

THE BROOKINGS INSTITUTION  
BROOKINGS CAFETERIA PODCAST  
BETTING ON THE FUTURE WITH INFRASTRUCTURE

Washington, D.C.

Friday, April 16, 2021

PARTICIPANTS:

**Host:**

FRED DEWS  
Managing Editor, Podcasts and Digital Projects  
The Brookings Institution

**Guests:**

ADIE TOMER  
Fellow, Metropolitan Policy Program  
The Brookings Institution

HOMI KHARAS  
Senior Fellow, Global Economy and Development  
The Brookings Institution

\* \* \* \* \*

## P R O C E E D I N G S

DEWS: Welcome to the Brookings Cafeteria, the podcast about ideas and the experts who have them. I'm Fred Dews.

Infrastructure is now front and center in the Washington DC policy debate, and with President Biden's \$2.3 trillion proposal on the table, this won't be another so-called infrastructure week that comes and goes with a chuckle but no action.

I'm delighted to be joined on this episode of the Brookings Cafeteria by the co-author of a deeply important report on how to address America's infrastructure challenges and opportunities. Adie Tomer is a fellow in the Metropolitan Policy Program and, along with Joseph Kane and Caroline George a co-author of "Rebuild with purpose: An affirmative vision for 21st century American infrastructure." In our conversation, Tomer talks about what it means to not just rebuild infrastructure, but to *reimagine* it.

Also on this episode, Global Economy and Development Senior Fellow Homi Kharas presents a new Sustainable Development Spotlight, in which he discusses the problem of debt crises in developing countries.

You can follow the Brookings Podcast Network on twitter @policypodcasts to get information about and links to all our shows including Dollar and Sense: The Brookings Trade Podcast, The Current, and our events podcast.

First up, Homi Kharas with a Sustainable Development Spotlight.

KHARAS: Hello, I'm Homi Kharas, a senior fellow in the Center for Sustainable Development here with a sustainable development spotlight, a regular segment to highlight work from the center.

What I'd like to share with you today is some work that I've been doing on addressing the twin crises of debt distress and development distress. This is work I've been doing along with the, uh, the United Nations Office of the Secretary General uh, where I think people are just extremely concerned coming into 2021, both that developing countries are maybe in for a bout of severe problems with servicing their debt, and at the same time are facing a huge recessions induced by the response to COVID-19.

Most debt crises in the past have resulted from quite limited development and poor development because the borrowed funds that were used weren't used all that well. And this is probably true for a few countries today who were already moving into debt distress prior to COVID-19. But for the vast majority of countries, the difficulties in servicing their debts today is not coming because of their failures of the development strategies or implementation. But it is coming about because of the rush to safety of private investors in a world of very high risk and uncertainty.

And so what we need at this stage is foreign exchange liquidity at reasonable interest rates to get us through this period. And the international community has really done its best by front loading grants and loans and using their existing instruments. But despite all of this, investments in all developing country regions are falling even faster than GDP. and could continue before, without additional sustained financial support and that is one of the real worries about the so-called development distress.

And in addition to investment falling, key other aspects of public spending, especially spending on education and having children in school, is also falling. And so there's a risk that there will be scarring with long term consequences for growth and development from the response to COVID-19, and that's what we want to try to minimize and avoid.

So, one of the central questions in designing a debt strategy today for developing countries is to ask, do we believe that the returns on public investment are higher than the cost of finance? And so, if we think that the returns to investment are higher than the cost of capital, then we should try to find the financing for the investment regardless of existing debt levels. And this is the time for greater ambition in government spending, not for greater caution. And if we take that approach, all creditors will gain when development is strengthened by additional borrowing and investment of this kind.

Now, the problem is that private creditors are much less well placed to tolerate the higher levels of uncertainty than official creditors. And when debt resolution processes are unclear, which they are at the moment, this adds to private creditor uncertainty. And so while the expansion of access to private credit markets has actually created a lot of benefits for many developing countries, it could be strengthened if we had greater clarity on the rules of the game for private participation in workouts.

But what we have today is a system where private participation in workouts is purely voluntary, even though from an economic efficiency point of view, there would be a great deal of value in having collective action on their behalf. And because their participation is voluntary, it adds to uncertainty because each private lender doesn't know what other lenders are going to do, and they don't have mechanisms for coordinating amongst themselves because there are so many different types of private lenders and they're so numerous in quality. So there's no institutionalization of the process that would allow for an efficient restructuring.

So, we really need to avoid debt crises becoming long, prolonged negotiations. We need new mechanisms for their fast and efficient debt relief and restructurings. But that's only one of three major agendas which today is shaping the international financial policy response to

COVID-19. Because the second agenda is how to restore enough sustainable financing to boost public investment over and above just simply satisfying debt service requirements and the current fairly low levels of public investment. So we want to boost it, and here I would propose a far more ambitious role for multilateral development banks, especially in middle income countries. And the problem has been that because the multilateral development banks have slowly ceded ground to private capital markets, in today's environment where private capital markets are retreating the multilateral development banks have to step back in and cover those gaps.

And then the third agenda is to strengthen the international financial architecture. And that's the architecture about global taxation of multinational companies.

And then last, we have to have I think much better transparency and oversight over public spending to make sure that it's actually used in efficient, equitable and sustainable investments, because if we're going to mobilize the official public sector and say you have to be more ambitious and do more, the public is going to demand, What's the money going for? And right now we don't have good tools and instruments to track finance to investment to impact and be able to tell that story in a credible and accountable way.

So that's what I'm working on right now. Thank you for listening.

DEWS: Listen to more Sustainable Development Spotlight segments our Soundcloud channel, brookings.edu/brookings-institution. And now, here's my interview with Adie Tomer on an affirmative vision for 21st century American infrastructure.

Adie, welcome back to the Brookings Cafeteria.

TOMER: Always good to be with you Fred. Thanks for having me.

DEWS: It's great to see you and this report comes at a really propitious time, which I'll get to in a minute. But first, I want you to define infrastructure. We've heard Republicans in Congress claiming that infrastructure can mean only roads and bridges and maybe some will go to ports and rail. The Biden administration's package that they just released recently covers a lot more than that, but it also includes things like you know, home health care aides and affordable housing. So Adie, expert in infrastructure, what is infrastructure?

TOMER: We might be referencing this moment for years. As you know, politics is in fact semantics, because that's exactly what we're seeing playing out on the national stage. And this hasn't just been powered by the media getting quotes from empowered elected officials. I mean, it's the media even themselves trying to figure this out.

We define infrastructure through a pretty traditional lens. So for us that's transportation, water resources, energy, and telecommunications, but in particular, digital telecommunications, which to be even more specific, it really means broadband. Which of course has been kind of front and center during the COVID-19 year.

The debate in D.C. is a fascinating one because you know, I'll just be blunt with you about it Fred, I think this is as much about political gamesmanship in terms of legislative process—What kinds of policies you can get through, how it plays with your constituencies back home, how folks, in particular elected members of Congress, are going to hear about it from their constituents. Then necessarily a redefinition of what is infrastructure.

You know the term itself, I'm happy to say this out loud: there's some differences of opinion across the Institution, which is one of the great things about working at Brookings. Once you step outside of those traditional built environment definitions, the word "infrastructure" itself starts to lose all meaning at all, and you start to just assemble everything that goes into life.

And that that kind of concerns me as someone who—and it's not just me alone, there's a whole pool of us who kind of focused our work on either one of those four separate silos, or there's even a smaller group of us who look across all four to try to set policy.

So, my hunch is that I don't think when push comes to shove the Biden administration thinks any different about the definition than I do. I think this is creating a legislative vehicle which you've seen them turn to when they need to to say, Well, we don't call it the infrastructure plan, it's the American jobs plan. And they figured out how to bring together a complementary set of issues that hopefully can get three to four big policy areas over the finish line in terms of big funding through Congress.

DEWS: Well, it strikes me is possible that maybe the definition is not as important as the meaning of infrastructure. And you get at this in your in your great report, which has something to do with the underpinnings of the American economy, of American prosperity, of looking ahead to the future. And you talk about it a lot in terms of the historical episodes of great infrastructure investment in this country. So, Adie, can you talk about, in the big picture then what is infrastructure?

TOMER: Infrastructure is opportunity. And infrastructure to me is optimism. But again, because we are having this semantic debate. When I say opportunity, optimism, I say that through the lens of these four distinct capital accounts, and when I say capital accounts, this is physical, built stuff and you touch it, meaning quite literally everyone every day of your life, typically all throughout the day. It's opportunity because when we build out these four big systems well, it helps make sure that businesses can sell their goods globally. It makes sure that people can get to work, but also get to that date with a friend, right? It makes sure that we protect

this natural world that we all share together, not just with other people, but of course with all other living things.

So infrastructure is a massive enabler of where we're going as a people. But when I say optimism, it's also a bet on our future. And that's what can be so exciting about infrastructure.

Too often when infrastructure is above the fold, if you will, in that media parlance, it's because something is failed, right? The bridge collapse in Minneapolis, the flooding in Houston or even New York right around superstorms Harvey and Sandy. That's tough news to stomach, right? It's really hard to see and it's kind of a way to understand when how precious our infrastructure is and how important it is that it's operating.

But when things are crumbling, that's not a good way, in my mind, to motivate change in terms of greater investment. It's the optimism behind it. It's to say, hey, we're going to build this sweeping set of highways across the country so it gets so much easier to go between metropolitan areas where maybe your other family lives or a business partner you want to meet. It's remaking our ports, right, so we can bring these goods from all over the place. It's not just investing in the quote, unquote internet, right. It was building out all that telecommunications that connected us all across the country and the world.

So infrastructure is about this grand vision of who we can be as people. And it's why so often you actually see this, even in movies, right? Its futuristic infrastructure that gives us the idea where we're seeing a future world and that's something we actually can deliver when we all put our minds together and spend more.

DEWS: That's something I really loved about this report--is it's terrifically optimistic. It's not based on a reaction to, as you said, the crumbling bridge in Minneapolis, the Flint water crisis. Although it attends to those issues, it's very optimistic and forward looking. But I want to

ask you, Adie, to situate it in the moment we're in now. I mean, it's mid-April and all the talk in D.C., all the policy talk I should say, is about infrastructure and President Biden's plan that came out a couple of weeks ago. You and your coauthors Joe Kane and Caroline George didn't just write this report over the last week or two, right? Can you tell us about the origin of this report and the longer-term work that you and others have been doing?

TOMER: This has been building for a while, right, Fred? And I don't mean us. I mean this infrastructure moment. We were part of the original group that put together infrastructure week as this organizing time to just have a whole bunch of public conversations. And somehow the Trump administration commandeered it, right? And now it's this national joke, which is both hard for a lot of us who just tried to put together this cool event series once a year in May. And yet it put infrastructure into the national conversation in a different way. And I think it started to prepare people that maybe it's time for that great big investment. When we say highways, that's our grandparent's generation. When we talk about the New Deal, right, that's actually very much an infrastructure driven package, both in terms of projects but also right like through the WPA—it was a jobs program related to, often, infrastructure. That was at this point our great-grandparents, you know, in terms of the actual elected leaders who did it.

You can kind of feel, even though our infrastructure is not crumbling, it is too often failing people and places. We're kind of there. It's kind of a moment for this, and we felt it building in 2016 when both Trump and Secretary Clinton campaigned often on infrastructure. And when President Trump won, the first really like real estate president in our history, you thought infrastructure was going to get over the finish line. And they just never could put together the right plan, find the right moment for a whole range of other issues too. It didn't get

there. But for researchers like us that are connected both to the policy but also the politics, you could see this coming.

And so we started work really for years now thinking what would our reform agenda be. I testified in front of the House in 2018 or 2019 about a big reform agenda. It was time y'all. And then, especially once Joe Biden won the presidency, you could just feel, especially with the economic- and COVID-related moment that infrastructure was coming. So we've been writing in earnest since November. We hope folks obviously will check out the report. It's 100 pages. It is not an easy thing to get through—

DEWS: Well, some of those pages are references and footnotes.

TOMER: That's true, that's true.

DEWS: There's a lot of great charts.

TOMER: Right? Yeah, huge credit to our colleague Luisa who always puts together these amazing glossy reports from Brookings Metro.

But, we were kind of ready for the moment, that we wanted to write it all down. And you're not just going to see groups like us putting out these reports. There's a lot of folks who've been working for months in earnest, years in terms of planning, knowing we could hit this crescendo, if you will, of a policy window. And a huge credit, even for those who disagree with him, I really push this, huge president credit to President Biden of using the stump the way of president should. Which is all of a sudden, comparing to what I said before, you're seeing infrastructure above the fold, but it's not about something crumbling, it's about that opportunity and optimism.

And that's a different fundamental conversation, and it's why we believe not just this report, but more importantly, the folks who are really empowered on Capitol Hill are going to try to get this over the finish line to think about what's this grand new vision for the country.

DEWS: Well, let's talk a little bit more about the report. Again, it's on our website, brookings.edu, and in the report you and your coauthors call not just [for] rebuilding infrastructure systems, but you call for *reimagining* them. And I think that dovetails with the opportunity with the optimism that you're talking about. What do you mean by reimagining?

TOMER: We've got to stop thinking about projects and start thinking about outcomes. When we say outcomes, what we're thinking about is, how do we make sure that homeowner in a place like Houston knows how under threat they could be from a superstorm, and what might happen to them if flooding occurs.

It's that story that was from a few years ago that really made national news about a gentleman in Detroit who took hours and hours to get to work because he had to transfer between two buses, then he had to walk miles in one direction, right? So a huge chunk of his day was just transportation to work and he didn't even have time to sleep. How do we make sure that gentleman can connect to opportunity, right? And more time both asleep, but also to take care of himself and you know his loved ones around him.

It's about that kid that we've seen during COVID-19 who when they go home they cannot digitally connect to a classroom. And how that could potentially put them behind for years in terms of catch-up with their peers.

We have got to focus on what kind of world do we want to build in terms of outcomes, both in terms of competitiveness in our industries, social prosperity for all, in terms of

environmental resilience—and less about hey, can we widen this highway here? Hey, what's it going to cost to build out some broadband? Should we switch off fossil fuels?

Those are already one step removed from the bigger conversation. So, this happens in every historic vintage of infrastructure in the country, too, is we think about, what do we want to be in the future? Kind of something bigger than just the projects and how can we use the technology to help us get there?

DEWS: One of the things that you talk about a bit in the report is the way that past federal efforts on infrastructure, as meaningful and important as they were for that era and then continuing into our own era, they got a lot wrong, like with highway building. We're learning a lot about Robert Moses in his approach to highway building. Can you talk a little bit about what federal priorities and practices do you think we should dispense with?

TOMER: We've got to take environmental justice more seriously. And there's some huge racial and ethnic repercussions to it. But, environmental injustice touches all of us. We put out some work a few months back about the average distance of every trip in United States, it's over 7 miles. Think about that for a second. You cannot safely bike 7 miles in each direction, and then that's to say nothing of the many Americans who are either too young or, you know, for physical reasons cannot get on a bicycle, right? At 7 miles they certainly can't walk it, and you're stuck in a car. Then we wonder why transportation is the number one source of greenhouse gas emissions in the United States. That is not necessarily the same way every other country looks. I mean, we are so committed to cars and it's destroying our planet all around us.

That's an environmental injustice that touches everyone. And that is a direct consequence of federal program that specifically subsidized single family suburban housing as well as expansive highway building with really no end in sight, meaning there was no end to the project.

Even if we built up the interstate systems we've kept pumping more and more money into roadways. And what do we have to show for it? Not only a polluted environment, our trips are longer and we're all stuck in traffic, you know. So there are big questions to have here.

The evidence is so clear then on how our most historically either disadvantaged, marginalized are most impacted by this, right? So the highways that tore through traditionally often African American but often even Hispanic neighborhoods, right? Just destroyed wealth along the way. And honestly it put people directly in contact with higher asthma rates, right, due to the toxins from all the related activity.

At the same time we've also had a completely non-existent broadband policy that's allowed us to have what's known as digital redlining in neighborhoods that say they have service, but they don't really have broadband service. And by the way, because we underregulate it, it's too expensive even if the proverbial cable ~~right~~ does connect to someone's home or apartment. That's a real problem.

And then of course Flint, Michigan, is kind of the, you know, the real coup de grace—if you want a mess of just garbage—of allowing a place that not only the city ended up kind of knowingly poisoning its people through a water that had contaminants that allowed the lead pipes to corrode inside people's homes. And of course, poisoned, most notably, of course, these poor, poor children, right. Those kids will never learn to the same ability, and the evidence on this is very [clear] in terms of in terms of IQ, right, what happens when you have lead poisoning.

The Flint water crisis was actually a fiscal crisis. It was because Flint didn't have the money anymore to buy the clean water from the Detroit River. And that was a federal government that allowed that kind of situation to happen.

I want to stop on this one, and you know, it really is—you can probably hear in my voice like why is this so visceral to folks? And again, yeah, it's capital projects, it's budgeting. It's not the sexiest stuff, but you know why it touches people is how can a country as wealthy as the United States, with so much water infrastructure, too, allow a community and then a state to be complicit to poison its own people. It's unconscionable. So, there is a not only a federal role here in terms of building out that optimistic future. It's also taking a real personal light onto its own policies and say, where are we falling short? Because we have all of the financial resources at our disposal to address these long run, durable, structural challenges. But we've got to get serious on focusing on them. It can't just always be that shiny new project, it's actually about making everyone's lives better.

DEWS: Yeah, well, let me pick up on that point about the fiscal issue, especially that Flint illuminates so clearly and devastatingly in your report. One of the reasons why it's so powerful, I think, is because it talks about these cross-cutting factors that kind of precede consideration of building a highway, or building new pipes, or, you know, expanding digital broadband. These are kind of the big issues we have to contend with.

TOMER: We're part of a relatively small group of other folks who are doing this. Some of them are on Capitol Hill, by the way. Some are nonprofits. They're trying to change the nature of the infrastructure conversation. And to us, when we look back on those historical great investments, they were motivated by something big. You know, the one that is most often used in these reports—like if I had a nickel for it every time—it's the Erie Canal, right? But it's kind of great because it's so built into our civics in the U.S. I mean, kids really learn it in middle school, typically. Not just what the Erie Canal is, but the Erie Canal existed to help trade for this new area of the country in terms of formally, you know, the United States that we moved into,

especially around the Great Lakes. And how did it get this amazing breadbasket we had, especially around the Ohio River Valley; get those goods to market both in the U.S. down the coast, but also of course out especially east to Europe. We know this lesson and we know that at the federal level, ironically, the Erie Canal and the federal government wouldn't pay for so New York did it on its own, it made a ton of profit. Of course, made New York, the economic hub it is.

As we look at the moment today, what's going to make us more competitive going forward, broadly defined? That means both industries, more shared prosperity, a natural environment that can stand up to a changing climate. And we kind of came up with four big forces.

Number one is, we've got to be more environmentally resilient. The damage from superstorms and other major climate shocks is going up over 300% per year on average compared to the 2010s to the 1980s. And the 2020s are not off to a great start between Texas, right?—the freeze. California wildfires. We know that tons of people have unaffordable water. There's tons of lead pipes of course across the country. So, there's this mix of both chronic and acute climate shocks that we really need to take account of. And then our transportation and land use, which we kind of already talked about, today, Fred, so I'll be quick on. It's a massive conversation, but you know, it's unsustainable fuels, it's unsustainable land use practices. How do we get this under control?

Number two: digitalization. The U.S. is so lucky that we continue to be at the cutting edge of innovation inside our industries. We have some of the highest R&D rates in the world. We have the best university system, and it continues to attract students from across the world, many of whom stay in this country and hopefully more will continue to stay to start up

companies. But we need to make sure that we can continue to feed that really digitalized lifeblood of American innovation. So what does that mean? It means connecting every household and every company to broadband. Over 70% of American farms who compete globally are not connected to broadband.

Then on top of it we need to be able to figure out how to use sensors in all this infrastructure we're building to make it more efficient, and ideally make it more equitable. But we know that sensors alone won't solve problems. In fact, if anything they raise all these questions on data privacy and cybersecurity. I mean, we've seen, you know, Hartsfield Jackson Airport in Atlanta, the busiest one in the world, was shut down at one point by a cyber-attack. I mean, we've got to get serious about protecting our vital infrastructure, so it helps, again, the entire economy go.

So those are two big future looking forces. They're coming, right? We need to be more environmentally resilient, we need to be more digitally competitive. We can use that as a north star. But in the process of doing that we also know that infrastructure is a major employer of people. Over 10%--it's actually really over 11% of the U.S. workforce--17 million people work in infrastructure. And the minority of them are kind of proverbial hard hat workers, construction workers. It's actually people who are designing our systems, who are helping to operate and maintain them. It's environmental engineers. I mean, it's all over the map. And we can get more careers in infrastructure if we focus on who's going to both design, build, and maintain these projects. And something I want to flag, these are fields that are underrepresented by people of color and even more egregious, deeply underrepresented by women. And we can absolutely provide career pathways to those and these really high paying jobs have very low barriers to entry.

DEWS: I was thinking about Joe Kane's water workforce report from a couple years ago where he lays all this out. I did a podcast interview with him on that, so listeners can go check that out.

TOMER: Exactly. We've been harping on this for years and I think that the big infrastructure bill gives us opportunity to hit on the labor side. We want to be environmentally resilient, digitally competitive, we want to make sure as we do that we create pathways. Well, who's going to do all this work? Well, you know you see the interstate logo when you drive on the highway and it seems national—and it is a national logo. The federal government doesn't own those highways, states on those highways, right? Your local water system? It's just that, it's local, right? Broadband and energy are actually predominantly private-sector held.

So what we've got to do is figure out at the federal level if we're going to spend more, how do we help in particular states and localities execute more of these projects, maintain them to high quality. You know, one kind of high level stat I want kind of folks to think about on this is the pavement quality—so like how smooth your drive is, or colloquially DC potholes, let's put it like that—on highways is actually going down. That's because we keep spending more and more on highways. Meanwhile, local roads, or when you proverbially when you get off the highway you know you're on the exit ramp and all the sudden you're on local streets, those road qualities are actually going down.

So how do we help cities, and then sometimes states even, too, invest more in those local roads where so many of us either start or end or trip, or maybe spend our whole trip? So there's a lot of mechanics we can work on here, again, if we have that kind of purposeful north star on, you know, what we're trying to achieve with all this investment.

DEWS: Let me ask you to stay on the fiscal issue for a minute and again thinking about state and local governments. I think the figure is something like 75% of all infrastructure is paid for at the local level, state or local level, except water, which I think is something like 90 or 95%. And thinking back to what you were saying about the Flint disaster, I mean, why don't states and localities have the funds to do what they need to do? And then given that so much of the infrastructure spending is at the state and local level, what role does federal spending have in that context?

TOMER: This is a really vexing problem, Fred, and we've been dealing with it for a generation. So you know, I want to be clear right away and I'm a big believer in this, the humility on our side of the industry to say sometimes we don't have all the answers. There's an amalgamation of factors, though that we know we can make better. So, the project inflation costs on construction in this country has been higher than overall inflation, and if folks are interested, you can go down an absolute rabbit hole of conversations about how to make infrastructure project costs come down. Our former Brookings colleague, Rob Puentes, has been doing some amazing work at his shop, the Eno Transportation Foundation, on transit focused projects, which is really the most egregious of these. But we know we could make things a little bit more cost efficient. So what could we do there? Well, the federal government could continue to experiment with both better materials, advanced material science, that can bring down costs, but also ways to make sure, through you know other labor practices that we can make project costs more efficient.

Another area is that we've been building some stuff that's questionable in terms of what its return on investments is. Well, you know when you widen a highway or build even build a new one, which we do less, someone's got to maintain that, right? And so you kind of have this long-term liability list. So we're really increasing our liability without necessarily the clear

outcomes we're trying to achieve with them. So that's another reason it's important to steer us that way.

But I might give you a third element that we kind of focus on a little bit in the report. It's kind of philosophical and theoretical, but it actually reflects practice, which gets down to how federalism works in the U.S. Famously, you know, localities and states, they have to balance their budget every year. Now, they go to financial markets—I don't want to, you know, people's eyes can glaze over when we talk about finance—but you know we have an active municipal financial market in this country, or muni land. People probably even have someone in their portfolios who are listening to this. And it's worth \$4 trillion. So there's an active state and local set of activity out there that is investing in infrastructure.

But at the end of the day, the federal government has the greatest ability to make big bets. This is part of where experimentation at the federal level is not just investing in R&D, it's giving states and localities quite literally the resources, whether direct funding or financial instruments, that allow them to make bigger bets on their future, too. Because if you believe you know that you can, let's say, as our nonresident senior fellow colleague Shalini Vajhalla talks about a lot, if you know you can make an investment in your environmental resilience that saves you from big costs down the road, let's say the \$400 million on weatherization that Texas could have afforded and avoided billions of dollars in expenses to say nothing of lost lives during the freeze, we want to make sure that the federal government kind of gives people the incentives to do that.

So yes, fiscal affairs. It makes people's eyes gloss over, especially if they're not voting at the local level on their own taxes. But it really ends up impacting infrastructure because there's such an intertwined system, even if, to your point, mostly ownership is state and local in nature.

DEWS: I want to stick on that point, too. You mentioned the climate impacts and its intersection with physical strains. There is a really important chart in the report about the cost of climate disasters since 1980 and how it's been rising ever since. And these are the kinds of issues that state and local governments especially are facing today and will continue to face in the future. I mean, you wrote, the U.S. has endured 285 climate disasters of at least a billion dollars each since 1980, amounting to a total cost of over 1.8 trillion. And they're happening more frequently in the '80s, an average of 2.9 per year. And now in the 2010s and beyond we're almost at 12 such disasters per year, with annual average costs \$81 billion. And it's rising, and everyone sees this. So how do you get state and local governments and the federal government to budget appropriately, I think it's the is the idea, for the increasing fiscal impacts that are coming down the pike?

TOMER: I'm so glad you brought it up, Fred. And to add one more stat to it, right? I mean over 5,000 deaths on the decade directly related to these acute climate shocks as environmental scientists were \_\_\_\_\_. And by the way, the reason you'll hear a lot of folks like me use the terms chronic and acute, because they really matter here, right? There's the acute, which I mean that's your disasters, right? Some of them expected some of them not, but it's, you know, you don't know the exact day it's going to hit, or in the case of—I'm a Floridian, right?—like, the hurricane, you know, you got a couple days' notice, but I mean, it's not like a year out you know when something is going to hit. But you know, there's also these chronic shocks, which in this case means those daily environmental costs, the environmental indignities that occur, and that's your, you're kind of you're seeing this a lot in national newspapers of daily flooding in Miami, especially around king tides as they're called.

I hate how politicized we've made the environment, and especially the science around it. And that's not just the science of studying climate, but also the technologies to help us solve it. Politics is powerful, but it can't beat science. And we're doing a real disservice not only to who's alive today, but the generations to follow. Manifest Destiny is so part of our American psyche, right? This idea of growth. That this is a place that we want people to live because we provide a great quality of life and the entrepreneurial spirit that pushes humankind to greater heights in the long run. How we could ignore these costs, not just in these acute disasters that are front page, every newspaper in the country, even if it's not in your backyard, right? The California wildfires were reported on everywhere, not just in California. The fact that we try to politicize that when it is so obviously the canary in the coal mine telling us what our future is gonna look like for our children and our grandchildren.

I don't have the best answers here, Fred, but I will say this. We are going to have to figure out how to get past this. And these next, let's call them like 6 plus months or so that you know we're gonna have a federal Washington debate, which therefore becomes a national debate, it is really important that we put environmental resilience, which, by the way President Biden has, at the top of the agenda. So folks do not run away from it, so that they are transparent about what the challenges will be about adjusting to it. We've seen this through, let's say, coal-rich communities and even natural-gas rich communities that may see the closure of their power plants. You know, what does it mean to lose those jobs? I am very sensitive to that. Like you, you've got to think about people, career pathways and how they provide a quality of life in their household for themselves or their families. But we also can't allow that to get in the way of what's the safety and health of, not just Americans, right? But all of humanity.

So, this is truly existential. We've got a few decades to solve it, and it's going to be really important that we figure out how to drive political consensus here. For folks who are curious, this is one area I actually really do recommend the report in the sense that it provides a lot of great data to help frame these arguments, if nothing else in your own thinking, right, about why resilience and sustainability touches every infrastructure sector, and then that bleeds out into every part of Americans' daily life.

We'll be right back.

[MUSIC FADE IN]

DEWS: Here's distinguished veteran journalist and author Marvin Kalb with a word from his new book from the Brookings Institution Press, "Assignment Russia."

KALB: Please consider "Assignment Russia" as a long letter home after an unforgettable personal adventure. It's the story of a few very important years in my life as a young reporter trained in the crucible of the Cold War. In the 1950s, I pursued one professional goal with an unflinching determination—to become CBS's Moscow correspondent. It took three years for me to get to Moscow, but it was worth the effort.

DEWS: Visit [brookings.edu/AssignmentRussia](http://brookings.edu/AssignmentRussia) to find out how you can get your own copy of Kalb's new book.

[MUSIC FADE OUT]

DEWS: And now, back to my interview with Adie Tomer.

I've had a lot of conversations with other Brookings scholars on issues that touch on climate resilience and sustainability. I'm thinking about John MacArthur and our Center for Sustainable Development. Samantha Gross and her amazing work on energy. Your collaborator many times, Joe Kane. In fact, I just interviewed Joe Kane and Nate Hultman on their paper in

our Blueprints series, and the paper was one you co-authored along with Shalini Vajhalla and Jenny Schuetz on a climate planning unit. So there's a lot of these amazing ideas that I'm lucky enough to get exposed to and to talk to scholars about. But then we always come back to this political issue. And like in our politics, for example, Secretary of Transportation Pete Buttigieg says, correctly, that there is racism built into our highways, and then all of a sudden there's this firestorm about how you know, how can he say that?

Or the Biden administration comes out with its infrastructure plan and then people start to calculate well, only 5.7 percent is about highways and bridges. I mean, we're in this political moment and, Adie as you say, the evidence is overwhelming. That climate change is here? It's not something that's going to happen 20 years from now. We're in the middle of the changed climate and it's having these impacts. I mean, how do you, How do you, as a scholar and a process, the conflict almost between the work that you're doing, the ideas that you're doing, the facts, and the data that you're putting out there in this kind of wall of resistance?

TOMER: I think we've done a really bad job in the United States translating climate costs, our collective kind of environmental future—you know, so trying to spin it like a positive way, right, how we can be healthy in the future—into the currency of the United States, which is money. We've allowed rhetoric that's not really about the environment, but so often about another major thread of Americana, which is liberty. Right? The idea of who gets to tell me, the proverbial me, what to do. It's always hard to beat that back. I really appreciate it earlier, Fred for what it's worth, man, that you picked up on like there's a lot of history in this paper. I'm, from undergrad, I'm a history, major. I think past stories help tell us where our destiny is going to be.

DEWS: Absolutely.

TOMER: And we know that all throughout history, like pretty deep in you know, to speak extra colloquially, right, all aboard the Mayflower in my mind, there's a whole bunch of libertarians on that ship. Right? And this is just so deep in our psyche. And by the way, I actually think that's an asset, you know. And it's not perfect, but it's an asset. So you're not going to beat back that element of who gets to tell me what to do. So you can, you know, in some ways—not everything, right, but there's a lot of liberties in the U.S., especially compared to other developed world peers. But you've got to pay for it. And we have not figured out well how to use pricing all throughout our infrastructure systems, which I'll touch on here in a second, to help steer people towards the right decisions.

So, give you a few examples. Actually it's part of it a little bit part of the infrastructure package, but more so about annual appropriations around FEMA and flood insurance, which is, hey, are we telling people the right places to build their homes and companies to locate their businesses? I'm not sure why all of us at this point need to pay for the insurance because it's really most people get it through the federal government to build in coastally sensitive areas. I mean, we know what's coming here and we should price it into our markets. And when I say we know what's coming here, it's back your point on the cost because that's actually is often built in more so into disasters and this the chronic shocks. When these super storms come, you don't know exactly where they're going hit they are going to do devastating damage to flood-prone areas along coasts and we need to get take that much more seriously.

The second example I want to give, which is what's coming on the horizon. You're seeing that to be in Congress too, is about the pricing of transportation. We are not sending people the right kind of price signals on what the environmental impacts are from their gasoline. And we are not sending them the right price signals on what happens when you basically overconsume

land per person. Because when you overconsume land per person, it's not just your house alone, it's the geometry of stacking up all those, let's call them, like, half acre, one acre lots next to each other. All the roads that need connecting, all the water infrastructure that needs to connect it. And what ends up happening is we see a massive carbon footprint from our built environment. And oddly enough it's denser cities which are much more climate efficient. But we don't actually price that into our land development markets.

So, we talk about that a little bit in this report, you know, as a bit of a preview, this is something that Jenny Schuetz and Joe Kane and myself are going to be working on a lot over the next couple of years. It's to figure out how do we price in these kind of benefits and costs into our marketplace. So, we say to people, look, you know, not only is the climate changing, but we're going to help you better understand how those prices work. I'm not sure if we can get wholesale carbon pricing into it—you can talk to Adele Morris about the politics of that some other time. But what I'm saying is there's actually some very targeted way through infrastructure and built environment systems we can start to put in very subtle but direct prices on what it costs to build a sustainable world, and we just haven't been using those market features, yet.

This is a really important area for folks who are listening, not just if you work on some other area and in your local community where you live to think about what are the prices you pay? But for folks who are mayors or work for mayors or county executives, right? You work in local government, maybe you just volunteer your time on a planning board. How we use these pricing instruments is really, really important, because that's how Americans communicate values with one another is dollars, and we've got to use them better.

DEWS: Well, I think this question is related to that to some degree. I know it's asked in the context of that state-regional-local preponderance of spending on infrastructure and our

tendency in America to think locally and regionally, before we think nationally. And it also goes to the politics. So, Amtrak was proposing a couple weeks ago that they could build some rail lines across the country and through some underserved parts of the country. And then my impression was that some communities that weren't on that track would say, well, why should we support expanding Amtrak if they're not going to come through our community? I think Governor DeWine of Ohio, your own state, said something to that effect as well. And so you see a resistance among some to spend on infrastructure projects that don't benefit, say, their county, their state directly. How do you deal with that?

TOMER: I was just talking to Mike Grunwald at Politico and he put out a short piece which folks can check in \_\_\_\_\_. So what I told Mike, which I'm going to now start using everywhere because I really like it—the quote is there—there is always a political tax to infrastructure investment. But you don't want to let that political tax get too big.

So, the extreme version, which is not necessarily what Governor DeWine is saying, but let's like carry that to its logical end game, is if you have a, if you have \$51 billion in infrastructure spending for high-speed rail, we're going to give a billion dollars to every state, as my old colleague Rob Puentes again made famous on infrastructure \_\_\_\_\_: you're gonna spread it like peanut butter, right?

There is no bit of evidence we have both in terms of econometrics, but even just basic long range, you know, outcomes that that kind of spending approach works. At the same time you bring up a great question, right, Fred, which we kind of see in comments like Governor DeWine's, and to use this as an extreme example, if you spent all of that 51 billion either on the Northeast Corridor, right—frankly it's barely enough to really rebuild all this stuff right around Metro New York. Or if you dump \$51 billion into California High Speed rail and just went to

that state, there'd be uproar all across the country. Right? Because how could you possibly take these, if you will, collective financial resources from across the country and spend them in one place? So you've got to find the balance between them.

What we learned during the stimulus ARRA, the American Recovery and Reinvestment Act back in 2009, was that if you spread passenger rail spending too thin—and I urge anyone who's interested in this go look at how long that list is of projects and how many places got not just small projects, but anywhere from like 50 to 100,000,000 of what ended up being an \$8 billion package. We have seen very little tangible results in improved performance. There's been improved performance, but that's actually attracted increased ridership.

The real win on that was actually in Cascadia between in particular Seattle and Portland in the Pacific Northwest. And that's been really helpful. But that's, in fact, what the lesson is from our European and Asian counterparts on this. And this is really important because we really do need passenger rail, and I want to finish talking about Governor DeWine in Ohio again, even though I work in D.C., as a Metro Cleveland resident. We know from our peers that the best way to build successful high-speed rail but get it in more parts of the country is to build out specific corridors that work to the level you need to both attract ridership and then make sure that ridership, when it's tourism, whether business or personal, goes back to their home region and says, I want that too, right?

It's the same lesson as kids growing up on your street, right? That kid across the street gets that new bike that you don't have, you go back and tell your parents you want the bike. So this was the biggest mistake we made during the stimulus, was and I'm still — again as a native Floridian— I'm still mad at now Senator Scott that he rejected the \$2 billion that would have built to completion the high-speed rail between Tampa and Orlando. Why? Because that corridor

attracts tourism from all across the country, to say nothing of the world. And the people who go down for spring break or throughout the winter or just any time of year to visit, Walt Disney World in particular or Universal Studios, they could have taken that train to go to the beaches in Tampa, St. Pete, and Clearwater, and they would have gone back to the Ohios, right, and the Indianas of the world, and said, this train is amazing! Why don't we have it connecting Cleveland, Columbus, Cincinnati, or why can't I take a fast train from Indianapolis to Chicago or Detroit?

We made a massive mistake not learning from our peers. And so that's what's going to confront us here with at least if, let's just say what President Biden proposes becomes law, which it won't, of 80 billion dollars. That's enough to build multiple high-speed corridors with frequent service that really meet international standards of high-speed rail. But if we dump it all in one place, we might run into political problems. And if we spread it too thin, we won't get enough of those corridors and we'll be right back where we are now.

The final comment here and why this matters so much, in particular for governors like Mike DeWine in Ohio—we're going to research this a little bit more and do some more work, so it's I'm teasing something that's just on the spreadsheets right now—is those communities across the country that have seen the loss of air service over the last two decades. So as passenger rail really kind of stalled, especially outside the Northeast Corridor's improvements and some stuff like in areas like Cascadia, we've seen air travel concentrate all across the country. And former air hubs like Pittsburgh, Cincinnati, Cleveland had are gone. And what they've lost is less their connectivity to the global hubs of, let's say, New York, L.A. Right? Washington D.C., Atlanta. They've actually lost regional connectivity. You can't take a plane right now, right, from Cleveland to Cincinnati or to Pittsburgh, or even in places like Flint that used to have service in

Metro Cleveland. So passenger rail offers a new opportunity to stitch these regions together to complement service that may not be coming back in terms of aviation, and actually ends up making their regions more competitive. So we need to set high-speed rail up in this country, we're really well designed for it, but we've got to be smart about how we let politics influence the process.

DEWS: It reminds me of growing up in Dallas, Texas, and as I got older as the idea of high speed rail started being talked about, it occurred to me and this occurred to me sense that there should have been a high-speed rail line that connected, say Dallas to Houston to San Antonio to Austin, maybe even to El Paso. I don't know what the politics are about that in Texas, but I do know there's a giant, I think 8 lane highway going South out of Dallas toward Austin,

TOMER: And on this point, just so you know Fred, this is actually one of the key corridors. There's a private company using Japanese technology called the Texas Central Railway, where they want to connect Dallas to Houston. And one of the reasons we didn't have that rail in the past is in fact Southwest Airlines fought because they that was one of their most popular air quarters, which you probably know growing up in Dallas.

DEWS: That's right.

TOMER: Now look, I'm not here to necessarily weigh in either way. I can say the environmental record of rail is objectively better than air travel. But what we know is that this is a real opportunity right now to make investment in, let's say, a company like Texas Central to be able to get the right of way it needs through a lot of farms right? And push through this connectivity that now we can bring those regions closer together, but ideally improve their environmental record too.

DEWS: You did say earlier that we have to stop thinking about projects and think about outcomes, but should we talk about specific kinds of projects in the four infrastructure areas?

TOMER: When you start to talk about projects, whether at the national scale and even local, but especially nationally, you start to distract yourself from the bigger process, right? The gateway projects—it's really like a series of projects that will rebuild the tunnels underneath the Hudson River, which were already on their way out but got excessively damaged during Hurricane Sandy, but also it includes bridge improvements and other track alignments—that's a rail corridor not just for you know, long distance Amtrak service, but also vital New Jersey commuters who go into Manhattan and other parts of New York City. You know that's in the national interest. There's an absurd amount of population and GDP of the country that touches that corridor. And it's obviously a transformative project for the country.

Every region of the country has these kind of elements that are needed. What we really need, though, at the federal level is a thoughtful process to think about well, what are we trying to achieve? And what's the hierarchy of these regional needs that we should invest in that can both catalyze growth in them but also serve as a model for the rest of the country, too? Because there's such big money in infrastructure, our systems, those four big systems, are conservatively valued at \$14 trillion in the United States. So, hopefully that puts in perspective when the president talks about spending \$2 trillion and it's not even all on traditional infrastructure, it's not even that much, actually. This is a constant source of investment needed to help our economy go. There is no lack of projects for every corner of the country.

So there's going to plenty of stuff to be built. We don't need to worry too much about what projects will come out of it. When you spend \$2 trillion, like, there's enough money to go around.

DEWS: Let me end this great conversation this way and you just mentioned the \$2 trillion price tag. Is it a mistake, maybe to always start the infrastructure conversation with the price tag?

TOMER: Always. Always. People don't even know what the gas tax is. It's like, you know, when you go to the pump you don't see it, like you gotta look at that print out receipt and even then it's kind of complicated because they build the tax in. In essence, it's actually the most elegant of our sales taxes. Right? Because when we go to buy you know clothing at a store, right, or whatever it might be, the bill is always higher at the end, right? Because then they add the tax.

People don't mind paying for infrastructure. We see this in survey after survey and I'm talking from reputable places like Pew and Gallup. Right? Those same surveys or in different questions but same outlets consistently show overwhelming support for infrastructure investment. And we've been again hearing this from the president on the stump saying look, people want this. When we talk about the quality of our infrastructure in this amorphous way, it doesn't help move markets. When we talk about how much it's going to spend, it doesn't help move markets. But when you talk about a captivating vision in making a better life for both us today and people to come, that gets support. Right? And then you start to tell people, okay, this is how much going to cost and this is how we're going to pay for it.

We consistently see on Capitol Hill that whether it's an isolated water resources bill or a surface transportation bill, or what this could be, this kind of newly minted omnibus infrastructure bill, they always get over the finish line. And no one ever talks about, you know, exactly where the money was going to come from. You know what they talk about? Hey, we're gonna rebuild America a little bit more. And that's the part that we need to focus on, especially when we're talking really big infrastructure agenda here. Sell people on a vision, sell people on

their better life in the future. They will be willing to spend on it. And again, survey data confirms that.

DEWS: Well, Adie, I want to thank you for spending so much time and sharing your expertise with the Brookings Cafeteria podcast today, this has been a great conversation.

TOMER: Thanks for inviting us. We're always happy to talk about it. It's kind of weird to see such a big infrastructure moment, so hopefully we'll get a chance to talk to more of our colleagues across the institution that work on infrastructure over the coming months.

DEWS: Well, it's an important and as I said earlier, optimistic report, "Rebuild with purpose," by Adie Tomer, Joe Kane, and Caroline George. It's on our website at brookings.edu, and while you're there also check out the transcript from an event that Brookings just had that Adie moderated featuring Senator Tom Carper of Delaware and Senator Maria Cantwell of Washington talking about infrastructure.

A team of amazing colleagues helps make the Brookings Cafeteria possible. My thanks to Audio Engineer Gaston Reboreda; to Bill Finan, Director of the Brookings Institution Press who does the book interviews; to my communication colleagues: Marie Wilkin, Adrianna Pita and Chris McKenna for their collaboration. And finally to Camilo Ramirez and Andrea Risotto for their guidance and support. Our podcast intern this semester is David Greenburg.

The Brookings Cafeteria is brought to you by the Brookings Podcast Network, which also produces Dollar and Sense, the Current, and our events podcasts. Email your questions and comments to me at BCP@brookings.edu. If you have a question for a scholar, include an audio file and I'll play it and the answer on the air. Follow us on Twitter @policypodcasts. You can listen to the Brookings Cafeteria in all the usual places. Visit us online at Brookings.edu.

Until next time, I'm Fred Dews.