Conversation with the Chair: A Virtual Educator and Student Town Hall Transcript
August 17, 2021

GIGI WOLF. Hello. Thank you for joining us virtually for a conversation with Federal Reserve Chair Jerome H. Powell as he provides some introductory comments and then takes questions from educators and students about the Federal Reserve and the economy. My name is Gigi Wolf. I am the Senior Economic Education Specialist at the Kansas City Fed and the current Chair-elect of the Federal Reserve System's Economic Education Group. In addition to Chair Powell, I am joined by my colleague Scott Wolla, Economic Education Coordinator at the St. Louis Fed and the immediate past Chair of the System's Economic Education Group. Scott will field your questions and moderate today's session with the Chair.

We, along with over 50 subject matter experts throughout the Federal Reserve, serve as an education outreach arm of the Fed. Our collective efforts are aimed at increasing educators' ability to teach economics and personal finance while helping students and the public gain real-life skills to increase their economic literacy and financial acumen.

Our group shares a passion about the role of educators in the lives of students, as well as the opportunities for students to learn more about economics and potentially pursuing the field professionally. Along that line, we're proud to be a partner in the launch of the inaugural Economic Education Month this October. This will be a way to formally recognize and celebrate economic education. We hope that you will join us in promoting economic education by attending a Federal Reserve program, teaching about economic topics in your classrooms, or exploring careers related to economics.

While we cannot all be together in the boardroom of the Federal Reserve in Washington, D.C., this year, we are pleased to be able to engage with all of you virtually. We appreciate that both educators and students are joining us via live stream from across the country. Although some of you may still be on summer break or just starting out a new school year, the past year and a half has presented many challenges. But we've seen the resiliency of educators as students have had to adapt time and time again. In an effort to recognize all of you, we wanted to kick off this school year by hosting a special program with the Federal Reserve Chair highlighting the important role you play in preparing future generations to be active participants in a stable and growing economy.

In today's program, we will share about the Federal Reserve as well as everyone's role in our economic ecosystem. Through our discussions and Q&A, we'll provide insights into the Fed's goals and activities to support teaching and learning how the decisions made by the U.S. central bank affect all of us.

During the conversation, you can follow along on social media and join in using the hashtag #FedTownHall.

I will now turn the program over to my colleague, Scott Wolla, to introduce the Chair and to lead the Q&A portion of our program. Scott.

SCOTT WOLLA. Thanks, Gigi. Today we are honored to bring you Federal Reserve Chair Jerome H. Powell.

Jerome H. Powell took office as Chair of the Board of Governors of the Federal Reserve System on February 5, 2018, for a four-year term. Mr. Powell also serves as Chair of the Federal Open Market Committee, the System's principal monetary policymaking body. Mr. Powell has served as a member of the Board of Governors since taking office on May 25, 2012.

Prior to his appointment to the Board, Mr. Powell was a visiting scholar at the Bipartisan Policy Center in Washington, D.C., where he focused on federal and state fiscal issues. From 1997 through 2005, Mr. Powell was a partner at the Carlyle Group.

Mr. Powell served as an Assistant Secretary and as Under Secretary of the Treasury under President George H.W. Bush, with responsibility for policy on financial institutions, the Treasury debt market, and related areas. Prior to joining the Bush administration, Mr. Powell worked as a lawyer and investment banker in New York City.

Mr. Powell was born in February 1953 in Washington, D.C. He received an AB in politics from Princeton University in 1975 and earned a law degree from Georgetown University in 1979. While at Georgetown, he was editor-in-chief of the *Georgetown Law Journal*.

Mr. Powell is married with three children.

Thank you for joining us today, Chair Powell.

CHAIR POWELL. Thank you, Gigi. And thank you, Scott. Thanks to everyone for your work in bringing us together today, particularly the Economic Education Group. And congratulations on the launch of Economic Education Month as well. We're very proud of this initiative and looking forward to what you've got in store for us in October.

It's a pleasure to be here virtually, albeit in a different format than we're all used to. I guess the downside is that we don't get to connect in quite the same way we do in person. The upside is that we can include a lot more people. And, in addition, we can wear more comfortable clothes, which we all appreciate.

So, before I turn to your questions, I want to say just a few words to recognize the incredibly powerful work that you all do as teachers. Now, it would be important to mention this in any year, but especially now in the 17th month of our upended reality, it's very important. At the Fed, we take the value and responsibility of public service pretty seriously. There really is no greater contribution to the common good than teaching.

The pandemic has been tough on everyone, but it has asked more of some than others. Making it through this time has been no small feat for anyone, but teachers deserve distinct praise and appreciation. Educators have had to restructure their teaching, adapt to new platforms, and help their students make their way through added stresses and pitfalls. That must have been especially tough without the day-to-day interactions that help you connect. It's clear that so many teachers have gone above and beyond the call of duty to remain a consistent, reliable resource for their students.

Parents deserve a shout-out as well for their part in helping reconstruct something as enormous and consequential as our entire educational system.

And students have also shown remarkable courage and resilience. For all of us, daily life has been disrupted. Milestones like birthdays and graduations have been missed. And a once-in-a-lifetime crisis has cast a shadow of insecurity and uncertainty. But to take on that burden as a formative experience is truly extraordinary, and you should all feel very proud.

Finding the bright side to the past 17 months is not easy, but the crisis has given us a unique opportunity to see the big picture and to consider our place in it. This is a historical inflection point. And this generation of students is in a position to turn its lesson -- lessons into profound tools of change.

And I hope some of you will use those tools in public service.

The students here today are the policymakers and legislators of the future, and your teachers are the ones with the daunting task of preparing you for that future.

You will see the world differently than your predecessors. You've been forced sooner than most people to consider what in life is truly important. You've seen a world upended, but you've also seen a world that's rapidly changing, sometimes changing more in one week than some of us have experienced over the course of decades. I hope this will cause you to think about how you want to make your mark, knowing that things do change. And sometimes they change quickly.

This is an extraordinary time, and I believe that it will result in an extraordinary generation as long as we continue to have extraordinary educators to guide them there.

Education is the foundation of our economy, indeed, of our society. Teachers have always been tasked with nurturing and overseeing our most valuable natural -- national resource. It is the highest call within the higher calling of public service. I want to thank all of the teachers, those here today and the rest across the country, as well as the parents and students who've come together to make it through the past year and a half.

Thank you, and I look forward to your questions.

SCOTT WOLLA. Thank you, Chair Powell. Our first question is from Sandra. Sandra at Adlai E. Stevenson High School.

SANDRA. Hello, Chairman Powell. My question for you has two parts. Why do you believe an economics class is important for a high school student to explore? And what do you think our greatest focus should be in the classroom in regards to the economy and economic concepts?

CHAIR POWELL. Thank you for that, Sandra. So, let me start by saying that I really wish that I'd had a course in economics and just in basic personal finance when I was in high school, for a couple of reasons.

First, it's good and it's helpful for people to gain a basic understanding of the economy and how it works. That will help people understand public events, make someone a more informed citizen, and make better decisions in your working life as well.

In addition, though, economics provides a systematic framework for analyzing and understanding the world around us. Economics is highly useful in thinking about public policies. Just to pick a couple of examples, when Congress is considering changes in the tax law or environmental law, or any other kinds of laws, economics can help us assess how those changes will affect people's behavior and the overall economy. We can see better how -- whether those changes will be effective and efficient and are there are better ways to achieve those results.

Economics also looks at how individual people and small and large businesses make their decisions and gives us the analytical tools to make assessments like that. So, while studying economics will teach a lot about the economy, I would actually encourage you and your students to think of the subject as more about giving you a clear analytical approach to analyzing problems.

I'd add that economics also teaches us about trade-offs, the concept that you give up one thing in order to get more of something else. Whether we realize it or not, we're faced with this sort of decision-making as we manage our scarce resources, be they money, time, or whatever.

So, the bottom line for me is a basic understanding of the economy will be helpful throughout anyone's life. And like many others, you may find that economics turns out to be very interesting, more interesting than you thought, as I certainly have.

SCOTT WOLLA. Our next question comes from Heather at Salt Lake Community College.

HEATHER. Good afternoon, Chairman Powell. I was wondering, What do you think is the most important thing a student taking an economics course should learn about the Federal Reserve?

CHAIR POWELL. Thank you. So, I guess I'd point to a couple of things, if I could. The first is that the Fed is a nonpolitical independent agency that serves all Americans; and our work has an impact on everyone's daily life, including students and teachers, even if that impact is often unseen. So, when you're looking at the price of something in the store or going to the ATM to withdraw cash or looking at the rate that you would pay on a mortgage or a car loan, Fed policy, Fed actions affect all of those things.

We -- our job, the job we've been assigned by Congress with monetary policy, is to promote maximum employment and price stability, and that essentially means that we're responsible for maintaining a strong and healthy economy. We accomplish this task by conducting monetary policy, that is, that the Federal Open Market Committee -- which sits here in this room where I am -- sets a target range for the federal funds rate, and then we use our monetary policy tools to implement the policy. These steps influence interest rates and overall financial conditions throughout the economy and thereby interest -- affect the decisions that consumers and producers make every day.

We also do a range of other things. We supervise banks to make sure they operate in a safe and sound manner and make loans to those who need them, and we create the cash that people use every day, among other things.

So, the Fed's a very interesting organization. But I would want -- also want people to understand that we're a small part of the overall picture of our very large and dynamic economy but certainly an interesting one.

SCOTT WOLLA. Our next question comes from Salvador, a student at Northern Virginia Community College. Salvador asks, Even as the economic recovery continues, could you speak about some ways the U.S. economy is evolving or might look different from our pre-pandemic economy?

CHAIR POWELL. [Audio skip] great deal these days. We can see that the pandemic has changed our economy in some important ways. Only time will tell how lasting these changes will be. We're -- but I think we know that we're not simply going back to the economy we had before the pandemic, but it'll take time to see exactly what the changes will be. And we know that, at the Fed, we need to watch carefully as the economy continues to get through the pandemic and try to understand the ways that the economy has changed and what the implications are for our policy.

I think the place to start, though, is COVID is still with us, as you can tell. And that is likely to continue to be the case for a while. While more people are getting vaccinated, the pace of vaccination has slowed. A couple of months ago, we were ahead of many other similar countries in vaccination. Now we're falling behind. And one result is -- you're seeing is the current outbreak of the Delta strain that we're seeing in some parts of the country -- of the country.

So, one thing that's happened as the pandemic has continued is that people and businesses have improvised and learned to adapt, to live their lives despite COVID. And I would say it's not yet clear whether the Delta strain will have important effects on the economy. We'll have to see about that.

In the meantime, you asked about changes in the way the economy operates, and I'll point to just a couple. You know, first and maybe most obviously, many people have had jobs that have allowed them to work remotely, usually from their homes, but sometimes from other parts of the country, all around the country and, indeed, around the world. So, for sure the tendency over the remaining part of this year or next year will be for people to come back to their physical place of work at least part of the time. But it seems a near certainty that there will be substantially more remote work going forward. So, that's going to change the nature of work and the way work gets done. It's going to change the nature of the workplace because how often will people be in the workplace, and how's it going to affect different groups of people. For example, those of us who have been doing a job for a while can probably do our work well from a remote area. But if you're new to an institution or to a role, you might be better off being in-person because what you don't have is these casual conversations around lunch or sitting around the -- you know -- during the day, walking down the hall and seeing people. So, you miss that if you're fully remote, so this is something we need to be thinking about.

In addition, many companies whose businesses involve extensive direct contact with the public have adapted their business models to the new world. So, a good example from the very beginning was buying a home, which now happens very -- remotely to a much higher degree, with virtual tours of homes and only limited in-person contact. That adaptation happened really quickly. Same with restaurants, which adapted by growing their takeout and delivery businesses very quickly. And those have become new business lines for restaurants. And, in many cases, are continuing, even after the pandemic. So, people are eating in. In some cities, we've seen people eating in the same food they might have otherwise eaten out. So, it's a -- it's just a behavioral change.

Companies have heavily invested in technology capabilities, and they tell us they plan to do that going forward. That means a couple of things. One is there'll be more jobs associated with providing and maintaining that technology. It also, though, means that some of the jobs that were held by people, for example, in industries that involve close -- close in-person contact, they may be moving more to an automated or no-contact model. And that shows up in the fact that the recovery, the jobs recovery, has been slower among jobs that rely on public interaction, especially travel, leisure, and hospitality. I shouldn't say slower. Actually, tremendous job loss happened in those areas. And the inflow back into work is also very strong. But we're well below the levels of employment in those areas that we were at in early 2020. And those jobs, these are public-facing jobs in the service sector, as I mentioned, travel leisure, hospitality. Those are disproportionately held by women, by lower-wage earners, and by people of color. So, it may be that some of these people will have a harder time finding their way back into the workforce without more education and training.

And, you know, we think it's important that we continue to support those people as they find their way back into the workforce. We know that these people want to work. They were working in February of 2020. There's still millions of people who were -- who had those service sector jobs and who are continuing to be out of work. So, that's a part of the recovery that's not -- that's far from complete.

SCOTT WOLLA. Our next question is from Lynn, an assistant professor at St. Louis Community College - Florissant Valley. Lynn asks, What are the primary responsibilities of the Fed Chair?

CHAIR POWELL. Well, thanks for the question. So, I guess I would say you maybe can think of the Board of Governors here in Washington as the senior management team of the Board, okay, of the Board of Governors. So, there are seven seats for governors of which six are currently filled. So, we have six governors, and I'm one of those governors and also the Chair.

Each of the other five governors has important responsibilities, and we collectively manage the business of the Board. So, everyone's got responsibility over different -- we divide the work up. There are Board committees, and that's really how that works.

So, you asked about the primary responsibilities of the Chair, the first of which clearly is that I chair the Board of Governors. I chair the Board, which consists of the six of us. And that Board has the function of setting many policies across the operations of the Board in all of the areas that I've mentioned, payments; and we also oversee financial regulation. The Board has substantial financial regulatory authority. And the Board of Governors oversees that particular function.

The Chair also chairs what is known as the Federal Open Market Committee, as someone was pointing out at the beginning, I guess Gigi. So, the Federal Open Market Committee, or the FOMC, sets monetary policy for the U.S. economy. To say that more straightforwardly, we use our tools, our interest rate tools principally but other tools as well, to support stable prices and maximum employment. Those are the two goals Congress has given us. We raise and lower interest rates, and that affects economic activity and the achievement of our goals. There are also crisis tools when there's a crisis that we can use, and maybe we'll talk about those later.

The other thing -- those are two big jobs. The other major job that I find myself spending a great deal of time on is just public communication. Our tools depend on effective communication, in many cases. So, monetary policy works not just through raising and lowering interest rates but also through communicating a clear message to people in the economy. And to the extent they understand what we're doing and why we're doing it, that makes our actions much more effective. And they're not confused about what we're doing or why we're doing it. They understand it. That actually really makes our policies much more effective.

So -- and that, by the way, that includes the time we spend communicating with, for example, the general public but also with the oversight bodies in Congress. In our system of government, Congress has authority, oversight authority, over the Federal Reserve. In many other systems of government, it's the executive branch that has that. In our system of government, it's the two committees of Congress that -- in the House and Senate -- that have oversight authority over us. And we take that very, very seriously. We reach out and do as much as we can to explain ourselves to those who have oversight because it is through that oversight that the public really has its oversight over us. And that's the thing that sort of -- from which we derive our legitimacy in a democratic form of government.

SCOTT WOLLA. Our next question comes from Michele at Peoria Unified School District.

MICHELE. Hi. I would just like to thank you for giving teachers the opportunity to ask you questions directly. A few years ago, I had a chance to be a fellow for the San Francisco Federal Reserve and they do a great job pouring into teachers and providing us resources. So, I wanted to give them a shout-out. But my question is, What do students need to know about the Fed response to the coronavirus pandemic and subsequent recession?

CHAIR POWELL. Thank you for your nice comments, Michele, and thanks for your question. So, the pandemic was many things. And it was certainly a -- in a way a global emergency that really called on all parts of government to respond and the private sector -- government and the private sector to respond.

From the standpoint -- overall standpoint, though, the pandemic is primarily a health crisis. And the -- so the initial and most important response to the pandemic came in healthcare: doctors, healthcare policymakers, and the researchers who created the vaccines.

Second were the powerful actions taken by Congress and the CARES Act. Effectively, Congress very quickly and very strongly acted, and it replaced the lost income for the tens of millions of people who lost their jobs and also replaced that income for the many, many small businesses that had to close temporarily. So, this was incredibly important, and I think history will look back on it as a uniquely important and successful set of initiatives.

There's also a role for the Fed, and that's what you're asking me about. So, what we did was guided by -- again, everything we do in monetary policy is guided by our dual mandate to promote maximum employment and price stability for the benefit of the American people. Along with our financial stability responsibilities, we acted very quickly, very aggressively at the -- as soon as the pandemic really manifested itself in a serious way in early March. We rapidly lowered interest rates to near zero, and that has the effect of supporting economic activity. Lower interest rates make it cheaper to borrow. They give people more money. They spend less money servicing debt, and they generally support economic activity. Lower interest rates also feed into other asset prices and create financial conditions that are generally more supportive of economic activity.

We also took very aggressive steps to stabilize the financial system, which consists of capital markets and banks and lots of different institutions. So, the -- at the beginning of the pandemic, investors all over the world were selling everything they had in the financial markets and trying to just accumulate cash. And so, really important critical financial markets were starting to lose market function. We stepped in and we stabilized those systems.

We also launched a bunch of programs to support the flow of credit in the economy to small businesses, large businesses, nonprofits, state, and local governments. And in that case, just the very fact that we started those programs, which were really unique in our history, was something we hadn't done before. That really reassured the private markets, which then began to function again very quickly. So simply by creating these facilities as a backstop, they had the desired effect in restarting the capital markets. So that really helped, you know, organizations from closing. And it put employers in a better position to keep their workers on and to hire them back as the recovery continues.

But the other thing I'll say is that, as it sounds like, some of these tools are, as a matter of law, only available to be used by us in an emergency situation. And we use them, I think, very effectively after COVID forced a near shutdown of the economy. But it's -- so as the emergency has receded, we are required to put those tools away. And we've done that almost completely now. But we're in the process of fully putting away those tools, which are really reserved for, you know, actual emergencies.

SCOTT WOLLA. Our next question is from Lisa, a business teacher at Jackson Memorial High School. Lisa asks, How can teachers best bridge the gaps between economic theory, for example, the Phillips Curve, and our students' real-life experiences?

CHAIR POWELL. Interesting. So -- well, let me -- I guess let me point you to our economic education staff. They've actually developed a website to help educators, and it's called FederalReserveEducation.org where there are free resources for teaching economics, personal finance, entrepreneurship, history, and other. We welcome your feedback on it, but please take a look and see whether it's helpful.

So, I haven't -- I haven't taught economics to high school or college kids. And without having done that, I wouldn't presume to be able to tell teachers how to do so. I've been involved in a fair amount of school governance, and I -- one takeaway from all of those, just how incredibly difficult and valuable the work of teaching really is. You have to -- just have to start with that.

So -- but I studied some economics, and I can attest that economics, I can agree, it can seem dry and abstract. And it really makes it more interesting if a student can see why economics matters and how it affects people's lives. I think that the textbooks of today seem to me anyway to be a whole lot better than they were, you know, more than 40 years ago when I when I studied economics. So -- and I'm not an Econ Ph.D. I just took basic economics in college, macro and micro. But I find the textbooks of today to be much more accessible and useful and user-friendly.

So, we've got this enormous, diverse, and rapidly evolving economy. And economic policy has important effects on everyone's lives. To contribute as citizens, students need that understanding of the basics of the economy, how it's changing, and how different policies might affect those things. You can think of economics as about understanding and weighing costs and benefits and making decisions, something people do every day. We do use a lot of economic theories and models, which are just simplified -- simplified versions of reality. Those models need to be kept up to date, and our research staff spends a lot of time asking and analyzing whether the theories and the models actually reflect the world.

But I would say this: These theories and models are actually quite relevant to students' experiences. For example, your students probably think they don't care about maximum employment and price stability because what is that? But in those terms, it doesn't -- doesn't ring a bell. But people care about finding a summer job, for example. And they'll care as you come out of college or high school, you'll care a lot about the job market and the policies of -- economic policies, both fiscal and -- which is Congress and monetary policy by the Fed, they'll really matter for that over time.

So, I guess -- I guess I would say, ideally, it seems to me that you would link what could seem to be challenging economic concepts with situations or events in students' lives to help them see the connection. This is probably something you do every day, I mean -- and the point is that every student is already an economist in a way. Every student responds to incentives, understands trade-offs. And although you may not use those concepts as a student or have a framework for thinking about it in those terms, that's what's going on. So that's what economists do on a daily basis.

I mean, you mentioned the Phillips Curve. You know, it's the relationship between employment and inflation. I think -- I think you could explain that in terms that people would understand just around, you know, job -- the way inflation moves up and what it does in the economy and, you know, the prevalence of jobs, the tightness of the labor market. So, I'll think some more about that one. But I think it's a great question.

SCOTT WOLLA. Our next question comes from Tammi from Bellevue High School.

TAMMI. Hello there from the Seattle area. Last spring, I was working with my students. And when we were talking about the demand for money, I was confused about some things, and they were confused about things. So, I promised I would do a little research over the summer. And I guess I haven't had much luck, so I'm going right to the top. I'm going to ask you, What role do non-cash transactions like direct deposit, online bill pay, credit cards, phone apps, etc., play in monetary policy as well as the amount of currency that's printed and minted?

CHAIR POWELL. Okay. Great question. So, we do -- just let me explain, we have a role. One of our many roles is to promote a safe, efficient, and accessible payment system. That's really where your question falls. We actually provide all the physical currency so folding money, and we also operate some elements of the payment system that enable physical cash and electronic transactions to move reliably through the economy. Now, historically, our payment functions have evolved over time as payment methods have changed. When the Fed was founded in 1913, cash and checks were really the predominant means of payment. Today, as you note, non-cash electronic payments are quite large, in fact, are much larger, both in number and quantity, than physical cash payments. And they're also growing faster. Notwithstanding that, Americans still like to hold paper money and some coins as well. The use of physical cash is growing here, but it's growing very slowly. And in many cases -- interesting, particularly in some of the northern European countries, the use of physical cash is really declining. And that explains some of their interest in wanting to have more digitized financial systems.

So, you know, both -- you're right there. Your perception that digital money is really becoming more and more important, is absolutely correct, the financial system payments and all that, most people's financial lives are fully digital. And most of that digital finance takes the form of a bank account. So, you interact with your bank account digitally. And, of course, it's insured up to $250,000 with deposit insurance. And more and more payments are taking place digitally and less and less in the form of physical currency.

So, I'll just add that, that's why central banks all over the world are looking at the question of should they create a digital form of currency. Because, right now, we provide -- we only provide digital currency for interbank transactions in the form of reserves. We provide physical cash for the public. We don't actually provide a digital currency for the public. And it's a very interesting and challenging question whether we should. There, of course, are many, many -- you mentioned a number of, you know, credit cards and debit cards and bank accounts and all those things that amount to digital forms of private money. But -- so that's something we're looking at now. I hope that helps clear up some of some of the -- some of what you were looking for.

SCOTT WOLLA. Our next question comes from David at the University of Maryland.

DAVID. Hi, Chair Powell. My question is about your path to Chair. While most of your predecessors were lifelong academics, your path to Chair has been somewhat unconventional. Before being confirmed in 2018, you were a lawyer, a banker, and an investor. How has your unique career path influenced both your economic philosophy and how you view your role as Chair of the Fed?

CHAIR POWELL. You know, so the Fed is a large and it's a complex institution that has a range of policy and operational responsibilities. And those call on different and often highly specialized bodies of knowledge. So, this may be a -- this may surprise some, but even for most economists, most of what the Fed actually does requires a great deal of specific study and learning on the job. So, there are many macroeconomists who come to the Fed to be a governor or a staffer realize that a lot of what we actually do is very specialized and requires years.

So, I was fortunate enough before I became Chair to serve for almost six years on the Board of Governors under two great Chairs, Chairs Bernanke and Yellen. And over the course of those years, I chaired almost all of the Board committees that deal with our policy responsibilities. Of course, I didn't chair the Federal Open Market Committee, which is always chaired by the Chair. So, I had the benefit of those nearly six years. I had a pretty good understanding of all of the Fed's policy responsibilities and operations before I became Chair.

I would also say, if you look around the -- this FOMC table, look at the now 18 members, you see a real element of diversity of backgrounds. You see people who have spent -- there are a number of very, very strong economists from different parts of the economics field. But, also, there are people who have worked in business, people have worked in finance and academe. And I think that diversity really brings -- and you see those people be very effective on monetary policy. I've -- almost ten years at the Fed, I've seen people from different walks of life come to the Fed and be very effective in understanding and articulating and contributing to the monetary policy discussion.

In terms of my own career, I do feel like all of the different parts of my career have helped inform and -- you know -- and helped me in my career. Having been in the business world and been at a regulated institution, I see the other -- I can see what it's -- that informs my understanding of regulation to some extent. I would add I -- when I first came here, I spent an outsized amount of time in my early years studying the parts of economics that are most relevant to the Fed's role. So, I think you have to do that if you want to be -- if you want to be part of the discussion about monetary policy around here.

So, those are some of the ways I think about that question. And, again, we benefit from having many, many great economists in the Fed, and we couldn't do our work without them. But a number of other kinds of people are able to contribute as well. And I think that's -- that diversity is really a helpful thing.

SCOTT WOLLA. Alright. Now we go to Samuel at UC Berkeley.

SAMUEL. Hi, Chairman Powell. I am currently an undergraduate student at UC Berkeley, and I've also had the great privilege to serve as a student instructor last semester for an intermediate macroeconomic course. It's really a pleasure to be here. Thank you so much for your time. The question I have is, What do you think are the most crucial concepts students should take away and understand when they are learning about monetary policy, especially given how much monetary policy has changed over the last decades? Thank you so much.

CHAIR POWELL. Okay. So monetary policy is, as you suggest, a fascinating and also a complex subject. And I'll talk about that in a little more depth. If you -- if you ask me the one thing I would want people to understand about monetary policy, it would be, though, that monetary policy operates to support overall economic activity by changing financial conditions, by acting on financial conditions to make them more or less supportive of economic activity; by raising -- raising and lowering the cost of borrowing, in particular, and affecting other financial conditions as well, as I mentioned earlier.

I think it's important to say that monetary policy decisions can and should take into account economic conditions in a broad and inclusive way across the whole economy, including all groups and not just at the aggregate level. But it's critical to understand that monetary policy is not able to provide targeted benefits to particular groups or individuals. It's fiscal policy that needs to decide what benefits to provide to particular groups and how to pay for it, fiscal policy, in other words, government policy on spending and taxation. And fiscal policy is ultimately much more powerful; and it lies appropriately in the hands of elected officials, not in the Fed's hands.

So, I think we -- the debates over the last year, particularly during 2020, it was very important to keep stressing that differential because people see the Fed doing things and we obviously have powerful tools, but people were less kind of familiar with the limits of those tools and the limits of our authorities. And I think it's very important for us to stick to our existing authorities.

We have a precious grant of independence, meaning that we get to make our decisions. And we're created by Congress; we're a creature of Congress and of statute. But if we make a decision, there's no other person in government who can reverse that decision. So, we get to make our decisions independent of political control, direct political control. But if we're going to expand our role beyond what Congress has assigned us, then that weakens the case for holding onto that independence. And the purpose of that independence really is that it enables us to do our jobs better. It's an institutional arrangement here in the United States and in other similar countries that has really served the public well, we believe, and will continue to as long as we stick to our knitting.

A couple more things. I talked about the dual mandate. I talked about how monetary policy affects the economy. So, really, we sit around this table and -- eight times a year, and we decide on the appropriate position or stance of monetary policy by -- mainly by raising and lowering the target range for the federal funds rate. And when we change the target range for the federal funds rate, other interest rates and financial conditions more broadly adjust in response, thus affecting household and business spending decisions. Monetary policy, famously, is thought to affect economic activity with long and variable lags. We transmit the -- our tools allow us to transmit those market interest rates into the broader financial system in the economy.

And as you, I think, referenced, we've changed these tools since 2007. We no longer operate with a scarce reserves regime. We now have ample reserves. And interest on reserve balances is the key tool that we use. This is an important change in the way we operate. And it's not reflected in many textbooks yet, so -- which makes a lot of sense. And, actually, if you looked at *The Fed Explained*, which I think is on the -- accessible on the website, it has a chapter on monetary policy, which gets into this in a lot more detail. I hope that's helpful.

SCOTT WOLLA. Alright. Now we go to Megan at the University of Arizona.

MEGAN. Hi, Chairman Powell. Thank you for taking questions from students and educators today. My office at the university, we support teachers with professional development workshops around economics, including an economics book club. So, I'm wondering if you have any book recommendations for economics educators and their students.

CHAIR POWELL. Hmm. Interesting. So, I don't know whether you've read this one yet. But Paul Volcker, who passed away a couple of years ago, was one of the really all-time great Fed Chairs. As many of you will know, he was -- he was here at the end of the Great Inflation, and it became the end of the Great Inflation because of the very strong measures that he took as Chair or that the FOMC took during his chairmanship under his leadership. So -- and there followed what was called, you know, the years of the Great Moderation, really a long period in which we have, ultimately, recessions sometimes, but we -- it was a very good period in U.S. -- in the development of the U.S. economy.

So, Paul Volcker wrote an autobiography called *Keeping At It*, I think, *The Quest for Sound Money*. And I thought for a couple of reasons I recommend that. First, you get the sense of the way he approached public policy, which really was to do what he thinks and what he thought was the right thing at all times and let history be the judge. He was very unpopular. He took a tremendous amount of criticism and bashing, and he just quietly went about his business. And the only thing he ever thought about is -- it seems is, you know, what's going to be the best thing in the medium and longer term for the country. That's what my job is. And he did that. And I think history has really -- really shows him in a terrific light as a result. So, I strongly recommend that book. Forget about that -- it's about economics. There's a lot of great economic stuff in there. But it's just also about public life and a truly great man. I mean, maybe the most distinguished public servant in the economic sphere in my lifetime, I would say, close to it. Really, truly a great man.

If you want a book recommendation about the Fed, you know, Roger Lowenstein's book is worth looking at, which is a few years old. It's called *America's Bank*. And it's got a lot of the backstory about the founding of the Fed. You know, there were -- there were two failed attempts to create a lasting central bank for the United States: The First Bank of the United States and the Second Bank of the United States. The Second Bank of the United States lapsed, I think, in 1836; and the United States didn't have a central bank until 1913. And the result was that there wasn't a central source of liquidity. So, the banking system would collapse effectively when there was a bad harvest because they had a lot of agricultural loans out in those days. And, finally, in 2013, a group of people together -- got together and created a central bank, the purpose of which really was to be a lender of last resort to the financial system. That's really where central banks came from. You know, the Bank of England and the other really old ones came from that function. The modern central bank is -- has evolved a great deal over the last really 50 years. But I think the Roger Lowenstein book is a very good one.

I'll just say I wish I had more time to read books. I miss being able to read books, but I don't get through a lot of books these days. I get through the first 50 pages, or I read a book review. But I hope, you know, in my post-Fed life I'll get back to reading actual books.

SCOTT WOLLA. Now to Jeff at Conant High School.

JEFF. Hey, Chair Powell. Thank you, Chair Powell, for doing this town hall. And thank you for your service to our nation. My question is, Considering that young people have now lived through two major recessions, what do you say to them regarding the future stability of our economy?

CHAIR POWELL. Yeah. It's -- clearly, today's teenagers have lived in interesting and challenging times with the global financial crisis of 2008 to 2010 and then the pandemic of 2020 and '21. And I imagine everyone's hoping that economic times will be less interesting going forward, and we certainly hope that's the case.

But I guess what I would say is this: People should understand that the economy is ever-changing. And through history, over long periods of time, the economy grows; and living standards rise from one generation to the next. And there's every reason to think that that will continue. We don't know at exactly what rate. But that's the overall picture. But within that longer-run trend, sometimes the economy is growing at a healthy rate; and sometimes the economy slows down and even shrinks. And when it shrinks, we have a recession. And that means people are -- more people are out of work. Economic activity is down. And in all likelihood, over the course of your students' lives, they'll see plenty of good economic times and also a few recessions along the way. And that's just something we call the business cycle.

What's so notable about the -- these two, the global financial crisis and the pandemic, is that they were -- the global financial crisis was a financial crisis. And a financial crisis can create the worst kind of an economic recession. You can have a regular economic recession, and that can be quite painful. But when it comes with the collapse of major financial institutions and things like that, you get really difficult economic times for a long time. So, we've built up the capital and regulation and liquidity and risk management capabilities of the banks to, I think, a very high degree. And I think that the financial system is strong now, and the financial system made it through the pandemic crisis as a source of strength. So that work, I think, was borne out. So, I don't see -- I don't see the financial sector as being a source of risk to the economy, like it clearly was for the global financial crisis.

In terms of the pandemic, you know, it's the first glo -- really big global economic event traced to a pandemic. And I think we're -- you know, we're -- we learned a whole lot and how to deal with it and how not to deal with it. And I -- you know, I would think we ought to be, well, much better prepared next time. By the way, we're not through this time. As I mentioned earlier, the pandemic, the COVID pandemic, is still casting a shadow on economic activity. It's still very much with us. We can't -- you know, we can't declare victory on that.

So, I just say a couple things to people, and I wish someone had told me this when I was young. Whenever the economy slows down, you should remember that this time is going to pass and the economy is going to return to growth; and vice versa, as well. When the economy is doing really well and it's growing and jobs are plentiful, it's important to remember and plan for the fact that a time is going to come again when the economy weakens, and people lose their jobs. And we should -- we should all be just understanding that and plan accordingly. You're going to live through several recessions. I think it's absolutely critical to do everything we can to avoid financial crises and now pandemics, as well, because we now see that pandemics can destroy trillions of dollars of wealth and economic activity, just vaporize it, as happened in last February and March.

So, I just -- last thing I'll say is, I know living through the COVID pandemic -- our youngest child is just out of college. And, you know, being out of school and having to miss social activities and school activities, it's just been a very, very difficult time for students and families to navigate. I know there's a lot of anxiety about that. And also, the effects are not felt equally by everyone. So, you know, I have a lot of sympathy and support for everyone who's had to deal with these things, particularly younger people and students.

SCOTT WOLLA. Alright. Now we go to Jacob at Arizona State University.

JACOB. Hello, Professor -- I mean Chairman Powell. This is Jacob Gold. I'm a professor at Arizona State University. My question for you is, How important is it to teach financial literacy to students in the classroom? And at what age should the financial education begin? Thank you.

CHAIR POWELL. You know, I think it's absolutely essential. And I know, in the time in my life when I started to understand what a mortgage was, what a car loan was, I mean, it was -- I should have -- I wish I had -- I wish I'd had a financial literacy course early on. It's just such an essential thing for students to have as they come up and become adults. They're going to face important choices that will affect the course of their lives. And I think also because parents have varying degrees of financial literacy themselves, it's important that economic and financial literacy be taught in the classroom so students of all backgrounds can have access to high-quality information.

You know, what it means to be financially literate also changes over time. So financial literacy that's grounded in the economic way of thinking will enable students to apply their knowledge to new financial challenges as they grow up. I mean, I'm not an educational expert, but I don't think you could begin too early with this. Kids are -- can be really interested in stuff that they find interesting. And, you know, I've seen very young kids be able to understand -- I tried some of this on my kids. And, you know, to a different degree, they were interested in these basic concepts of economics and finance like trade-offs and choice, scarcity, and things like that. And then more and more as they get -- I think it's much more common now to teach economics in high school. There was no economics taught in my high school, which was a pretty good high school in those days and for many years after. And I went there now; it's much more common to teach basic economics and financial literacy, and I think that's fantastic.

SCOTT WOLLA. Now to our last question from Ilan at the University of Michigan.

ILAN. Thank you for taking my question, Chair Powell, and for giving students this opportunity. My question is, As a college student, what would be the best way to prepare for a future position with the Federal Reserve System?

CHAIR POWELL. Aha. So, I guess I'll just say that there are many opportunities within the Federal Reserve System for you name it: researchers, economists, lawyers, IT specialists, communications people. And a good resource is I think called FedEconJobs.org. As you probably know, the System is structured with a Board of Governors here in Washington and twelve independent Reserve Banks. And we hire a lot of people. You know, it's close to 30,000 people in the whole system plus or minus, and it's -- I think -- you can look on the websites of the Reserve Banks. You can look on our website, and I hope you'll find it easy to get access to answers to questions like that. So, we're very much in the hiring business.

And I think it's a -- I'll just say it's a -- it's a terrific place to work because people who work here, and in the System as well, have a great sense of mission. I think good private sector companies have a great sense of mission as well. They feel like they're doing something important and serving their clients and customers well. We really feel that way here at the Fed. And, you know, we know that our work is important. We know that it's a little bit obscure often to the general public, but people derive -- the surveys we do show that people derive a lot of satisfaction from working here and doing that public service. So, I hope you can find those places on the website.

And, again, thanks to everybody for your great questions. And thanks for taking part in today's event. I really -- it's really good to be with you.

ILAN. Thank you.

SCOTT WOLLA. Thank you, Chair Powell. That concludes our question-and-answer segment. Gigi, I'll turn it back over to you to close out the session.

GIGI WOLF. Thank you, Scott. On behalf of the system Economic Education Group, we'd like to extend our sincere thanks to Chair Powell for being available to us today and for answering direct questions from teachers and students. We also appreciate those who joined to ask the Chair questions and that participated via livestream. We hope you learned a bit more about the Fed that can help teach about our mission, functions, and role in the economy. And perhaps we sparked some students' interest in becoming more involved in economics or economic education. Please look for details on upcoming events on our System's education website, FederalReserveEducation.org. You'll also find a recording of today's program there along with free curricular resources, as Chair Powell mentioned, on economics, personal finance, and the Fed that have been produced throughout the System. Thank you again for joining us and have a great start to the school year.

CHAIR POWELL. Thanks, everybody.

[end transcript]