A Conversation with the Chair: A Teacher Town Hall Meeting

[Music]

CHAIR YELLEN. So-- Thanks. It's a pleasure to be here. Good evening everyone.

[Applause]

AMY HENNESSY. Welcome. Thank you for joining us here in Washington, D.C. this evening for a conversation with Federal Reserve Chair, Janet Yellen, as she takes questions from teachers about the Federal Reserve and the economy. My name is Amy Hennessy. I'm the Director of Economic Education at the Federal Reserve Bank of Atlanta and chair of the Federal Reserve System's Economic Education Group. I look forward to moderating this session. Here in the Board Room of the Federal Reserve, we are pleased to host 60 educators who teach economics and history to young adults. We are also joined via live stream by educators from all over the country who are participating in local events at their regional reserve banks and branch offices. And we also have many who are viewing this exchange via webcast.

Through this program, we seek to promote teaching and learning about the Federal Reserve System and its mission and responsibilities. We also hope to provide insights into the Federal Reserve's goals and activities to support your work as you teach your students how the decisions made by the central bank affect them and their families. Throughout our event this evening, you can follow the discussion by using the #FedTownHall.

Today, we are honored to bring you Federal Reserve Chair, Janet Yellen. Janet L. Yellen began her four-year term as Chair of the Board of Governors of the Federal Reserve System on February 1st, 2014 and will serve as a member of the Board until January 31st, 2024. Prior to her

current appointment, she served as Vice Chair of the Board of Governors. From 2004 to 2010, Dr. Yellen served as President and Chief Executive Officer of the Federal Reserve Bank at San Francisco. Dr. Yellen previously served as a member of the Board of Governors of the Federal Reserve System from August 1994 through February 1997 whereupon she was appointed by President Bill Clinton to serve as Chair of the Council of Economic Advisers, a post she held until August 1999. Dr. Yellen has written on a wide variety of macroeconomic issues--specializing in the causes, mechanisms, and implications of unemployment. She began her career as an assistant professor at Harvard University and then served as an economist with the Federal Reserve's Board of Governors before joining the faculty of the London School of Economics in 1978. In 1980, she joined the faculty of the University of California at Berkeley where she was named the Eugene E. and Catherine M. Trefethen Professor of Business and Professor of Economics and where she is currently a Professor Emeritus. Dr. Yellen graduated from Brown University in 1967 and received her PhD in Economics from Yale in 1971. She received the Wilbur Cross Medal from Yale in 1997, an honorary Doctor of Laws degree from Brown in 1998 and an honorary Doctor of Humane Letters from Bard College in 2000. She is a member of both the Council on Foreign Relations and the American Academy of Arts and Sciences, and has served as president of the Western Economic Association, Vice President of the American Economic Association, and a fellow of the Yale Corporation. She is a distinguished fellow of the American Economic Association. Thank you for joining us today, Chair Yellen.

[Applause]

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CHAIR YELLEN. Well, thank you, Amy, and thank you to all the educators who have come to the Board this evening or traveled to one of the Fed's regional Reserve Banks to watch and listen via the webcast.

I am very much looking forward to hearing from you about teaching economics, and I am eager to respond to your questions. For that reason, and also because I expect that school starts very early tomorrow for many of you, I will try to keep my remarks brief. But I do have a message to impart about the work you do, which is vitally important not only to your students, but also, I believe, to the world they will soon inherit and even to the mission of the Federal Reserve.

First and foremost, of course, like all teachers, you are helping prepare your students for successful and rewarding lives. The knowledge you impart and the intellect and talents you help develop are powerful tools your students can use to build those lives. Like some other subjects students encounter in school, economics teaches analytical and critical thinking skills that can aid in the development and success of anyone. Part of success for your students is economic success--as capable, creative, and productive members of the workforce and as consumers adept at managing their finances. Economics provides knowledge and skills of practical use in college and in the workplace, and it also provides skills to plan and make wise financial decisions, which are some of the most important and consequential that we face in life.

Your students benefit very directly from this education, but so does everyone else in society. Everyone is engaged in and depends on the economy, and nothing is more critical to a healthy and growing economy than the capability, creativity, and productiveness of its

workforce. Whenever I am asked what policies and initiatives could do the most to spur economic growth and raise living standards, improving education is at the top of my list.

In addition to the role you play in preparing students for jobs and careers, you also help prepare them to be responsible consumers. The economy needs productive workers, and it also depends on consumers, whose individual spending decisions, as most of you surely have taught in class, collectively account for two-thirds of economic activity. Consumers skilled in managing their finances are better prepared to weather bad times, and stronger household finances overall can help sustain growth, stabilize the economy, and mitigate an economic downturn.

Stabilizing the economy and mitigating a downturn, of course, also happen to be among the Federal Reserve's primary responsibilities. When successful, monetary policy can be a powerful and effective tool to these ends, but its capabilities are dwarfed by larger factors such as the productivity of the workforce and the strength of household finances. By educating students and directly supporting their contributions to the economy as producers and consumers, all teachers, especially teachers of economics, are effectively furthering our mission at the Fed, so let me offer my thanks for making that job a little easier.

To help support your important work as teachers, the Federal Reserve Board and the 12 Reserve Banks conduct programs, organize events, and publish books and other materials to spread knowledge of the role of the Fed--and economics in general--and to promote financial literacy. Before I get to those events and programs, let me say a word about what is probably the most important pedagogical aid that the Fed produces—that’s the 182-page book called *The Federal Reserve System: Purposes and Functions*. The 10th edition of *Purposes and Functions*, published in October of last year, offers a detailed and comprehensive account of what, why, and

how the Fed carries out its different responsibilities. I think it is a wonderful resource for teaching about the Fed, and copies are available via the Board's website.

Each of the Fed's Reserve Banks has community outreach and educational initiatives in the areas of the country they serve, and the outreach to economics teachers is coordinated by the group chaired by Amy Hennessy, the Federal Reserve System Economic Education Group.

At the Board, we have for some years operated a program called FedEd, which sends Fed employees into schools throughout the Washington, D.C., metropolitan area and sponsors events for students here at the Eccles Building. FedEd's outreach to schools depends on the time and sacrifice of several dozen research assistants, who are typically recent college grads who work for two or three years at the Board. Research assistants who volunteer for FedEd visit schools; help teach about the Fed, economics, and finance; and answer questions about work opportunities at the Board. The Federal Reserve is committed to promoting diversity in our ranks and in the economics profession, and FedEd has furthered these goals by making sure to include schools with significant numbers of minority students.

This past school year, FedEd sent research assistants into nine different schools and FedEd volunteers have visited 38 different schools since 2012. FedEd was back in schools last fall, drawing from 48 research assistants who volunteered to participate. FedEd also sponsors several speaker events a year that bring students into this Board Room. Students recently heard a presentation from Scott Alvarez, who oversees the Board's Legal Division, and, in February, Vice Chairman Stanley Fischer will speak to students at another event. FedEd is overseen by two research assistants, Caroline Shinkle and Jamie Lenney, along with Karen Pence, who is an

economist at the Board. All three are with us this evening and prepared to answer further questions about the program.

Online resources for teachers can be found on the Board's website at federalreserve.gov, and additional resources available throughout the System are at federalreserveeducation.org. The websites include videos in which policymakers and the staff describe the Fed's functions. Also, the sites include historical materials and a wealth of information related to the financial crisis and the Fed's response.

So let me leave it there, and again thank teachers for participating in this town hall, and offer my thanks, on behalf of the Board of Governors, for the valuable work you do every day. And now I would be very happy to respond to your questions.

[Applause]

AMY HENNESSY. Thank you, Chair Yellen. And now we are going to be happy to take questions, we are going to begin with a question from a teacher in the room.

CHRISTINE PEDERSEN. Hi. I'm Christine Pedersen with Varina High School, Henrico, Virginia. And I wondered how you would answer if a student asked you: “Why should I care what the Federal Reserve does and what does it really matter to me?”

CHAIR YELLEN. Well, thanks for that question and it's a great question. And I think it is very important for students to understand that the Federal Reserve plays a key role in making sure the economy functions well for them so they can get ahead economically and they're not faced with encountering unnecessary obstacles that could interfere with their ability to realize their dreams and aspirations.

More specifically, we play an important role in making sure that financial markets work and treat consumers fairly. So, households and businesses have access to credit on fair and equal terms. It's important for people to be able to conduct transactions safely and easily and we play a key role in making sure that the payment system functions effectively. Very importantly for students, we try to make sure that the job market is strong so that students entering it will have a wealth of job opportunities. Now, we can't guarantee that exactly the job a student wants is going to be available in the specific place that the student would like that job to be. But we do work to make sure that unemployment is low and job opportunities plentiful. And we try to keep inflation low and stable. And that's something that is important to savers who are concerned about providing for their retirement. And it's also important for those who take on debts and want to make sure that they'll have the capacity to repay them. And if there's a general deflation, falling wages and prices, people can, and in decades past have, become drowned in debt. Now we achieve these goals by adjusting interest rates. And the level of interest rates and changes affect many in the economy. It affects the amount that borrowers have to pay on loans that they take out, and it also affects what savers earn. I can tell you that I hear from both of those groups. And it's important for people to understand when we adjust interest rates we're not trying to advantage or to disadvantage one group of savers or borrowers relative to another. What we're trying to do is to keep the economy strong, which benefits everyone in it. Now, if we're doing our work successfully, our hope is that the economy will generally function well. If that's happening, instead of being on page 1 we can be back on page 19 in the newspapers not in the headlines and it's-- I often think about the Fed's role as akin to plumbing in one's house. If it works well, it's something you really don't spend a lot of time thinking about. If it's not working well, it's a major problem. So, we are concerned with the economy's plumbing and we want to make sure it works

well. And I would say finally, I think it's important for students to realize the Fed is working on their behalf. We're an institution that is working on behalf of Main Street and not on Wall Street and that's sometimes a misperception.

AMY HENNESSY. Thank you so much. So we will take another question from a teacher in the room.

DAVID STEELE. Thanks for having us here this evening Madam Chair. I'm David Steele with Indiana University's Kelley School of Business. My question, I know you're a teacher yourself and have been in the past. My question is, could you provide some insight if you found yourself back in the classroom teaching at the undergraduate level these days, what we should be teaching our students about business and economics beyond their traditional and what I think many times are outdated money and banking curriculum courses. In other words, how would you begin thinking about the design of a course to get students excited about the Federal Reserve System--especially the millennial students that we're teaching these days? And I think you're doing a terrific job, by the way.

CHAIR YELLEN. Thank you so much for that. Well, I used to teach money and banking but it's been awhile. I think the core topics that would show up in the money bank--money and banking course usually that would involve a discussion of financial institutions and their various roles, how financial markets work, interest rates are determined, the yield curve, the role of central banks, how they operate, and the transmission mechanism through which monetary policy impacts the economy. These are important topics. They are core to a course like money and banking and I think they do need to remain part of a relevant curriculum. But I would update that curriculum relative to at least the last time I taught it which was before the financial crisis.

And I would emphasize two new topics. First, I would talk about financial crises and I would talk about the role of central banks including the Federal Reserve as serving as a lender of last resort. And the second topic I would be certain to include, we cover what I'll call unconventional monetary policy and the importance of the so-called zero lower bound, which is the short-term overnight interest rates which are the traditional tools of the Fed and central bankers can't move much below zero. So let me start with financial crisis. I would explain how they can occur, what their key characteristics are, and the consequences they have for the real economy. Of course I would talk about our recent financial crisis. It was the first to afflict the U.S. economy since the Great Depression and it's an event that impacted the lives of every millennial and impacted the lives of every American. You know, every financial crisis has some unique elements and I think I would discuss what some of those unique characteristics were of our recent financial crisis related to housing, markets, subprime mortgages, complex securitizations, credit default swaps, the rating agencies, money market funds and their special vulnerabilities. Those things were unique to this crisis and I think it's worth students understanding that. But equally or more important, I would stress that financial crises all have a lot in common and that's true wherever and whenever they occur. And in particular what a financial crisis is a spreading panic. It's a situation where the troubles that are evident at one or few important institutions begin to create a much more generalized fear about the soundness of financial institutions in general. And those fears lead financial institutions to begin to be fearful about lending to one another. They begin to withdraw liquidity and credit from one another and in extreme cases also lead to depositors or customers lining up outside banks trying to withdraw their funds. It's a general--it's--it involves--a financial crisis always involves a general run on the financial system and a drying up of liquidity. And since I want to make sure students understand about the Federal Reserve and

central banks more generally that would take us to the role of the Federal Reserve. I think for most of the time that I taught money and banking and macroeconomics, the Fed's role as a so-called lender of last resort wasn't terribly important. The Great Depression was really the last time we had had a financial crisis and a run on the banking system. But the truth is that the Fed was founded, legislation was 1913, in 1907 there had been a banking panic which just led to a downturn in the economy. Liquidity was provided by a group of private lenders headed by J.P. Morgan. But the country realized that it was important to have a central bank that could provide that function and they created the Federal Reserve to serve as a lender of last resort which means that the central banks steps in and provides liquidity in scary situations when everybody else is headed for the exists and afraid and unwilling to do so. So the Fed's willingness to lend--historically, it was to banking institutions when they were short of funds--that willingness to lend means those institutions don't have to turn around and take the assets on your balance sheet that tend to be illiquid and begin to sell them at fire sale prices driving down the capital of all the banking institutions. And they don't have to begin pulling back credit from households and businesses in the economy. Now, typically you have a recession following the financial crisis because, to some extent, those things occur. And this last crisis was absolutely no exception and as you know we had a very serious and prolonged recession. But it is important to realize that the Fed's ability to serve as a lender of last resort prevented outcomes that would, could, and would have been far worse. It stopped credit from drying up to the private sector entirely. I think, I would explain that the financial system has evolved to a great deal since the Fed was founded and now we have a financial system with many bank-like institutions where they operate somewhat similarly to banks and provide credit to the economy but they're not depository institutions. And these, I would call them shadow banks, more generally can be vulnerable to

runs and they're important suppliers of credit. Because initially, the Fed system was designed to lend to banking organizations, we had to be very creative and inventive during the financial crisis to figure out how to channel liquidity to shadow banks to make sure the financial system didn't collapsed and the credit didn't dry up and reinvented a lot of programs. So, this critical role of central banks as a lender of last resort, it's something that never got any attention when I taught money and banking and I would make sure that it does in the future. And if you don't mind my plugging some work that I think very highly of by my predecessor in this job, Ben Bernanke gave a series of lectures on the financial crisis and on these topics at George Washington. He gave a series of four lectures on financial crises and central banking and they're on our website along with the materials that he used and they're a wonderful resource if you were to teach it. If you don't mind my taking just another second on this question, I'd like to just turn briefly to the treatment of monetary policy and unconventional policy. A lot has changed since, as I said, I taught money and banking prior of the crisis. As you know, in recent years many advanced countries have faced situations where they cut overnight short-term interest rates effectively to zero or encountered what we call the zero lower bound and found that they still had weak economies, often with inflation falling below inflation targets and felt the need to provide more stimulus than they were able to achieve through using this conventional tool of the overnight interest rate. I think when I was teaching this topic, in the early years of my teaching, this is the situation that had occurred in the Great Depression and there used to be a box in money and banking text that described this. Over the years that I taught, the box got smaller and smaller. It turned into a footnote and then it disappeared. I suppose before our own financial crisis, there was another country that encountered this situation. Japan suffered from deflation and by the early 2000s they had cut their overnight interest rate to zero and we're confronting this problem.

In some ways from our point of view, it's fortunate that that situation gave us a chance to think about what might be done in such a situation. Was there more that Japan could do? What could they do? And so, some academic thought went into that at a time when nobody ever thought the United States is going to be in this situation. But, of course, we found ourselves in exactly that situation following the financial crisis. In December of 2008, we cut our benchmark overnight interest rate to a range of 0 to 25 basis points effectively the zero lower bound. I think we never would have imagined at the time that we would keep it there for seven years, but it stayed there for seven years and we felt that we needed to do more. And I think it's important for students because these were unusual things and they're somewhat controversial things to understand the logic of what we--and it's not just we, we see the European Central Bank, the Bank of England, the Bank of Japan adopting the same kinds of unconventional policies the Federal Reserve used. But one thing we did was to buy longer-term assets, in our case, Treasuries and agency securities with the idea that even if short-term yields are at zero, longer-term assets may have yields that are well above zero when we can push those yields down, which I think we succeeded in doing. And also we provided what's called forward guidance on the likely path of short-term interest rates. Market participants seem to think interest rates would be going up pretty quickly, maybe they thought the economy would recover faster than it did and we provided guidance that in our view interest rates would essentially, overnight rates, stay low for a long time. We did that in a variety of ways, also to push down longer-term rates. So I would certainly include discussion of that. And, unfortunately, economists are coming to the conclusion now we've had throughout most advanced nations the levels of both long- and short-term interest rates have generally been moving down. And people are now realizing that there are structural reasons for that and it's a situation that may prevail in the future. So we may be operating in a world of generally low

interest rates and a problem with that is the economies are hit by negative shocks if the level of interest rates is low to start with, it means that central banks don't have all that much scope to respond by using standard overnight interest rate. A lot of thought now is going into the question of what can be done to address such a situation and I would want to include that. My final word on this is that usually money and banking courses would discuss operational aspects of monetary policy. In our case, the Federal Reserve Bank of New York conducts operational aspects of implementing policy. And that has changed quite dramatically--how we conduct policy. Given the fact that our balance sheet is much larger than it was before the crisis as a consequence of having bought these longer term assets, we're now conducting monetary policy using different tools in different ways and I would want to describe that as well. Thank you.

AMY HENNESSY. And now for a question from a teacher in the Minneapolis District; Why aren't there more women economists, like you, and more overall diversity within the economics profession and how do we change that?

CHAIR YELLEN. So that's, that’s a fantastic question and a lot of thought in this building throughout the Federal Reserve System and in the economics profession is going into trying to understand that. And I certainly, from my own standpoint, would love to see more women and minorities entering economics. I think the problem begins in college or even earlier than that. Women are hugely underrepresented in economics jobs, in faculty positions, in universities. They're underrepresented in PhD programs, and they're also underrepresented in college majors. Nationwide, about 30 percent of economics majors are female and it's also the case that some racial and ethnic minority groups are also hugely underrepresented. From the standpoint of women, this gender gap in economics actually gets more severe as you go to higher

stages in the profession and that's a phenomenon sometimes known as the leaky pipeline problem. And so, I guess a good question is, a question you ask is: What--why does the situation exist. And I think the first thing that might come to mind is you have is economics is a profession that's technical and mathematical and maybe women are less attracted to such fields. But I actually don't think that's the answer. Women are not generally underrepresented in science, technology, engineering, the STEM fields. STEM majors tend to be, you know, roughly half female and even in pure math that's less male dominated in economics. You might say, "Well, it's matters that economists study," maybe they're less appealing to women. But that doesn't seem reasonable to me either. I don't think there's much to that. I mean, core topics in economics concern things like health, the environment, poverty, labor markets, discrimination, the family. I think these are topics that appeal to women and not only to men. So I don't feel it's the substance. Role models may be an issue. Students are less likely to encounter women economists, as instructors, and in the real world in economics professions and that may be part of it. So another factor that might be significant is--and this is something that’s been looked at in seeing that as this leaky pipeline problem, women advance through the profession, they tend to--women have worse experiences at every level than men do. Implicit bias may play a role. For example, there's research that shows that women receives significantly less credit co-authoring papers. Many papers in economics are co-authored and women seem to receive significantly less professional credit for co-authoring papers, especially when the co-author is a man in contrast to men. And so I think the answers are not clear. It's something that I do hope will change over time and it may even make a difference in the way public policy is conducted. There have been studies that suggest that there tend to be significantly different opinions on important public policy topics like health insurance or the minimum wage between men and women. And diversity, gender

diversity in the profession, and I'm sure this is true of racial and ethnic diversity as well, could make a difference to the public policies that are formulated. I would say that something I think is encouraging is that recently the Sloan Foundation funded a project called the Undergraduate Women in Economics Challenge. It's being led by a woman by the name of Claudia Goldin who is a distinguished labor economist at Harvard and the objective is to try to devise and then test out different interventions to see if they can succeed in attracting more women into the field. There is a very interesting recent article on the status of women in the economics profession that was written by an economist at Swarthmore College Amanda Bayer and Cece Rouse who's at Princeton. And Amanda has actually been advising us here in our research divisions on diversity and inclusion practices. And I would just say from our standpoint here at the Board, we're very much trying to increase our outreach to high schools and colleges in order to encourage a broader array of students to consider the economics profession. And we're thinking about our hiring practices and how we can improve those as well.

AMY HENNESSY. Thank you. So we will now take another question from a teacher in the room.

LEAH YOUNG. My name is Leah Young. I teach at Washington-Lee High School right here in Arlington across the river. Just to build off what was just said, thank you for being a positive role model to all the women in this country. My question is for you, what do you believe is the single biggest obstacle this country's economy is facing both in the short- and long-term?

CHAIR YELLEN. So the short-term I would say I don't think that there such serious obstacles. I see the economy is doing quite well. If you think about the labor market, unemployment has now reached a low level. The labor market is generally strong. Wage growth

is beginning to pick up. Unemployment has declined and the state of labor market looks quite similar on many dimensions to where it was before the crisis. Inflation has picked up from a very low level and it's a little bit under our 2 percent objective, but it's pretty close. And my colleagues and I judged at our last Federal Open Market Committee meeting that near-term the risk of the economic outlook looked pretty balanced.

So I'm not too worried about short-term obstacles. But long-term, I think there are quite serious problems that the economy faces. And the two that I would focus on are productivity growth and inequality.

So the growth of productivity, how much output per-hour workers produce is probably the key determinant over long periods of time of the pace in which living standards improve on average in the economy. And that pace has been quite low and that combines with the second important problem which is income inequality. We've seen over many decades now that the returns, the wages and incomes of people with more education and higher skills, have continued to increase systematically relative to those with less education and by some measures men, particularly those with a high school education or less, are seeing not only stagnant incomes but the disappearance of jobs that afforded them reasonably secure lives and retirements. And these are problems that really lie outside the scope of what the Federal Reserve is able to address and I think they represent longer-term structural trends in the global economy. So those are really the two long-term problems that worry me the most. I mean, just to say a little bit more about them, with respect to productivity, if you look over the last year, productivity growth is almost unchanged. It takes a slightly longer time--maybe six years. It's been rising about a half percent a year. Go back longer, say, the last decade since around 2006, we're up to one and a quarter

percent. That's a little bit better but it's well below the pace that we had for almost all of the postwar period since 1949. Productivity growth up to 2005 averaged something like two and one half percent per year. And economists are studying the causes, trying to understand why productivity growth has declined. There are competing theories. Some people think it's declined in the face of innovations that were pushed out to the sort of technological frontier. The pace of business formation, of new businesses, has declined. Some people think that that plays an important role. I would say there's no general agreement. And what's maybe even worse looking forward, the things that have been holding down productivity, will they continue or will they reverse themselves, people differ in their views with some people being quite pessimistic. But productivity growth in general is a key determinant of living standards. I mean, I also worry a great deal about inequality and the fact that the larger share of gains in income from aggregate productivity growth have gone to workers at the top of the income distribution. And the gap we're seeing, as I mentioned, of--between wages of those with college education and high school or less have just continued to increase. I mean, you can look at some measures that suggest that real wages of high school educated workers have essentially been stagnant for several decades. And there's some recent research that shows that a far smaller share of young people--if you think about the American dream that people expect their children to do better than they did for generations to progress, a far smaller share of young people today are doing as well as or better than their parents than was true for most of the postwar period. Labor force participation rates for prime-aged men have continued to move south, which is a disturbing trend and a very shocking finding. This was a finding of the individuals Angus Deaton and Anne Case-- Angus Deaton won the Nobel Prize last year--is that the mortality rates of high school-educated whites in the 45 to 54-year-age bracket are actually rising, which is an extraordinary difference from what we've

seen in other countries and in the postwar period. And it seems to be related to suicide and health issues that may be related to substance abuse and a hypothesis is that this is a consequence in reflection of greater economic insecurity. So obviously, those are very disturbing trends. Economists who've studied this, there are long list of factors on any list, so-called "Skill-Biased Technological Change". The nature of technological change has been to increase the demand for people who can work with those technologies or use them to--in ways that make them more productive and globalization are two key factors. But these are the trends that I would consider most disturbing from a longer end perspective.

AMY HENNESSY. Thank you. And now for a question, from Robert Plymouth at White Marsh High School, Plymouth Meeting, Pennsylvania, Does the Board of Governors communicate with other central banks? If so, how often, which ones, and what is the nature of the communication?

CHAIR YELLEN. OK. Good question. So the answer to that question is yes. We have frequent and ongoing communication with other central banks in a variety of forms. And we have particularly close relations, the Federal Reserve does, with other banks that are part of what we refer to as our currency swap network. So our partners in that network involves United Kingdom, Japan, Canada, the European Central Bank, and Switzerland. So let me mention just a few of the ways in which we meet and reasons that we meet with other central bankers. I mean, first and foremost, the objective is to share information that informs our perspectives about the global economy and to make sure that we are as clear as we can be with other policymakers in other countries about the way we're thinking about monetary policy. Our actions all affect how the global economy works. We recognize that our actions have spillovers to other countries, and

vice versa. In highly integrated global capital markets that we have now ore fates are linked. And it's important for us to exchange notes and make sure we understand what others are seeing in a global economy. So where do we meet? Well, central banks, most central banks, belong to an institution called the Bank for International Settlements, which is located in Basel in Switzerland. The BIS is a central banker's bank. It handles the banking needs of central banks. And central bank governors typically meet there six times a year. And what happens is that they discuss trends in the global economy, developments pertaining to financial markets, sometimes regulatory issues that affect the financial system and always exchange notes on perceptions of financial stability risks, then there are other places as well. Those of you based in town probably know that twice a year it's hard to drive through town because of the so-called IMF World Bank Meetings that attract economic officials from countries all over the world, usually in Washington, and central bankers and other economic officials meet there. Then there are a number of groupings, smaller groupings of countries. An important grouping is called the G20. That's a grouping that is of 20 significant economies accounting for a pretty large shares of global GDP. And economics officials from these countries meet regularly. The chairmanship of the group rotates among these 20 countries. And senior officials meet regularly to discuss a range of economic issues including the global economy, financial regulation, international taxation, and so forth. And in these groupings, it's typically central bank governors and finance ministers that jointly meet with one another. You may remember a group-- smaller grouping--called the G7. That still exists. And that smaller grouping also meets regularly. And, again, that’s central bankers and finance ministers. So, usually, broad range of topics including the global economy and the financial system. As I mentioned, the Federal Reserve participates with this small number of advanced country central banks and what we call the currency swap network. We

have a standing system of arrangements by which we can exchange currencies with one another, mainly the dollar. The dollar market is a global market, and our willingness to provide liquidity globally through this network, wherever it's needed is a kind of backstop that can be useful when there are financial strains that emerge. So those are some of the ways in which we meet.

AMY HENNESSY. We'll take another question from a teacher in the room.

JULIUS ORESKA. Chair Yellen. My name is Julius Oreska and I teach AP Economics at Maggie L. Walker Governor's School in Richmond, Virginia. And my question is simple. If Dodd-Frank legislation were repealed or changed, what is the implication for the Federal Reserve and for the Banking System?

CHAIR YELLEN. And for the economy?

JULIUS ORESKA. And the economy, thank you.

CHAIR YELLEN. Well, we had a devastating financial crisis and it caused huge hardship to large numbers of Americans and people around the world. And there were millions of people who lost jobs and homes. And that's something we really hadn't experienced since the Great Depression. It was many years. And, well, we can't be positive there'll never be another financial crisis. We sure don't want one to occur anytime soon. And so Dodd-Frank was a very important roadmap for strengthening the Financial System and mitigating the chance of another financial crisis. Some of the key reforms were to raise the amount of capital and liquidity in the Banking System to make it safer and sounder--to give regulators tools to deal with the so-called too-big-to-fail problem, that we could have institutions that are so systemic and so important to the economy that they simply couldn't be allowed to fail because it would take it down. Dodd-

Frank contained new reforms that affect derivatives markets, how derivatives are traded, the requirements in place that reduce the risks of financial instability from derivatives. Dodd-Frank created an organization called the Financial Stability Oversight Council, which is a group of regulators that meet to try to identify and address financial stability risks but importantly that organization also has the ability to designate some firms that it feels-- they're not banks but they're financial firms that may be non-banks whose failure could cause systemic risk and serious economic consequences for the U.S. economy. Very few have been designated but an example would be AIG, whose potential failure was viewed as systemic during the financial crisis. So, these were very important reforms. We have a financial system that is substantially safer and sounder because of them. Now, a lot of people are critical of Dodd-Frank. We meet with lots of bankers. I think community bankers feel the burden of regulation is very great. And I really feel strongly that we should be looking for ways to mitigate regulatory burden. And we are looking for ways particularly for smaller institutions to mitigate that burden. You know, there's a lot that the banking regulators can do on their own to tailor regulations appropriately for different institutions of different complexity. But there could be modifications to Dodd-Frank that could succeed in reducing regulatory burden for smaller institutions. But it's really important that the key reforms to Dodd-Frank capital liquidity would conduct stress tests. They're mandated by Dodd-Frank. We’ve put a great deal of effort into finding ways to make sure that we are looking closely at the most systemic institutions to ensure ourselves that they are--have enough capital to suffer a very severe stress, and to be able even in such a scenario to go on meeting the credit needs of our economy. I think these are very important changes. I certainly wouldn't want to see them rolled back. And Dodd-Frank created a system and mandated that the most systemic institutions, and there are eight U.S. institutions that we commonly refer to as G-SIBs, the global

systemically important banks, that they face higher standards since their failure would have the most serious consequences. Dodd-Frank created, in dealing with too big to fail, a process called the living wills process. It insisted essentially that firms really had to consider how, if they encountered difficulties that left them insolvent, a bankruptcy court could deal with them and resolve them in a way that would not produce severe consequences. And firms now have been working on those living wills. And in the course of showing that they can be resolved, they've made real changes in the way they conduct their businesses that if they did encounter difficulties, would certainly greatly enhance the chances of a successful resolution through bankruptcy. On top of that, Dodd-Frank created another procedure akin to the procedure by which the FDIC is allowed to come down, come in and wind down a failing banking organization. It created an alternative so-called order liquidation authority for financial institutions that are not banks. And when you think back to the financial crisis and the failure of Lehman or the potential failure of Bear Stearns, those were investment banks that were shadow banks or banking-like organizations, but there was no such procedure. All there was was bankruptcy and we saw how disruptive that is. And I think this designation procedure and the creation of the Financial Stability Oversight Council is really an important institutional innovation. So, I would not like to see, you know, well, there could be some modifications that would reduce burden and those were core reforms that would leave us in a better place.

AMY HENNESSY. Thank you. And now for a question from a teacher in the Minneapolis District. What is your opinion regarding the enormous debt load being placed on our students by student loans and tuition and what should be done about it?

A Conversation with the Chair: A Teacher Town Hall Meeting

CHAIR YELLEN. So, I suppose my starting point is that access to student loans is positive and important because it's ever more critical for students to be able to acquire skills in higher education. And those loans often are the requisite for being able to do that, and every study suggests that the payoff to higher education is substantial. OK, that said, there are certainly student loan borrowers that are struggling to manage big debt loads and it's particularly onerous for those who really makes a difference to complete a degree and get a decent job. And for those who take on that debt, don't complete their degrees, and aren't able to get good jobs, the burdens can be very substantial, and student debt can't be discharged in bankruptcy. So it's important for students to understand that and to understand that they're really taking on quite an obligation. So, I suppose I think what's critical is for students to be able to make informed decisions. To understand before they enroll in a school what its record is in graduating students, what kinds of jobs they're able to get. I think we have seen students enter programs where they take on a great deal of debt and the programs don't have good records in terms of graduating students. I suppose also important is for students to realize the resources that they have available in terms of programs that, for example, income-driven repayment programs that tailor the repayment requirements to their incomes. That there is a certain amount of flexibility. There are students who can benefit from being in those programs. And I believe that--I'm not an expert here but I think that studies have shown that there are many more students who could benefit from being in those kinds of programs than are actually enrolled in them. So, I think that's important also.

AMY HENNESSY. OK, thank you. And now, for a question from Dina at Fleetwood Area High School in Fleetwood, Pennsylvania. If you had limited time to teach personal finance

topics to current teenagers, what do you believe are the two most important topics for them to understand?

CHAIR YELLEN. So, I suppose I'm going to have difficulty limiting myself to two.

AMY HENNESSY. Yeah.

CHAIR YELLEN. But I'll try. Well, you know, interest rates and the cost of borrowing, we just discussed student debt. And clearly borrowing decisions significantly affect students and I think they need to understand about interest rates and the obligations that they are taking on when they do borrow. You know, I think we see a lot of students who had been taking on student debt find that they have to wait longer to buy a home or it can affect the trajectory of their life and they need to understand that. OK. Two, let me go to number two. The importance of work and potential desirability of work. Obviously, education is absolutely critical and I won't recommend that people, you know, students, young people work full time, but a part-time job can be something that's important. First of all, it may diminish the amount of debt that it's necessary to take on. And I think it's something that can provide an important learning experience, skills, work habits, understanding how to get along with others, what's required in work situations, a sense of responsibility, ability to manage time and things one doesn't always learn in school that can be valuable. Students are all accustomed to being graded. They understand about grades. It's important for them to understand about credit score. This is number three. I'm sorry.

AMY HENNESSY. That's OK.

CHAIR YELLEN. Credit scores are important grades. They really affect the terms, the amounts that you can borrow, the terms on which you can borrow, your ability to access credit,

and it's important for them to understand the role of those scores and the fact that it's important to pay bills including credit card bills regularly to do that. And then, finally, I would say saving and the ability to--whatever the source of income you have, whether it's your allowance or money that you're make in a part-time job or a gift to put aside--something to have the discipline to create a rainy day fund to be able to cope with unexpected emergencies. Our own surveys that we do with at Fed show that it's just an extremely large share of Americans that don't have even the smallest backstop of financial resources if their car breaks down or they encounter a sickness. And to develop the habits that enable people, you know, in a world where more saving for retirement is required and it requires discipline to develop those habits.

AMY HENNESSY. Thank you so much for your questions. Thank you so much for your answers.

CHAIR YELLEN. My pleasure.

AMY HENNESSY. This concludes our session. We sincerely appreciate Chair Yellen for speaking with us tonight. We appreciate all the educators who participated and hope that you learned more about the Federal Reserve that will help you teach your students about the Fed’s mission and its functions. On behalf of the Federal Reserve System, thank you, especially to the participating teachers all around the country. We are pleased you could join us tonight. Good night.

[Applause]