASSOCIATION

SEPTEMBER 21, 2010

Good morning Chairman Dodd, Ranking Member Shelby, and Members of the Committee, my name is Don Shubert and I am president of the Connecticut Construction Industries Association (often referred to as "CCIA"), based in Wethersfield, Connecticut. CCIA is an organization of associations representing the many facets and disciplines of the construction industry in Connecticut. The associations include the: Connecticut Road Builders Association, Associated General Contractors of Connecticut, Connecticut Ready Mixed Concrete Association, Connecticut Asphalt and Aggregate Producers Association and others. The membership includes construction managers, general contractors, subcontractors, equipment and material suppliers, professional engineers, and other professionals allied with the construction industry. Together, we build the infrastructure that services all modes of transportation.

The CCIA divisions enjoy an active working relationship with national organizations that include the: American Road and Transportation Builders Association, Associated General Contractors of America, National Asphalt Pavement Association, National Ready Mixed Concrete Association, National Stone, Sand and Gravel Association, and the U.S. Chamber of Commerce. Additionally, we are founding members of a large transportation advocacy coalition, KEEP CT MOVING, that is a broad-based group modeled after the Americans For Transportation Mobility coalition that is led by the U.S. Chamber of Commerce. KEEP CT MOVING members include industry associations, organized labor, and the major Chambers of Commerce in Connecticut.

I am testifying today solely in my capacity as president of CCIA.

Infrastructure investments drive economic growth

Mr. Chairman, I commend you and the Members of this Committee for convening today's hearing on how infrastructure investment can help generate American jobs and strengthen the U.S. economy. There are few things the public sector can do that rival the short-term and long-term benefits of boosting infrastructure investment. The 2008 and 2009 debate on an economic stimulus package proves this point, as the potential of infrastructure investment to facilitate economic recovery was widely endorsed by both parties, with only the immediacy of these impacts questioned by some. As later parts of my testimony will demonstrate, the American Recovery and Reinvestment Act's (Recovery Act) transportation investments have delivered profound results for our community and the entire country over the last 18 months.

The benefits of investing in infrastructure are basically two-fold. First, those investments create well-paying jobs for skilled workers who are sitting idle in a sector of the economy that has been hit hardest by the economic downturn. Second, those investments rebuild infrastructure that is falling into disrepair and expand capacity to improve mobility. Investments in transportation infrastructure drive the long run growth, productivity, and competitiveness of the American economy.

The U.S. economy is a vast network of businesses that produce goods and services for America's 115 million households, for export to foreign countries, or for use by other businesses. The tie that binds these businesses to their customers, suppliers and workers is the U.S. transportation network. Each year, almost 80 percent of the value of freight shipments in the U.S. is carried by trucks along the Nation's highways.

CCIA has an active working-relationship with the U.S. Chamber of Commerce, and local Chambers of Commerce across Connecticut. We hear constantly from the business community that manufactured goods and cargo move through the United States on a system primarily consisting of ports, roads, rail, and inland waterways. The supply chain is viewed from initial point of origin to the final destination with frequent junctures in between. To keep competitive domestically and internationally, many U.S. businesses have developed complex logistics systems to minimize inventory and ensure maximum efficiency of their supply chains. However, as congestion increases throughout the U.S. transportation system, these supply chains and cargo shipments are frequently disrupted and the cost of business increases.

Another priority message from business is that traffic congestion threatens its ability to attract and retain employees. Employers in all industries rely on transportation systems to connect them with their workforce and connect that workforce with suppliers and customers around the country and the world. In Connecticut, the rising cost of living in certain areas is pushing workers farther from their place of employment, increasing commute times and costs. The business community constantly reminds us that increasing congestion is disrupting the important connection with their workforce and imposing additional costs on the workforce and employers alike.

To the business community, infrastructure investments: improve competitiveness because of reduced production and distribution costs as a result of increased travel speeds and fewer mobility barriers; give employees access to higher-paying jobs; and improve regional economic competitiveness, which stimulates job growth to support an increasing population.

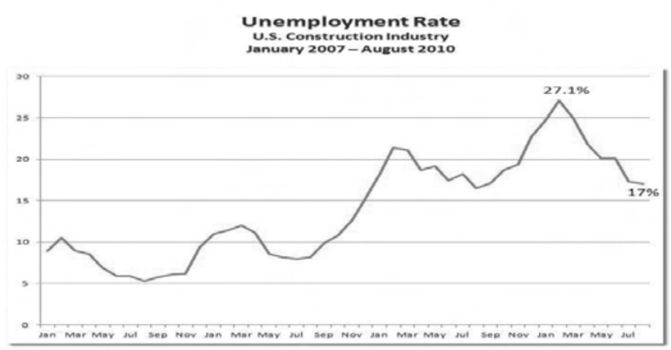
For example: the Stamford Chamber of Commerce identifies Stamford as the economic engine of Connecticut. According to the Chamber, Stamford is the largest business center in the State, and with present development plans under construction, it will be the largest city in the State. Stamford is the largest international trade center between New York and Boston. The Chamber tells us that the biggest challenge to Stamford's economic growth is the out-dated transportation infrastructure and mounting congestion in all modes of transportation that is becoming a barrier the region.

The foundation of a modern economy is a transportation system that moves people and freight efficiently, safely, and on time. This lesson was learned during the 1960s and 1970s when construction of the Interstate Highway System allowed American firms to access a nationwide market and take advantage of scale economies that yielded significant increases in productivity.

The construction industry can play a significant role in economic growth. Employing local workers and using local materials to improve our infrastructure is an excellent combination to drive economic growth. Unfortunately, the pervasive uncertainty about future investments by Federal and State governments and the private sector is stalling many infrastructure projects.

A skilled workforce, that is a powerful economic engine, is idle

The construction industry workforce today is faced with its worst economic crisis since the Great Depression. This past winter, 23 percent of construction workers were unemployed. In August, the peak of the construction season, the unemployment rate was still 17 percent. Before the recession, the unemployment rate for construction workers was less than 6 percent. According to the Bureau of Labor Statistics, there were 7.7 million workers employed in construction in August 2006. This August, there were only 5.6 million employed, a loss of more than 2.1 million construction jobs. To put this in perspective, almost one-third of all the jobs lost in the United States during the 2007–2009 recession were construction jobs. Contractors are reluctant to hire new employees and purchase new equipment with few prospects of work in the near future. The reality of the construction industry is that most jobs exist only if the companies have sufficient work. The last thing our members want to do is hire and train new employees when they may not be able to keep them on the payroll. The following graph charts construction unemployment over the past 32 months.



Source: Bureau of Labor Statistics

Labor unions in Connecticut have reported 20–30 percent unemployment this year. One union has reported that unemployment increased over 2009 figures, even with the additional funding provided by the Recovery Act. Many union members struggle to work the number of hours needed to maintain their benefits over the course of the year. Contractors and suppliers are rotating employees and mandating furloughs to maintain continuity in the workforce.

In addition to the economic downturn, construction employment is suffering from the direct impact of the uncertainty, being caused by lack of Federal long-term surface transportation funding legislation, that is paralyzing State Department of Transportations. Since SAFETEA–LU expired on September 30, 2009, State transportation agencies have been restricting their programs to compensate for the lack of a stable, predictable funding stream. During the delay of reauthorizing the last surface transportation legislation, from 2003 to 2005, there was an abundance of private projects, and other public projects to keep contractors working while State DOT's constricted their programs. Today, we are in a delay period for reauthorization, and there is little other work available. We expect the economic impacts in terms of job loss and industry contraction to be much more significant in 2010–2011 than during the 2003–2005 period.

Contractors also have significant excess capacity. According to the quarterly construction market survey conducted by the American Road and Transportation Builders Association, only 3 percent of transportation construction firms are currently operating at full capacity, compared to a normal rate of 15 percent. At the other end of the scale, 45 percent of contractors are operating at less than three-quarters of capacity, compared to a normal rate of 10 percent. Even with $20 billion of Recovery Act highway projects underway, the industry could undertake far more construction work than is currently available.

This available labor force and industry capacity can be an economic engine. Every $1 billion invested in nonresidential construction adds $3.4 billion to Gross Domestic Product (GDP) and $1.1 billion to personal earnings according to the Associated General Contractors of America. The Federal Highway Administration calculates that every $1 billion invested in highway and bridge improvements creates or sustains 27,823 jobs. Approximately one-third (9,537) of these jobs are on-site construction jobs in the State of investment. Another one-sixth (4,324) are in industries that supply materials and services used in highway and bridge construction. Most of these jobs would be in-State depending on the project and mix of in-State suppliers. About half (13,962) of the jobs would be induced jobs created when the construction and supplier workers and owners spend their additional incomes. These jobs would be a mix of in-State and out-of-State jobs. Conversely, investments elsewhere would support some jobs in-State.

There is no shorter line between unemployment and a job than a construction project. There are millions of skilled trades-people across the country who are out of work and stand ready to return—many of whom could report back to work on one-day's notice. Construction jobs on public projects offer people the opportunity to earn a decent living, obtain quality health benefits, and save for retirement. However, contractors and construction workers are in a holding pattern while State transportation departments adjust to a lack of funding certainty and search for funding.

The Nation has tremendous transportation needs

A 2010 National State of Good Repair Assessment conducted by FTA reports that:

- Nine percent of America's rail assets are in poor condition and 17 percent of are in marginal condition.
- Nine percent of America's bus assets are in poor condition and 32 percent are in marginal condition.

TRIP, a national research group, reports that:

- Thirty-two percent of America's major roads are in poor or mediocre condition.
- Twenty-five percent of America's bridges are structurally deficient or functionally obsolete.
- Forty-four percent of America's major urban highways are congested.

Connecticut has similar needs. TRIP reports:

- In 2008, thirteen percent of Connecticut's major roads were rated in poor condition and 32 percent were rated in mediocre condition.
- Nine percent of Connecticut's bridges were structurally deficient in 2009.
- Twenty-five percent of Connecticut's bridges were functionally obsolete in 2009.
- In 2008, fifty-eight percent of Connecticut's urban Interstates and other highways or freeways were considered congested.

And these are only surface transportation needs. We must also modernize the air traffic control system, expand capacity at our airports and on freight rail lines, improve connections to ports and increase the reliability of the inland waterways system.

Significant funding is needed to meet those needs

Two congressionally appointed commissions have recommended a broad overhaul of the Federal Surface Transportation Program to improve mobility, safety and the physical condition of the Nation's surface transportation system by significantly increasing funding. The National Surface Transportation Policy and Revenue Study Commission (NSTPRSC) and the National Surface Transportation Infrastructure Financing Commission (NSTIFC) were created by Congress to examine the current condition and future funding needs of the Nation's surface transportation program, develop a plan to insure the Nation's surface transportation system meets America's future mobility needs, and to recommend future funding mechanisms to pay for the preservation and improvement of the Nation's roads, highways, bridges and public transit systems.

- The NSTPRSC concluded that it is critical to the future quality of life of Americans that the Nation create and sustain the preeminent surface transportation system in the world, one that is well-maintained, safe and reliable.
- The NSTIFC found that the U.S. faces a $2.3 trillion funding shortfall over the next 25 years in maintaining and making needed improvements to the Nation's surface transportation system.

The U.S. Department of Transportation issues reports on the Conditions and Performance of the Nation's Highways, Bridges and Transit, in which it calculates the annual investment that all levels of government would have to make both to maintain current conditions and improve conditions.

The 2008 Conditions and Performance Report issued by the U.S. Department of Transportation included data on the cost to maintain and improve the Nation's mass transit systems, including both bus and rail-based transit. When combined with data on recent cost increases and traditional Federal share, the report indicates that a Federal transit program of $12 to $14 billion annually between FY2011 and 2016 would maintain conditions while $17 to $19 billion would be needed to improve conditions. In FY2010, total funding for the public transportation program was just over $10 billion. For FY2011 through 2016, Transit Account revenues are projected to be about $5.5 billion per year, less than half the amount needed just to preserve existing conditions.

The latest report, which was issued in January 2009, provides data on the average annual investment that would be needed between 2006 and 2026 both to maintain conditions and improve conditions on our Nation's highways. When combined with information on recent increases in highway construction costs and the traditional Federal share of highway investment, the report shows that funding for the Federal highway program in the next surface transportation authorization bill should be in the range of $71 to $78 billion per year just to maintain current highway and bridge conditions. The annual Federal investment needed to improve conditions would be even higher. By contrast, Federal highway investment in fiscal year 2010 is $41.1 billion, a shortfall of more than $30 billion for just keeping the *status quo*.

The massive gap between Federal highway investment and needs is shown on a State by State basis in the following Table that was provided by the American Road and Transportation Builders Association. For example, the table shows that Connecticut would need an annual Federal investment of just over $627 million as the Federal share of the cost to maintain conditions and performance on the State's highways and bridges.[1] In FY2010, the State received about two-thirds of that amount. Alabama also received fewer Federal highway funds than needed just to maintain current highway and bridge conditions, as did almost every other State. The table also shows that the one-time highway stimulus funds in the American Recovery and Reinvestment Act, while helpful in the short-term, come nowhere near filling the long-term Federal highway investment shortfall, leaving a shortage that threatens to cripple the systems that provide the mobility that is essential to support our economy and quality of life.

[1] State investment needs are based on Federal Highway Administration data on the number of highway miles in poor or mediocre condition in each State, the total deck area of deficient bridges in each State, and a measure of highway congestion.

Table 1 - Federal Highway Program Funding versus Federal Share of Highway Investment Needs
(Millions of dollars)

State	Highway Program Apportionment FY 2010	Federal Share of Annual State Highway Investment Needs, FY 2010 /1 Maintain Conditions	Improve Conditions	ARRA Highway Stimulus Funds /2 FY 2009-10
Alabama	$700.3	$840.7	$1,222.5	$513.7
Alaska	$374.6	$166.8	$236.6	$175.5
Arizona	$685.2	$734.4	$1,126.3	$522.0
Arkansas	$453.8	$1,294.0	$1,824.0	$351.5
California	$3,265.8	$8,217.3	$12,141.4	$2,569.6
Colorado	$487.0	$836.3	$1,266.7	$403.9
Connecticut	$452.1	$627.6	$952.2	$302.1
Delaware	$146.8	$140.8	$214.3	$121.8
Dist. of Col	$142.8	$165.4	$240.6	$123.5
Florida	$1,750.4	$1,955.8	$3,133.1	$1,346.7
Georgia	$1,191.4	$1,266.9	$1,957.4	$931.6
Hawaii	$151.8	$176.5	$251.0	$125.7
Idaho	$260.7	$697.2	$968.5	$181.9
Illinois	$1,259.8	$2,208.5	$3,240.0	$935.6
Indiana	$881.9	$1,152.7	$1,725.1	$658.0
Iowa	$431.4	$875.1	$1,196.3	$358.2
Kansas	$349.0	$1,672.7	$2,297.2	$347.8
Kentucky	$606.7	$609.8	$940.3	$421.1
Louisiana	$611.0	$1,408.8	$2,005.2	$429.9
Maine	$163.5	$270.8	$365.8	$130.8
Maryland	$551.7	$973.5	$1,437.5	$431.0
Massachusetts	$563.0	$1,047.7	$1,598.8	$437.9
Michigan	$973.7	$2,010.1	$2,899.6	$847.2
Minnesota	$569.9	$1,656.5	$2,449.1	$502.3
Mississippi	$427.0	$966.9	$1,366.6	$356.3
Missouri	$828.0	$2,039.9	$2,906.2	$637.5
Montana	$340.7	$176.1	$238.1	$211.8
Nebraska	$264.0	$406.4	$568.5	$235.6
Nevada	$309.4	$385.7	$603.9	$201.4
New Hampshire	$153.3	$280.3	$421.5	$129.4
New jersey	$911.5	$2,127.0	$3,193.0	$651.8
New Mexico	$328.9	$778.8	$1,103.8	$252.6
New York	$1,539.8	$3,282.3	$4,887.6	$1,120.7
North Carolina	$966.9	$2,062.3	$3,262.1	$735.5
North Dakota	$224.7	$247.0	$338.3	$170.1
Ohio	$1,210.0	$1,254.0	$1,876.3	$935.7
Oklahoma	$565.0	$1,849.5	$2,493.4	$464.7
Oregon	$430.6	$647.9	$974.6	$333.9
Pennsylvania	$1,519.7	$2,722.6	$3,958.7	$1,026.4
Rhode Island	$189.5	$187.7	$269.4	$137.1
South Carolina	$575.8	$589.6	$780.9	$465.1
South Dakota	$244.1	$407.4	$543.1	$183.0
Tennessee	$753.6	$1,087.8	$1,688.8	$572.7
Texas	$2,941.3	$4,664.0	$6,986.8	$2,250.0
Utah	$288.0	$460.0	$730.7	$215.5
Vermont	$168.3	$216.8	$300.0	$125.8
Virginia	$913.4	$850.1	$1,258.7	$694.5
Washington	$599.6	$1,092.3	$1,604.9	$492.2
West Virginia	$384.5	$871.3	$1,260.2	$210.9
Wisconsin	$678.8	$874.9	$1,164.7	$529.1
Wyoming	$226.0	$166.3	$235.8	$157.6
Total	$35,006.9	$61,701.0	$90,706.2	$26,666.1

1/ The "Needs" column shows investment required in FY 2010. The amounts would grow each year with inflation.

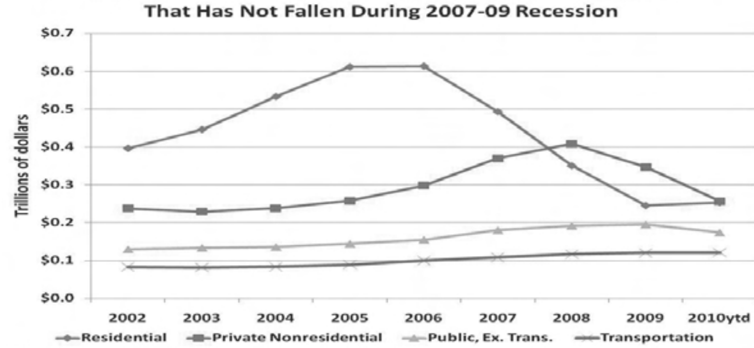
2/ ARRA is one-time funding only during FY 2009-10 and thus not available to meet needs in future years.

In January 2010, the Connecticut Department of Transportation released an analysis that identifies approximately $4 billion of unfunded initiatives in our public transit, highway, and bridge systems that were programmed over the next 5 years. The Department based its analysis on what it described as a tremendous uncertainty surrounding the passage of long-term surface transportation measure which has significant implications on the Department's ability to plan and execute its transportation infrastructure program. In the analysis, ConnDOT identifies 49 unfunded projects that were programmed for 2010, 102 unfunded projects programmed for 2011, 36 unfunded projects programmed for 2012, 17 unfunded projects programmed for 2013, and 16 unfunded projects programmed for 2014. Additionally, the analysis identified over $8 billion in additional major long-term unfundable initiatives in the transit, highway, and bridge programs.

ARRA's major impact on the Nation's transportation needs is ending

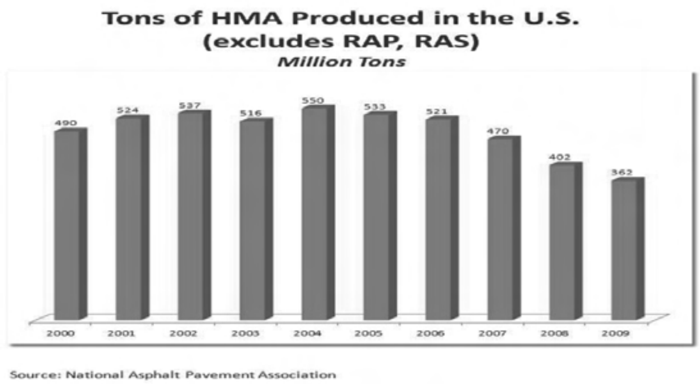
The American Recovery and Reinvestment Act's transportation investments have been one of the few bright spots for the transportation construction industry. Virtually all of the projects financed by the Act's $48 billion for transportation improvements are now either underway or completed. As a result, transportation construction is the only major construction market that did not decline during the 2007–09 recession. As the next graph shows, the value of construction work put in place on homebuilding is now more than 60 percent below its prerecession peak, while private nonresidential construction is down 25 percent and public construction other than transportation is down more than 10 percent. But the value of construction work put in place on transportation improvements has not fallen. It is clear the construction industry could very well have been devastated over this construction season without the Recovery Act projects stabilizing the workload.

Fig 1 - Transportation Is Only Major Construction Activity That Has Not Fallen During 2007-09 Recession



Source: U.S. Census Bureau and ARTBA, Value of Construction Put in Place data

The Recovery Act has mitigated a steep drop in construction activity in the residential and commercial sectors of the industry. For example: in the asphalt industry, over a third of the total market was comprised of homebuilding and commercial construction projects. When those market segments were devastated by the economic downturn, the loss was somewhat offset by the gains provided by the Recovery Act. In the cement and concrete industries, where those market segments comprise a larger part of the total market, the resulting loss was greater. In turn, the aggregates industry (stone, sand, and gravel) suffered major market losses. The following chart shows that even with the Recovery Act there was a downturn in the asphalt market.



While the Recovery Act funds have had a positive stabilizing impact on the construction marketplace, those resources are coming to an end. We believe the momentum generated by ARRA will be lost if Congress fails to find revenue sources to support a well-funded, multiyear surface transportation authorization bill. A robust multiyear bill is the best step that can be taken to alleviate the uncertainty that prevents State DOTs from planning and undertaking projects and driving America's economic recovery and growth.

Unfortunately, the Federal public transportation and highway programs are currently in a state of limbo and have been operating under a series of short-term extensions since the last bill expired almost a year ago. The delay periods during the reauthorization of the last two Federal surface transportation measures show that States rely heavily on continuing and guaranteed funding from the Federal Government. As stated earlier, uncertainty in Federal transportation funding stifles State transportation programs which stalls the delivery of much needed infrastructure, disrupts hiring and equipment purchases, interrupts steady employment, fosters inconsistent training, and causes the loss of highly skilled employees. In short, this shuts-down a large economic engine.

A comprehensive long-term reauthorization bill is needed

We were greatly pleased to see President Obama's recent call for enactment of a 6-year reauthorization of the Federal public transportation and highway programs. We believe that enactment of a multiyear surface transportation bill would be a true economic stimulus.

As welcome as the President's commitment to prompt enactment of a reauthorization bill is, we recognize there is still a long path ahead of us. The 2005 reauthorization bill included surface transportation investment levels well beyond what existing revenues could support and included no new resources. As a result, the Highway Trust Fund surplus was liquidated over a 4-year period and this structural draw down was exacerbated by the worsening economy.

The Mass Transit and Highway Accounts face cash crises in the years ahead. This means Congress is now faced with three very difficult funding alternatives for the next bill:

- scale back transit and highway investments to currently supportable levels and, in so doing, force the loss of hundreds of thousands of construction industry jobs;
- further add to the Federal deficit to support future transportation investments; or
- raise new revenues.

CCIA supports raising new revenues. While I fully appreciate the challenges this situation presents for elected officials, I would be remiss in not pointing out that only through dedicated revenues can contract authority and other mechanisms that provide States the certainty to move forward with long-term transportation plans be retained. Clearly, the core of an effective national surface transportation program must be a stable, guaranteed, long-term revenue source.

Given the inherent financing challenge facing the reauthorization of the Federal surface transportation program, we fully acknowledge the importance of being open to new ways to meeting the Nation's transportation infrastructure challenges.

An Infrastructure Bank could be part of the solution

A National Infrastructure Bank proposal is one of a number of proposals that has been suggested by both of the federally chartered commissions mentioned above and many transportation interests. An Infrastructure Bank would provide funding for many megaprojects that are not easily supported through the existing Federal public transportation and highway programs. It would enhance a long-term stable funding source, by providing new funding for projects, which would leave more funding in the core stable and dependable transportation formula programs.

In Connecticut, several megaprojects are currently devouring the State's transportation program. If one or two of those projects had been funded by an Infrastructure Bank, more resources would be available through the core program and the State would be in a better position to meet its maintenance and expansion needs. Additionally, there are many other megaprojects that ConnDOT has identified with no funding sources. An Infrastructure Bank may be the ideal funding mechanism for one or more of those projects, which may not otherwise be delivered in the future.

An Infrastructure Bank could provide several benefits. It could fill a clear void that exists in Federal transportation policy to support large-scale projects that provide service beyond the border of an individual State. An Infrastructure Bank could bring more revenue from State, local, and private sources into the infrastructure funding scheme. For example, if the amount of financial participation from State, local, and private sources is one of the criteria included in project selection process, an Infrastructure Bank could create competition that will draw new investments into transportation funding programs. Likewise, the competitive process created under an Infrastructure Bank would ensure the best projects move forward. As such, we urge Congress and the Obama Administration to pursue an Infrastructure Bank as a supplement to robust Federal public transportation and highway programs. The additional funding generated by the bank would leave more of the stable core program funding in place to meet basic needs.

My discussion today has focused mainly on transportation infrastructure. However, the concept of infrastructure bank funding for large-scale projects may also lend itself to other applications, such as Clean Water projects that are facing similar funding challenges. The U.S. Environmental Protection Agency estimates we could need as much as $390 billion each year over the next 20 years to repair obsolete drinking water and waste water systems. In Connecticut, the Metropolitan District Commission is currently administering a billion dollar Clean Water project to separate sanitary sewer and storm water lines. There are likely many similar projects in cities and towns in Connecticut and across the country in need of funding.

Mr. Chairman, we commend you for the time you and your staff have invested in advancing the creation of a National Infrastructure Bank. We believe there is substantial potential in an Infrastructure Bank to leverage new infrastructure dollars and create a new merit-based process to select and deliver much-needed upgrades to our transportation systems. We stand ready to work with you as these proposals develop.

Again, thank you Mr. Chairman for this opportunity to testify today. This discussion is important to putting the Federal-Aid Public Transportation and Highway Programs on a solid foundation of fiscal stability.

I will be happy to respond to any questions.

RESPONSES TO WRITTEN QUESTIONS OF CHAIRMAN DODD FROM ROY KIENITZ

Q.1. *Ideal Time to Invest in Infrastructure.* I have heard that given today's low interest rates and the excess capacity available in the construction industry that now is an ideal time to be investing in infrastructure. Please comment on the efficiencies that we can realize by increasing our Nation's investment in infrastructure right now, in the midst of the current economic downturn.

A.1. This is indeed a good time to take advantage of abundant underused resources to close part of the Nation's infrastructure gap. As the Department of the Treasury and the Council of Economic Advisers noted in their report on infrastructure investment on October 11, 2010, the unemployment rate in the construction industry is currently over 17 percent, so abundant human resources are available. Many are also unemployed in supporting industries, such as steel and cement manufacture. As a result, construction costs for infrastructure investment are unusually low. Our experience with Recovery Act funding has shown that many projects were built for less than the estimated construction cost. Among our $1.1 billion in aviation investments, for example, winning bids for the projects came in $200 million below their initial engineering estimates. As a result, more than 2,000 additional airport, highway, bridge, and transit projects were funded because other projects were being completed under budget. Finally, interest rates on high-grade municipal bonds are down 82 basis points from 2008, further reducing the costs of investing in infrastructure.

Q.2. *Merit-Driven Selection Process.* One of the benefits of creating a National Infrastructure Bank is the fact that we create a competitive, merit-driven process that leads to selection of those projects with the best returns. How can we design a bank to ensure that we make the best use of Federal dollars and fund the projects with the highest rates of return and the greatest public benefits?

A.2. We believe that our selection process for the TIGER Grants program that was created under the Recovery Act provides a good model for how a merit-driven selection process might work. In that program, we received over 1,400 grant applications, totaling over $59 billion in requested funding, for a $1.5 billion program. We organized teams of technical experts—with each team including experts from several modal administrations—to provide a preliminary review of the applications and to select the best 10 percent as "highly recommended" for further review. We had required that each application provide a detailed discussion of the benefits that it would achieve, including a detailed benefit-cost analysis for projects over $100 million. A team of economists critically reviewed the benefit-cost analyses for the highly recommended projects, and provided its conclusions, along with the conclusions of the technical experts, to a senior review team comprising the Department's senior management from each of its modal administrations. The senior review team made its recommendations to the Secretary, who made the final selection decisions. This process worked effectively because it drew heavily on the technical expertise of the Department's career staff, combined with the common sense judgment and wide experience of the Department's senior management, as well as the ultimate accountability of final selection by the Secretary. The process also worked because we required applicants to make use of economic analysis to provide a common measuring stick for comparing disparate projects. While we exempted smaller projects from the benefit-cost analysis requirement in the first round of TIGER Grants, our experience was that even applications for small projects often were able to put together very capable benefit-cost analyses; as a result, in the second round of TIGER Grants that were awarded in October 2010, we required all applications to include a benefit-cost analysis.

Q.3. *Leveraging.* One of the goals of an infrastructure bank is to leverage new State, local, and private funding. Some studies have found that previous increases in Federal transportation funding have led to reduced State and local funding. How can we best design an infrastructure bank to ensure that it leverages new public and private funding rather than simply substituting for existing funding?

A.3. It is true that previous studies have found that States curtail their own spending on infrastructure when the Federal Government increases its spending. A GAO report in 2004, for example, found that since 1982 States had reduced their spending on highways by about 50 percent of the Federal increase in spending on highways, and that this rate of fiscal substitution had increased during the 1990s. In the TIGER Grant program, we looked closely at the extent to which States, cities, transportation authorities, and private firms were contributing to the costs of the projects for which TIGER Grant funding was sought. We did this partly because we wanted to increase the number of projects that could be funded, and partly because we thought that projects that had attracted funding from local authorities and private firms were more likely to have high benefits than projects that had not. In many cases we awarded less funding than the applicant had originally requested, strengthening the incentive for local authorities to increase their contributions. An infrastructure bank that has flexible authority to issue both grants and loans can structure its assistance so as to leverage funding from several sources—State and local taxes, user fees, and private sector contributions—and increase the number of projects that can be funded with a given level of resources. Careful economic analysis can also identify how the benefits of a project are distributed and suggest what would be a fair distribution of the costs of funding the project.

RESPONSES TO WRITTEN QUESTIONS OF CHAIRMAN DODD FROM ALAN B. KRUEGER

Q.1. *Ideal Time To Invest in Infrastructure.* I have heard that given today's low interest rates and the excess capacity available in the construction industry that now is an ideal time to be investing in infrastructure. Please comment on the efficiencies that we can realize by increasing our Nation's investment in infrastructure right now, in the midst of the current economic downturn.

A.1. There is currently a large group of unemployed and underemployed labor available to improve our infrastructure. Building more roads, bridges, and rail tracks would help the segment of workers that was most disproportionately affected by the economic crisis—construction and manufacturing workers. The Treasury Department, with the Council of Economic Advisers, recently issued a report which addressed this topic in greater detail. I am enclosing a full copy of the report for the record.

Due to the collapse of the real estate market, the contraction of employment in the construction industry was especially acute. Since December 2007, the construction industry has lost 25 percent of its total payroll jobs, dropping from 7.5 million to 5.6 million employees. In September 2010, the unemployment rate for construction workers stood at 17.2 percent; over three times the rate from 3 years ago, and almost double the overall unemployment rate. Accelerated infrastructure investment would provide an opportunity for construction workers to productively apply their skills and experience. Moreover, hiring currently unemployed construction workers would require lower training costs for firms than would be incurred by hiring workers during normal times, because these workers already have the requisite skills and experience in construction.

The excess supply of construction workers is one of many factors making current construction costs low, which in turn leads to lower project costs. For example, the Federal Aviation Administration received $1.1 billion in Recovery Act funds for airport improvements. The money was designated for 300 projects. The winning bids for those projects came in over $200 million below the engineers' original estimates. A second round of projects was selected, which also received less expensive bids than had been anticipated. As a result of these cost savings, 367 runway and airport improvement projects were funded with the same amount of money that was originally intended to support 300 projects.

Q.2. *Merit-Driven Selection Process.* One of the benefits of creating a National Infrastructure Bank is the fact that we create a competitive, merit-driven process that leads to selection of those projects with the best returns. How can we design a bank to ensure that we make the best use of Federal dollars and fund the projects with the highest rates of return and the greatest public benefits?

A.2. Transportation investment by the Federal Government has rarely been made through a competitive process. To address the lack of merit-based funding, the National Infrastructure Bank would develop a framework to analytically examine potential infrastructure projects based on cost-benefit analysis and to understand the distributional impact of both the costs and the benefits of each project. Of course, not all of the benefits and costs can be quantified, but an effort should be made to quantify what can be quantified and to take account of any additional benefits and costs to society. A rigorous analytic process would result in support for projects that yield the greatest returns to society, and would avoid investing taxpayer dollars in projects where costs exceed total benefits.

This is a difficult process given the inherent complexities involved in calculating the benefits from investment in transportation infrastructure. As I mentioned in my testimony, even calculating the full costs of congestion is very difficult. The Department of Transportation has begun a competitive multimodal transportation grant program, the TIGER program, which was started under the Recovery Act and subsequently continued through additional Congressional funding. DOT is planning to gather data on the actual benefits of their TIGER Grant projects so that they can find out how closely the actual benefits correspond to the benefits anticipated in the benefit-cost analyses. I support this effort to see what lessons can be learned from the experience of the TIGER program to develop procedures for a National Infrastructure Bank.

Finally, I recommend that when considering the costs and benefits of project proposals, the Bank should take into account the effects that infrastructure investments will have throughout the network connected to these investments. Specifically, the Bank ought not only to consider the costs and benefits that accrue in the area where the infrastructure project takes place, but also track the costs and benefits attributable to investments away from the project site. For example, a significant improvement in the connection between a port and a freight rail line will also benefit those who use that route to export goods. The National Infrastructure Bank should consider all the costs and benefits when considering project proposals—not just localized costs and benefits at the project site.

Q.3. *Effects of Prolonged Unemployment.* Prolonged unemployment can have significant negative impacts on construction workers and the construction industry. Can you discuss what impacts prolonged unemployment can have on the skills of construction workers and the long-term impacts of substantial prolonged unemployment on the construction industry?

A.3. The construction industry was hit particularly hard by the economic downturn. We have conducted analysis which suggests that 61 percent of the jobs created by investing in infrastructure would be in the construction sector, 12 percent would be in the manufacturing sector, and 7 percent would be in retail trade, for a total of 80 percent in these three sectors. Nearly 90 percent of the jobs in the three sectors most affected by infrastructure spending would be middle class jobs, defined as those between the 25th and 75th percentile in national distribution of wages. Overall, the average unemployment rate among those who would be put to work by additional investment in infrastructure is currently over 15 percent, more than one and one-half times the national unemployment rate.

Research by Laurence Ball of Johns Hopkins University, who analyzed unemployment in OECD countries, finds that prolonged recessions can produce persistently high unemployment, even after the recession is over—a phenomenon known as hysteresis. [1] At a microeconomic level, unemployment has been found to be associated with health problems, illness, and depression. [2] Moreover, research by Andrew Clark and others finds that unemployment has a "scarring" effect; unemployment spells lower the reported life sat-

[1] *See,* Laurence Ball, "Aggregate Demand and Long-Run Unemployment", Brookings Papers on Economic Activity, 1999(2), pp. 189–251; and Laurence Ball, "Disinflation and the NAIRU" (1997), in *Reducing Inflation: Motivation and Strategy,* edited by Christina Romer and David Romer, Univ. of Chicago Press.

[2] Linn, Margaret W., Richard Sandifer, and Shayna Stein, "Effects of Unemployment on Mental and Physical Health", *American Journal of Public Health,* 75(5):502 (1985).

isfaction of those who return to work even after they become reemployed.[3]

Q.4. *Public–Private Partnerships.* What is the potential for public–private partnership in infrastructure? What is the evidence that private capital is available for the kinds of significant regional projects that the NIB would be designed to support?

A.4. Experience suggests that there is enormous potential for public–private partnership in infrastructure, and private capital is available and ready to invest in transportation infrastructure. For example, the Recovery Act established a number of new and expanded bond financing programs to enable State and local governments to borrow at lower costs for capital projects, including Build America Bonds (BABs), which have been very successful. Prior to the introduction of BABs, the traditional tax-exempt municipal bond market was frozen. In March 2009, highly rated issuers faced borrowing costs that were higher than taxable Treasury yields, even though their bonds were tax-exempt, and many issuers were unable to access financing at any price. Then in April 2009, the BABs program was introduced. This program made municipal bonds attractive to a wide variety of new investors—including pension funds, sovereign wealth funds, and retail investors in lower tax brackets. Since the program's inception in April 2009, State and local governments have now issued more than $150 billion in BABs and saved billions of dollars in financing costs.[4] The success of the BABs program demonstrates strong private investor interest in infrastructure financing.

As Governor Rendell stated in his testimony, there are billions of dollars in private investment funds that are waiting to be invested in the United States. Moreover, as Robert Wolf stated at the hearing, "Preqin, a private equity industry consultant, estimates that there is over $180 billion dollars of private equity and pension fund capital focused on infrastructure equity investments. This capital can play an important role in bridging State and local budget gaps."

[3] Clark, Andrew E., Yannis Georgellis, and Peter Sanfey, "The Psychological Impact of Past Unemployment", *Economica,* 68(270):221–241 (2001).

[4] This figure is for BABs issuances from April 2009 to October 31, 2010.

AN ECONOMIC ANALYSIS OF INFRASTRUCTURE INVESTMENT

THE DEPARTMENT OF THE TREASURY
WITH THE COUNCIL OF ECONOMIC ADVISERS

OCTOBER 11, 2010

An Economic Analysis of Infrastructure Investment

A Report Prepared by the Department of the Treasury

with the Council of Economic Advisers

October 11, 2010

Executive Summary

On Labor Day, President Obama announced a bold plan to renew and expand America's infrastructure. The plan includes a $50 billion up-front investment connected to a six-year reauthorization of the surface transportation program and the creation of a National Infrastructure Bank to leverage private capital and select projects of regional and national significance. The Department of the Treasury, with the Council of Economic Advisers, has conducted an analysis of the economic effects of transportation infrastructure investment. Our analysis found four key reasons why now is an optimal time to increase our investment in transportation infrastructure:

- Well designed infrastructure investments have long term economic benefits;
- The middle class will benefit disproportionately from this investment;
- There is currently a high level of underutilized resources that can be used to improve and expand our infrastructure; and
- There is strong demand by the public and businesses for additional transportation infrastructure investments.

Return on Investment

- Many studies have found evidence of large private sector productivity gains from public infrastructure investments, in many cases with higher returns than private capital investment. Research has shown that well designed infrastructure investments can raise economic growth, productivity, and land values, while also providing significant positive spillovers to areas such as economic development, energy efficiency, public health and manufacturing.

- Not all infrastructure projects are worth the investment. Investing rationally in infrastructure is critically important, as is providing opportunities for the private sector to invest in public infrastructure. There is currently very little direct private investment in our nation's highway and transit systems due to the current method of funding infrastructure, which lacks effective mechanisms to attract and repay direct private investment in specific infrastructure projects. The establishment of a National Infrastructure Bank would create the conditions for greater private sector co-investment in infrastructure projects. A National Infrastructure Bank would also perform a rigorous analysis that would result in support for projects that yield the greatest returns to society and are most likely to deliver long-run economic benefits that justify the up-front investments.

Helping the Middle Class

- Investing in transportation infrastructure creates middle class jobs. Our analysis suggests that 61 percent of the jobs directly created by investing in infrastructure would be in the construction sector, 12 percent would be in the manufacturing sector, and 7 percent would be in retail trade, for a total of 80 percent in these three sectors. Nearly 90 percent of the jobs in the three sectors most affected by infrastructure spending would be middle class jobs, defined as those paying between the 25th and 75th percentile of the national distribution of wages.

- The President's proposal emphasizes transportation choices, including mass transit and high speed rail, to deliver the greatest long-term benefits to those who need it most: middle class families. The average American family spends more than $8,600 a year on transportation, one-third more than they spend on food. For the 90 percent of Americans who are not among the top decile in income, transportation costs absorb one out of every six dollars of income. This burden is due in large part to the lack of alternatives to expensive and often congested automobile travel. Multi-modal transportation investments are critical to get American families moving again without wasting their time and their money sitting in traffic.

Investing in Infrastructure Uses Underutilized Resources

- The average unemployment rate among those who gain employment as a result of additional investment in infrastructure is currently over 15 percent. This is more than one and one-half times the national unemployment rate. Within the construction sector, where the majority of direct employment occurs as a result of infrastructure investment, the unemployment rate is over 17 percent.

- Construction costs and other costs associated with building projects are especially low in the current environment. The Department of Transportation's (DOT) experience with Recovery Act funding has shown that more than 2,000 additional airport, highway, bridge and transit projects were funded because of low bids, or projects being completed under budget. DOT also reported that among its $1.1 billion in aviation investments, winning bids for the projects came in $200 million below their initial engineering estimates.

Americans Want Additional Investment

- As a result of years of under-investment in our transportation system, Americans' satisfaction with our public transit system, when compared to public satisfaction with public transit systems around the world, ranks 25th out of 32 OECD nations. While our nation has historically favored road building over public transit, we rank only 17th out of 32 -- in the middle of the pack -- with respect to our satisfaction with our roads and highways. The relatively higher satisfaction with roads and highways is consistent with the observation that our nation's historic investment pattern favored highways and roads over public transit.

- One study found that almost 19 out of 20 Americans are concerned about America's infrastructure and 84 percent support greater investment to address infrastructure problems.

An Economic Analysis of Infrastructure Investment

I. Introduction

On Labor Day, President Obama announced a bold plan to renew and expand America's infrastructure. This plan includes a $50 billion up-front investment connected to a six-year reauthorization of the surface transportation program and the creation of a National Infrastructure Bank. The President's plan would rebuild 150,000 miles of roads, construct and maintain 4,000 miles of passenger rail, rehabilitate or reconstruct 150 miles of runways while upgrading our outdated air traffic control system, bringing American aviation travel into the 21st century. This report considers various economic effects of infrastructure investments.

Public infrastructure is an essential part of the U.S. economy. Every day, Americans use our nation's transportation infrastructure to commute to work, visit their friends and family and travel freely around the country. Businesses depend on a well functioning infrastructure system to obtain their supplies, manage their inventories, and deliver their goods and services to market. This is true for companies whose businesses rely directly on the infrastructure system, such as UPS and CSX, as well as others whose businesses indirectly rely on the infrastructure system, such as farmers who use publicly funded infrastructure to ship crops to buyers, and dot.com companies that send goods purchased online to customers throughout the world. A modern transportation infrastructure network is necessary for our economy to function, and is a prerequisite for future growth. President Eisenhower's vision is even more relevant today than it was in 1955, when in his State of the Union Address he said, "A modern, efficient highway system is essential to meet the needs of our growing population, our expanding economy, and our national security." Today, that vision would include making not only our highways, but our nation's entire transportation system more efficient and effective.

Our analysis indicates that both demand- and supply-side factors support the conclusion that further infrastructure investments would be particularly timely and beneficial for the U.S. economy. First, estimates of economically justifiable investment, expert reports and public opinion indicate that American infrastructure is not keeping pace with the needs of our economy and the desires of the American people. Second, because of high unemployment in sectors such as construction that were especially hard hit by the bursting of the housing bubble, there are underutilized resources that can be used to build infrastructure. Moreover, states and municipalities typically fund a significant portion of infrastructure spending, but are currently strapped for cash; the federal government has a constructive role to play by stepping up to address the anticipated shortfall and provide more efficient financing mechanisms, such as Build America Bonds.

The President's plan addresses a significant and longstanding need for greater infrastructure investment in the United States. Targeted investments in America's transportation infrastructure would generate both short term and long term economic benefits. However, transforming and rehabilitating our nation's transportation infrastructure system will require not only greater investment but also more efficient use of resources, because simply increasing funding does not guarantee economic benefits. This idea is embodied in the President's proposal to reform our nation's transportation policy, as well as establish a National Infrastructure Bank, which will leverage private and other non-federal government resources to make wise investments in projects of regional and national significance.

In this report, we begin by reviewing *demand-side* factors that should influence investment in infrastructure. Next, we review evidence on *supply-side* factors, including the availability of workers with the requisite skills, which suggest that now is a particularly favorable time to initiate these investments.

II. Demand-Side Considerations

Long Run

The United States has a rich history of investing in infrastructure and reaping the long-term economic benefits. Influential research by David Aschauer and others has explored the link between public infrastructure investment and economic growth.[1,2,3] Many studies have found evidence of large private sector productivity gains from public infrastructure investments, in many cases with higher returns than private capital investment. A recent analysis by the Congressional Budget Office found that additional investment in infrastructure is among the most effective policy options for raising output and employment.[4] Since much of the public capital stock is owned by state and local authorities, more recent research has compared the economic benefits of infrastructure investments between regions in the U.S., generally finding smaller but economically significant benefits in comparison to Aschauer's estimates.[5]

Investments in infrastructure allow goods and services to be transported more quickly and at lower costs, resulting in both lower prices for consumers and increased profitability for firms.

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[1] Aschauer, David. "Is Public Expenditure Productive?" J. Monet. Econ., Mar. 1989a, 23(2), pp. 177-200.
[2] Aschauer, David. "Public Investment and Productivity Growth in the Group of Seven," Econ. Perspectives, 1989b, 13(5), pp. 17-25.
[3] Aschauer, David. "Does Public Capital Crowd Out Private Capital?"J . Monet. Econ., 1989c, 24(2), pp. 171- 88.
[4] Congressional Budget Office, "Policies for Increasing Economic Growth and Employment in the Short Term," January 2010.
[5] Munnell, Alicia H, 1992. "Infrastructure Investment and Economic Growth," Journal of Economic Perspectives, American Economic Association, vol. 6(4), pages 189-98, Fall.

Major transportation infrastructure initiatives include the building of the national railroad system in the 19th century and the creation of the Eisenhower Interstate System in the 1950s and 1960s. In these cases, many observers have concluded that there was a causal link running from infrastructure investments to subsequent private sector productivity gains.[6] Alternatively, it is possible that infrastructure investments occur when productivity gains are also likely to follow but for unrelated reasons. Determining causality is difficult.

A study by John Fernald makes progress on establishing causality by comparing the impact of infrastructure investment on industries that *a priori* should experience different benefits from infrastructure.[7] He finds that the construction of the interstate highway system in the 1960s corresponded with a significant increase in the productivity of vehicle-intensive industries (such as transportation and gas utilities), relative to industries that do not depend on vehicles (such as apparel and textiles and industrial machinery). Fernald's findings suggest that previous investments in infrastructure led to substantial productivity gains, and suggest the potential for further increases in productivity through additional, well targeted investment.

Another study by Climent Quintana-Domeque and Marco Gonzalez-Navarro makes progress on estimating the causal effect of infrastructure investment, using an experimental design.[8] Specifically, the study randomly assigned some roads to be paved and others to be in a control group in the Mexican city of Acayucan. Their analysis suggests that such infrastructure investment substantially raised housing values on the newly paved roads, which reflects an improvement in living standards, as well as provided benefits for home values on nearby streets. The rise in housing values on affected streets significantly exceeded the cost of paving.

Edward Gramlich argues that the greatest return on investment can be garnered from spending on maintenance of existing highways.[9] Citing data from the Congressional Budget Office, he finds an extremely high rate of return from bringing road conditions up to their minimum state of good repair. Interestingly, he also finds that improvements beyond the state of good repair are not associated with positive returns. Allocating maintenance dollars to where they are most needed is likely to generate high rates of return and improve safety, suggesting that our spending on infrastructure going forward should prioritize funding roads that are in a state of disrepair.

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[6] Munnell, Alicia H, 1992. "Infrastructure Investment and Economic Growth," Journal of Economic Perspectives, American Economic Association, vol. 6(4), pages 189-98, Fall.
[7] Fernald, John G., "Roads to Prosperity? Assessing the Link Between Public Capital and Productivity," *The American Economic Review,* Vol. 89, No. 3 (Jun., 1999), pp. 619-638
[8] Quintana-Domeque, Climent and Marco Gonzalez-Navarro, "Street Pavement: Results from an Infrastructure Experiment in Mexico," Industrial Relations Section, Princeton University, Working Paper No. 556, (Jul., 2010)
[9] Gramlich, Edward, "Infrastructure Investment: A Review Essay," *Journal of Economic Literature*, Vol. 32, No. 3 (Sept., 1993), pp. 1176-1196

Not surprisingly, the literature suggests that the economic benefits from various infrastructure projects vary widely.[10,11] Additionally, even if previous infrastructure investments had economic benefits, it is not clear that policymakers should expect the same rate of return for subsequent infrastructure investments. This is especially true when one considers the network effects that are associated with the creation of original transportation networks. We must continue to take advantage of new investment opportunities made available by technological progress and be mindful of the fact that at some point, the economy reaches the point of diminishing returns from further investments in a particular area. As Fernald observed, "Building an interstate network might be very productive; building a second network may not."[12]

The merits of infrastructure investments must also be considered alongside projections of population growth, trading patterns and expected changes in American lifestyles. As the economy and population grow, infrastructure resources will be stretched thinner as existing systems age and additional needs for new systems arise. With the American population expected to grow to over 400 million people by 2050 and interstate commerce expected to grow as well, targeted infrastructure investments can be one strategic tool that policymakers use to prepare for the future.[13]

American firms rely on infrastructure to manage their supply chain and transport goods to the point of sale. Investments in transportation infrastructure will allow firms in all 50 states to have the opportunity to benefit from growth in foreign markets. Exports account for 7 percent of total U.S. employment; smart investments in infrastructure have the potential to create more jobs in export-oriented U.S. companies. The President's National Export Initiative calls for the "Departments of Commerce and Transportation [to enter] into a Memorandum of Understanding to work together and with stakeholders to develop and implement a comprehensive, competitiveness-focused national freight policy. The resulting policy will foster end-to-end U.S. freight infrastructure improvements that facilitate the movement of goods for export and domestic use."[14] Moreover, the Department of Transportation "estimates that population growth,

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[10] Gramlich, Edward, "Infrastructure Investment: A Review Essay," *Journal of Economic Literature*, Vol. 32, No. 3 (Sept., 1993), pp. 1176-1196

[11] Gramlich, for example, cites CBO data that demonstrate different rates of return across different types of infrastructure investments, including new construction and maintenance.

[12] Fernald, John G., "Roads to Prosperity? Assessing the Link Between Public Capital and Productivity," *The American Economic Review,* Vol. 89, No. 3 (Jun., 1999), pp. 619-638

[13] "U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin." U.S. Census Bureau, 2004. <http://www.census.gov/population/www/projections/usinterimproj/>

[14] "Report to the President on the National Export Initiative: The Export Promotion Cabinet's Plan for Doubling U.S. Exports in Five Years." National Export Initiative, 2010. <http://www.whitehouse.gov/sites/default/files/nei_report_9-16-10_full.pdf>

economic development, and trade will almost double the demand for rail freight transportation by 2035."[15]

There are other positive benefits from infrastructure investments. According to the Bureau of Economic Analysis, publicly-owned transportation infrastructure makes up nearly 13 percent of our total non-residential capital stock, and this stock has resulted in significant positive externalities.[16] Available evidence suggests that infrastructure investment can raise property values, which reflects an improvement in living standards. For example, research suggests that proximity to public transit raises the value of residential and commercial real estate. Bernard Weinstein studied the effect of the Dallas light rail system on property values, and found a jump in total valuations around DART stations that was about 25 percent greater than in similar neighborhoods not served by the system.[17] This is consistent with studies conducted in St. Louis[18], Chicago[19], Sacramento[20] and San Diego[21], all of which find that property values experience a premium effect when located near public transit systems.

Agglomeration benefits from transportation extend beyond the benefits to property values. For example, in Chicago, transportation agglomeration benefits have led to greater business clustering and economic growth associated with manufacturing, as businesses took advantage of Chicago's position in a national transportation network.

Finally, well-maintained transportation infrastructure, which allows individuals to access multiple modes of transportation, will result in significant efficiency benefits for Americans. Well-maintained roads, coupled with access to driving alternatives, can lower traffic congestion and accident rates which not only saves Americans time and money, but can also save lives. These benefits can also reduce dependence on foreign oil, improve energy efficiency, and reduce air pollution. For example, one study in the Los Angeles area found that traffic congestion has a

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[15] "National Rail Freight Infrastructure Capacity and Investment Study." American Association of Railroads, 2007. <http://www.camsys.com/pubs/AAR_RRCapacityStudy.pdf>

[16] Treasury calculation based on data from the National Income and Product Accounts, from the Bureau of Economic Analysis.

[17] Weinstein, B. et al. "The Initial Economic Impacts of the DART LRT System." Center for Economic Development and Research, University of North Texas, 1999.

[18] Garrett, T. "Light Rail Transit in America: Policy Issues and Prospects for Economic Development," Federal Reserve Bank of St. Louis, 2004.

[19] Gruen, A. "The Effect of CTA and METRA Stations on Residential Property Values." Regional Transportation Authority, 1997.

[20] Landis, J. et al. "Rail Transit Investments, Real Estate Values, and Land Use Change: A Comparative Analysis of Five California Rail Systems." Institute of Urban and Regional Development, UC Berkeley, 1995.

[21] Cervero, R. Et al. "Land Value Impacts of Rail Transit Services in San Diego County," Urban Land Institute, 2002.

significant effect on CO_2 emissions, and that reducing stop-and-go traffic conditions could potentially reduce emissions by up to 12%.[22]

Building a National Community

The advent of railroads brought time standardization to the United States. Before rail travel was available, cities and towns across America set their clocks based on local sunrises and sunsets. However, the lack of time coordination across cities caused rail travelers considerable confusion.[23]

To address this issue, railroad managers developed the current nationwide time system with four distinct time zones to allow for a uniform schedule for arrivals and departures. Thus, the development of rail lines furthered the goal of a national community by allowing people and goods to travel quickly from one place to another, reducing the time to travel across the country from five to six months to just five days and by leading to the development of a national time standard.

Just as the development of railroads provided greater opportunities for Americans, boosted economic productivity, and helped build a national community in the past, increased investment in transportation infrastructure can provide these same benefits today. Research has found significant benefits from increased agglomeration of people, firms and industrial activity, particularly in manufacturing.[24] Strategic investments in infrastructure can help connect Americans in new ways to sustain communities and increase economic growth.

The United States' infrastructure stock benefits working families by reducing transportation costs and increasing efficiency. We should continue to invest in infrastructure so working Americans can continue to accrue these benefits.

Americans Want More Infrastructure Investment

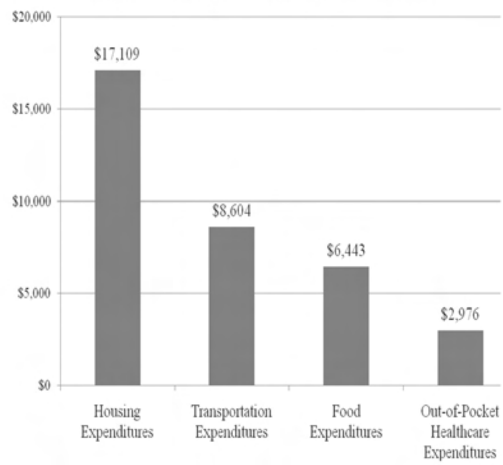
American workers, families and businesses are demanding more infrastructure investment. Americans have voted repeatedly for increased investment in transportation infrastructure. In 2008 alone, over 80 percent of the 59 transportation infrastructure projects proposed in local referenda were approved by the public. Even more striking is that over 98 percent of the funds requested for these projects were approved by the voting public.[25,26,27,28] Another study found

[22] Barth, Matthew and Kanok Boriboonsomsin. "Real-World CO2 Impacts of Traffic Congestion." University of California at Riverside, 2008. <http://www.uctc.net/papers/846.pdf>
[23] Mintz, S. (2007). "Building the Transcontinental Railroad." *Digital History*. Retrieved October 6, 2010 from <http://www.digitalhistory.uh.edu/database/article_display.cfm?HHID=177>.
[24] Edward L. Glaeser, Ed. Agglomeration Economics Chicago: University of Chicago Press, 2010.
[25] Treasury calculation based on information compiled from [26], [27], and [28]. Where the funds were approved on an annual basis for an indefinite number of years, it was assumed that the measure was not extended beyond the initial year. The measures for which the total funding impact is ambiguous were excluded from this calculation.

that almost 19 out of 20 Americans are concerned about America's infrastructure and 84 percent support greater investment to address infrastructure problems.[29]

Public support for infrastructure is not surprising, given that for the average American family, transportation expenditures rank second only to housing expenditures. As can be seen in Figure 1, the average American annually spends one-third more on transportation than food, and more than two times as much as on out-of-pocket healthcare expenses. Given how much Americans spend on transportation expenditures, public investments which lower the cost of transportation could have a meaningful impact on families' budgets. Decreasing the need for car maintenance due to potholes and poor road conditions, increasing the availability of affordable and accessible public transit systems, and reducing fuel consumption by making better use of the land would benefit Americans and allow them to spend less money on transportation.

Figure 1: Average Household Expenditures, 2008



Source: Based on 2008 Consumer Expenditure Survey

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[26] "2008 Transit Ballot Measures." Center for Transportation Excellence. <http://www.cfte.org/success/2006BallotMeasures.asp#2008CompletedTransitBallotMeasures>

[27] "State and Local Ballot Initiatives." The Associated General Contractors of America. <http://www.agc.org/cs/State_and_Local_Ballot_Initiatives>.

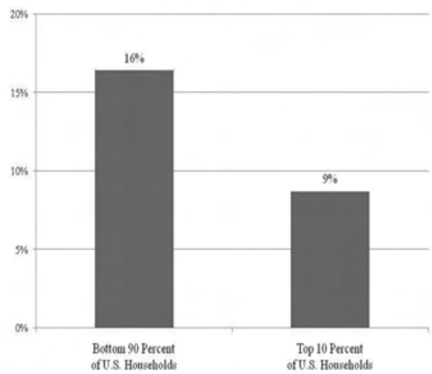
[28] "NCSLnet Search Results: 2008 State Initiatives and Referenda." National Conference of State Legislatures. <http://www.ncsl.org/?tabid=13597>

[29] "The Building America's Future National Survey," Luntz et al. 2009. <http://bafuture.org/Websites/investininfrastructure/Images/Press%20Release%20memo2.pdf>

Middle Class Americans Are the Biggest Beneficiaries of Improved Infrastructure

For the 90 percent of Americans who are not among the top decile in income, transportation costs absorb one out of every six dollars of income. Transportation expenses relative to income are almost twice as great for the bottom 90 percent as they are for the top 10 percent.

Figure 2: Percent of Income Spent on Transportation by Household Income, 2008



Source: Estimates based on 2008 Consumer Expenditure Survey, Interview Survey. Figures are total transportation expenditures relative to total income for each group.

Improving our nation's transportation system can save middle class families money by reducing the costs associated with congestion and the additional automobile maintenance caused by poor road conditions. One recent study found that poor conditions of roads cost the average motorist who drives in cities on a regular basis over $400 a year.[30,31]

Moreover, providing high speed rail and improved public transportation will provide middle class families with more options to save time and money, so that they can keep more of their income for other purposes and spend more time doing what they want, rather than spending time getting there. One study concluded that a two adult household using public transportation saved $6,250 a year compared to a similar family that is unable to use public transportation.[32]

[30] America's Roughest Rides and Strategies to Make Our Roads Smoother, Sept. 2010, www.tripnet.org/urban_roads_report_Sep_2010.pdf.
[31] See appendix for chart of 20 urban areas where costs are the highest
[32] ICF International, Public Transportation and Petroleum Savings in the U.S., Linda Bailey, January 2007.

The business and labor communities have also expressed a desire for more transportation infrastructure investment. Proposals from the American Public Transport Association (APTA), the American Association of State Highway and Transportation Officials (AASHTO), the U.S. Chamber of Commerce and AFL-CIO call for greater infrastructure investment. APTA advocates for nearly $15 billion of investment for federal public transportation programs, and at least $2.5 billion to be put towards high speed and intercity rail systems. AASHTO reported in 2009 that between $132 billion and $166 billion of investment is necessary to rebuild and repair America's highways.[33] The view that more transportation infrastructure is necessary is consistent with other research, including the recently issued bi-partisan report by two former Secretaries of Transportation, Norman Mineta and Samuel Skinner. Their report estimated that an additional investment of $134 to $194 billion per year is needed to maintain our transportation system, and an even larger sum, from $189 to $262 billion, would be needed to improve it.[34] The U.S. Chamber of Commerce has stated that "to have a transportation system that supports a 21st century economy, the United States needs a high level of investment targeted at improving performance across all modes and geographies. There can be no more business as usual."[35]

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[33] Oakley, Janet. "Investing in Transportation Infrastructure." Government Research Association Annual Policy Conference. American Association of State Highway and Transportation Officials. 29 July 2009. <http://www.transportation.org/sites/aashto/docs/Oakley-2009-07-28pdf.pdf>
[34] Mineta, Norman, and Skinner, Samuel, "Well Within Reach: America's New Transportation Agenda"
[35] "Transportation Index National Results From 1990 to 2008." U.S. Chamber of Commerce. <http://www.uschamber.com/lra/transportation-index/national-results>

Creating a More Livable Community

Infrastructure investment should create a more livable community for working Americans. The Department of Transportation has identified six principles that the transportation system should satisfy to improve the lives of working families:

- **Provide more transportation choices** to decrease household transportation costs, reduce our dependence on oil, improve air quality and promote public health.
- **Improve economic competitiveness of neighborhoods** by giving people reliable access to employment centers, educational opportunities, services and other basic needs.
- **Target federal funding toward existing communities** – through transit-oriented development and land recycling – to revitalize communities, reduce public works costs, and safeguard rural landscapes.
- **Align federal policies and funding** to remove barriers to collaboration, leverage funding and increase the effectiveness of programs to plan for future growth.
- **Enhance the unique characteristics of all communities** by investing in healthy, safe and walkable neighborhoods, whether rural, urban or suburban.
- **Expand location- and energy-efficient housing choices** for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of housing and transportation.

International Competitiveness

By most measures, the United States is investing less in infrastructure than other nations. While there are reasons for this disparity, international comparisons can offer a useful benchmark to assess our investment decisions. We spend approximately 2 percent of GDP on infrastructure, a 50 percent decline from 1960.[36,37] China and Europe, by contrast, spend close to 9 percent and 5 percent of GDP on infrastructure, respectively.[38] To be clear, simple cross country comparisons do not account for differences in the current public capital stock, differences in demographics and population densities, and different transportation preferences across nations. However, it is clear that persistent neglect of our infrastructure will impact America's competitive position *vis-*

[36] Milano, Jessica. "Building America's 21st Century Infrastructure." Progressive Policy Institute, 15 January 2009. <http://www.ppionline.org/ppi_ci.cfm?knlgAreaID=450020&subsecID=900194&contentID=254788>
[37] "Remarks by the President at CNBC Town Hall Discussion on Jobs" The White House Office of the Press Secretary, 2010. <http://www.whitehouse.gov/the-press-office/2010/09/20/remarks-president-cnbc-town-hall-discussion-jobs>
[38] Ibid.

a-vis the rest of the world. Indeed, the U.S. Chamber of Commerce noted this in their *Policy Declaration on Transportation Infrastructure*, stating, "Long term underinvestment in transportation infrastructure is having an increasingly negative effect on the ability of the United States and its industries to compete in the global economy."

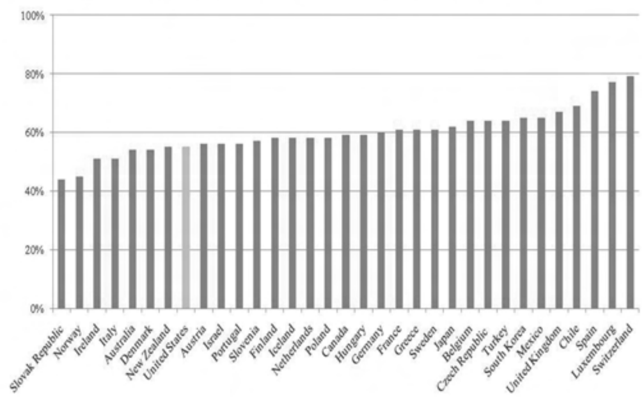
Looking at the case of high speed rail specifically, other nations are laying the groundwork for large-scale passenger rail systems in the future, while the U.S. is lagging behind. For example, China plans to spend an estimated $300 billion to have a high speed rail system in the country by 2020. China has already completed the fastest high speed rail line in the world, connecting Wuhan and Guangzhou, two cities with populations over 8 million people. The line covers 600 miles in only 3 hours.[39] Another high speed rail line, running between Shanghai and Beijing, is set for completion in 2011. European nations and Japan have long had high speed rail systems.

The Recovery Act contained $8 billion for high speed rail projects, and several states, including California, have approved billions more from their own coffers. However, significant additional investment is required if we hope to develop high speed rail corridors in the United States. High speed rail has the potential to link the American people together in a way that would not be possible under the current infrastructure system. Reducing intercity travel times, with trains reaching top speeds of 220 mph, could transform how and where Americans live and work, revitalizing regions and supporting new jobs.

The Gallup World Poll indicates that compared to other OECD countries, Americans are relatively dissatisfied with their local public infrastructure systems (see Figures 3 and 4). Americans' satisfaction with public transit ranks 25th out of 32 OECD nations. We rank only slightly better with respect to satisfaction with our roads and highways: 17th out of 32 countries. The relatively higher satisfaction with roads and highways is consistent with the observation that our nation's historic investment pattern favored highways and roads over public transit.

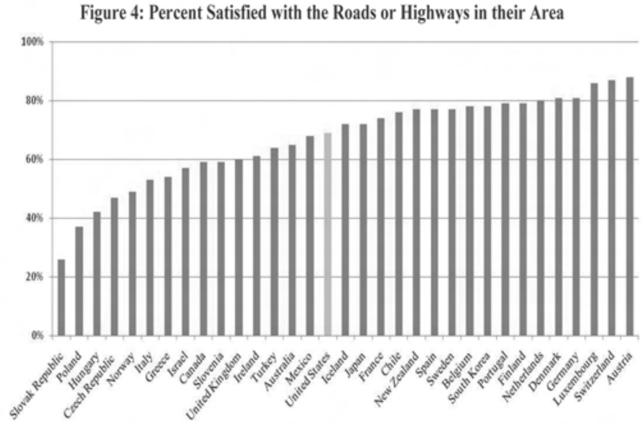
[39] "A Look at China's High-Speed Rail Investments." Solar Feeds News and Commentary, 2010. <http://www.solarfeeds.com/the-green-leap-forward-/12404-a-look-at-chinas-high-speed-rail-investments>

Figure 3: Percent Satisfied with the Public Transportation in their Area



Source: Gallup World View data, 2009, OECD countries. Percent responding "satisfied" to the following question: "In the city or area in which you live, are satisfied or dissatisfied with the public transportation system?"

Figure 4: Percent Satisfied with the Roads or Highways in their Area



Source: Gallup World View data, 2009, OECD countries. Percent responding "satisfied" to the following question: "In the city or area in which you live, are satisfied or dissatisfied with the roads and highways?"

The Costs of Not Investing in Infrastructure

Although infrastructure investments are expensive, it is even more expensive for the nation if we skimp on infrastructure. There are real costs to not investing in infrastructure, including increased congestion and foregone productivity and jobs. Already, Americans are wasting too much time, money and fuel stuck in traffic. The Texas Transportation Institute (TTI) recently estimated that Americans in 439 urban areas spent some 4.2 billion hours sitting in traffic in 2007, equivalent to nearly one full work week for the average commuter. TTI's calculations suggest that "congestion (based on wasted time and fuel) cost about $87.2 billion in the 439 urban areas."[40]

Although TTI's estimate is a good benchmark when evaluating congestion costs, it is important to remember that it is not always clear that time spent in congestion should be valued at the wage rate. The Department of Transportation recommends using a variety of values of time, depending on whether the travel takes place as part of paid business travel, local commuting travel, or long-distance leisure travel. The value of time in freight transportation is even more complex, varying with the value and perishability of the cargo that is being transported. Additionally, there are costs of congestion beyond lost time and wasted fuel. For example, a recent survey by Gallup found that those with long commutes are more likely to experience back and neck pain.[41] Moreover, congestion leads to more rapid road erosion and higher maintenance costs, a higher frequency of accidents and associated need for emergency services, higher pollution per car, and productivity losses from traffic delays. All of these potential costs of congestion – and corresponding benefits of alleviating congestion – should be factored into any cost-benefit analysis of infrastructure alternatives that would relieve congestion.

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[40] "What Does Congestion Cost Us?" Texas Transportation Institute. <http://mobility.tamu.edu/ums/report/congestion_cost.pdf>

[41] "Wellbeing Lower Among Workers with Long Commutes." Gallup, 13 August 2010. <http://www.gallup.com/poll/142142/wellbeing-lower-among-workers-long-commutes.aspx>

The Charlotte Light Rail System: An Infrastructure Success Story

If improved infrastructure changed the way Americans live and work, there would be significant benefits to health and wellness. For example, MacDonald et al. find that improving neighborhood environments and increasing the public's use of light rail transit would benefit health to the extent it causes increased physical activity, reduction in the incidence of obesity (body mass index greater than 30), and reduction in the odds of becoming obese.[42]

Using data on individuals before (July 2006 to February 2007) and after (March 2008 to July 2008) the completion of a light rail system in Charlotte, North Carolina, they find that the use of light rail to commute to work is associated with a nearly 1.2 point reduction in body mass index as well as an 81 percent reduction in the odds of becoming obese over time. Moreover, improved perceptions of neighborhoods as a result of the availability of light rail were associated with 15 percent lower odds of obesity as well as higher odds of meeting weekly recommended physical activity levels for walking and vigorous exercise (of 9 percent and 11 percent, respectively).

In addition to all of the personal benefits associated with a healthier life style, overall costs on our health care system are substantially reduced when obesity rates are lowered, given that health care costs for the obese are almost twice the rate for normal weight individuals. Finkelstein et al. find that between 1998 and 2006, the prevalence of obesity in the U.S. increased by 37 percent, adding $40 billion dollars to health care costs.[43]

A separate study by Stokes et al. estimates that health care savings in Charlotte from the creation of the first segment of their light rail system could reach a cumulative $12.6 million by 2015.[44] These facts also suggest that targeted investment in creating new public transportation systems could translate into large-scale savings in health care costs over time. Furthermore, many other academic studies show that proximity to public transportation and more rationally-designed neighborhoods tend to be associated with increased walking and other physical activity for the general population, working or otherwise.

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[42] MacDonald JM, Stokes R. Cohen D. Kofner A. Ridgeway G. The Effect of Light Rail on Body Mass Index and Physical Activity. American Journal of Preventive Medicine 2010; 39(2):105-112.
[43] Finkelstein EA, Trogdon JG Cohen JW Dietz W. Annual Medical Spending Attributable to Obesity: Payer- And Service-Specific Estimates. Health Affairs 28, no. 5 (2009): w822-w831.
[44] Stokes RJ, MacDonald J. Ridgeway G. Estimating the effects of light rail transit on health care costs. Heath Place 2008;14(1):45–58.

Congestion is not limited to our roads. Each year, Americans lose more than $9 billion in productivity from flight delays.[45] Adopting a NextGen air traffic control system could significantly reduce these delays and their associated costs. NextGen will help both the Federal Aviation Administration and airlines to install new technologies and, among other improvements, move from a national ground-based radar surveillance system to a more accurate satellite-based surveillance system – the backbone of a broader effort to reduce delays for passengers, increase fuel efficiency for carriers, and cut airport noise for those who live and work near airports.

Failure to maintain our infrastructure network properly has significant consequences. For example, in August 2010, three major transportation systems in the Northeast corridor region (Amtrak, the Long Island Railroad, and New Jersey Transit) all experienced problems due to fire, power failure, and outdated equipment. Particularly illustrative of the need for upgrades of America's infrastructure was the fire in the Long Island Railroad's track switching system. Constructed in 1913, the system's break down forced rail personnel to switch tracks manually with mallets and spikes, an outdated and hazardous practice.

Building a Safer and More Reliable Infrastructure System

The American people deserve safe and reliable infrastructure. Recent bridge collapses in Minnesota and Oklahoma remind us of the risk of neglecting our infrastructure and of unsafe designs.

In 2005, motor vehicle traffic crashes were the leading cause of death for every age 3 through 6 and 8 through 34. Though 2009 saw the lowest fatality and injury rates ever recorded, it is clear that we can still do better, as nearly 100 people die on our roadways every day.[46,47] Aging transportation infrastructure – whether it is our roadways, transit systems, or railways – increase safety risks because they lack proven countermeasures that are installed on newer systems and equipment. Devoting resources to raising existing transportation infrastructure to a state of good repair in a "fix-it-first" approach is a sound strategy to help address critical safety challenges. The Federal Government, along with State, local, and private owners and operators of transportation infrastructure, must work together to target resources to risks before they become safety hazards.

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[45] "Flight Delay Task Force Report." The Port Authority of NY & NJ, 2007. <http://www.planebusiness.com/buzz/flightdelay.pdf>

[46] "U.S. Transportation Secretary LaHood Announces Lowest Traffic Fatalities in Six Decades." National Highway Traffic Safety Administration, 9 September 2010. <http://www.nhtsa.gov/PR/DOT-165-10>.

[47] "Motor Vehicle Traffic Crashes As a Leading Cause of Death in the United States, 2005." National Highway Traffic Safety Administration, April 2008. <http://www-nrd.nhtsa.dot.gov/Pubs/810936.PDF>.

III. The Role of a National Infrastructure Bank

President Obama has proposed a National Infrastructure Bank to help finance infrastructure projects. A well designed infrastructure bank could:

- increase overall investment in infrastructure by attracting private capital to co-invest in specific infrastructure projects;
- improve the efficiency of our infrastructure investment by having a merit-based selection process for projects; and
- fill the gaps in our infrastructure funding system, which currently disadvantage investments in multi-modal and multi-jurisdictional infrastructure projects.

One way to address the need for more infrastructure investment is to attract more private capital for direct investment in transportation infrastructure. There is currently very little direct private investment in our nation's highway and transit systems. The lack of private investment in infrastructure is in large part due to the current method of funding infrastructure, which lacks effective mechanisms to attract and repay direct private investment in specific infrastructure projects. In addition, the private benefit for investors is less than the benefit for society as a whole, because of positive externalities from infrastructure. A National Infrastructure Bank could address these problems by directly funding selected projects through a variety of means. The establishment of a National Infrastructure Bank would create the conditions for greater private sector co-investment in infrastructure projects.

Additionally, with a few notable exceptions, federal funding for infrastructure investments is not distributed on the basis of a competition between projects using rigorous economic analysis or cost-benefit comparisons. The current system virtually ensures that the distribution of investment in infrastructure is suboptimal from the standpoint of raising the productive capacity of the economy.

To address the lack of merit-based funding, a National Infrastructure Bank would develop a framework to analytically examine potential infrastructure projects using cost-benefit analysis, and would evaluate the distributional impact of both the costs and benefits of each project. Of course, not all costs and benefits from infrastructure projects can be quantified, but an effort should be made to quantify those that can be quantified and to take account of any additional benefits and costs to society. A rigorous analytic process would result in support for projects that yield the greatest returns to society, and would avoid investing taxpayer dollars in projects where total costs exceed total societal benefits. A National Infrastructure Bank would select projects along a sliding scale of support that most effectively utilizes the bank's limited resources, targeting the most effective and efficient investments.

IV. Supply-Side Considerations

The previous section analyzed the demand for public capital and demonstrated that additional, carefully selected infrastructure investment will yield substantial benefits to the U.S. economy in the future. This section looks at the supply side of infrastructure investment. The main conclusion is that now is a particularly opportune time to invest in infrastructure, because the availability of underutilized resources (especially labor) implies that the opportunity cost of infrastructure investment is currently well below its normal level.

There is currently a large pool of unemployed and underemployed labor available to improve our infrastructure. Building more roads, bridges, and rail tracks would especially help the segment of workers that was most disproportionately affected by the economic crisis – construction and manufacturing workers. The recession that started in late 2007 had an exceptionally large impact on the labor market. The U.S. lost over 8 million jobs between December 2007 and December 2009. Fully 21 percent of those who lost jobs were in the construction industry.

Due to the collapse of the real estate market, the contraction of employment in the construction industry was especially acute. Since December 2007, the construction industry has lost 25 percent of its total payroll jobs, dropping from 7.5 million to 5.6 million employees. In August 2010, the unemployment rate for construction workers stood at 17 percent. This is over three times the rate from three years ago, and almost double the overall unemployment rate. Accelerated infrastructure investment would provide an opportunity for construction workers to productively apply their skills and experience. Moreover, hiring currently unemployed construction workers would impose lower training costs on firms than would be incurred by hiring workers during normal times, because these workers already have the requisite skills and experience in construction.

The excess supply of construction workers is one of many factors making current construction costs low. This is translating to lower project costs. For example, the Federal Aviation Administration received $1.1 billion in Recovery Act funds for airport improvements. The money was designated for 300 projects. The winning bids for those projects came in over $200 million below the engineers' estimates. A second round of projects was selected, which also received lower bids than anticipated. As a result of these cost savings, 367 runway and airport improvement projects were funded with the money that was originally intended to support 300 projects.

The states and transit authorities that selected most of the highway ($26.6 billion) and transit ($8 billion) projects supported by the Recovery Act reported similar experiences, and similar bid savings. Overall, the Department of Transportation estimates that more than 2,000 additional airport, highway, bridge and transit projects were funded because of low bids, or projects being completed under budget.

Another critical question is whether there are worthwhile infrastructure projects available for investment. While well-targeted infrastructure investment can be tremendously beneficial, experience has also shown that poorly targeted infrastructure investments have limited, or even negative effects in the long run. The Recovery Act established the Transportation Investment Generating Economic Recovery (TIGER) program to spur a national competition for innovative, multi-modal and multi-jurisdictional transportation projects that promise significant economic and environmental benefits to an entire metropolitan area, region, or the nation. TIGER was allocated $1.5 billion in the Recovery Act to select projects including improvements to roads, bridges, rail, ports, public transit and inter-modal facilities.

As part of the open competition for this investment, the Department of Transportation (DOT) conducted a solicitation for projects meeting the TIGER criteria, providing a test case to determine the supply of these kinds of infrastructure projects. This solicitation yielded 1,457 project applications from all 50 states, the District of Columbia and three territories. Combined, these projects requested over $59 billion in federal funding, with many projects also supported by state, local and sometimes private capital. These projects were both big and small, with 546 requesting less than $20 million from the federal government while 82 projects requested more than $100 million. Given its limited initial funding, DOT was only able to fund 50 projects.

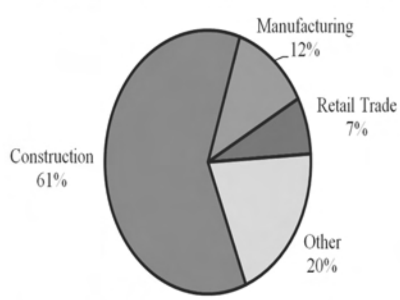
Infrastructure Investment Creates Middle Class Jobs

Spending on infrastructure generates demand for products and services from a variety of industries. For example, road building not only requires construction workers, but also grading and paving equipment, gasoline or diesel to run the machines, smaller hand tools of all sorts, raw inputs of cement, gravel, and asphalt, surveyors to map the site, engineers and site managers, and even accountants to keep track of costs.

Data from the Commerce Department's Bureau of Economic Analysis (BEA) provide insight into how a dollar's worth of demand for some broad categories of spending is divided among the supplying industries. Analysis of data from the BEA 2007 annual input-output table and related data from the Bureau of Labor Statistics (BLS) on the composition of industry employment suggest that 61 percent of the jobs created by investing in infrastructure would be in the construction sector, 12 percent would be in the manufacturing sector, and 7 percent would be in retail trade, for a total of 80 percent in these three sectors.[48] Using BLS data on the structure of occupations in those industries, and the distribution of wages for those occupations by industry, nearly 90 percent of the jobs in the three sectors most affected by infrastructure spending would be middle class jobs, defined as those between the 25th and 75th percentile in national distribution of wages.

Further analysis suggests that the jobs created by investing in infrastructure are not only middle class jobs, but also are concentrated in occupations and industries that have been disproportionately affected by the economic downturn. Overall, the average unemployment rate among those who would be put to work by additional investment in infrastructure is over 15 percent, more than one and one-half times the national unemployment rate.

Figure 5: Jobs Created by Infrastructure Investment



Source: Estimates based on BEA and BLS input-output tables.

[48] These estimates do not include multiplier effects.

Enhancing the efficiency of existing infrastructure is also a critical component of the President's plan. As noted earlier, research has shown that investment that improves existing infrastructure networks can have significant returns. The Recovery Act also created the Transit Investments in Greenhouse Gas and Energy Reduction (TIGGER) program to support such improvements by providing public transit agencies with one-time grants to improve the energy efficiency of their operations. Increasing energy efficiency for transportation is particularly important since the transportation system accounts for one-third of all carbon dioxide emissions from fossil fuel combustion, the largest share of any economic sector in the United States according to the Environmental Protection Agency.[49] The cost of energy is a significant factor in the cost of providing public transportation; one study found that the cost of providing public transportation rises by $7.6 million for every penny increase in the price of gasoline.[50]

The TIGGER program received $100 million in Recovery Act funding. The Federal Transit Administration (FTA) announced the selection criteria on March 24, 2009, inviting transit agencies to submit proposals within 59 days (May 22). Despite the short time frame, FTA received applications for 561 projects with a total value of over $2 billion, twenty times larger than the amount of funding available.

During recessions it is common for state and local governments to cut back on capital projects – such as building schools, roads and parks – in order meet balanced budget requirements. Past research has found that expenditures on capital projects are more than four times as sensitive to year-to-year fluctuations in state income than is state spending in general.[51] However, the need for improved and expanded infrastructure is just as great during a downturn as it is during a boom. Tax receipts at the state and local level contracted for four straight quarters at the beginning of this recession and are still below pre-recession levels. The Recovery Act provided crucial support for infrastructure during the recession, but further strategic investments from the federal government are needed to make up for the shortfall in state and local funds. Providing immediate additional federal support for transportation infrastructure investment would be prudent given the likely response from state and local governments to the current economic environment, the upcoming reduction in federal infrastructure investment as projects using Recovery Act funds are completed and the strong benefits associated with public investment.

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[49] "Frequent Questions – Emissions." U.S. Environmental Protection Agency, 2010. <http://epa.gov/climatechange/fq/emissions.html>

[50] "Impact of Rising Fuel Costs on Transit Services." American Public Transportation Association, May 2008. <http://www.apta.com/resources/reportsandpublications/Documents/fuel_survey.pdf>.

[51] James R. Hines, Hilary Hoynes, and Alan Krueger, "Another Look at Whether a Rising Tide Lifts All Boats," in *The Roaring `90s: Can Full Employment Be Sustained?*, edited by Alan B. Krueger and Robert Solow, Russell Sage and Century Fund, 2001.

V. Conclusion

An analysis of the economic impact of transportation investment indicates that now is an optimal time to increase the nation's investment in transportation infrastructure. This conclusion follows from both supply- and demand-side factors. Investing in transportation infrastructure would generate jobs to employ workers who were displaced because of the housing bubble. We estimate that the average unemployment rate among those who would gain employment in the jobs created by additional infrastructure investment is currently more than 15 percent. There is also accumulating evidence that construction costs are currently low because of underutilized resources, so it would be especially cost-effective to seize the opportunity to build many of the quality infrastructure projects that are ready to be built. Historically, we also know that state and local governments are more prone to cut back on infrastructure spending during tough economic times, despite the growing need and demand for these projects. Americans overwhelmingly support increasing our infrastructure investment, as evidenced by consistent support for local investments on ballot initiatives. This is hardly surprising given that our report documents that the American public is less satisfied with our transportation infrastructure than residents of most other OECD nations.

Merely increasing the amount that we invest, however, must not be our only goal. Selecting projects that have the highest payoff is critically important, as is providing opportunities for the private sector to invest in public infrastructure. Given the significant needs for greater investment, the federal government cannot, and should not, be expected to be the sole source of additional investment funds. More effectively leveraging federal investment by pairing it with state, local and private investment is necessary to meet the challenges we face in expanding our transportation network.

Evidence shows that well functioning infrastructure systems not only generate large rates of return for the people who travel on the systems every day, but also for those in the region and nation more generally. Investment in infrastructure today will employ resources when they are underutilized and raise the nation's productivity and economic potential in the future. By contrast, poorly planned, non-strategic investment is not only a waste of resources, but it can also lead to lower economic growth and production in the future. That is why any increase in investment should be coupled with broad-based reform to select infrastructure projects more wisely. The President's proposal to increase our nation's investment in transportation infrastructure, coupled with broad-based reform of our transportation funding system, would have a significant and positive economic impact in both the short and long term, raising our nation's economic output, creating quality middle-class jobs and enhancing America's global economic competitiveness.

Appendix

The twenty urban regions with at least 500,000 people (includes the city and its surrounding suburbs), where motorists pay the most annually in additional vehicle maintenance because of roads in poor condition:

Appendix Table 1: Annual Vehicle Operating Cost in Selected Urban Areas

Rank	Urban Area	Annual Vehicle Operating Cost
1	San Jose, California	$756
2	Los Angeles, California	$746
3	San Francisco – Oakland, California	$706
4	Honolulu, Hawaii	$701
5	Concord, California	$692
6	New Orleans, Louisiana	$681
7	Oklahoma City, Oklahoma	$662
8	San Diego, California	$654
9	New York – Newark, NY/NJ	$640
10	Riverside-San Bernardino, California	$632
11	Sacramento, California	$611
12	Tulsa, Oklahoma	$610
13	Indio-Palm Springs, California	$609
14	Baltimore, Maryland	$603
15	Omaha, Nebraska	$587
16	Kansas City, Missouri / Kansas	$587
17	San Antonio, Texas	$549
18	Dallas-Ft. Worth, Texas	$539
19	Detroit, Michigan	$536
20	Albuquerque, New Mexico	$527

Source: America's Roughest Rides and Strategies to Make Our Roads Smoother, Sept. 2010, www.tripnet.org/urban_roads_report_Sep_2010.pdf.

DEPARTMENT OF THE TREASURY
1500 PENNSYLVANIA AVENUE, NW
WASHINGTON, D.C. 20220
www.treasury.gov

RESPONSES TO WRITTEN QUESTIONS OF CHAIRMAN DODD FROM EDWARD G. RENDELL

Q.1. *Ideal Time To Invest in Infrastructure.* I have heard that given today's low interest rates and the excess capacity available in the construction industry that now is an ideal time to be investing in infrastructure. Please comment on the efficiencies that we can realize by increasing our Nation's investment in infrastructure right now, in the midst of the current economic downturn.

A.1. There is no question that now is the time to invest in our infrastructure to take advantage of the very low interest rates as well as the low bids cities and States are receiving on their construction projects. That has the potential to make current dollars go further. For example, Pennsylvania issued a $900 million "Build America Bond" in January of this year and the result was that the Commonwealth obtained the lowest interest rate since 1968 at a rate of 3.13 percent. That is a remarkable rate and the savings realized will mean more dollars available for other worthy projects.

Additionally, we have been receiving some of the lowest construction bids for projects throughout Pennsylvania. The bad news is that many of these bids are so low because unemployment rates are high. The September, 2010, U.S. Department of Labor unemployment figures indicate that unemployment in Pennsylvania is at about 9 percent which is slightly below the national unemployment rate of 9.6 percent. And because of that, construction firms are more interested in keeping workers employed by reducing their bids in order to win more contracts. For example, when Pennsylvania received its stimulus funding for roads, highways, and bridges we bid out 242 projects. Because the bids came in significantly lower than expected, we were able to add 344 new projects.

I cannot speak for every other State but my guess is that other governors, mayors, and elected officials are experiencing similar experiences.

Q.2. *Merit-Driven Selection Process.* One of the benefits of creating a National Infrastructure Bank is the fact that we create a competitive, merit-driven process that leads to selection of those projects with the best returns. How can we design a bank to ensure that we make the best use of Federal dollars and fund the projects with the highest rates of return and the greatest public benefits?

A.2. If we are going to set up a National Infrastructure Bank then we must do it right from the beginning. That means we must have expert staff capable of conducting benefit-cost analysis, we must have a board experienced in the infrastructure world making informed and merit-based evaluations of the projects, and we must establish criteria which all projects must meet. One way to do that is to limit the types of projects to those that have regional or national significance. I would also recommend that an NIB be completely transparent by posting all the data for the world to see. When people can see where and why their tax dollars are being spent then they will tend to trust their leaders in making these difficult decisions.

With respect to the rates of return and public benefit that is not easy to define but that is why this Bank must be established—to make the tough decisions. Will every project be eligible? The answer to that is absolutely not. Those submitting projects for consideration must prove to the Board why these projects truly benefit a region or Nation. For example, our ports are clogged and cargo is often expensive to ship over land due to congestion, lack of capacity, and lack of alternative transportation options such as on-dock-rail. Well, a port could justify the impact by laying out for the Bank how improvements in certain cities and States would eliminate choke points, speed traffic, or get our goods exported more easily. That scenario is a win not just for that particular port but for the shippers, consumers, and those buying our products overseas because the overhead costs of shipping will be reduced and on-time delivery can improve. And I believe that our Government—be it through the Bank or another entity that currently tracks this data—should measure those benefits to companies who ship their products and earn profits thereby hiring more people back to work so that can increase their productivity.

Q.3. *Leveraging.* One of the goals of an infrastructure bank is to leverage new State, local, and private funding. Some studies have found that previous increases in Federal transportation funding have led to reduced State and local funding. How can we best design an infrastructure bank to ensure that it leverages new public and private funding rather than simply substituting for existing funding?

A.3. First, I am not suggesting that a NIB replace current Federal funding—most of which is allocated to the States on a formula basis. Instead, the NIB should be viewed as a supplementary tool that could provide appropriate assistance to large scale projects of national or regional significance. Establishing criteria about the level and amount of NIB assistance would be the best way to safeguard the Federal contribution. Some of these limits are already in place. For example, in the transportation infrastructure area the TIFIA program is prohibited from contributing more than 33 percent of a project's total cost. Additionally, Federal law already requires a specific State/local match for highway and transit projects.

I think similar things could be done in the water and wastewater, energy, broadband, and other infrastructure areas that the Bank could help finance once criteria are established for those needs.

RESPONSES TO WRITTEN QUESTIONS OF CHAIRMAN DODD FROM ROBERT WOLF

Q.1. *Ideal Time To Invest in Infrastructure.* I have heard that given today's low interest rates and the excess capacity available in the construction industry that now is an ideal time to be investing in infrastructure. Please comment on the efficiencies that we can realize by increasing our Nation's investment in infrastructure right now, in the midst of the current economic downturn.

A.1. Interest rates are currently at their lowest levels in decades allowing for low-cost funding of projects.

- The 10-year U.S. Treasury is currently 2.39 percent, 172bps below the 10-year historical average of 4.11 percent and 454bps below the 30-year historical average of 6.93 percent. [1]
- The Moody's Aaa corporate bond index is currently 4.56 percent, 104bps below the 10-year historical average of 5.60 percent and 267bps below the 25-year historical average of 7.23 percent. [2]

The construction industry has been among the hardest hit in the economic downturn and the costs of key inputs for construction (concrete, steel, *etc.*) have also come down.

- The Dodge Construction Index that tracks total U.S. construction contract/pipeline value has decreased 25 percent from September 2008. [3]
- The Dow Jones Global Building Materials and Fixtures Index has declined nearly 30 percent from September 2008. [4]
- According to the Bureau of Labor Statistics, the construction industry has an unemployment rate of 17.2 percent as of September 2010. [5]

In addition to the costs of financing and constructing infrastructure now at historically low levels, there is currently over $180bn of equity capital looking to invest in infrastructure. [6]

- This private capital will be invested wherever private sector infrastructure investment opportunities develop (primarily in the OECD), and will be invested abroad if investment opportunities are not available in the U.S.

Given the low interest rate environment and high unemployment in the construction sector, now would be an optimal time to create jobs through infrastructure investment.

- Jack Wells, chief economist at USDOT, estimates that $1bn of Federal funding for transportation infrastructure would create 34,800 jobs. [7]
- The Milken Institute estimates that $1bn of transportation infrastructure spending would create 27,400 jobs. [8]

Q.2. *Merit-Driven Selection Process.* One of the benefits of creating a National Infrastructure Bank is the fact that we create a competitive, merit-driven process that leads to selection of those projects with the best returns. How can we design a bank to ensure that we make the best use of Federal dollars and fund the projects with the highest rates of return and the greatest public benefits?

A.2. The NIB must allocate funds based on rigorous cost-benefit analysis conducted by experienced industry experts and should focus on those projects that will deliver the highest value for money.

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[1] Bloomberg data, 10/9/10.
[2] Bloomberg data, 10/9/10.
[3] Bloomberg data, 10/9/10.
[4] Factset data, 10/9/10.
[5] Bureau of Labor Statistics, "Industries at a Glance: Construction", September 2010.
[6] Preqin, September 2010.
[7] Jack Wells, USDOT, September 2008.
[8] Milken Institute, "Jobs for America", January 2010.

- The decision-making process must be totally transparent and open to public scrutiny.
- The decision to fund selected projects will be independent of the appropriations process or other partisan constraints and free of the election and budgetary cycles.
- To help select the best projects, the NIB should have a broad-based board of governors, representing various infrastructure stakeholders and comprised of members with demonstrated sector expertise and private and public sector experience.
- It should be noted that the NIB should be policy driven, which means it will consider nonmonetary cots and benefits alongside monetary ones as part of its cost-benefit analysis.

USDOT's existing TIFIA program provides an example of how a National Infrastructure Bank would use merit to determine project funding.

- The TIFIA process uses pre-agreed criteria to determine which projects receive loans; these criteria include innovation, safety, livability, sustainability, economic competitiveness, and State of good repair.
- Since its inception in 1998, TIFIA has made $7.9bn of loans, $1.6bn of which have already been repaid with interest. [9]
- TIFIA-assisted projects have created over $29.4bn of total infrastructure spending; an example of the potential to leverage Federal dollars with local government and private sector investment. [10]

Q.3. *Public–Private Partnerships.* What is the potential for public–private partnership in infrastructure? What is the evidence that private capital is available for the kinds of significant regional projects that the NIB would be designed to support?

A.3. Private–public partnerships can be a viable tool in infrastructure investment because they:

- Mobilize private sector capital to fund projects alongside Government funding.
- Shift elements of the project risk from the public sector to the private sector.
- Allow for greater participation of the private sector in the development and financing of infrastructure and provision of services.

There is currently over $180bn of equity capital looking to invest in infrastructure and there is over $55bn of new equity capital being raised by infrastructure investors today. [11]

- If this $180bn of equity capital comprised 30 percent of project costs, it could generate $600bn of infrastructure investment.

[9] Federal Highway Administration, TIFIA Projects and Case Studies, October 2010.
[10] Federal Highway Administration, TIFIA Projects and Case Studies, October 2010.
[11] Preqin, September 2010.

Since 2005, over $38.1bn of public–private partnership transactions have been undertaken in the U.S. transportation sector (road, rail, and port). [12]

- Of this, over $13.6bn has been invested in greenfield projects, the majority of which would not have been completed without the use of private sector equity.
- An additional $24.5bn has been invested in brownfield projects, which have helped reduce Government debt burdens and allowed these governments to redeploy capital into new infrastructure projects.

An example of one such project is the North Tarrant Express in Texas that reached financial close in November 2009:

- This project was financed using $1,048mm of private sector debt, $600mm of TIFIA loans, $573mm of contributions from TxDOT, and $426mm of private sector equity. [13]
- Of these funds, the Federal Government contributed only $600mm (22 percent of project cost) for the TIFIA loan which is expected to be paid back with interest over 40 years.

The track record for public–private partnerships globally is very strong.

- U.K. National Audit Office studies have found that privately developed infrastructure projects are delivered on-time and on-budget with much higher frequency than similar publicly procured projects. [14]
- 73 percent of public procurements ran over-budget *vs.* only 22 percent of privately financed projects.
- 70 percent of public procurements ran over time *vs.* only 30 percent of privately financed projects.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR VITTER FROM ROBERT WOLF

Q.1. How would you suggest funding the proposed infrastructure bank?

A.1. The NIB could leverage its initial funding with private sector equity and debt to maximize value for money. To provide an example, an initial NIB funding of $25 billion could be leveraged two times by issuing debt to private sector investors, creating $75 billion of NIB capital that could be used to fund as much as $375 billion in infrastructure funding (while maintaining only a 20 percent NIB stake). A primary advantage of involving private equity is that private equity takes the first loss on projects in the event of distress, thereby shielding the Federal Government's investment in the project. The NIB would be subject to strict leverage limits to be set forth in its establishing legislation.

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[12] Dealogic Database, InfraAmericas, *Infrastructure Journal.*
[13] Dealogic Database, InfraAmericas, *Infrastructure Journal.*
[14] U.K. National Audit Office, "PFI: Construction Performance", February 2003.

Q.2. Do you believe any new funding used to create the proposed infrastructure bank should be offset with corresponding decreases in Federal spending elsewhere?

A.2. We believe that infrastructure spending is critical to the economic growth of this country and that a National Infrastructure Bank would increase the overall pool of capital available for infrastructure investment. The creation of an infrastructure bank as we have outlined would be advantageous for the country because it would leverage Federal dollars with funds from private sector debt and equity investors, thereby reducing the reliance on the Federal Government to fund infrastructure improvements. However, I would not advocate reducing the Federal Government's overall spending on infrastructure.

RESPONSES TO WRITTEN QUESTIONS OF CHAIRMAN DODD FROM DONALD SHUBERT

Q.1. *Ideal Time To Invest in Infrastructure.* I have heard that given today's low interest rates and the excess capacity available in the construction industry that now is an ideal time to be investing in infrastructure. Please comment on the efficiencies that we can realize by increasing our Nation's investment in infrastructure right now, in the midst of the current economic downturn.

A.1. As far as low interest rates are concerned, if the question is regarding Government's ability to borrow, reports show that current market interest rates are at low levels. This means that the Government can obtain the same amount of bonding, paying far less over the debt service period. If the question goes to producers' and contractors' ability to finance new equipment purchases, the same holds true. However, access to capital is tight making it harder for companies to finance new equipment and plant purchases.

There are two primary efficiencies that can be realized now. First there is a skilled workforce sitting idle. That workforce is fully trained and can return to work on short notice. Hiring unemployed construction workers would impose lower training costs on firms that would be incurred by hiring and training new workers, because these workers already have the requisite skills and experience in construction. This lower training cost is one factor that is keeping construction costs low, which leads to the second efficiency.

Second, the fierce competition between contractors seeking work due to the excess capacity in the construction industry is driving down prices, making current construction costs low. In a report issued on October 11, 2010, the Department of the Treasury with the Council of Economic Advisors provided that: "Construction costs and other costs associated with building projects are especially low in the current environment. The Department of Transportation's (DOT) experience with Recovery Act funding has shown that more than 2,000 additional airport, highway, bridge, and transit projects were funded because of low bids, or projects being completed under budget. DOT also reported that among its $1.1 billion in aviation investments, winning bids for the projects came in $200 million below their initial engineering estimates."

A recent bid opening in Connecticut provides an example. On October 13, 2010, the Connecticut Department of Transportation held a bid opening for the Reconstruction of the I-95/I-91/Route 34 Interchange Project that was estimated to cost over $500 million. The low bid was $356.8 million.

Q.2. *Merit-Driven Selection Process.* One of the benefits of creating a National Infrastructure Bank is the fact that we create a competitive, merit-driven process that leads to selection of those projects with the best returns. How can we design a bank to ensure that we make the best use of Federal dollars and fund the projects with the highest rates of return and the greatest public benefits?

A.2. CCIA does not have the type of data to sufficiently advise you on the design of a bank to ensure that we can make the best use of Federal dollars and fund projects with the highest rates of return and the greatest public benefits, however, we believe that effective measures to ensure those important results would be to identify specific goals and set objective selection criteria to meet the goals. Goals could include economic competitiveness, safety, state of good repair, and other critical national goals. Criteria to meet those goals could include items such as job creation, reduced carbon emissions, and public health and safety benefits.

It is important to set high standards of transparency and accountability. One way to do this may be to require that those goals and the selection criteria be set forth for all applicants to understand prior to the acceptance of proposals and conducting evaluations.

Q.3. *Effects of Prolonged Unemployment.* Prolonged unemployment can have significant negative impacts on construction workers and the construction industry. Can you discuss what impacts prolonged unemployment can have on the skills of construction workers and the long-term impacts of substantial prolonged unemployment on the construction industry?

A.3. Prior to the economic downturn, the construction industry was facing a workforce challenge. The workforce was aging, and the industry was having problems attracting and retaining younger employees. At that point, the industry was investing in workforce development initiatives such as annual Construction Career Day programs for high school juniors and seniors.

With the economic downturn, and resulting high unemployment in the industry, the large number of unemployed skilled trades-people is limiting contractors' and apprenticeship training programs' ability to bring new people into the industry and train them. Employers will only hire and invest in training new employees when there are long-term prospects of work available. Likewise, it is difficult to conduct apprenticeship training programs when there are many skilled people looking for work. It makes no sense to train people for unemployment.

The current situation is exacerbating the challenge of replacing our aging workforce. If and when construction employment rises again, we will be worse off, because we have fallen behind in our efforts to replenish a skilled productive workforce.

Retaining management employees and office staff presents another challenge. Many contractors have had staff reductions during the economic downturn. Many of the newly unemployed high-level employees and staff have transferable skills and are seeking work in other industries and sectors of the economy. This will present a significant challenge for construction companies when they begin taking on new work and rebuilding their companies.

Q.4. *Leveraging.* One of the goals of an infrastructure bank is to leverage new State, local, and private funding. Some studies have found that previous increases in Federal transportation funding have led to reduced State and local funding. How can we best design an infrastructure bank to ensure that it leverages new public and private funding rather than simply substituting for existing funding?

A.4. From CCIA's viewpoint, a National Infrastructure Bank will almost certainly supplement rather than replace core Federal transportation funding streams. We believe that there are a significant number of mega- and multi-modal projects that are too expensive for a State or region to fund, and are too large for the core funding program to support. We believe that alternative funding sources such as an infrastructure bank will be used to meet those needs, leaving the core funding programs to fund the mounting number of regular program projects.

Again, Chairman Dodd and Ranking Member Shelby, the Connecticut Construction Industries Association applauds your leadership and looks forward to working with the Committee to develop meaningful legislation to invest in infrastructure, create jobs and grow the economy.

ADDITIONAL MATERIAL SUPPLIED FOR THE RECORD

PREPARED STATEMENT SUBMITTED BY THE CALIFORNIA INFRASTRUCTURE AND ECONOMIC DEVELOPMENT BANK

Chairman Dodd, Ranking Member Shelby, and distinguished Members of the Committee my name is Stanton C. Hazelroth, and it is a privilege to offer my testimony concerning the need for the creation of a National Infrastructure Bank.

As you know, a discussion has been taking place ranging far and wide about the need for and the make-up of a National Infrastructure Bank. I believe you have heard testimony about successful examples in other parts of the world. I am here to testify that such a bank has existed in California for over 15 years, providing financing for over $31 billion of infrastructure and related governmental needs. I suggest that you only have to look as far as California to find a working model that proves, albeit on a State-sized scale, the potential impact of such a bank.

I serve as the Executive Director of the California Infrastructure and Economic Development Bank (California I-Bank). The California I-Bank was created by the California Legislature in 1994. The Legislation was approved by a vote of 67 to 1 in the Assembly and 30 to 3 in the State Senate illustrating the potential bipartisan appeal of this concept. The mission of the California I-Bank is to finance public infrastructure and private development that promote economic growth that is the *sine qua non* for creating new jobs for Californians. I am here to tell you that a national I-Bank is not only feasible, but a must if our Nation is going to rebuild the infrastructure that our economy relies upon to compete globally. While it cannot and should not supplant our current systems of financing infrastructure, it can supplement them in a most powerful way.

The California I-Bank is the State of California's only general purpose financing authority and has extremely broad statutory powers to issue revenue bonds, make loans and provide credit enhancements for a wide variety of infrastructure and economic development projects. It received an initial one-time net appropriation of $181 million in 1999. The California I-Bank does not receive annual appropriations from the State; its operations are funded solely from fees, interest earnings and loan repayments. The I-Bank began full operations in 1999. Over the last decade we have steadily grown from $6.0 billion to approximately $30 billion in debt financings with a staff of 25 positions. [1] Most of the projects financed by the California I-Bank also receive funding from additional sources, multiplying the impact of the I-Bank financing. Working with a National Infrastructure Bank as a member of the team would allow project proponents to make effective use of multiple sources of financing in creative, innovative ways that allow more and even larger regional projects to happen and on extremely favorable terms.

When considering a National I-Bank, it is helpful to understand how the California I-Bank is organized. It is similar to the many of the proposals currently before this Congress. Both Infrastructure Banks would be governed by a five-member board of directors. In California, the board consists of four Governor's appointees and the California State Treasurer. Three of the Governor's appointees sit as a result of their appointed positions with the Governor, like the Secretary of Business, Transportation and Housing, and one is directly appointed by the Governor.

The Board is statutorily required to approve all financing by the California I-Bank. Staff is not free to make loans and investments on their own unless by specific delegations from the Board. The daily affairs are managed and conducted by an Executive Director, who is appointed by the Governor and confirmed by the Senate. The California I-Bank Executive Director and staff were responsible for developing the structure, departments and employees needed to carry out their mandate. The Congressional proposals commonly include a detailed and sophisticated "ready to go" organizational structure, taking many successful ideas from the European Infrastructure Bank. A strong, independent board and staff is essential. The I-Bank recently received ratings upgrades from Standard and Poor's (S&P) and Fitch Ratings, Inc. (Fitch). S&P cited, "[p]rogram oversight and loan screening provided by State infrastructure bank" staff as well as a key factor in the upgrade. Moody's cited "strong management with rigorous and detailed credit reviews of new and existing borrowers" as a key consideration in their rating assessment.

[1] Information technology, human resources, and certain I-Bank accounting services are provided by other departments. In a few cases, a bond that was issued by the I-Bank and later defeased by the I-Bank are both shown as financing work by the I-Bank and counted in the overall total. Removing those few examples, the money that I-Bank has placed is approximately $28 billion.

Like the Congressional proposals, the California I-Bank can issue debt, make loans and loan guarantees, among other powers. Both the California I-Bank and the Federal proposals require the development of objective selection criteria. After consultation with all interested parties and technical experts, a series of public hearings was held throughout the State to insure that criteria were developed leading to the selection of only the best projects. Due to the diversity required by the financing model, the projects over the last 10 years in the direct loan program are 50 percent rural projects and 50 percent urban projects. The I-Bank statute requires special efforts to provide technical assistance to those in need and often those are rural projects.

The following table lists the cumulative totals by fiscal year in which the I-Bank has loaned, issued debt, or played a significant role as a member of the financing team.

Fiscal Year	Cumulative Financing Totals
1997–1998	$6,022,000,000
1998–1999	$6,086,580,000
1999–2000	$6,533,692,050
2000–2001	$6,852,267,350
2001–2002	$7,621,646,205
2002–2003[2]	$11,550,160,105
2003–2004[2]	$15,642,301,155
2004–2005	$18,134,898,155
2005–2006[3]	$23,146,452,663
2006–2007[2]	$28,431,501,828
2007–2008	$29,492,415,314
2008–2009	$30,764,252,814
2009–2010	$31,757,137,814

The diversity of the I-Bank's programs has also expanded and now includes the following primary programs:

- *Infrastructure State Revolving Fund (ISRF) Program* (provides low-cost financing to local agencies for public infrastructure projects);
- *Industrial Development Revenue Bond (IDB) Program* (provides tax-exempt revenue bond financing for eligible small- to mid-size manufacturing companies);
- *501(c)(3) Revenue Bond Program* (provides tax-exempt revenue bond financing for certain nonprofit public benefit corporations);
- *State School Fund Apportionment Lease Revenue Bond Program* (provides tax-exempt revenue bond financing for school districts needing emergency apportionment loans);
- *Public Agency Revenue Bond Program* (provides tax-exempt revenue bond financing for governmental entities, including the I-Bank's ISRF Program); and
- *Other Tax-Exempt Revenue Bonds* (this category captures I-Bank projects that don't meet the criteria of any of the four bond programs listed above).

(The IDB Program, the 501(c)(3) Revenue Bond Program, the State School Fund Apportionment Lease Revenue Bond Program, the Public Agencies Revenue Bond Program and Other Tax-Exempt Revenue Bonds are collectively the Bond Financing Programs.)

The I-Bank statute has allowed a broad and creative range of economic development financings. Below is information on each of the programs.

Infrastructure State Revolving Fund Program

The Infrastructure State Revolving Fund (ISRF) Program is a direct revolving fund loan program created by the I-Bank that can directly serve as a model for the

[2] Includes the sale of Tobacco Settlement Bonds for which the I-Bank was responsible for creating a special purpose trust, selling the tobacco assets to the special purpose trust, and working with the Department of Finance to oversee the sale of the bonds.

[3] On April 25, 2006, $1,160,435,000 of Toll Bridge Seismic Retrofit Revenue Bonds issued by the I-Bank was defeased and $80 million in related commercial paper was repaid.

national I-Bank. It is a statewide program that provides low-cost loans[4] up to $10 million per project for the following 16 statutorily designated categories[5] of public infrastructure: (1) city streets; (2) county highways; (3) drainage, water supply and flood control; (4) educational facilities; (5) environmental mitigation measures; (6) parks and recreational facilities; (7) port facilities; (8) power and communications; (9) public transit; (10) sewage collection and treatment; (11) solid waste collection and disposal; (12) water treatment and distribution; (13) defense conversion; (14) public safety facilities; (15) State highways; and (16) military infrastructure. ISRF Program eligible applicants include local government entities such as cities, counties, redevelopment agencies, special districts, assessment districts, and joint powers authorities. Since June 2000, the Board has approved ninety-five (95) ISRF Program loans totaling nearly $417.6 million.[6]

While the appropriated funds have been committed to ISRF Program borrowers, additional ISRF Program financing is available because of an innovative "leveraged loan program" structure which involves the issuance of revenue bonds secured by the repayments from previously approved loans. To date, the I-Bank has issued three series of revenue bonds totaling roughly $153 million to provide additional funding for the ISRF Program (Program Bonds). As noted above, the I-Bank recently received ratings upgrades from S&P and Fitch. The Program Bonds are rated "AA+," "Aa2," and "AA+" by Fitch, Moody's Investors Service (Moody's) and S&P, respectively. Moody's cited "strong management with rigorous and detailed credit reviews of new and existing borrowers" as a key consideration in their rating assessment. S&P cited, "[p]rogram oversight and loan screening provided by State infrastructure bank" staff as well as a key factor in the upgrade.

Industrial Development Revenue Bond Program

The I-Bank is authorized to issue Industrial Development Bonds (IDBs), which are tax-exempt bonds issued by governmental entities to small- to mid-size, privately owned manufacturing and processing businesses to provide low-cost financing of up to $10 million for the acquisition, construction, rehabilitation, and equipping of the business. The purpose of IDBs is to promote economic development and job creation or retention. The I-Bank is a conduit issuer of IDBs. IDB bonds are payable solely from the revenues generated by the privately owned business and are neither backed nor guaranteed by either the State or the I-Bank, and do not involve the use of State funds. The eligibility requirements for IDBs are governed by provisions in the Internal Revenue Code and U.S. Treasury regulations. Since 1999, the I-Bank has issued forty-eight (48) IDBs totaling approximately $235 million to businesses located throughout the State.

501(c)(3) Revenue Bond Program

The I-Bank is authorized to issue 501(c)(3) bonds, which are tax-exempt bonds issued by governmental entities to federally approved tax-exempt nonprofit corporations to provide low-cost financing for capital improvement projects. Similar to IDBs, the eligibility requirements for 501(c)(3) bonds are governed by the Internal Revenue Code and U.S. Treasury regulations. The I-Bank serves as the conduit issuer of 501(c)(3) bonds, which are payable solely from the revenues of the nonprofit entity, are neither backed nor guaranteed by either the State or the I-Bank, and do not involve the use of State funds. As a result, the I-Bank typically issues bonds for the following types of nonprofits located throughout the State:[7] (1) research institutions (*e.g.,* Scripps Research Institute, Gladstone Institute, RAND Corporation, and Buck Institute for Age Research); (2) cultural organizations (*e.g.,* Asian Art Museum, San Francisco Ballet, California Academy of Sciences, and Getty Museum); (3) charitable organizations (*e.g.,* Salvation Army and Goodwill Industries of Orange County); (4) recreational facilities (*e.g.,* YMCA); and, (5) other unique nonprofits that provide a defined public benefit (*e.g.,* Society for the Prevention of Cruelty to Animals, the Academy of Motion Picture Arts and Sciences and Learning With a Difference, Inc. d/b/a The Westmark School). Since 1999, the I-Bank has issued ninety-three (93) 501(c)(3) bonds totaling approximately $5.8 billion.

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[4] "Loans" is generically used to mean loans, leases/leaseback agreements and installment sale agreements.

[5] Each of the categories is further defined in Government Code Section 63010.

[6] This number includes seven approved loans that were withdrawn by the borrower.

[7] While the I-Bank has broad authority as a conduit bond issuer for nonprofit entities, it is statutorily prohibited from financing housing projects. Additionally, the I-Bank's board of directors has adopted a policy to not issue bonds for nonprofit health facilities or nonprofit higher educational facilities and other projects that are eligible for financing through other State financing authorities that were created specifically to finance those types of projects.

State School Fund Apportionment Lease Revenue Bond Program

Emergency Apportionment Lease Revenue Bonds. In December, 2005, the I-Bank issued $97 million of State School Fund Apportionment Lease Revenue Bonds in three series. In April, 2010, the I-Bank issued an additional series totaling $13 million for a fourth district. The bonds, which were initially authorized by Chapter 263, Statutes of 2004 (AB 1554), as amended, will reimburse the State's General Fund for long-term emergency loans made to four school districts experiencing severe financial distress. The bonds will be repaid through a direct intercept of State School Fund monies designated for apportionment to the four districts. To the extent any school district in the future obtains approval by the Legislature for an emergency loan, it is anticipated that the I-Bank will issue bonds to fund the loan using the model developed for the bonds issued in December 2005. This occurred as mentioned above, in April, 2010.

Public Agency Revenue Bond Program

Because the I-Bank is the Governor's only general purpose financing authority and has extremely broad statutory powers to issue revenue bonds and act on the State's behalf in certain statutorily authorized circumstances, the I-Bank has been involved in the following financings and activities to support various State entities and programs.

Infrastructure State Revolving Fund Program. As mentioned above, on March 1, 2004, the I-Bank issued its initial series of ISRF Program revenue bonds, the Series 2004 ISRF Bonds, in the amount of $51.37 million. On December 14, 2005, and September 24, 2008, I-Bank issued the 2005 and 2008 ISRF Bonds, totaling $52.8 million and $48.375 million, respectively, to provide additional funding for loans under the ISRF Program.

Energy Efficiency Bonds. In April 2003, the California Consumer Power and Conservation Financing Authority (CPA) issued $28,005,000 of 2003A Energy Efficiency Bonds on behalf of the California Energy Commission (CEC). On October 25, 2004, the CPA assigned its rights and responsibilities for these bonds to the I-Bank when the CPA's operations were closed down as a result of budget elimination. In May 2005, the I-Bank issued a second series of revenue bonds in the amount of $37 million to provide additional funding for the CEC's Energy Efficiency Financing (EEF) Program, which provides low-cost loans of up to $3 million to schools, hospitals and local governments for the installation of energy-saving measures. The bonds are repaid from previously approved EEF Program loans. Eligible projects include heating, ventilating, air conditioning, equipment control, small cogeneration and photovoltaic systems.

California Insurance Guarantee Association Bonds. In August 2004, the I-Bank issued $750 million of revenue bonds for the California Insurance Guarantee Association (CIGA) pursuant to authorization contained in Chapter 645, Statues of 2003 (AB 227). CIGA is an organization created by the California Legislature in 1969 to pay claims of insolvent insurance carriers that are licensed to do business in the State of California. The proceeds of the bonds were used by CIGA to pay claims and related expenses that arose as a result of the insolvencies of insurance companies providing workers' compensation insurance. The bonds are repaid solely by special and regular premium assessments on worker's compensation premiums paid by insurance companies to CIGA.

Toll Bridge Seismic Retrofit Bonds. In August 2003, the I-Bank issued $1.1 billion of long-term fixed rate revenue bonds for the California Department of Transportation (Caltrans) pursuant to authorization in Chapter 907, Statutes of 2001 (AB 1171). The bonds were rated in the "AA" category by all three rating agencies and were repaid solely from revenues and related interest earnings generated by the $1 per vehicle seismic retrofit surcharge collected on the seven Bay Area State-owned toll bridges. Caltrans used the bond proceeds to fund a portion of the construction of the new East Span of the San Francisco–Oakland Bay Bridge (Bay Bridge), which is one of the largest public works projects in Northern California history. In March 2005, the I-Bank also authorized the issuance of up to $400 million of commercial paper for the program, with Caltrans using the proceeds for the continued construction of the Bay Bridge. In March 2006, the Toll Bridge Seismic Retrofit Bonds were defeased by bonds issued by the Bay Area Toll Bridge Authority (BATA). BATA also paid off the related I-Bank commercial paper notes at that time. BATA was given the financial responsibility of continuing the Bay Bridge seismic upgrades and for the costs thereof pursuant to Chapter 71, Statutes of 2005 (AB 144), which also authorized BATA to collect the seismic surcharge revenue generated from tolls collected on the State-owned Bay Area toll bridges.

Clean Water State Revolving Fund (CWSRF) Bonds. In August 2002, the I-Bank issued $300 million of fixed-rate revenue bonds to provide additional funding for the

CWSRF Program. The CWSRF, which is administered by the State Water Resources Control Board (SWRCB), provides low-cost loans up to $25 million per year to local agencies throughout the State for the construction of wastewater treatment and water recycling facilities. The bonds, which are repaid by 98 previously approved CWSRF loans from 50 different borrowers, received natural "AAA" ratings from all three rating agencies. The bond issue also represented the first time that the State had leveraged one of its Federal Environmental Protection Agency-funded State revolving fund programs, and added California to the ranks of over 20 other States that have utilized this innovative financing technique to expand lending capacity.

In addition to the above programs, the I-Bank has also been involved in other unique financings listed below.

Tobacco Securitization Bonds. As part of the State's solution to provide funds to address the Fiscal Year 2002–2003 budget deficit, the Legislature and the Governor authorized the issuance of bonds secured solely by tobacco settlement revenues. Chapter 414, Statutes of 2002 (SB 1831) authorized a special purpose nonprofit corporation (Corporation) to serve as the issuer of the tobacco settlement bonds and authorized the I-Bank to sell for, and on behalf of, the State, all or any portion of the tobacco settlement revenues to the Corporation necessary to issue the bonds. In January 2003, September 2003, August 2005 and most recently in March 2007, the I-Bank sold the tobacco settlement revenues to the Corporation, and the Corporation issued bonds totaling over $13 billion to be repaid from tobacco settlement revenues.

Recovery Zone Economic Development Bonds Pool Finance Program (RZEDBs). On February 17, 2009, President Obama signed the American Recovery and Reinvestment Act of 2009 (Recovery Act), which contains a number of new financing tools valuable for counties and cities to achieve short-term economic stimulus and support long-term economic recovery. RZEDBs are taxable governmental bonds that must be issued before January 1, 2011, and are principally used in designated recovery zones after designation as such for qualified economic development purposes. RZEDBs can be used to pay costs associated with public infrastructure or facilities that promote development or other economic activity in a recovery zone, or for expenditures for job training and educational programs. RZEDBs provide either a 45 percent interest rate cash subsidy from the Federal Government to the bond issuer, or bondholders can receive a tax credit equal to 45 percent of each bond interest payment (unused credits may be carried forward to successive years).

As a conduit bond issuer, the I-Bank may sell RZEDBs, which are payable solely from the revenues of the participating eligible cities and counties, are neither backed nor guaranteed by either the State or the I-Bank, and do not involve the use of State funds. The I-Bank intends to offer a pooled bond program to aggregate RZEDB financings from several cities and counties into one large bond issuance to facilitate efficient and cost effective access to this new type of taxable bond with lower interest costs, lower bond issuance costs and a ready-assembled bond financing team.

Tribal Compact Asset Securitization Bonds. Chapter 91, Statutes of 2004 (AB 687) ratified amended State-tribal gaming compacts (Compacts) with five recognized Native American tribes (Tribes). Each Compact allows the Tribe to increase the authorized number of gaming devices it operates and also enhances the Tribe's exclusivity over gaming activities. In return, the State receives, among other things, two new income sources from the Tribes derived from the increased gaming devices (Compact Assets). AB 687 authorizes the I-Bank to sell for and on behalf of the State some or all of the Compact Assets to a special purpose trust created by the I-Bank as a not-for-profit corporation (Trust). The Trust is authorized to issue bonds, the repayment of which is limited to the Compact Assets sold to the Trust by the I-Bank. The I-Bank works closely with the Department of Finance and the State Treasurer's Office to issue the bonds, with the bond proceeds intended to be used to fund transportation projects.

Imperial Irrigation District Preliminary Loan Guarantee. On April 29, 1998, the Imperial Irrigation District (IID) and the San Diego County Water Authority (SDCWA) entered into a 45-year water conservation and transfer agreement (Transfer Agreement) for the transfer of up to 200,000 acre-feet per year of water supply to SDCWA based upon IID water conservation. The Metropolitan Water District of Southern California (MWD) and the Coachella Valley Water District (CVWD) challenged the IID/SDCWA transfer, resulting in Key Terms of a Quantification Settlement Agreement (QSA), which outlined a series of agreements to settle disputes and allow the Transfer Agreement to proceed (QSA together with the Transfer Agreement, collectively the Agreements).

IID did not initially approve the QSA due to concerns about two early termination provisions contained therein and expected potential environmental mitigation costs associated with actions undertaken pursuant to the Agreements. Early termination would eliminate the contract revenues that IID and its landowners would rely upon to finance the capital investments enhancing water supply based upon IID water conservation. A preliminary loan guarantee, approved by the I-Bank Board on June 27, 2003, addressed the financial risks involved with early termination and enabled IID to issue sufficient revenue bonds to finance the water supply project. The Board of Directors of the IID approved the QSA on October 2, 2003.

On December 15, 2009, the I-Bank Board approved a 1-year extension of the 2003 Preliminary Commitment, subject to certain clarified terms and conditions and to further negotiations on a few remaining terms and conditions consistent with the 2003 Preliminary Commitment.

Other Tax-Exempt Revenue Bonds

The I-Bank has issued bonds for projects that do not fall into any of the above categories of bonds. These include Rate Reduction Bonds, Exempt Facility Revenue Bonds, Enterprise Zone Facility Bonds and Economic Development Facility Bonds.

The I-Bank's activity related to rate reduction bonds (RRBs) involved the issuance and ongoing administration of $6.046 billion of bonds by special purpose trusts in 1997 and 1998. The RRBs were related to the restructuring of the electric utility industry.

Exempt Facility Revenue Bonds are a category of bonds created by special provision of the Internal Revenue Code which allow private, for-profit companies, typically located at ports and airports, to utilize the proceeds of tax-exempt bonds to finance limited types of projects. California I-Bank is currently processing a bond to finance $530 million for Poseidon, a desalinization plant to be located in Carlsbad, California. A National I-Bank could finance such projects, serving the driest regions in the States, making a huge positive impact on water supply.

Enterprise Zone Facility Bonds are issued for projects that meet the definition of 26 United States Code, Section 1394. An "Enterprise Zone" means any area within a city, county, or a city and county that is designated as an enterprise zone by the California Department of Housing and Community Development in accordance with the provisions of Section 7073 of the California Government Code. Economic Development Facility Bonds are issued for projects that meet the definition of Economic Development Facilities as defined in the I-Bank's statutes.

National I-Bank Project Example

Earlier this year, the Mayor of Los Angeles came to Washington with an unusual financing request. According to press reports, he was not looking for a grant or other handout. He simply needs a loan or loan guarantee. He has obtained local voters approval to collect funds for transportation. A one-half cent sales tax was passed by the voters in a recent election to be collected for 30 years. Some experts say the total amount that will be collected over 30 years is approximately $40 billion.

The City also has a very detailed, shovel ready plan to use the money for transportation projects-mostly rail. If the City builds and finances the projects on a pay-as-you-go basis, it will take 30 years to put these critical transportation improvements in place. If it can borrow the money, secured by the ongoing payment of this tax, the City estimates that all of the projects can be complete within 10 years. Think of the reduction in traffic, increases in air quality, and all the other massive environmental benefits that could take place in 10 years: one-third of the time it would otherwise take.

The initial reaction to the Mayor's request was that such a program doesn't exist. That is exactly my point. A National Infrastructure Bank is designed to respond to just this kind of need. Los Angeles has a huge infrastructure and environmental need, as do many communities throughout the Nation. We have the solution.

PREPARED STATEMENT SUBMITTED BY THE CONSTRUCTION MANAGEMENT ASSOCIATION OF AMERICA

The Construction Management Association of America welcomes this opportunity to comment on current proposals to create a National Infrastructure Bank. We have long supported this concept and I would like to commend Chairman Dodd on taking the initiative to explore this important and innovative idea and move it toward enactment. CMAA joined with the Chairman and other Senate leaders last January in a news conference in support of the Infrastructure Bank and other proposals.

We were also encouraged by President Obama's recent announcements of support for the National Infrastructure Bank and his intention to seek additional short-term funding for infrastructure investment.

CMAA would like to commend Pennsylvania Governor Ed Rendell of Building America's Future for his eloquent and consistent leadership in this effort.

CMAA is a national organization of more than 6,200 members, including both owners of construction projects and individuals and organizations providing professional construction and program management services for our Nation's infrastructure.

CMAA's owner members are predominantly in the public sector and include such organizations as the U.S. Army Corps of Engineers, the U.S. General Services Administration, the State Department's Overseas Building Operations, the Department of Veterans Affairs, the Department of Homeland Security's Customs and Border Protection agency, and numerous State Departments of Transportation, city and regional transit agencies, ports, school districts, airports, and other entities.

Our service provider members include virtually all of the leading companies in this industry. Although CMAA members are active across all types of construction, it is fair to say that public sector infrastructure projects account for a very significant portion of their total business.

CMAA develops and maintains the Construction Management Standards of Practice and administer the Certified Construction Manager (CCM) program, which has been accredited by the American National Standards Institute under International Organization for Standardization norm ISO 17024.

Our entire focus as an organization is on bringing professional discipline to the management of every phase of a construction project or program. The goal is the most successful project possible, as measured by the achievement of schedule, budget, quality, and safety goals and the avoidance of delays, claims, and disputes.

Sound professional construction management protects the interests of owners and their projects, saving tax dollars while providing quality buildings and infrastructure.

We believe the concept of a National Infrastructure Bank is fundamentally in harmony with this focus, and creating the Bank will be a powerful step toward assuring America of the infrastructure we will need to continue to grow and prosper. Moreover, the Bank concept may also provide a new level of oversight and accountability in infrastructure construction.

The National Infrastructure Bank will replace our current, politically driven process for selecting projects with a process based on clear cost-benefit analysis conducted by impartial experts. The best projects—those that serve clear public needs and are planned and implemented effectively—will promise sufficient returns to attract investment dollars.

The discipline imposed by ROI metrics will drive steady improvement in design, construction techniques, procurement policies, adoption of new technology, and other areas. Projects will be selected for funding based on merit-based criteria rather than geography or political considerations. This strategy will also foster development of clear performance measurement standards such as completing projects on time and within budget, with high levels of quality and safety.

All of these values are the fundamental goals of professional Construction and Program Management. As we continue to work in an environment of constrained resources, these basic values will become ever more critical. Getting the most from the available resources will be the key challenge of the years ahead.

In our advocacy of a new multiyear Surface Transportation Authorization, as proposed by Rep. James Oberstar, as well as legislation to improve our Nation's drinking water and wastewater systems, develop high speed rail initiatives, and promote other forms of infrastructure investment, one question comes to the fore again and again: How are we going to pay for these improvements?

Nobody doubts that our infrastructure needs are real and urgent. But we all also recognize that the potential cost of meeting these needs is immense. Both in our present budgetary and economic climate, and in any likely near-future scenario, this price tag is simply beyond our ability to pay . . . if we continue to rely on our traditional funding mechanisms.

This is why the Bank is so critical, and why the new resource must be conceived and structured as a bank and not simply a new Government fund.

The Highway Trust Fund, based chiefly on the gasoline tax, will never again be adequate to fund even ongoing maintenance of our roads and bridges, let alone expansions. We see similar situations with a wide range of revolving funds and other methods that, in one form or another, channel tax revenues into infrastructure.

This is the linkage that we must leave behind. We must move away from complete reliance on public funding for infrastructure and forge a new, stronger connection between private capital and infrastructure needs. Many innovative new financial methods are being employed in the United States today, from Public Private Partnerships to Design-Build-Operate-Maintain contracts. CMAA members are often in the forefront of these efforts, both as owners and as providers of services that range from predesign planning to ongoing operation of buildings and other structures. These new tools are being improved through practical experience, evolving steadily into systems that deliver good value to taxpayers and users as well as to investors.

There will always be a role for direct Federal spending, of course, because not every infrastructure project will attract private investment, and because certain public assets and resources must be supported whether they generate revenues or not. But using a National Infrastructure Bank to finance a large part of our infrastructure needs means we will be able to target Federal spending more efficiently and realize more benefits from it. By introducing a major new source of funds that have not previously been available, the Bank will make it possible for Federal, State, and local funds to be directed to other projects—projects that might have been squeezed out of budgets by larger-scale undertakings.

In addition, the Bank will always be able to lend out far more money than it has on hand. Initial Federal funding, together with funds deposited by private investors, will serve as the reserves on which a significantly larger lending volume can be based. A funding system based on tax revenues and Federal borrowing will never be able to generate the same amount of money as a true banking system.

The National Infrastructure Bank should be invested with authority to use a wide range of proven financial tools, including grants, credit assistance, low interest loans, tax incentives, Build America Bonds, Private Activity Bonds and other resources. The Bank should also have the broadest possible focus on infrastructure, financing not only roads by water and wastewater systems, electric power, ports, airports, broadband, and other forms of infrastructure.

CMAA is also organizationally dedicated to transparency and accountability in construction management. We believe these values thrive in an environment in which objectives and metrics are clear; in which risk is realistically and reasonably shared, and in which performance is measured with the goal of continuous improvement. Funding infrastructure projects through Bank investments will contribute to creating this kind of environment.

America must be able to repair, maintain, and expand all kinds of infrastructure in order to support future economic growth. The National Infrastructure Bank provides a means for the business community to fund this infrastructure in the same way it would fund any other similarly critical asset. Creating a National Infrastructure Bank is a key step away from viewing infrastructure as an expense and toward seeing it as an investment. Expenses are incurred and never recovered, while investments can continue to pay off for years or decades to come.

LETTER SUBMITTED BY THE NATIONAL ASSOCIATION OF MANUFACTURERS

NATIONAL ASSOCIATION OF
Manufacturers

Robyn M. Boerstling
Director, Transportation & Infrastructure Policy

September 24, 2010

The Honorable Christopher J. Dodd	The Honorable Richard C. Shelby
Chairman	Ranking Member
Committee on Banking, Housing and Urban Affairs	Committee on Banking, Housing and Urban Affairs
United States Senate	United States Senate
Washington, DC 20515	Washington, DC 20515

Dear Chairman Dodd and Ranking Member Shelby:

The National Association of Manufacturers (NAM) appreciates the opportunity to express its support for the creation of a National Infrastructure Bank to supplement existing federal funding programs. Current National Infrastructure Bank proposals are helpful but further refinements are necessary for a bank to recognize its full potential.

The NAM believes that a new financing structure is needed to better leverage and prioritize federal investments in transportation and water infrastructure. It is well documented that the infrastructure needs of the nation are significant. Many projects are too large for state and local authorities to shoulder alone and traditional formula grant programs are insufficient to address these issues. A National Infrastructure Bank should accomplish the following:

- Expedite transportation, water and wastewater projects of regional and national economic significance that have struggled to be financed through previous surface transportation authorizations or other federal funding programs;
- Provide a diverse range of financing tools that offers the most efficient and reliable source of financing for states and localities embarking on projects over a certain cost threshold;
- Take a leadership role in prioritizing and facilitating U.S. infrastructure investments that serve a regional (multi-state) or national need;
- Accept a broad view of transportation infrastructure to include innovative financing mechanisms to support the Next Generation air traffic modernization effort, inland waterway lock and dam replacements, improvements at ports, and intermodal transportation projects, in addition to traditional highway, transit, and bridge construction projects; and
- Demonstrate taxpayer value by injecting discipline in the project selection process and ensuring loans are repaid to guarantee the revolving nature of the bank.

Our nation's infrastructure investments should be recognized for the value they bring to the economy. We believe that a National Infrastructure Bank can and should provide the necessary resources to help support the underlying foundations that enable our nation's competitiveness in global markets. In addition to the National Infrastructure Bank, we hope that the Senate will take the necessary steps to address the long-term revenue challenges facing the Highway Trust Fund because it is the only predictable source of funding for highways, roads, bridges, and transit systems supported by user fees. The Highway Trust Fund supports continuous investment in transportation infrastructure and the National Infrastructure Bank should not be viewed as a vehicle to supplant that source of funding.

President Obama's Labor Day proposal to front-load a multi-year surface transportation reauthorization effort with an additional $50 billion for a variety of key transportation infrastructure investments, including a National Infrastructure Bank, is an important first step but the NAM strongly cautions against moving away from the traditional user-pays model that has worked efficiently since President Eisenhower made the construction of the Interstate Highway System a national priority. Raising new revenues by targeting certain businesses and industries is not a sound way to invest in infrastructure and NAM encourages Congress to maintain the user fee approach to funding infrastructure that has worked so well over the years.

Thank you for the opportunity to express our views on this important issue to manufacturers.

Sincerely,

Robyn M. Boerstling

1331 Pennsylvania Ave, NW, Suite 600, Washington, DC 20004 P 202-637-3178 F 202-637-3182 www.nam.org

LETTER SUBMITTED BY THE ASSOCIATION OF METROPOLITAN WATER AGENCIES

ASSOCIATION OF METROPOLITAN WATER AGENCIES

September 21, 2010

The Honorable Christopher Dodd, Chairman
The Honorable Richard Shelby, Ranking Member
Committee on Banking, Housing, and Urban Affairs
United States Senate
Washington, D.C. 20510

Dear Chairman Dodd and Ranking Member Shelby,

Thank you for the opportunity to submit comments for the record of the Committee's hearing on "Investing in Infrastructure: Creating Jobs and Growing the Economy." The Association of Metropolitan Water Agencies (AMWA), which represents the nation's largest publicly-owned drinking water systems, is pleased to discuss how a proposed National Infrastructure Bank can help meet the infrastructure challenges facing America's water utilities.

First, it is important to note that while our country's roads and railways have received the most attention in the context of infrastructure renewal discussions, our drinking water systems have serious infrastructure needs as well. EPA's 2007 Drinking Water Needs Survey reported that the nation's drinking water systems require at least $334.8 billion in investment over the next twenty years to continue providing service at current levels. Thirty-five percent of this need – $116.3 billion – is represented by metropolitan drinking water systems that serve at least 100,000 people. In addition to these figures, EPA has reported that the country's wastewater systems face $298.1 billion in infrastructure needs over the next two decades.

Unfortunately, the federal government's existing funding programs do not provide adequate assistance to meet these needs – especially for urban water systems. For example, EPA's Drinking Water State Revolving Fund (DWSRF) is the primary mechanism through which local water systems access federal dollars for infrastructure repairs and upgrades, and legislation pending in the Senate (S. 1005) would authorize spending up to $14.7 billion on the program over the next five years. But even if the DWSRF were fully funded at this level – an unlikely proposition in the current budget environment – it would only cover a small portion of the infrastructure costs faced by drinking water utilities across the country.

But even more importantly, the design of the DWSRF prevents many metropolitan water systems from successfully utilizing the program. This is because the DWSRF was established primarily to offer loans to help small community water systems come into compliance with federal drinking water quality standards. But this focus on rectifying existing compliance issues leads the program to overlook projects that would benefit millions of people by rehabilitating aging systems or fixing problems before they threaten public health. As EPA Assistant Administrator for Water Peter Silva testified before the Senate Environment and Public Works Committee last

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year, ninety-six percent of all health based SDWA violations occur at systems serving less than 10,000 people. As a result, states have traditionally targeted DWSRF assistance toward these small systems.

EPA's own data confirms this. From the beginning of the DWSRF in 1997 through 2009, community water systems serving more than 100,000 people received only twenty-three percent of funds distributed by the program, despite serving forty-six percent of the American population, and representing thirty-five percent of the sector's total infrastructure need.

Of course, we recognize that large metropolitan utilities often have access to funding sources that are unavailable or unaffordable for smaller water systems. Many large cities, for example, can borrow money at competitive rates or issue bonds to fund needed infrastructure improvements. But a National Infrastructure Bank could supplement these sources, and offer stable financing regardless of the economic climate.

While we were disappointed that President Obama's recent call for an Infrastructure Bank did not mention water projects, we are pleased that Sen. Dodd's 2007 legislation (S. 1926, the "National Infrastructure Bank Act") would permit funding for water infrastructure of "regional or national significance." To further strengthen this proposal, AMWA would like to share a few suggestions with the Committee.

First, the legislation's requirement that the National Infrastructure Bank only consider projects requiring a federal commitment of at least $75 million could lead to the exclusion of many essential drinking water projects. Because individual DWSRF loans rarely exceed $20 million, a significant funding gap could emerge where there is no federal mechanism to loan dollars to water projects requiring more than $20 million but less than the Infrastructure Bank's proposed $75 million minimum. I urge you to revise the legislation to permit loans to regionally significant drinking water projects within this cost range.

The Committee should also ensure that National Infrastructure Bank funds are available not only for water projects that have a direct connection to a utility's compliance with the Safe Drinking Water Act, but also for those that will shore up aging infrastructure before it fails, or will lead to the implementation of cutting-edge technologies. Such projects might include:

- Replacement or rehabilitation of aging treatment, conveyance, storage, and distribution facilities;
- Capital projects to upgrade or enhance the security of drinking water systems;
- Capital projects to facilitate the consolidation or interconnection of multiple water systems;
- Projects to reduce a utility's energy consumption, increase its energy efficiency, or to implement on-site renewable energy generation technologies; and
- Measures to increase water efficiency.

Again, AMWA would like to thank the Committee for holding this important hearing on investing in our nation's infrastructure. We look forward to working with you to ensure that drinking water utilities may compete for funding through a National Infrastructure Bank.
Sincerely,

Diane VanDe Hei
Diane VanDe Hei
Executive Director