Dr. Michael Osterholm:

I want to welcome you to the fourth, Dr. David J Roslien Distinguished Lecture on Science and Leadership. You've already heard a little bit about me, more than you need to. We'll move on to our real guest of honor tonight. Tonight, we are going to deviate a bit from the previous lecture approach and instead have a fireside chat with our distinguished guest. I will pose a series of questions to President Kashkari for the first 40 minutes. And then we have a series of questions from the students.

Dr. Michael Osterholm:

Let me just say that today, the Luther students had an exceptional opportunity to see both expertise, policy, practice, and kindness all in the time that you spent with the students. President Kashkari had a wonderful afternoon with the students. Thank you.

Dr. Michael Osterholm:

Without further ado, let me introduce President Kashkari to address Pandemic Economics: A Conversation. Neel Kashkari has been president and chief executive officer the Federal Reserve Bank of Minneapolis since January 1st, 2016, he serves on the federal open market committee, bringing the ninth Federal Reserve district's perspective to monetary policy discussions in Washington, DC.

Dr. Michael Osterholm:

In addition to those responsibilities, Neel oversees Minneapolis Fed operations and leads as many initiatives. Among them, he was instrumental in established the Opportunity Inclusive Growth Institute, whose mission is to ensure that world class research helps to improve the economic wellbeing of all Americans. Most recently, has joined with retired Minnesota Supreme Court Justice Allen page to propose amending Minnesota's constitution to make quality public education a fundamental right. This effort supports the Fed's mandate to achieve maximum employment with education being a key to obtaining a good job. Under Neel's leadership, the Minneapolis Fed also released an action plan on ending Too Big to Fail, which calls for tighter bank regulations to avoid future taxpayer bailouts of large financial institutions. Of interest and of note Neel earned his bachelor's and master's degree in mechanical engineering from the University of Illinois, he became an aerospace engineer, developing technology for NASA missions.

Dr. Michael Osterholm:

Eventually turned to finance and public policy, he earned his MBA from the University of Pennsylvania's prestigious Wharton School, and then joined Goldman Sachs and served in several senior positions at the US Department of Treasury, including overseeing the troubled asset relief program TARP during the 2008 financial crisis. His work was actually key in keeping this country from hitting a economic crisis of unprecedented proportion. I personally have had the wonderful fortune to work with President Kashkari over the past two years addressing the economic implications of the COVID pandemic. He is a leader among the Federal Reserve experts addressing the impact in response to the pandemic. In short, Neel is a true scholar, a gentleman, and as some of our Luther students, as I just noted, realized when they spent that afternoon with him, that he is all those and more.

Dr. Michael Osterholm:

Ladies and gentlemen, please help me welcome President Neel Kashkari.

Dr. Michael Osterholm:

Let me also make one brief announcement that while we're sitting here in this beautiful facility, we also have a large number of people that are actually listening to this exchange on streaming media. And this is also being recorded by Minnesota Public Radio and will be re-broadcast at a later date, so I believe the reach will be substantial.

Dr. Michael Osterholm:

So Neel, let me start with the question that it might say was at the beginning of all of it. Prior to the COVID pandemic, did the economists and other financials of the world ever consider and even plan in any way for a global event like this?

Neel Kashkari:

Well, first of all, great to be with you, Mike. Thank you for inviting me. It's great to be with all of you and thank you for calling me, Neel. It's much more comfortable for everybody than President Kashkari. I can't speak about all economists or all policy makers, but at the Federal Reserve, we have teams of economists that are either scattered, there are 12 Federal Reserve banks around the country, one in Minneapolis. There's a Board of Governors in Washington, DC. So we've got teams of economists that are looking at what could go wrong all around the world. They're always running scenarios, so it could be that prior to the pandemic, maybe there's going to be an oil price shock because maybe there'd be some conflict in the Middle East, and that would lead oil prices to go up. Or maybe there'd be a trade war somewhere, or maybe there'd be a banking crisis. So we're always looking at different things that could surprise us some positive surprises, but mostly we're looking out for negative surprises.

Neel Kashkari:

And I will tell you, at least in the five years that, I joined the Federal Reserve in 2016, I'd never seen any scenario analysis of this global pandemic. History has a way of repeating itself, but it has a way of repeating itself after generations have passed so we forget the lesson. So in 2008, we had a terrible financial crisis and I was at the US Treasury Department. The last financial crisis in the US, that of that magnitude was around the time of the Great Depression. I read books about the Great Depression, but I wasn't around for the Great Depression. And it tends to be that generations come, we forget the lessons, and then these things have a way of repeating themselves. So obviously, there have been other pandemics before COVID, but the last huge one to hit the US economy was in 1918, that really devastated the country. And again, these things have a way of repeating themselves. So long answer is, no, I had not seen any analysis of what if a pandemic hits us and how do we prepare for that.

Dr. Michael Osterholm:

Well, in that sense, then when did you, professionally, and maybe even at a personal level, realize the potential impact that this pandemic would have on our international, national, and even regional economies? When did the light bulb go off?

Neel Kashkari:

I remember the first hearing about something going on in China in December, 2019. There was first rumblings that there's some kind of outbreak of something in China and no one had any idea of knowing how big it was. Obviously, there had been other pandemics in Asia that we read about in the US. There was, I'm going to forget the name, there was MERS and there was-

Dr. Michael Osterholm:

SARS.

Neel Kashkari:

Flu and SARS, et cetera. MERS was Middle East. So I guess when I first heard about it, I assumed, okay, this is going to be a little local outbreak. It's probably not going to affect America. And then January, 2020, it got more serious. February it got a lot more serious and we really started paying attention and it was just, we have no idea what this thing is. We don't know how serious it's going to be, but we need to learn everything we can as quickly as we can.

Dr. Michael Osterholm:

And so what did you find that you and your colleagues were learning or learning from? Because this has been a challenge. We all talk about following the science and yet I would argue that, unfortunately, the science can mean different things to different people. And just as we've all come to learn that term, alternative facts, I've seen far too much alternative science. And I ask that question because I must say that I have been incredibly impressed with the ability of the Federal Reserve Bank to actually accurately assess the conditions on the ground in the future, more than I've seen almost any other institution. So how did you actually bring that together?

Neel Kashkari:

One of the first things I did was, because I didn't know Mike yet and I stumbled into Mike later, maybe a month or so later, which, to my great benefit that we had such a terrific expert in our backyard. But the first thing I did was I started calling CEOs of global companies that I know who have big operations in China. And I said, "Hey, can we talk to your leaders of your Chinese operations? Just tell us what are they experiencing on the ground? What's happening with their employees?" Just as a window of maybe this is what will be coming to America. And they shared things with us that in some areas it was getting worse, in some areas it was getting better, but they basically just conveyed a level of uncertainty and a seriousness that made us step back and think, okay, we really may be on on to something.

Neel Kashkari:

And Mike helped me figure out early on, when I finally got to Mike, was we need to be thinking about this over the course of the next couple years. And I remember, I was invited to address a group of CEOs in Minnesota. And I said to them, I said, "Hey, the best experts we're talking to are telling us, we need to think about this as an 18-month to two year horizon. This is not going to be a couple weeks." And I later learned that they thought I was crazy. "What the heck is Kashkari talking about, a couple years? This is a couple weeks then we're going to go back to normal." And it was Mike, and some of your colleagues who made us realize, hey, these pandemics take a while to run their course. Forgetting vaccines, forgetting everything else, there's going to be arcs to this and we need to be prepared for the long haul. And so that was one of your early calls that I really appreciate.

Dr. Michael Osterholm:

So here we are now in the third year of the pandemic, I must say, I'm still not clear in my own mind where it's going, what's going to happen. We keep having these new variants emerge. So from a priority standpoint, with everything else going on under the world right now, Ukraine, the issues around petroleum, global inflation, how does the Federal Reserve bake into its planning, the current pandemic and where it's at and what might be the future in the next months to years?

Neel Kashkari:

Well, it expresses itself or shows up in the economy a number of different ways. So one way was, in the peak of the pandemic, let's say the last year or so, all of 2021, essentially, most of the service parts of the US economy were shut down. Meaning people weren't flying people. Weren't going to restaurants, generally speaking. They weren't going to gyms. They weren't going to hair salons, et cetera. They were instead, mostly staying home. And they were mostly, what money they were spending, they were spending on goods instead of services. So people were ordering things on Amazon, et cetera. So one thing that happened immediately was the nature of our economic activity shifted. Instead of goods and services, it became much more focused on goods. So if the pandemic continues, if there are new waves, for example, or new variants that come, that also could have an effect on the mix of goods versus services.

Neel Kashkari:

And that matters a lot in terms of inflation, because one of the reasons that we saw high inflation was all of this spending was focused on a narrow segment of the economy. It wasn't spread out across the whole economy. So that's one thing that matters a lot that we pay a lot of attention to. A second thing is the labor force. It's taken a while for workers to come back into the job market. Last summer, when I was interviewed, I said, "Well, what's keeping people out of the job market, they're afraid of getting COVID. You've got childcare issues because a lot of schools are closed and parents don't have childcare. And of course, there are those enhanced unemployment benefits. Once those go away, I expected everybody to come back to work more or less. Well, a lot of people have come back to work, but everyone has not yet come back to work.

Neel Kashkari:

There are still people with childcare challenges. There are still people who are afraid of getting COVID and nervous, or they have other health conditions that makes them cautious. If the pandemic takes a lot longer, another place that's going to show up is that's going to continue to show up in holding back that labor market, which again, will have implications for inflation. Because if we don't have enough workers in the US economy to produce things, then you're going to continue to see businesses struggle, and you're going to continue to see high prices. So we've said for the last couple years that the path of the virus is going to determine the path of the economy. Hopefully, that is becoming less true as COVID goes into the background, but if it burns on longer, or if there are new waves, the virus could become in charge again.

Dr. Michael Osterholm:

From the standpoint of looking at the economy and spending and debt, it seems as if America's over the pandemic, even if the virus isn't over us and the next wave surely could happen tomorrow of a virus that evades the immune protection that we already even gotten ourselves from vaccines and from having previously been infected. Will the economy be impacted the same way of people just say, we're just going to go ahead and continue to live our lives and we will go to work. We will spend our money. We will live. Or will there potentially be tales to this pandemic if it continues to unfortunately rare its ugly head?

Neel Kashkari:

You're the world class epidemiologist, not me, but my reading of it is the people are going to react depending on the risk that they perceive to themselves and their families. So early on, none of us knew.

It was like, here's this new thing and it seems to be getting a lot of people sick and it seems to be killing a lot of people. We were all terrified of the unknown. We know a lot more today than we did and I think many of us feel more comfortable. I'm vaccinated. My children are young, they're too young to be vaccinated, but the health consequences for young children, knock on wood, are generally pretty good for COVID. So we feel more confident getting back on planes. But if there were a new variant, of course, that changed the risk dynamic, then I think we'd all be reassessing those calculations. And your guess is better than mine in terms of what that could look like.

Dr. Michael Osterholm:

Yeah. So as you know, I coauthored an op-ed in the New York Times in January stating that there was no way China could control the Omicron variant with the same lockdown efforts they used to control all the previous much less infectious variants. Zero COVID just would never work. Since that time, as you know, we're hearing every day now about the rapidly spreading Omicron virus in China with now more than 425 million people in at least 25 major metropolitan areas in lockdown. And most of the business and manufacturing are shut down. This is surely having a major impact on all kinds of supply chains around the world. These similar thoughts were shared with Chinese officials in a letter last week from the European Union's Chamber of Commerce in China, which provided examples of the country's policies disrupting European businesses.

Dr. Michael Osterholm:

As an example, a letter shared from the survey by the German Chamber of Commerce found nearly half of German companies were experiencing severely or completely disrupted supply chains due to the current situation in China. This letter later went on to say that the old tool box of mass testing and isolation was no longer capable of overcoming challenges presented by Omicron and called for revisions, such as embracing and distributing US-based vaccines that were developed outside of China. So what is the current impact from your perspective of this compromised supply chain situation, not only in the United States, but around the world, and what is this going to look like in the months to come in terms of economic impact?

Neel Kashkari:

Well, one of the things we're obviously very focused on at the Federal Reserve, one of our goals, one of our objectives is to keep inflation in check and inflation is very high right now. It's much too high. One of the things I'm hoping is I'm hoping that supply chains start to get better. I'm hoping that more supply comes online. If that doesn't happen because of Omicron spreading in China, then our jobs become a lot harder, then we're going to have to do more through our monetary policy tools to bring inflation back down.

Neel Kashkari:

You could imagine in a best case scenario, supply chains get better. COVID fades into the background. Then inflation will come down, some of it, on its own. And then we at the Federal Reserve will have to do less to get back down to our 2% target. But if Omicron continues to spread in China and supply chains continue to be disrupted, and of course, there's the tragedy happening in Ukraine right now as well. All of that makes our jobs more difficult. We're going to do what we need to do to get inflation back down, but an open question is, how much are we going to need to do, and it's partly going to determine by some of these other factors that you just mentioned.

Dr. Michael Osterholm:

So when you think about the issue of going forward and you realize the vulnerability that we have today in the issue of China's supply chains, Europe looks to Russian oil and how they're so dependent on it. Will this pandemic, do you think, change the global view of what must be done with both fiscal and monetary policies around the world to actually better prepare them so that they're not this vulnerable in the future?

Neel Kashkari:

I don't know what the lasting effects of fiscal and monetary policy are going to be. I hope that we're better prepared in the future for future pandemics, but I've also learned that democracies tend to have fairly short memories, something else comes up and then everybody focuses on that. So hopefully people like you will be able to, and by the way ... The problem is, here's an example of the problem. I read Mike's book, Deadliest Enemy. When did you write it?

Dr. Michael Osterholm:

2017. That was the first Roslien lecture was the week that book came out.

Neel Kashkari:

I read it in 2020, so I'm a guilty party. I didn't read it when he first made these kind of calls. So whether we actually have the institutional memory as a society to make the changes, I don't know. I'm pretty convinced though, that a lot of global businesses are going to redesign their supply chains to not be so exposed to one country, to one political system that is proving itself to be highly unpredictable. China looked like it had a brilliant economic model until it doesn't. And then all of a sudden, a lot of global companies and their customers are exposed. So I'm not saying that companies aren't going to do business with China, but my expectation is global companies will have other sources of materials and products that they can turn to if they need to.

Dr. Michael Osterholm:

So when you look going forward, where we might go or what we might do, a lot of people obviously are going to focus monetary and fiscal policies on the politics of the day, the upcoming elections. Can you explain to the group here how that actually varies from reality and what you all do relative to fiscal policy versus monetary policy as a federal bank? I think a lot of people just think you have a big printing press somewhere, you make lots of money, hand it out and then that's it. And actually it is much, much more sophisticated and, frankly, critical as to what you do in terms of trying to guide us through crisises like this.

Neel Kashkari:

Well, so first we have to separate just to be clear on fiscal policy versus monetary policy. Fiscal policy is, you have elected representatives who decide how much to tax you and me, tax us, and then what they want to spend that on. And there's fiscal policy at the local level, there's fiscal policy at the state level and the federal level. So how much to tax and then do you spend it on education, defense, healthcare, roads, all of that. Those are fiscal policy decisions that are decided by elected representatives of all of you and of us. Separate that from monetary policy. So in 1913, the US Congress created the Federal Reserve system, which is the Board of Governors in Washington and 12 independent Federal Reserve banks. And we are the nation's central bank.

Neel Kashkari

One of our primary jobs is deciding how many dollars to put out, to control the volume of money supply, so to speak by setting interest rates in the economy to try to manage the ups and downs of the economy. So this is not spending, we don't actually write checks to people. What we do is we do transactions in financial markets to put more liquidity out there if the economy needs a boost and to bring liquidity out, if we need to tap the brakes in the economy.

Neel Kashkari:

So how does that work? Well, we're experiencing very high inflation right now. You've probably seen in the news that the Federal Reserve has started to raise interest rates. By raising interest rates, we are going to make it more expensive for a family to get a mortgage, to go buy a house or to expand their house or to buy a new car or for a business to get a loan, to go build a new factory. Now, why would we do that?

Neel Kashkari:

If we make things more expensive, that's going to slowly tap the brakes on the economy so there's a little less home construction, a little less expansion of business activity to cool things off if the economy seems to be overheating. So that is not spending money, that is simply moving interest rates up and down by adjusting the money supply to try to manage the ups and downs of the US economy. And so, sorry, long answer to your question, but it's a complicated question.

Neel Kashkari:

When Congress created the Federal Reserve, and this is true in other advanced economies too, they said, let's keep this process out of the political process. Let's not have it so that elected officials are moving interest rates up and down in advance of the next election. Let's have some technocrats, for lack of a better word, looking at data and analysis to try to make the right decisions based on economic fundamentals, not on politics. And that has served advanced economies all around the world very well over the last hundred years or more. It's not perfect. We're not perfect, but this keeping it out of the political process has been a very good thing.

Dr. Michael Osterholm:

Well, as a country, we obviously have a lot of pride in our economic system here and we should, but the rest of the world obviously is also experiencing this pandemic. We talked a little bit about China. But how is this impacting the world's fiscal and monetary policies, and what are the rest of the world doing? What is the European Union doing? How is countries, low and middle income countries dealing with this? Are we leading the way? Are we the shining light up the hill? What is the global approach to this issue?

Neel Kashkari:

Well, I think lots of countries are taking different approaches and you are seeing differences. You are seeing variations. So first thing is, the high inflation that we're experiencing here in the US, many countries around the world are also seeing high inflation, but we are seeing higher inflation than our peer economies, like the EU or Japan or the UK, for example. So why is that? Why are we experiencing high inflation? Well, part of the reason they're all experiencing inflation is because a lot of the goods that we buy are global.

Neel Kashkari:

So for example, when supply chains for computer chips get disrupted and those chips go into cars, well, cars are sold all around the world. So if there's a shortage of cars because there's a shortage of computer chips, it's not just going to hit the US. It's going to hit economies all around the world. The shift that I talked about a few minutes ago, away from services towards goods, that happened all around the world. So some of these things are common, but then you also have local policy responses that are different. So all the advanced economy central banks were quite aggressive in dealing with COVID to try to stimulate the economy, but their federal legislatures were different. They all provided some support, but the US's Congress was more aggressive, even more aggressive than the EU, for example, or than Canada or than Japan.

Neel Kashkari:

So some people say, well, that's one of the reasons that the US is experiencing higher inflation than those other countries. They're all experiencing high inflation, but the US is experiencing even higher inflation. Some people say, well that's because the US fiscal authorities did more than those other countries did. So we're learning from each other, some of it we can unravel to understand, some of it we're still trying to figure out.

Dr. Michael Osterholm:

This really isn't a question about the Federal Reserve, as much as just your learned experience. Right now, we are experiencing a real stalemate in Congress because there are those who want to hold back funding additional work on COVID with vaccine purchases, drug purchases, et cetera. And one party says, look, there's way too much money out there. Let's claw some back that hasn't been used. There's states sitting with all these surpluses. Other side of the aisle is saying, no, no, no. That money is going to be spent. It's very important. Meanwhile, the public health response is sitting there frozen. We can't buy new vaccines. We can't buy more drugs. We can't buy testing right now. And from a Federal Reserve perspective, which realizing you can't comment on the monetary fiscal issues like that though. But do you see in the future more and more opportunities for government to actually become part of the problem, as opposed to the solution, in the sense of putting the pandemic into more political light than it was before. There may have been-

Neel Kashkari:
Is that possible?
Dr. Michael Osterholm:
What's that?
Neel Kashkari:
Is it possible? It seems like it became quite political, quite quickly.
Dr. Michael Osterholm:
More political.
Neel Kashkari:

More political. I'll say this. In 2008, the federal government responded to the banking crisis and the Federal Reserve responded. But I think history will show that even though they were very aggressive in 2008 and I was part of it, so I'm not throwing stones here. I think history will show that we were not aggressive enough. And so we ended up having a very slow recovery coming out of 2008. It took 10 years, 10 years to put everybody back to work who had lost their jobs relative to 2008. That's a long time. So one of the lessons is better to err on the side of doing too much, rather than too little. So I think I give Congress and the executive branch, both the Trump and Biden administrations, a lot of credit that they said, we're going to err on doing too much.

Neel Kashkari:

Now some may say, Hey, they overdid it. And it's even too much, too much, but they at least learned the lessons from 2008, that they acted aggressively in this time of pandemic and in this time of economic crisis. So I give them a lot of credit for that. Obviously, there are a zillion details be worked out and nobody can get all the details perfect in the middle of a crisis. But big picture, I think the US response was appropriate. What it looks like going forward, you're in the middle of it much more than I am, and so I'd have to turn the question around to you.

Dr. Michael Osterholm:

Good luck. So from the standpoint here we are at Luther College, a wonderful liberal arts institution that brings us a broad brush of topics and subject matter together under one roof. And today, though, when we think about the economists and the business administration graduates of our colleges and universities, what should they be learning about this current experience that will serve them well as they move through their careers and how should employers be thinking about what they want in their new employees relative to this experience and what it should have taught us?

Neel Kashkari:

That's a great question. I would say one thing comes to mind is living and making decisions in the face of uncertainty. That is what this pandemic, one of the things this pandemic has been about. Mike, you're very gracious in always telling me, Hey, I'm sorry to tell you, I don't know. You tell me that a lot, but I appreciate it because you're being very honest with your decades of experience about what we know and what we don't know. And even if you don't know, even if we don't know, we still have to make decisions. And so being able to operate and navigate, assess, and then reassess, you may have thought, we may have thought, hey, this makes sense, but then all of a sudden, the world looks very different or you get more information. And so being able to navigate in that uncertainty, I think, is something that is not only relevant for pandemics, I actually think those are good lessons that people could apply in all sorts of different situations.

Dr. Michael Osterholm:

Let me move to a couple of student questions. I think they were really very insightful. Duke Chu, who met with us today, asked how can we best fund the healthcare sector so it's well prepared for the next medical crisis? Let me add a little addendum to that. It may not be common knowledge, but over 500,000 healthcare workers in this country have left their jobs in the last two years, often because of burnout and challenges presented by the pandemic. We are, in many instances, incredibly short of the minimum number of healthcare workers we need to provide the kind of healthcare. As a Federal Reserve bank, you do so much research on workforce and what we need to do to develop the workforce of the future, how do we support the current workforce.

Dr. Michael Osterholm:

It seems that this pandemic, not just for healthcare, but for many of the, what we would call basically front end jobs, those critical elements of everyday life, the truck drivers, the grocery store workers, the people who made it possible for us to get through the pandemic. What do we do to basically help support and stabilize workforce needs so they match up with what society needs versus what we are now seeing?

Neel Kashkari:

Well, what you're describing, we're seeing across the economy. So one of the good things right now is that the job market is very strong. There are a lot of jobs out there. A lot of employers are saying we can't get to workers we need, which means that workers have choices. By the way, I think it's a good thing that workers have choices. But what we're seeing is a shuffling, a reshuffling of workers away from the toughest jobs to better jobs, better lifestyle jobs, better pay, better combination of lifestyle and pay. And it's not to say the jobs they're leaving are not important. In many cases, they're very important, the healthcare workers you talked about. But I also can't blame them for saying, I want to go get a better quality of life. So one example, you mentioned, truck drivers. I talk to a lot of businesses that say, hey, we've been trying to pay more, but we cannot get long haul truck drivers.

Neel Kashkari:

Long haul truck driving is a tough job. You're away from home for a week on end. It is a tough job. They'd rather be local truck drivers. Or in other places in Minnesota, I'm sure this is true in lowa. In Minnesota, finding childcare workers is really difficult. Why? Well, because wages have gone up in other professions as the economy got stronger and childcare workers are saying, wow, I may love my job, but it's a really tough job and I don't get paid very much money. Maybe I can take a higher quality of life job down the street that pays more. So this churning and this reshuffling is taking place all across the economy. Ultimately, in my view, ultimately it comes down to wages, which is, do we need childcare workers? Absolutely. Do we need hospital professionals? Absolutely. And most economists would say, wages in those sectors are going to need to go up to attract people to come there and want to do that kind of work. And that's ultimately how you end up having a sustainable system.

Dr. Michael Osterholm:

So from the standpoint, let's just go back to the healthcare worker issue. If we continue to have critical shortages because of not even just the pay issues, but the psychological support issues, we will obviously be incredibly vulnerable from a healthcare worker standpoint. In your workforce work, and the federal bank in Minneapolis has been a leader in this area. What do you use for tools to help try to match up those needs? Are there tools available?

Neel Kashkari:

It's very hard. One of the things that we've studied is if you look at, for example, worker retraining programs that have taken place nationally. It's very hard for those to work nationally, so when the financial bust crisis happened and the housing bust happened in 2008, 2009, all of a sudden you've got hundreds of thousands of laid off construction workers. Well, the idea that you're going to retrain all these construction workers to become nurses, maybe it sounds good on paper, probably doesn't even sound good on paper, not very realistic that it's going to work at any kind of scale. Can you find individuals where it works? Sure, but is it going to work for hundreds of thousand of construction workers? Probably not.

Neel Kashkari:

The best programs that I have seen are very local where a college, say Luther, partners with local businesses that have specific needs and says, hey, help us develop the pipeline of skilled workers that we need. Could be community colleges, et cetera. And so what I've seen work is when local businesses partner with local education institutions to try to bridge these gaps and map the workers. Other than that, and pay adjustments, I've not seen anything that works.

Dr. Michael Osterholm:

Let me move off a little bit on the pandemic, but in the end it will circle back. The work you did with Justice Page is really an important effort relative to racial disparities and access to education. And one of the areas that we've seen in COVID has been racial disparities, where the rate of deaths, the rate of serious illness and the people who had to stay on the front lines and work day in and day out were also, non-white largely. When you look at what you're trying to do with Justice Page and guarantee that, how does that address the issue of health disparities at the same time that it's addressing it? Because I think people often disconnect education from health outcomes, and they're so closely linked as your work is showing.

Neel Kashkari:

So for 20 plus years, the Minneapolis Fed, just back it up, has done really important research on the value of investing in early childhood education. Because the research is actually overwhelmingly clear that if young kids, if kids get start very early in life, the earlier the better that leads to better education outcomes when they become high school students or they go on to college, et cetera. And the research is also abundantly clear. If you get a better education, more education, higher quality education, you're going to have more and better job prospects. You're going to earn more money on average. You're going to have access to better healthcare resources. You're less likely to turn to crime or substance abuse, et cetera. The societal benefits are manyfold and it really does stem from earliest education possible. And so I absolutely think that it's related to health outcomes.

Neel Kashkari:

Look, I'm very privileged. My wife and I both have good jobs. We live in the Twin Cities. We have access to remarkable healthcare resources when my wife and I have two young children now. Contrast that with being in a rural community where you may not even have access to a hospital, it's a huge advantage for many of us and it's a huge challenge for many of us.

Dr. Michael Osterholm:

So here's a question from Shania Verma that said, do you think that any structural changes within the Federal Reserve, such as collaboration with members of other fields could help prepare the executive branch for future crisis? You may want to help clarify how from an executive branch standpoint, you're separate and different. The president appoints the chairman, Congress obviously votes yes or no, but in the end, your independence is such a critical element of fiscal and monetary policy.

Neel Kashkari:

It is critical that we're in independent, but I will say in times of crisis, we independently decide to work together. So in 2008, I was at the US Treasury Department, so I was a member of the executive branch appointed by President Bush. And then I continued under President Obama for some time. We worked very closely with the independent Federal Reserve to try to tackle the financial crisis. We had different

tools. So like I said earlier, the Federal Reserve does not make grants, does not spend money. It just deals in monetary policy, generally. The Treasury, through Congress, had the ability to write checks and to make grants. And they coordinated in a very effective way to try to address the financial crisis.

Neel Kashkari:

Same thing here in this COVID pandemic, the Treasury and the Federal Reserve brought different skills, different tools to the table, but worked collaboratively. And I'll give you one very specific example. Congress allocated a bunch of money to address the pandemic. One chunk of that money, roughly \$20 billion, was to go to native American tribes around the country to help them and help their members get through the pandemic. Well, the Treasury Department in Washington said, hey, we don't have a lot of expertise in how to get this money out to tribal communities. Well, we at the Minneapolis Fed have a research center focusing on Indian country and on economics of Indian country. So we sent some of our people to Treasury and said, we're going to put you on detail, on loan to Treasury to help them design their programs.

Neel Kashkari:

So that was one case where we just said, we're going to lend you experts and then they can help you design the programs that you need to help. And so in times of crisis, I think it's a really positive thing that these otherwise independent institutions can come together to work collaboratively, and that's one example of it.

Dr. Michael Osterholm:

So what would be your worst nightmare right now that could happen in the world relative to what it would do to the global economy?

Neel Kashkari:

Well, boy, I can think of some terrible scenarios with the crisis in Ukraine. It's funny, I joked with somebody. I said, you're critical because public health officials can't see everything perfectly, the future, go talk to national security experts who are trying to read Vladimir Putin's mind. What is going on in his mind? I have no idea. But that's probably the thing that scares me the most, because that could have, right now it's absolutely horrible for the Ukrainian people, but it also has the potential of going beyond that, and that's frightening.

Dr. Michael Osterholm:

So on a more personal level, a couple of the questions here relate to what was your biggest surprise in the job you took to become president of the Federal Reserve Bank of Minneapolis in terms of either the pluses or the minuses about the operation and its activities?

Neel Kashkari:

Well, one of the pluses is we have 1100 employees at the Minneapolis Fed. There are roughly 20,000 employees at all the Federal Reserve banks around the country and the Board of Governors in Washington. One of the positives that most people don't get to see are the quality of the people who choose to work there. And we've got economists and we have bank supervisors and we have lawyers and we have our own police force because if you took money out of your ATM, that would've started out at the vault of one of the Federal Reserve banks in the country. We put out new bills and we take

old bills back and we process them. But the one thing that everybody is united in is they believe in the public service mission of the institution.

Neel Kashkari:

It's not Republican or Democrat. It's mission first, and the mission is to serve the public. I knew that, I had a sense of that coming here, coming to the Minneapolis Fed because I worked with the Fed when I was in Washington, but it's absolutely true, and it has exceeded my high expectations. And I think that's something that if the American people could see up close, I think they'd be very proud of that institution putting the public service mission first. That's probably my biggest. There's lots of things that are, every job is different until you do the job. Lots of things you don't know, but that's probably the most important thing that I would share.

Dr. Michael Osterholm:

Yeah. So let another question from the student world is the fact that whatever made you to decide to go from engineering to the world of finance and economics given the difference between those two.

Neel Kashkari:

Well, I was doing research. I did my bachelor's in masters in mechanical engineering and I was doing research on NASA space missions. This is in the late nineties in Los Angeles and I was working on a mission that was supposed to be the replacement to the Hubble Space Telescope, really exciting. And I loved what I was doing, but my managers were encouraging me to go get my PhD. And I knew if I went to get my PhD, that I'd really be committing my whole career to a career of research and I was not ready to make such a commitment. And by the way, the mission I was working on, wasn't supposed to launch until 2006 or 2007. And I thought, I can't wait around here for eight years on this one mission, that seems like a long time. So I went back to business school to say, let me learn something about business. Let me learn something about finance. And that led me into investment banking and then ultimately Washington, DC.

Neel Kashkari:

Funny story is so that mission I was working on was supposed to launch in 2007, it just launched in December of 2021. And my contribution is a mosquito. I was just a young engineer, one of lots and lots of people, but it's the James Webb Space Telescope, and miraculously, to great credit to the scientists and engineers who designed it, this is probably one of the most remarkable engineering achievements of all time. Anyway, I'm not going to go on and on about it, but it's exceptionally cool what they have achieved. And it's now getting ready to start imaging the universe. And so I guess I made the right call if six or seven years was too long. I wouldn't have wanted to wait right around for 20. But anyway, that's what led me to make the shift.

Dr. Michael Osterholm:

That's good. Well, this is a question you might say is coming from every one of us, myself and the audience. What will you think the economy will look like in one year in five years and 10 years?

Neel Kashkari:

One year is hard. One year is really hard because it really is going to depend on the virus. It's going to depend on the virus. It's going to depend on what happens in Ukraine. Do these things get better? Do they get worse? I don't know. Five years, I feel quite confident that we're going to have inflation back

down to where it should be. It'll be down sooner than that, but we're going to be back to more of a normal economy, some kind of a normal steady state, unless something really surprising that we just can't see comes at us again. But one year from now, that's a really hard forecast to make. We have to make forecasts and we do our best, but things like China, supply chains, new variants, what happens in Ukraine, those are giant elephants that are going to determine what happens to our economy as well.

Dr. Michael Osterholm:

So in that regard, kind of a look inside the Federal Reserve without obviously asking to disclose anything confidential or proprietary, but how does the Federal Reserve actually consider these issues? You have your meetings, you come together. I personally know that you have really made a tremendous effort to understand the pandemic. You bring tremendous resources to the table. You're the one not in the Sunday morning talk shows, helping to share that vision of the Federal Reserve. But how does the Federal Reserve, as an institution, as such, consider all of this when it's considering its plans? It seems like an incredible calculus problem-

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It is.

Dr. Michael Osterholm:

Everything is all mixed up.

Neel Kashkari:

We have formal meetings every six weeks in Washington, DC. They went virtual and now they're back in person. And we have 12 Federal Reserve Bank presidents, and then you have five, up to seven governors in Washington. And we are all at the table offering our insights into what we see happening in the US economy and what we see happening in the global economy. We're supported by brilliant economists who are doing research of economies all around the world to try to bring us the best data possible, to try to inform our decisions. And then it's a deliberation.

Neel Kashkari:

We have a chairman, Jerome Powell, the prior chair was Janet Yellen and Ben Bernanke before Janet Yellen. Janet, by the way, is now the Treasury Secretary, if that name rings a bell. And everybody is saying, we know what we're trying to achieve, let's bring our best ideas and our best analysis forward. And there are a range of opinions around the table, of how bad COVID was going to be or what the effects from the economy were going to be. There's still a range of opinions, but the one thing that there's no difference on is everybody is committed to us achieving our goals. Congress assigned us the goals of stable prices that we define as 2% inflation and maximum employment. So we are all united in doing what we need to do to get to those outcomes. There are a range of views on what is it going to take to get there, and that's what we're deliberating over.

Dr. Michael Osterholm:

So if I'm sitting here in the audience side, I'm wondering whether I'm 65 years of age and older, and I'm worried about my retirement. I'm younger, I'm under 30 years of age, I'm wondering what my job might be in the future. Do I have access to potential retirement funds, which seems so far away, I'm not going to think about it right now. And then everything in between. What today should the average American household be thinking of when it comes to the issue of our economy? Is it debt? Is it access to jobs?

What is it that really should be in the front and center of every household thinking about their own financial situation?

Neel Kashkari:

It's hard to boil a very complex question onto one thing, but I would say this, there's great value in having a job. For the vast majority of people, a lot of Americans don't own their own home, as I'm sure you know. A lot of them don't have their own 401k. For many people, the most valuable asset they have is their job. And so one of the things that we learned in the 2016, 17, 18, 19, businesses kept saying, there's no more workers. There's no more workers, but then jobs were being created. Well, wait a second. If there are no more workers, how are jobs being created? A lot of people chose to work who we didn't think were going to work. People who were becoming retirement age said, "Hey, I'm still healthy. I can get a pretty good job. I'm going to go back to work or I'm going to keep working or I'm going to work part time."

Neel Kashkari:

I would just say the lesson that I've learned over and over and over again throughout these crises is, there's a tremendous value to individuals and to society of work, whatever it is you're doing, there is value in that. And that's probably the single best thing anybody could do to prepare themselves and their families for the future. If you're able to work, go to work and try to put something aside, if you have the luxury of being able to do so. That, to me, is the best defense against all of these scary things that we can't predict that might come at us.

Dr. Michael Osterholm:

And then one specific question here, again, from student side of the house is, what is your perception of the whole issue of student debt today? And what does that do in terms of looking at the workforces to the future in terms of how their job decision may actually be predicated on what they have to pay back and what they're going to be required to receive as salary in order to pay back those student debt loans?

Neel Kashkari:

One thing we know is clear is that over time, the benefit and the need for more education has only increased, more and better education. And that's going to continue. We are largely a knowledge economy. Over time, that's going to become more true. That means we have to find a way as a society of educating a greater share of our young people. And the answer cannot be, we're just going to saddle them with more and more debt. That doesn't work. So we have to come up with new models that allow us to educate young people, give them a very high quality education and do it more efficiently. So one benefit from the pandemic is all of a sudden, we've now learned how to use Zoom and Teams and some of these technologies. Now, that's not for everybody. That's not for every class, that's not for every young person, but I think that there are new potentials that are being explored because of technology that maybe for some things we can reach more people. And it doesn't just mean more and more and more cost or more and more buildings. And so we, as society, have to find a way of educating more of our young people.

Neel Kashkari:

If you look over the arc of American history, part of America's huge competitive strength was we educated more of our young people than other countries did. Far more Americans were getting a high school diploma than other advanced economies in our past. Far more were going to college than other

advanced economies in our past. That advantage, that gave us an economic advantage. That economic advantage is now eroding as other societies catch up. So if we want to be competitive in the future, we need to invest, we need to make sure we're educating more and more of our young people with the quality education and it cannot just be more and more debt.

Dr. Michael Osterholm:

Well, we're running short of time here. It's hard to believe that a whole hour's gone by. Before I close and offer you the last comment, I just want to say that as someone who has had the opportunity to serve roles in the last seven presidential administrations, I've had the opportunity to work with some exceptionally gifted people who have done a great work. And I must say that it's with heartfelt feelings that you are among the very top people I've ever worked with. I have such admiration and respect for what you do, how you do it, the people who work with you and for you feel very the same way. You are really, on behalf of a grateful public, I thank you for what you do and how you do it. You get the last word.

Neel Kashkari:

Well, it's very kind of you, Mike. The admiration is mutual. I feel very lucky that I was able to bump into Mike. I read about him in the New York Times. I said, there's somebody down the street. I need to call this guy and see if he knows anything about the pandemic. And you've been a very generous resource and really appreciated. And so, like I said, the admiration is mutual and I really appreciate being invited here tonight. I have to confess, this is my first trip to Iowa. It's great to be here. You all have been wonderful hosts and I hope to get to come back sometime soon. So thank you very much for having me.

Dr. Michael Osterholm:

President Neel Kashkari, thank you very much.