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THE SEMIANNUAL MONETARY POLICY REPORT TO THE CONGRESS

HEARING

BEFORE THE

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

ONE HUNDRED EIGHTEENTH CONGRESS

FIRST SESSION

ON

OVERSIGHT ON THE MONETARY POLICY REPORT TO CONGRESS PURSUANT TO THE FULL EMPLOYMENT AND BALANCED GROWTH ACT OF 1978

MARCH 7, 2023

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C O N T E N T S

TUESDAY, MARCH 7, 2023

WITNESS

Additional Material Supplied for the Record

THE SEMIANNUAL MONETARY POLICY REPORT TO THE CONGRESS

TUESDAY, MARCH 7, 2023

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

The Committee met at 10 a.m., in room 216, Hart Senate Office Building, Hon. Sherrod Brown, Chair of the Committee, presiding.

OPENING STATEMENT OF CHAIR SHERROD BROWN

Chair BROWN. This hearing will come to order. Welcome, Chair Powell. Thank you for doing your duty and seeming to enjoy it when you come to our Committee. Thank you. Seeming to enjoy it.

Today we examine the Fed's actions to combat inflation, whether these actions are actually working, including how those actions affect American jobs and their paychecks. Prices are still too high across many parts of the economy. We know who feels it the most when the cost of rent and groceries go up. It is not the economic pundits and politicians who lecture us about discipline and stability. It is not the corporate executives who pretend they are making tough choices about prices while reporting record profit increases, quarter after quarter, and doing more and more stock buybacks.

It is the people working hourly jobs to make ends meet. It is seniors on fixed income and Social Security. It is everyone who gets their income from a paycheck each month, not an investment portfolio. It is those same Americans who stand to lose the most if the Fed's action to curb inflation go too far. No matter what goes wrong in our economy—a global pandemic, a war in Eastern Europe, weather disasters—profits somehow always manage to go up. Workers are left paying the price.

As you have noted, Chair Powell, the Fed's tools are only one element in our fight against inflation. It is a complex problem. Interest rates are a single, we know, blunt tool. Raising interest rates cannot rebuild our supply chain and fix demand imbalances from the pandemic. Raising interest rates will not end Russia's brutal invasion of Ukraine. Raising interest rates will not prevent avian flu from devastating one-third of our egg supply or weather disasters from destroying key crops. And raising interest rates certainly will not stop big corporations from exploiting all of these crises to jack up prices far beyond the increase in their costs.

Last year, corporate profits hit a record high. Corporate PR chiefs assured us that these companies just have to raise prices. Their costs are going up. The workers just want to be paid too much. They have no other choice, they tell us. Yet when you look at their profits and the executive salaries and their stock buyback plans, it sure does not look like corporations have exhausted every available alternative. It is so brazen.

Even global bankers called on the Fed to identify this profiteering as one of the biggest drivers of inflation. Paul Donovan, Chief Economist of Global Wealth Management at UBS wrote, "The Fed should make clear that raising profit margins are spurring inflation. Companies have passed higher costs on to consumers, but they have also taken advantage of circumstances to expand profit margins. The broadening of inflation beyond commodity prices is more profit margin expansion than wage cost pressures."

Think about that. From a chief economist at UBS. I will say it again. These companies have "taken advantage of circumstances to expand profit margins. The broadening of inflation beyond commodity prices is more profit margin expansion than wage cost pressures," unquote.

Understandably, the Fed cannot force corporations to change their ways or rewrite the Wall Street business model on its own. But the Fed can talk about it. High interest rates, falling wages, increasing unemployment are all hallmarks of failed policies that end up helping Wall Street, the largest corporations in the country, the wealthiest people in the country.

Because, let us be clear what we are talking about when people use the economic speak that can cloud this conversation. Cooling the economy means laying off workers. Lowering demand means workers get fewer raises. Of course there are times when the Fed must act. We cannot allow inflation to become entrenched.

We have seen encouraging trends, that is that that is not happening. And there are other ways we can bring prices down. Instead of lowering demand, again making people poor, laying people off, denying worker raises, we can speed up and strengthen our supply chains. We can bring critical manufacturing back to the U.S. We can rebuild our infrastructure. It is what we are doing with the CHIPS Act, with the Inflation Reduction Act, with the Bipartisan Infrastructure Bill. For the first time in decades, we are finally recognizing the damage that I and many of my colleagues warned that corporate offshoring would do to our economy.

Look at East Palestine, Ohio, a community that Senator Vance and I visited a number of times recently. America learned about this small town last month, when a Norfolk Southern train derailed and spewed hazardous material into this community. East Palestine is more than just a disaster headline. Columbiana County was once the center of American ceramics manufacturing, at one time producing 80 percent of ceramics of dishware in this country—one county produced 80 percent of it.

When I was there last week I was talking to the sheriff at the 1820 Candle Company. He was talking about how the last one closed just a few years back.

Like so many industries these jobs moved overseas, and we know why. The same reason Norfolk Southern cuts costs at the expense of safety, eliminating one-third of its workforce in the last 10 years. Then you are surprised with these derailments? It is the same reason corporations now keep prices high, even as supply chains stabilize.

It is the Wall Street business model. Chair Powell knows that. I know that. My Republican colleagues and Democratic colleagues know that. It is the Wall Street business model. Quarter after quarter, corporations are expected to cut costs at any cost. They skimp on safety. They move production overseas to countries where they can pay workers less because of trade deals that they lobbied for. And Wall Street demands they post profit increases, even in the middle of a global pandemic. That is the problem with our economy. And not only will higher interest rates not solve it, if they are overdone they will make it worse.

We cannot risk undermining one of the successes of our current economy. For the first time in decades, workers are finally starting to get a little power in this economy. Unemployment is at a historic low, 3.4 percent. That is not just a number. That means Americans have more opportunities, more options, even in places that have not seen a lot in recent years. It means people have the power to demand raises and retirement security and paid sick days and some control over their schedules. It means more Americans have the dignity—have the dignity—that comes with a good job that provides for your family. We must here ensure that all Americans have the opportunity for that dignity of work.

It is a critical time. The consequences of missteps could be severe.

Mr. Chairman, two more things that affect your job. It is not just monetary policy that threatens American pocketbooks. Some of my colleagues have threatened the Nation's full faith and credit by holding the debt ceiling hostage for partisan politics. Instead of paying our bills on time they are essentially threatening all Americans.

The Fifth Circuit's Consumer Financial Protection Bureau ruling could also cause unimaginable instability and chaos for families, for consumers, but also, as the Chair knows, for our financial system. No doubt about it. The Fifth Circuit is Wall Street's favorite courthouse. It recently ruled the CFPB's independent funding is unconstitutional. If the Supreme Court upholds the Fifth Circuit's ruling, it will not only devastate CFPB. It will threaten the independent funding of many other Federal agencies, including the Federal Reserve.

I look forward to hearing at today's hearing how the Fed will balance its dual mandate and continue to promote an economy where everyone who wants a good job can find one, an economy that works for everyone.

Senator Scott.

OPENING STATEMENT OF SENATOR TIM SCOTT

Senator SCOTT. Good morning, Chairman Powell.

Sitting here looking at my prepared remarks, thinking about . . . there is an opening coming where Vice Chairman Brainard is moving on. I think it is really important for us to make sure that all the information that we need in order to make a good decision on the next nom that we have in a timely fashion. So I would really implore the Chair to make sure that happens, that every question, every questionnaire that is asked from the person, we get, that every Member of this Committee has their questions answered in a timely fashion, and that the staff has their answers in a timely fashion.

Listening to Chairman Brown I thought, fascinating, truly fascinating. I concluded that while I know Chairman Brown pretty well, I am sure he is sincere in his rant.

But let me just say this. Spending and printing trillions of dollars, caving to the radical left in this country, seeing policies posited and then implemented that led to the worst inflation in 40 years, seeing our inflation at 9.1 percent, seeing American families struggle because of the weight of the Government on their shoulders, seeing the devastation from South Carolina to Ohio is unbelievable, that the progressives in this country, who caused a 9.1 percent inflation, would then turn, somewhere besides in the mirror, to see the absolute devastation caused by their out-of-control spending is remarkable. Remarkable.

To stop the out-of-control inflation caused by the out-of-control spending, the Fed steps in to cool the economy. Well, the definition of cooling the economy is necessary because we have seen the most radical approach to a problem that was in our rear-view mirror being used as a Trojan Horse to bring in a level of socialism and spending that our Nation has not seen in my lifetime.

The facts are very simple, when you get to 9.1 percent inflation in this Nation, as a kid who grew up in a single-parent household, mired in poverty, a 40 percent today, 100 percent just a year ago, increase in the gas prices devastates single mothers around this country. For seniors on fixed income, whose savings are being depleted, with an average cost just last month of a $433 increase because of inflation. For my friends on the other side of the aisle to look anyplace besides a mirror, I find stunning.

The truth is that when your food prices go up over 20 percent, when your electricity is up over 20 percent, you have to ask yourself, where in the world are they? They cannot be in this universe. It must be an alternate universe where, in fact, it is OK for us to see prices go through the roof and our economy not stumble but fall into a ditch. Why are we in the ditch? Because progressives used the pandemic as a way to usher in a form of spending that takes the money out of the pockets of everyday Americans and puts it in the coffers of the Government.

There is a better way. The better way is to trust the American people. And when you do so, we do not have to have the Fed come in and raise interest rates so high to quell the challenges in our economy so that today versus 18 months ago the price of the same house, for your mortgage payment, is twice as high. Why? Because of the runaway spending of our friends on the other side of the aisle.

I am sure I do not have time for my opening comments, but I will say, without any question, as I look around the country and I ask myself, how devastating is it that today it costs $433 more than it did a year ago, the answer is it is a crisis. When the average family in our country, just a couple of years ago, did not have $400 in their savings for an emergency, to have prices go up by this amount is devastating.

To have a conversation about rents around the country, looking at the inflationary effect and the absolute devastation of a snarling supply chain, that we have not seen in my lifetime, run by my friends and the progressives, unbelievable.

But to get to you, Chairman Powell, one of the comments that you have made that I think is really important, in one of the speeches you gave in January—and I apologize for my rant; I just wanted to make sure my rant was consistent with my friend here—it is essential, you said, that "we stick to our statutory goals and authorities and that we resist the temptation to broaden our scope to address other important social issues of the day. Taking on new goals, however worthy, without a clear statutory mandate would undermine the case of our independence."

You further noted that, and I quote, "Without explicit congressional legislation it would be inappropriate for us to use our monetary policy or supervisory tools to promote a greener economy or to achieve other climate-based goals. We are not and will not be a climate policymaker."

Do you still stand by those comments?

Mr. POWELL. I do.

Senator SCOTT. Finally—we are not in the questioning now. I know. I get it.

Chair BROWN. You now have 4 minutes and 12 seconds.

Senator SCOTT. Yes. I knew the Chairman would dock that from my time, and I appreciate you doing so——

Chair BROWN. With a sense of humor.

Senator SCOTT. ——with a great humor. Great humor.

Finally, several of my Republican colleagues and I sent a letter to you discussing Vice Chair of Supervision, Michael Barr's plan to conduct a holistic review of capital standards. I look forward to discussing those capital standards during my Q&A, and I will thank you for a recent conversation that we had that helped illuminate some of the necessary challenges that we face as a Nation, and your answers to it.

Thank you, Mr. Chairman.

Chair BROWN. Thank you. Speaking of illuminating, thank you, Senator Scott.

Today we will hear from Chair of the Federal Reserve, Jerome Powell, on monetary policy and the State of our economy. And I do not expect Chair Powell to weigh in on the mini-debate we just had, but I think we all know that the debt increase was much larger under President Trump and a Republican Senate than it has been since.

Chair Powell, thank you for your service and your testimony today.

STATEMENT OF JEROME H. POWELL, CHAIR, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

Mr. POWELL. Chairman Brown, Ranking Member Scott, and other Members of the Committee, I appreciate the opportunity to present the Federal Reserve's semiannual *Monetary Policy Report*.

My colleagues and I are acutely aware that high inflation is causing significant hardship, and we are strongly committed to returning inflation to our 2 percent goal. Over the past year, we have taken forceful actions to tighten the stance of monetary policy. We have covered a lot of ground, and the full effects of our tightening so far are yet to be felt. Even so, we have more work to do. Our policy actions are guided by our dual mandate to promote maximum employment and stable prices. Without price stability, the economy does not work for anyone. In particular, without price stability, we will not achieve a sustained period of labor market conditions that benefit all.

I will review the current economic situation before turning to monetary policy.

The data from January on employment, consumer spending, manufacturing production, and inflation have partly reversed the softening trends that we had seen in the data just a month ago. Some of this reversal likely reflects the unseasonably warm weather in January in much of the country. Still, the breadth of the reversal along with revisions to the previous quarter suggests that inflationary pressures are running higher than expected at the time of our previous FOMC meeting.

From a broader perspective, inflation has moderated somewhat since the middle of last year but remains well above the FOMC's longer-run objective of 2 percent. The 12-month change in total PCE inflation has slowed from its peak of 7 percent in June to 5.4 percent in January as energy prices have declined and supply chain bottlenecks have eased.

Over the past 12 months, core PCE inflation, which excludes the volatile food and energy prices, was 4.7 percent. As supply chain bottlenecks have eased and tighter policy has restrained demand, inflation in the core goods sector has fallen. And while housing services inflation remains too high, the flattening out in rents evident in recently signed leases points to a deceleration in this component of inflation over the year ahead.

That said, there is little sign of disinflation thus far in the category of core services excluding housing, which accounts for more than half of core consumer expenditures. To restore price stability, we will need to see lower inflation in this sector, and there will very likely be some softening in labor market conditions.

Although nominal wage gains have slowed somewhat in recent months, they remain above what is consistent with 2 percent inflation and current trends in productivity. Strong wage growth is good for workers but only if it is not eroded by inflation.

Turning to growth, the U.S. economy slowed significantly last year, with real gross domestic product rising at a below-trend pace of 0.9 percent. Although consumer spending appears to be expanding at a solid pace this quarter, other recent indicators point to subdued growth of spending and production. Activity in the housing sector continues to weaken, largely reflecting higher mortgage rates. Higher interest rates and slower output growth also appear to be weighing on business fixed investment.

Despite the slowdown in growth, the labor market remains extremely tight. The unemployment rate was 3.4 percent in January, its lowest level since 1969. Job gains remained very strong in January, while the supply of labor has continued to lag. As of the end of December, there were 1.9 job openings for each unemployed individual, close to the all-time peak recorded last March, while unemployment insurance claims have remained near historical lows.

Turning to monetary policy, with inflation well above our longer-run goal of 2 percent and with the labor market remaining extremely tight, the FOMC has continued to tighten the stance of monetary policy, raising interest rates by 4½ percentage points over the past year. We continue to anticipate that ongoing increases in the target range for the Federal funds rate will be appropriate in order to attain a stance of monetary policy that is sufficiently restrictive to return inflation to 2 percent over time.

In addition, we are continuing the process of significantly reducing the size of our balance sheet. We are seeing the effects of our policy actions on demand in the interest-sensitive sectors of the economy. It will take time, however, for the full effects of monetary restraint to be realized, especially on inflation. In light of the cumulative tightening of monetary policy and the lags with which monetary policy affects economic activity and inflation, the Committee slowed the pace of interest rate increases over its past two meetings. We will continue to make our decisions meeting by meeting, taking into account the totality of incoming data and their implications for the outlook for economic activity and inflation.

Although inflation has been moderating in recent months, the process of getting inflation back down to 2 percent has a long way to go and is likely to be bumpy. As I mentioned, the latest economic data have come in stronger than expected, which suggests that the ultimate level of interest rates is likely to be higher than previously anticipated. If the totality of the data were to indicate that faster tightening is warranted, we would be prepared to increase the pace of rate hikes. Restoring price stability will likely require that we maintain a restrictive stance of monetary policy for some time.

Our overarching focus is using our tools to bring inflation back down to our 2 percent goal and to keep longer-term inflation expectations well anchored. Restoring price stability is essential to set the stage for achieving maximum employment and stable prices over the longer run. The historical record cautions strongly against prematurely loosening policy. We will stay the course until the job is done.

To conclude, we understand that our actions affect communities, families, and businesses across the country. Everything we do is in service to our public mission. At the Federal Reserve will do everything we can to achieve our maximum-employment and price-stability goals.

Thank you. I look forward to your questions.

Chair BROWN. Thank you, Mr. Chair. There are 23 of us on this Committee. Almost everyone will be here today. I ask each of us to stay as close to the 5-minute mark as we can because we have votes at 11:30. So thank you all for your cooperation.

Chair Powell, thank you. Job growth is strong as unemployment remains historically low. You might not know that from the opening statements. Many drivers of inflation are corporate greed, rising inequality, supply chain disruptions, Russia's bestiality, if you will, in Ukraine, will not get better because of interest rate increases. Every indication is that this post-pandemic economy is different.

Should we be worried, Mr. Chair, that the Fed is treating this economic period as it has in the past instead of reacting differently?

Mr. POWELL. Thank you, Mr. Chairman. So we have been aware since the very beginning, and have discussed this publicly on many occasions, that there are some differences this time. We, in particular, have not seen the kind of supply side collapse that we saw at the very beginning of the inflation outbreak. Also, the outbreak of a war which had significant effects on commodity prices a year ago. So all that is different.

There are also, though, some similarities. There is a mismatch between supply and demand. You can see that in the goods sector still, you saw it in housing prices going up over 40 percent since before the pandemic, and you see it in the labor market where we have 1.9 job openings for every unemployed person.

So we are well aware that this particular situation involves a mix of forces, not all of which our tools can affect. But there is a job here for us to do in better aligning demand with supply.

Chair BROWN. Understanding you have limited tools to address inflation, and our conversations in the past show my concern about continued rate increases that may not actually address the root cause of inflation—they hurt workers, and many of us content we cannot follow the same old playbook.

Next question. Last year three banking regulators issued proposed updates on the Community Reinvestment Act to account for changes in our banking system. My question is does the Fed remain committed to work with FDIC and OCC to finalize a CRA rule, and when will that rule likely be finalized?

Mr. POWELL. Yes, we do remain committed, and I believe we are in broad agreement with the other two agencies on the revisions to the rule, so now we are in the process of writing all that down. That will take some time. And then after that, of course, it will come to the Board of Governors for a vote, and that will involve briefings and discussions. I cannot give you an exact but——

Chair BROWN. But as quickly as possible.

Mr. POWELL. Yes, but it will be some months.

Chair BROWN. Thank you. Banks weathered the shock of the COVID–19 shutdowns mostly because of the fiscal response provided by Congress. We now see a spike in loan delinquencies and increase in overall risk. Banks are again plowing billions, billions—as many other corporate leaders always defended by people on that side of the aisle—into stock buybacks, which makes me concerned if there is a downturn in the economy banks could end up with too little capital. That is why I am worried about any potential rollbacks of safeguards or regulations.

Can you assure me that the Fed will keep capital requirements strong and exercise more long-term, forward-thinking than corporate CEOs that seem to be focused on the short term?

Mr. POWELL. I can assure you as to the first part, that we will keep capital requirements strong.

Chair BROWN. I did not expect you to give me an opinion about your looking more forward than companies that look at the short-term benefits of stock buybacks.

Mr. Chair, when you last testified I asked you about the risks posted by crypto assets, stablecoin, the Fed, and other regulated possibilities. How is the Fed evaluating the risks of crypto-related activities by your supervised institutions?

Mr. POWELL. So this is something we have been quite active in this area, and I will say that we believe that innovation is very important over time to the economy, and we do not want to stifle innovation. We do not want regulation to stifle innovation in a way that just favors incumbents and that kind of thing.

But like everyone else we are watching what has been happening in the crypto space, and what we see is quite a lot of turmoil. We see fraud. We see a lack of transparency. We see run risk. Lots and lots of things like that.

And so what we have been doing is making sure that the regulated financial institutions that we supervise and regulate are careful, are taking great care in the ways that they engage with the whole crypto space, and that they give us prior notice. We have issued, along with the FDIC and the OCC, a number of issuances of notices to that effect.

Chair BROWN. Thank you, and I will close with this. I have long pushed for the Fed to prioritize workers and for the leaders of the Fed reflect the diversity of our country. We have made progress but our work is not done. We have a new opening, I understand. It is not your job to appoint the new Fed member. And we have a number of upcoming vacancies at the Reserve Banks. I support Senator Reed from Rhode Island, Senator Menendez from New Jersey, and to her colleagues who are pushing for more diverse voices at the Fed.

Senator Scott.

Senator SCOTT. Thank you, Chairman. Obviously the Chairman and I both have strong passions about challenges that we face in the country. The one thing that I do believe that we agree on is the importance of having a strong capital market as it relates to making sure that Americans have the ability to continue to grow their businesses and solve their challenges, and frankly, I hope that we get there.

Building on the same comment that the Chairman had around capital standards is where I am going to go with my thoughts today. When I think back on these last few years, it is hard not to recognize the extraordinary efforts our financial institutions of all sizes, frankly, undertook to administer a program like the PPP, all while weathering a shutdown of our global economy.

I welcome your thoughts, but from my viewpoint, our banking system was resilient. Our financial institutions stepped up and delivered aid to support families and businesses every single day. That is why Vice Chair Barr's broad comments around holistic review of our capital troubled me so much. We should be laser-focused on our economy and addressing the needs of everyday Americans trying to forge a new future, and helping them open the door to opportunity.

As you and I both know, capital and its quality must be continually scrutinized, but increased capital does not necessarily provide an increased benefit, and requiring banks to hold capital that is not risk-based and appropriately tailored to a bank's size, scope, and activities, can cause more harm than good. At a time of record inflation where everyday needs are more expensive, we should not be pursuing actions that are harmful. Rather, we should be supporting the engine of our economy, small businesses.

While I remain greatly concerned about by the Vice Chair's comments, I am hopeful that you ensure this review is appropriate, keeping the impacts on our banking system front and center. We must promote and further the growth of our economy and thereby our people. Anything less should be unacceptable.

To that end, will you commit that any ongoing capital review by the Federal Reserve will follow the law and that any follow-on regulatory proposals will be risk-based and tailored to an institution's activity, size, and complexity, and not a one size fits all?

Mr. POWELL. Yes. I can easily commit to that. You know, we are very strongly committed to tailoring, and I can say that anything we do will reflect the tailoring, which is a long-held principle for us and now a requirement in the law.

Senator SCOTT. Yes, sir. Thank you very much.

Two weeks ago I sent a letter with Chairman McHenry to Chair Gensler regarding the SEC's climate disclosure rule, urging him to rescind his proposal and reminding him that the SEC is a market regulator, not a climate forecaster. Much like Congress designed the SEC to protect investors to maintain fair, orderly, and efficient markets and to facilitate capital formation and not to advance progressive climate change policies, Congress designed the Federal Reserve to promote price stability and maximum employment, not to play politics.

To that end, I find worrying the Fed's announcement of recent actions to consider climate-related scenarios, coupled with remarks by the Vice Chair of Supervision, as attempts to incorporate broader ESG policies into the financial service system. Banks are having to continue for weather-related risks in their risk management, but efforts that attempt to predict climate change far into the future fall outside the scope of their authority.

Importantly, the level of speculation required in these models should highlight their arbitrary and capricious nature. At a time when our economy is suffering from historically high inflation, I expect our central bank to focus its time and resources on bringing inflation down, not on policy outside of its mandate.

I noted in my opening statement a recent speech that you have given about the state of the Fed and how you should resist the temptation to broaden its scope and to address social issues. Do you agree that the Federal Reserve does not have the authority or statutory direction to use its monetary policy or supervisory tools to weight into the ESG or other climate policies?

Mr. POWELL. I do. I do. As you know, there is a tightly focused role that we do have, that I believe that we have, but I would agree with your statement.

Senator SCOTT. Mr. Chairman, I have 20 seconds left. I am going to defer because of my earlier question in my opening statement.

Chair BROWN. Thank you, Senator Scott.

Senator Menendez is close but not here yet. So Senator Rounds.

Senator ROUNDS. Thank you, Mr. Chairman.

Mr. Chairman, first of all, welcome. It is always good to have you in front of our Committee.

As you know, both core and headline inflation have remained persistently elevated, and over the past 12 months real average hourly earnings fell by 1.8 percent, about 4 percent since President Biden took office.

To make ends meet as prices increase, more Americans are leaning on credit cards. At the end of 2022, credit card debt hit a record of $930.6 billion, an 18.5 percent hike from a year earlier, and an average credit card balance rose to $5,805.

Over the past year the Fed has acted aggressively to tame inflation and yet we are still seeing price increases. As we have discussed this several time, I recognize that it has been ongoing discussion, but I believe that this further proves that we have long been feeling the effects of a policy-induced inflation resulting from decisions by the Biden administration, primarily cutting off the resources necessary to improve an increased energy production.

I continue to be concerned that if you attempt to use the tools that are available at this time for the Fed that I believe that we are going to have a challenge of not being able to address specifically the challenges brought out when you have a policy that is promoting higher prices with regard to energy as opposed to what you are trying to do which is to bring down the total overall costs.

And I just wanted to ask, I guess, and you are going to think this is something that we have heard before, but do you believe that you currently have the monetary policy tools to actually reduce inflation? And I just put it in this perspective. In January of 2021, the CPI was 1.4 percent when the Biden administration began. In January of 2022—and this is before the Russian invasion of Ukraine—the CPI was at 7.5 percent. Today, March of 2023, CPI is 8.5 percent.

Would it not be fair to assess that a lot of the inflation that we have seen here may very well be due to policy decisions by this Administration?

Mr. POWELL. Senator, it is not for us to point fingers. Our job is to use our tools. You asked whether we have the tools to get this job done, and we do, over time. There are some things that we can affect, but over time we can achieve 2 percent inflation and we will.

Senator ROUNDS. In other words, you have got a limited number of tools available to you, and the limited number of tools that you have are designed to impact simply the reduction in prices and so forth. And yet if there are competing interests out there that are pushing prices higher, you do not have the wherewithal to decide one tool versus another based on whether it is policy induced or whether it is a matter of a shortage in supplies from outside, or whether it is war related.

Mr. POWELL. That is right. Our tools essentially work on demand, moderating demand, so that is what we can do.

Senator ROUNDS. So if there were policies in place that actually helped to reduce inflation—and I am just going to look at energy alone, just as a good example. If policies were in place that were actually allowing energy prices to come down in the United States, then you would have less of a need to use the very blunt tools that you do have right now with regard to increasing rate increases. Is that a fair statement, sir?

Mr. POWELL. In a sense it is. But I would just say, on energy we——

Senator ROUNDS. I am not trying to get you to a policy discussion with what the President is doing on his energy policy. I just want to make it clear that you have to respond to what is in front of you, and it does not matter where the inflation is coming from or what is driving it up. You are simply trying to bring it back down to that 2 percent number with the only tools that you have really got.

Mr. POWELL. Yes. I will say on energy, energy has tended, over time, to fluctuate up and down, and it is not mainly affected by our tools. So the things we look at are really things that are tightly linked to demand in the U.S. economy, those we can affect.

Senator ROUNDS. And I think just the fact that you have been increasing interest rates and yet inflation continues to ride up would suggest, as you have just indicated, that when you have high energy prices it is tough to impact that part of it with the monetary policy that you have got available to you.

Mr. POWELL. We focus on everything, but we also focus on core, in particular, which does not include energy prices. And what has happened is core inflation has come down but nowhere near as fast as we might have hoped, and it has a long way to go.

Senator ROUNDS. Thank you. One last question. Last June, Vice Chairman of Supervision, Michael Barr, testified before this Committee that he would defend the use of the aggregation method as an alternative approach to the insurance capital standards, the ICS, proposed by the IAIS. As the final compatibility criteria is set to come out later this year, can you confirm that you share Vice Chair Barr's views on this AM?

Mr. POWELL. I will confirm that, but I will have to get back to you on the status of that.

Senator ROUNDS. OK. Thank you. Thank you, Mr. Chairman.

Chair BROWN. Thanks, Senator Rounds.

Senator Menendez, of New Jersey, is recognized.

Senator MENENDEZ. Thank you, Mr. Chairman.

Mr. Chairman, I want to take this moment to remind my colleagues that there are more than 62 million Latinos that call the United States home. We are the largest minority group in the country. We account for nearly 20 percent of the United States population. We contribute almost $3 trillion in GDP.

Yet Latinos have no representation in the Federal Reserve's leadership. In the 109-year history of the Federal Reserve there has never—never—been a single member of the Board of Governors or regional bank president who has the lived experience of being Latino in the United States.

And in practice that means that the voices of nearly one-fifth of our country's people are repeatedly drowned out when the Fed is making critical decision on economic policy, decisions that affect whether a Latino family can afford their first home, find a job that pays a living wage, send their children to college, save for a comfortable retirement, or get a loan to expand their business.

Right now the Biden administration has a clear opportunity to make history with its next nomination to the Board of Governors. It has identified a number of highly qualified Latino candidates who have dedicated their careers to the fields of economics, who are committed to the Fed's dual mandate, who will preserve the independence of the central bank.

The Administration has rightly nominated and advocated for a number of diverse candidates with similar qualifications, both at the Fed and elsewhere. But despite having five opportunities over the past 2 years to nominate a qualified Latino economist to serve at the Federal Reserve, this Administration has repeatedly chosen not to. Representation or lack thereof does not happen by accident. It is a choice, and I hope the Administration makes the right choice with this nomination.

Mr. Chairman, would you say that it is a truism that the United States dollar is the reserve of choice in the world?

Mr. POWELL. Yes, I would.

Senator MENENDEZ. And that brings us enormous benefits, does it not?

Mr. POWELL. Yes, it does.

Senator MENENDEZ. Now 12 years ago, Republican House brought us to the brink of defaulting on the debt for the first time in the history of this country, jeopardizing our credit in the world economy. I am getting a sense of deja vu because once again Republicans are recklessly demanding draconian spending cuts to programs that hard-working U.S. families rely on in exchange for allowing the Treasury Department to pay for spending that Congress, including most of them have already voted to authorize. If you want to talk about spending cuts it seems to me that the budget is the time to do that, but not to put the full faith and credit of the United States at risk.

Chairman Powell, can you talk about the catastrophic damage a debt default would inflict on the economy?

Mr. POWELL. So I guess I will start, if I can, by saying that these are really matters between the Executive branch and Congress. We do not seek to play a role in these policy issues.

But at the end of the day there is only one solution to this problem, and that is whatever else may happen will happen, but Congress really needs to raise the debt ceiling—that is the only way out—in a timely way that allows us to pay all of our bills when and as due. And if we fail to do so I think that the consequences are hard to estimate, but they could be extraordinarily averse, adverse, and could do longstanding harm.

Senator MENENDEZ. Well, I think that is a mild statement of what would happen. I understand. I did not ask you to engage in the congressional Executive branch roles. I asked you about the abstract question of what happens if you have a debt default.

Is not even this constant fight putting into question the possibility that the United States will not honor its full faith and credit have consequence within the economy?

Mr. POWELL. In principal it could. I think markets and observers tend to watch this and tend to think that it will work out, and it has in the past worked out. So it needs to work out this time too.

Senator MENENDEZ. Seeing your testimony before the Committee, is it fair to say that you will do whatever is necessary to tame inflation?

Mr. POWELL. We serve a dual mandate and we will do everything we can to restore price stability while also serving maximum employment.

Senator MENENDEZ. And primarily that means additional rate increases, would it not? What other tool do you have?

Mr. POWELL. That is where we have the balance sheet. The shrinkage of the balance sheet will continue too, but it is principally rate hikes.

Senator MENENDEZ. So the question is when does that part of doing anything necessary to tame inflation come into conflict with your other mandate of maximum employment?

Mr. POWELL. Not now, when we have the lowest unemployment in 54 years, and where we have a labor market that is extremely tight, extremely. But that time could come, but it really is not now, where we are very far from our price stability mandate and, in effect, the economy is past most estimates of maximum employment.

Senator MENENDEZ. Thank you, Mr. Chairman.

Chair BROWN. Thank you, Senator Menendez.

Senator Kennedy, of Louisiana, is recognized.

Senator KENNEDY. Thank you, Mr. Chairman. Chairman Powell, thank you for being here. Thank you to you and your team for helping to save the economy during the pandemic meltdown. For what it is worth, I am generally supportive of the actions of the Fed right now, and I am not going to ask you today to blame anybody.

When Congress spends money it stimulates the economy, does it not?

Mr. POWELL. It would depend on whether that is funded by tax increases or not. So if there is a spending that it not accompanied by taxes it would have a net, at the margin, stimulative effect.

Senator KENNEDY. And when Congress borrows money to spend even more, that stimulates the economy even more, does it not?

Mr. POWELL. At the margin, yeah.

Senator KENNEDY. OK. If Congress reduced the rate of growth in its spending and reduced the rate of growth in its debt accumulation, it would make your job easier in reducing inflation, would it not?

Mr. POWELL. I do not think fiscal policy right now is a big factor driving inflation at this moment, but it is absolutely essential that we do slow the pace of growth, particularly for the areas of——

Senator KENNEDY. All right. Let us try to unpack this then. I am not trying to trick you. You are raising interest rates. You are raising interest rates to slow the economy, are you not?

Mr. POWELL. Yes, to cool the economy off.

Senator KENNEDY. And one of the ways you measure your success, other than fluctuation in gross domestic product, is the unemployment rate, is it not?

Mr. POWELL. Yes. One of the measures.

Senator KENNEDY. OK. So, in effect—and I am not being critical—when you are slowing the economy you are trying to put people out of work. That is your job, is it not?

Mr. POWELL. Not really. We are trying to restore price stability, not wages.

Senator KENNEDY. No, you are trying to raise the unemployment rate——

Mr. POWELL. There are a lot of——

Senator KENNEDY. ——and I know you do not like the phrase so let me strike it. You are trying to raise the unemployment rate, are you not?

Mr. POWELL. No. We are trying to realign supply and demand, which can happen through a bunch of channels. Like, for example, you know, just job openings. Job openings can——

Senator KENNEDY. All right. Let me put it another way, OK. The economists did a wonderful study. They looked at 10 disinflationary periods in America, going all the way back to the 1950s. Disinflation is what you are trying to do. It is a slowing in the rate of inflation. Am I right?

Mr. POWELL. Yes.

Senator KENNEDY. In other words, prices are not going to go down. They just do not go up as fast. Deflation is when prices actually go down. You are trying to achieve disinflation, are you not?

Mr. POWELL. Yes, we are.

Senator KENNEDY. OK. Based on history, in the 10 times that we got inflation down, disinflation, since the 1950s, in order to reduce inflation by 2 percent, unemployment have to go up 3.6 percent. Now that is history, is it not?

Mr. POWELL. I do not have the numbers in front of me, but yes, the standard has been that there have been recessions and downturns when the Fed has tried to reduce inflation.

Senator KENNEDY. OK. Now, right now the current inflation rate is 6.4 percent and the current unemployment rate is 3.4 percent. Now if history is right—I am not asking you to, again, blame anybody, but if history is right unless you get some help, in order to get inflation down from 6.4 percent to, let us say, 4.4 percent, the unemployment rate is going to have to rise to 7 percent, based on history.

Mr. POWELL. That is what the record would say.

Senator KENNEDY. OK. And to get inflation down to 2.2 percent, based on history, an immutable fact, unemployment would have to go to 10.6 percent, would it not?

Mr. POWELL. I would not——

Senator KENNEDY. That is what the history shows.

Mr. POWELL. Yeah, I do not think that kind of a number is at all in play here.

Senator KENNEDY. I know you are reluctant to admit it, and you do not want to get in the middle of a policy dispute. But I think it is undeniable—it is undeniable that the only way we are going to get this sticky inflation down is to attack it on the monetary side, which are you doing, and on the fiscal side, which means Congress has got to reduce the rate of growth of spending and reduce the rate of growth of debt accumulation.

Now, I get that you do not want to get in the middle of that fight, but the more we help on the fiscal side, the fewer people you are going to have to put out of work. Is that not a fact?

Chair BROWN. Please answer.

Mr. POWELL. It could work out that way.

Senator KENNEDY. Sir?

Mr. POWELL. It could work out that way.

Senator KENNEDY. Yes, sir. Thank you.

Chair BROWN. Thank you, Senator Kennedy.

Senator Reed, of Rhode Island, is recognized.

Senator REED. Thank you very much, Mr. Chairman. Thank you, Chairman Powell, for being here today.

We saw, in the wake of COVID, the globalized supply chain disrupted significantly, and we are in the process, in some respects, of rebuilding the supply chain with the emphasis on sourcing in the United States. To what extent did that disruptive supply chain contribute to inflation, and to what extent will the new, if you envision it, the new supply chain that is located in the United States and other friendly countries, affect inflation?

Mr. POWELL. So the initial outbreak of inflation as all about spending on goods where people could not spend on services. So goods spending went way up and the global supply chain—many, many goods are imported—the global supply chain just collapsed, and that was the source of the original inflation. It has now spread over the last 2 years to housing and also to the rest of the service sector.

So to your question, we are seeing goods inflation has been coming down for some time now. It is still too high but it is coming down. Housing services, in the pipeline you see the new leases that are being signed, and what that tells you is that in the next 6 to 12 months we will see that come down.

But this big service sector that is everything else, which is financial services, medical services, travel and leisure, all of those things, that is the source of the inflation we have now, which had not much to do with the supply chains. That is where the challenge is now.

Senator REED. And is there anything you can do that would target that service area without affecting the other areas?

Mr. POWELL. There is not really. You know, our monetary policy tools are famously powerful but blunt.

Senator REED. A different topic, and that is, as you are probably aware, the Fifth Circuit delivered a ruling in the Community Financial Services Association vs. CFPB, that the CFPB's funding mechanism is unconstitutional. Just like the Board of Governors, the CFPB is a bureau of the Federal Reserve. Both the Board of Governors and the CFPB rely on the same source of funds and draw on those funds in virtually identical ways.

If the Board of Governors funding starts to be found unconstitutional, what would the implications be for the country and monetary policy?

Mr. POWELL. Well, it would be very significant, but I have to say we have significant responsibilities but I would be reluctant to comment on a case that is before the Supreme Court.

Senator REED. But it is certainly something that you have people examine for possible ramifications.

Mr. POWELL. Yes, and the central banks tend to be self-funding because of the way they work, and that is a key factor of our independence.

Senator REED. We have gone back and forth on the impact of rate hikes on workers, and you have indicated previously that wages have not been spiraling upwards necessarily, and that inflation expectations are currently stable. But the impact on increased interest rates are usually felt more by low- to moderate-income people.

Is there any way you can work yourself out of that dilemma?

Mr. POWELL. So where we are right now, of course, is very low unemployment. Wages have been moderating, and they have been doing so without softening in the labor market, without rising unemployment, really, and that is a good thing. So we really do not know.

The current situation is a combination of more typical supply and demand issues but also just things that we have not seen before, like the war in Ukraine, like the supply chains that you mentioned. So we have many usual factors, and I do not think anybody knows with confidence how this is going to play out.

Senator REED. Thank you very much, Mr. Chairman.

Chair BROWN. Thanks, Senator Reed.

Senator Britt, from Alabama, is recognized.

Senator BRITT. Thank you, Mr. Chairman. Chairman Powell, it is great to have you here today.

Over the past 2 years we have seen the highest inflation of my lifetime, driving up costs for American families across the board. According to the U.S. Department of Labor, the annual inflation rate in 2021 was 7 percent, and in 2022 it was 6.5 percent.

According to the U.S. Department of Agriculture, the cost of food went up 10 percent in 2022, and the real effect of that is moms and dads across this Nation that are working to put food on the table for their kids, for their babies, had a harder time doing that. This has devastated hard-working Americans, causing a kitchen table crisis in every corner of our country, as the price of food, energy, and housing have all skyrocketed.

In response, the Federal Reserve has raised the Federal Reserve fund rate more than 4 percentage points. Being far from transient, inflation has remained persistent, high, and well above the Fed's long-run goal of remaining under 2 percent.

In the coming year, what factors and indictors are you paying attention to as you and the Federal Open Market Committee decide on whether to increase rates?

Mr. POWELL. So I would say a couple of things to that. First, we are going to be looking at inflation in the three sectors that I mentioned: the goods sector, the housing sector, and then the broader service sector. And we need the inflation that is already underway in the goods sector to continue, and that is really important.

In the housing sector we just need the time to pass so that that reported inflation comes down, and it is effectively in the pipeline as long as new leases are being signed at relatively small increases.

So we will be watching very, very carefully, though, at the larger service sector, which is 56 percent of consumer spending and more than that of what is currently inflation. So that is one thing. We will be watching that very carefully.

Also, we raised rates very quickly last year, and we know that monetary policy, tightening policy has delayed effects, so it takes a while for the full effects to be seen in economic activity inflation. So we are watching carefully to see those effects come into play, and we are aware that we have not seen the full effects yet and we are taking that into account as we think about rate hikes.

Senator BRITT. So when you are looking at this, obviously not to get into a policy discussion, but if there were an increase of energy production in this country do you feel like that would help drive down inflation?

Mr. POWELL. Well, I think over time more energy would mean lower energy prices. But we are very focused on what we call core inflation, because that is what is driven by, you know, really by demand. And our tools are really aimed at demand.

Senator BRITT. Right. Understood. But I feel like the cost of energy is not just what you pay at the pump, that it ends up affecting every good across this great Nation.

Additionally, I would like to ask you about labor participation. So when you look at the unemployment rate, and we have heard my colleagues discuss people having to be displaced in order for us to maybe get to the inflation rate that we would like as a Nation, I would like to focus on the labor participation rate. Right now it is 62.4 percent. If there were an increase and people coming back into the workforce, would that be a positive factor with regard to driving us down to the 2 percent rate that you would want to achieve?

Mr. POWELL. I think that it would. I mean, remember, those people coming into jobs, that would be great because the economy clearly wants more people than are currently working. Of course, those people would then spend more, so it would not be a zero-sum game. But it would be great for the country and great for them if they were to come into the labor force.

Senator BRITT. I believe that increasing and capital requirements on financial institutions would have a chilling effect on the economy and the availability of financial services. Last week I joined many of my colleagues in sending you a letter that expressed concerns that if the Federal Reserve decides to conduct a, quote, "holistic review of capital standards," as we heard Senator Scott talk about earlier.

So is the Federal Reserve concerned that the impact to the economy of increasing capital requirements on financial institutions at a time when inflation remains persistently high would cause an issue?

Mr. POWELL. I think it is always a balance. We know that higher capital makes banks safer and sounder. We also know that you will, at the margin, provide less credit the more capital you have to have. But I think it is never exactly clear that you are at a perfect equilibrium, and it is fair question, I think, to look at that.

Senator BRITT. And I know, out of respect for the Chairman and trying to stay in my time, I will just end by saying I heard what you said. Obviously, as you have said, the Federal Reserve is not and will not be a climate policymaker. I just want to thank you for your public statement on that. I agree with you that there is a difference between policymakers and financial regulators, and I certainly look forward to working with you in the future.

Chair BROWN. Thank you, Senator Britt.

Senator Warner, from Virginia, is recognized.

Senator WARNER. Thank you, Mr. Chairman, and Chairman Powell, it is good to see you again. Let me start by saying, depending on who is asking questions, we are either pounding you for how quickly we are going to drive that inflation back to 2 percent or pounding you on making sure that we do not push the economy into a recession and drive up unemployment.

I have got to tell you, and these are maybe not the cheap seats, but I actually think you have done a pretty good job in terms of both ratcheting up rates and then starting to tail off a little bit. I think we all were concerned by the January numbers that popped up a little bit more. I wish, Mr. Chairman, we were actually having this hearing 2 weeks from now because we are going to have a lot more data later in this week and next week. But we have still got ways to go and the January numbers were concerning, but I do think your tailored approach, we can all second guess but I think it has been the right approach. And I want to commend you on that.

I want to get two questions in. One, one of the areas that I am very worried about is commercial debt. I mean, we have got a Bloomberg story here showing we are going to hit a $6 trillion wall this year on refinancing. Where I am particularly concerned is the issue around commercial real estate. As we recover from COVID, a lot of things are getting back to normal, but clearly the transformation of where people work is going through a fundamental transition, and I hope people do return more to the office, but lots of folks prefer working elsewhere.

That is going to fundamentally change the real estate market on the commercial side, and I do believe we are going to hit potentially a cliff here of a totally unexpected problem in terms of commercial real estate. How are you looking at that issue, and recognizing there are lots of bumps coming out of COVID, this one seems to be more unique in nature, and how are you thinking about that issue?

Mr. POWELL. So the first one, on commercial debt, business debt generally, it has kind of been moving sideways as a percent of GDP, so you do not see a big spike going on or anything like that. However, of course there are pockets of concern, and particularly you pointed to the refinancing spike that has to happen. I have seen those come and go before. Generally markets can absorb them, maybe at a much higher rate this time. But it is something we are well aware of and watching carefully.

In terms of CRE, I would agree with you. The occupancy of office space in many major cities is just remarkably low, and you wonder how that can be. Now over time some of that is going to be made into condominiums and things like that, since we do not seem to have quite enough housing in some places.

But the question is what is the financial stability risk? It is not great. The largest institutions do not tend to have a lot of direct exposure to that. Some smaller banks actually do, medium- and small-sized banks do. We carefully monitor it. We agree that that is an area that requires a lot of monitoring, and I would say we are on the case.

Senator WARNER. Well, that morphed me into my last question, something we have talked about, and a lot of my colleagues have talked about the large institutions. I mean, I do think even some of the biggest critics of Dodd-Frank I think would acknowledge that our banking system is a heck of a lot stronger and it was able to withstand COVID in a very healthy way. But what we have also seen evolve is a vast amount of financial institutions move beyond the regulatory perimeter. You know, the fact that we now have way over half of the mortgage origination coming from nonfinancing institutions, because a lot of the large entities, hedge funds, other funds, that may be doing some of this commercial debt or some of them CRE debt.

I would like you to talk generally, in the last 40 seconds or so, of how you think about this regulatory perimeter. I am a big believer and I know some of my colleagues are that we ought to look less at charter and look at same regulation maybe as a guiding principle. I know Senator Warren has been working on some work, and I have been working on some work around crypto around that area.

But there is a vast amount of activity that is taking place outside the regulatory perimeter. How should we be thinking about that and how do we make sure that does not create the kind of crisis sneak-up that happened in 2008 on the nonregulated side of the house?

Mr. POWELL. I think you articulated the principle very well. It is same activity, same regulation, and that covers crypto and all kinds of other activities. People are going to assume when they deal with something that looks like a money market fund that it has the same regulation as a money market fund, or a bank deposit, and so stablecoins need some attention in that respect. I just think that is the basic principle.

And you are right. So much of intermediation has moved away from the regulated banks, really for a long period of time, and we have got to keep an eye on that.

Senator WARNER. Thank you. It is something I hope we can keep looking at.

Chair BROWN. Thank you, Senator Warner.

Senator Hagerty, of Tennessee.

Senator HAGERTY. Thank you, Chairman Brown, and thank you very much, Ranking Member Scott, for holding this hearing. Chairman, it is great to see you again here.

I appreciate your presence, and I appreciate the opportunity to talk with you about an item that I am particularly concerned about, and that is the holistic review that Senator Britt just brought up, that Vice Chair Barr is conducting right now. It is generating a sense that higher capital requirements are on the horizon for us, and as I think about that in the context of what we have weathered, you think about the situation in 2020 was an acute, real-life stress test, if you will. And I think that our financial system navigated that admirably.

In the past, Chairman Powell, you have told this Committee that our financial system has proven resilient, through 2020, and that the capital levels at that point in time—and I would note that those capital levels are multidecade highs—are in aggregate adequate. And I just wanted to follow up on those prior statements and see if you still feel that way.

Mr. POWELL. So I guess I would say it to you this way. In our system we have a Vice Chair for Supervision who has statutory responsibilities, and when a new Vice Chair for Supervision comes in generally they are going to want to take a fresh look, and that is what Vice Chair Quarles did, and Dan Tarullo kind of had the job on an informal basis, and that is what he did. So it is only natural that someone would come in and take a fresh look, and I think that is part of the process.

The role of that person is to make recommendations on regulations and supervision to the full board. The role of the board is to consider those when made. And to me this just comes under that heading.

Senator HAGERTY. Well, as the review is underway—and I appreciate that context—one aspect of it seems to us an apparent willingness to undo the tailoring requirements that were enacted as part of S. 2155. And I understand that nothing has been finalized regarding the regulations. It is a concerning prospect if that is the case.

The Fed's general counsel just yesterday alluded to undoing 2155 by, quote, "pushing down the Basel requirements on banks that were intentionally given relief in that bill." So I want to be perfectly clear that the banking regulators themselves cannot just simply ignore or selectively enforce the laws.

And again I realize that the details of this study have not been finalized or made public, but if the proposal put forth by Vice Chair Barr is either unduly aggressive or appears to contradict the spirit of S. 2155, will you vote for it?

Mr. POWELL. I would have to—I cannot answer that in the abstract, of course. But I would say we are, as an institution, very strongly committed to tailoring, and anything we do is going to reflect tailoring of institutions according to their risk. I mean, that is a principle that we will stick with.

Senator HAGERTY. I think it is quite important again, given the legislative intent here and the concerns that we maintain that. In the face of what general counsel said just yesterday I appreciate your perspective in terms of keeping that in place.

I would like to, with my next question, Chairman Powell, with a starting question by underscoring the importance of the independence of the Fed's monetary policy. Right now the economic picture is about as uncertain as I can remember. We have had large companies in the private sector who are in the midst of planning layoffs and forecasting serious economic weakness in the quarters to come, yet, on the other hand, the current economic data seems to be robust, inflation shows some signs of softening in the past several releases.

So I just hope, Chairman Powell, that you could briefly tell us how you synthesize these seemingly contradictory data.

Mr. POWELL. So just quickly, at the end of last year we saw a couple of very promising, modest inflationary readings in November and December, but earlier this year some of that improvement was revised away. In addition, we got a very strong reading on inflation in January, also a very strong jobs reading, also very strong retail sales. And so as I pointed out in my testimony we are looking at a reversal, really, of what we thought we were seeing, to some extent, a partial reversal.

It is still the case that we are seeing progress on inflation. Goods inflation has come down significantly. There is improvement in housing inflation in the pipeline. There is not a lot of improvement yet to be seen in the largest sector, which is non-housing services.

So core inflation is running at 4.7 percent on a 12-month basis. I think nothing about the data suggests to me that we have tightened too much. Indeed, it suggests that we still have work to do.

Senator HAGERTY. In that context and thinking about where the tightening goes and where and when it might happen, where do you see the terminal Fed funds rate landing in this cycle?

Mr. POWELL. We last wrote down our assessments, individual assessments of that in December, and I think the median range was—basically people were clustered between 5 and 5.5. We are going to write those down again. We do it four times a year. We will do around the March meeting, which is on the 21st and 22nd of March. And as I indicated in my testimony, I think that the data we have seen so far—and we still have other data to see. We still have significant data to see before the meeting—suggests that the ultimate rate that we write down may well be higher than what we wrote down in December.

Senator HAGERTY. Got it. Thank you, Mr. Chairman.

Chair BROWN. Senator Warren, of Massachusetts.

Senator WARREN. Thank you, Mr. Chairman.

So the Fed has raised interest rates eight times over the last year in what has been the most extreme rate hike cycle in 40 years. The Fed's goal is to slow inflation, and your tool, raising interest rates, is designed to slow the economy and throw people out of work. So far you have not tipped the economy into recession but you have not brought inflation entirely under control either. And maybe the reason for that is that other things are also keeping prices high, things you cannot fix with high interest rates, things like price gouging and supply chain kinks and war in Ukraine.

But you are determined to continue to raise interest rates, so I want to take a look at where you are headed. In December, the Fed released its projections on the state of the economy under your monetary policy plan. According to the Fed's own report, if you continue raising interest rates as you plan, unemployment will be 4.6 percent by the end of the year, more than a full point higher than it is today.

Chairman Powell, if you hit your projections do you know how many people who are currently working, going about their lives, will lose their jobs?

Mr. POWELL. I do not have that number in front of me. I will say it is not an intended consequence.

Senator WARREN. Well, but it is, and it is in your report, and that would be about 2 million people who would lose their jobs, people who are working right now making their mortgages.

So Chairman Powell, if you could speak directly to the 2 million hardworking people who have decent jobs today, who you are planning to get fired over the next year, what would you say to them? How would you explain your view that they need to lose their jobs?

Mr. POWELL. I would explain to people more broadly that inflation is extremely high and it is hurting the working people of this country badly, all of them, not just 2 million of them but all of them are suffering under high inflation, and we are taking the only measures we have to bring inflation down.

Senator WARREN. And putting 2 million people out of work is just part of the cost, and they just have to bear it?

Mr. POWELL. Will working people be better off if we just walk away from our jobs and inflations remains 5, 6 percent?

Senator WARREN. Let me ask you about what happens if you do this. Since the end of World War II, there have been 12 times in which the unemployment rate has increased by 1 percentage point within 1 year, exactly what you are aiming to do right now. How many of those times did the U.S. economy avoid falling into a recession?

Mr. POWELL. You know, it not as black and white—very infrequent.

Senator WARREN. I am just looking at the numbers.

Mr. POWELL. Yeah, no, no.

Senator WARREN. It actually is pretty black and white.

Mr. POWELL. Alan Blinder has written a book on this.

Senator WARREN. There have been 12 times that we have seen a 1-point increase in the unemployment rate in a year. That is exactly what your Fed report has put out as the projection and the plan, based on how you are going to keep raising these interest rates. How many times did the economy fail to fall into a recession after doing that, out of 12 times?

Mr. POWELL. I think the number is zero.

Senator WARREN. I think the number is zero. That is exactly right.

So then the question becomes, we have got 2 million people out of work. Can you stop it at 2 million people? History suggests that the Fed has a terrible track record of containing modest increases in the unemployment rate. Once the economy starts shedding jobs it is kind of like a runaway train. It is really hard to stop. In fact, in 11 out of the 12 times that the unemployment rate increased by a full percentage point within 1 year unemployment went on to rise another full percentage point on top of that. If that is what happens this time we would be looking at at least 3.5 million people who would lose their jobs.

So Chairman Powell, if you reach your goal and 2 million people get laid off by the end of this year, and then just like in 11 out of 12 times that unemployment has risen by a point in a single year, it keeps on rising and then we have got 2.5 million people out of work, we have got 3 million people who get laid off, we have got 3.5 million people who get laid off. What is your plan?

Mr. POWELL. Well, right now the unemployment rate is 3.4 percent, which is the lowest in 54 years, and we actually do not think that we need to see a sharp or enormous increase in unemployment to get inflation under control.

Senator WARREN. I am looking at your projections. Do you call laying off 2 million people this year not a sharp increase in unemployment?

Mr. POWELL. I would say 4.5 percent——

Senator WARREN. Explain that to the 2 million families who are going to be out of work.

Mr. POWELL. Again, we are not targeting any of that. But I would say even 4.5 percent unemployment is well better than most of the time for the last 75 years.

Senator WARREN. In other words you do not have a plan to stop a runaway train if it occurs.

You know, Chair Powell, you are gambling with people's lives, and there is a pile of data showing the price gouging and supply chain kinks and the war in Ukraine are driving up prices. You cling to the idea that there is only one solution—lay off millions of workers. We need a Fed that will fight for families, and if you are not going to lead that charge we need someone at the Fed who will.

Chair BROWN. Senator Vance, of Ohio.

Senator VANCE. Thank you, Mr. Chairman. Chairman Powell, thanks so much for being here. I have a question that is slightly far afield, but how often do you get to talk to the Federal Reserve Chairman, so I might as well ask it.

To give some context here, my family comes from Appalachia. Particularly, my grandparents grew up in southeastern Kentucky, coal country, and moved to southern Ohio where I now have the honor of representing all of Ohio.

You know, one of the things that you hear a lot when you study the regional history of Appalachia is it is often described as possessing a resource curse. So there is a lot of coal in central Appalachia that enables a certain amount of consumption. Obviously consumption is good. People need food and medicine and other things.

But there is also a pretty good argument that for a host of reasons it causes mal-investment in the region, and consequently you have lower productivity growth, lower innovation, and an economy that is much less diversified and much less dynamic.

I am wondering, when I think about and read about the history of Appalachia and the resource curse I am struck by the idea that you could make a similar argument about the Reserve currency status of the United States dollar. Americans have enjoyed one of the greatest privileges of the international economy for the last nearly eight decades, a strong dollar that acts, of course, as the world's reserve currency. You know that better than I do.

Now this has obviously been great for American purchasing power. We enjoy cheaper imports. Americans, when they travel abroad, benefit from lower costs. But it does come at a cost to American producers. I think in some ways you can argue that the reserve currency status is a massive subsidy to American consumers but a massive tax on American producers.

Now I know the strong dollar is sort of a sacred cow of the Washington consensus, but when I survey the American economy and I see our mass consumption of mostly useless imports on the one hand, and our hollowed-out industrial base on the other hand, I wonder if the reserve currency status also has some downsides and not just some upsides as well.

And let me just put a final point on this, and I would love to get your thoughts on that, Chairman Powell. We are, of course, now the main supporter of a massive land war in Europe between the

Russians and the Ukrainians. I read recently—and I am not going to comment on how perfect or precise these estimates are—but I read recently that the United States is trying to ramp up production from 14,000 artillery shells to 20,000 artillery shells—that is per month—while the Russians are firing 20,000 artillery shells in Ukraine per day. And when I look at the American economy we have a lot of financial engineers and a lot of diversity consultants. We do not have a lot of people making things, and I worry that the reserve currency status and the lack of control that we have over our currency is perhaps driving that.

I would love to get your feedback on that. What are the upsides and downsides of the reserve currency?

Mr. POWELL. That is a big question to try to answer.

Senator VANCE. We have 2 minutes, Chairman Powell, so plenty of time.

Mr. POWELL. I cannot even get started on that.

So we are the world's reserve currency, of course, and that is because of our democratic institutions. It is because of our control over inflation over many, many, many years. The world trusts the rule of law in the United States, and those are the things. So once you are the reserve currency it is used all over the world in transactions, and it is the place where people want to be in times of stress, using dollar-denominated assets.

So, of course, we benefit by being able to pay for our goods all over the world, pay for anything anywhere in the world, mostly, with dollars. That is an advantage. You know, there is some economic theory around it, that it also has burdens of various kinds, but I cannot call it all back to mind.

But, you know, the other thing is it is a very stable equilibrium but it is not a perfect one—it not a permanent one, rather. So there is not any obviously candidate to replace the United States right now, where you can have free flow of capital in and out of the country, where you can really trust the rule of law and democratic institutions, and keeping price stability, which you can here.

Senator VANCE. Do you think it gives us less control over our own currency, the fact that it has become the world's reserve currency?

Mr. POWELL. Control over our currency. I am not sure—so essentially what we try to control is price stability, and no, it does not make it harder for us to keep inflation under control. The United States has a smaller external sector than most large economies. It is only about 15 percent. So main what affects inflation in the United States is domestic supply and demand.

Senator VANCE. Do you think it makes it harder for us to fight back against currency manipulation, to control the export and import controls in a way that stabilizes our own manufacturing sector?

Mr. POWELL. Well, I mean, what is important there is really the level of the dollar. And, you know, when the dollar is stronger obviously our wares are more expensive abroad, and that kind of thing. But we do not have an opinion on—matters of the level of the dollar are really matters for the Treasury Department and the elected Government, not for the Fed.

Senator VANCE. Thank you, Chairman Powell.

Mr. POWELL. Thank you.

Chair BROWN. Thank you, Senator Vance.

Senator Van Hollen, of Maryland, is recognized.

Senator VAN HOLLEN. Thank you, Mr. Chairman. Chairman Powell, thank you for being here and for your service.

I know the Fed is experiencing lots of challenges these days. I have got a couple of questions that are just, I think, basic yes or nos, and then some longer questions.

Would you agree that changes in the size of corporate profits can be one of the factors that affects the inflation rate?

Mr. POWELL. Yes.

Senator VAN HOLLEN. Recently we saw that the employment cost index, which, as you know, measures the growth of wages and benefit costs, grew at roughly 4 percent on an annualized basis in the fourth quarter of 2022. Is that right?

Mr. POWELL. That is my recollection, yes.

Senator VAN HOLLEN. So if corporate profits were to decline from the extremely high levels that we saw recently, would it be possible to sustain the 4 percent growth rate in the employment cost index for an extended period of time, even as we get inflation down to the target of 2 percent?

Mr. POWELL. It depends on what you mean by extended period of time. So without a very, very large increase in productivity, which would be great but that we do not expect, you would not be able to sustain 4 percent wage inflation over the longer term. Over the shorter term, though, yes.

Senator VAN HOLLEN. So over the shorter term that would not be a justification in and of itself for raising rates. Is that right, in the short term?

Mr. POWELL. Well, so I think wages affect prices and prices affect wages. I think we do think that some softening in the labor market conditions will happen as we try to get inflation under control, and will need to happen.

Senator VAN HOLLEN. Right, but that is more a prediction about your efforts to fight inflation. Are you saying that simply looking at the current 4 percent growth rate in the short term is an excuse for jacking up interest rates?

Mr. POWELL. No. What I would say is that the all the data we look at, in the labor market, including not just that measure of wages but others, also unemployment, also participation, also job openings and quits and things like that. All of that, you put that into the picture and I think you see a labor market that is extremely tight and is probably contributing to inflation. I have never said it was the main cause.

Senator VAN HOLLEN. I think the larger point here, based on your response to that first question about growth and profits, is corporations have a decision as to whether or not they are going to pocket more for profit, which they can, or provide higher wages to their employees. And if you actually lowered your profit margins you could sustain a higher wage increase without violating the 2 percent inflation. Is not that right?

Mr. POWELL. Yes. I mean, when I hear profit margins, what we are seeing in the economy is pretty much about shortages and supply chain blockages. And when there is not enough of a product, and there is a lot of demand, which you see as prices going up, as the supply chains get fixed and shortages are alleviated you will see inflation coming down, you will see margins coming down, and that will certainly help with inflation.

Senator VAN HOLLEN. But profits are the margin, right? They are going up beyond what they were before. That means that even with the increase of costs because of supply chains they are making more profits, which again, they can do that. But my point is that as a contributor to inflation, as you indicated in response to the first question.

Let me ask you about the tight labor market because one of the issues in a tight labor market is parents with kids, including a lot of moms who would like to go back into the market but are not able to do so because of lack of affordable childcare. The other issue is immigration, and I know that you have gotten some recent data on how some immigration figures actually have softened a little bit the tightness in the labor market.

Can you just talk broadly about those two factors, affordable childcare and immigration, more legal immigration, and how they could affect labor force participation and therefore also reduce inflation pressures?

Mr. POWELL. On the first, we do not make recommendations or evaluate fiscal policy, but I will say there is research that shows that it helps keep women in the workforce when there is childcare available, which is, I think, kind of self-evident.

Sorry, the second was——

Senator VAN HOLLEN. Impact of immigration.

Mr. POWELL. Immigration, yes. So what I talked about with you is actually, as part of the January Bureau of Labor Statistics report—sorry. The Employment Report for January comes out in early February—there is a section in there about more people. The Census Department has increased its estimate of the workforce by something like 870,000, and a significant of that has been immigration. And that has moved up participation by a little bit, and it may be part of why we are hearing from, in the labor market, that the really intense labor shortage pressures that we were hearing about in 2021 and 2022, may be alleviating. So that would contribute to that. Clearly, the economy is calling for more people, with essentially two job openings for every unemployed person, and this can be a source of those people.

Senator VAN HOLLEN. Right. And that would reduce the tightness of the labor market and reduce pressures on inflation, right?

Mr. POWELL. It may already be doing so.

Senator VAN HOLLEN. Thank you.

Chair BROWN. Senator Cramer, of North Dakota, is recognized.

Senator CRAMER. Thank you, Mr. Chairman. Thank you, Chairman Powell, for being here. And I cannot resist responding to a few things that my friends on the left have said. For example, in his opening statement Chairman Brown had a long list of things that raising interest rates will not do. Raising interest rates will not fill-in-the-blank. I am going to fill in the blank with a couple of things. How about raising interest rates will not stop Senate Democrats and President Biden from overtaxing, overspending, overborrowing, overregulating?

Chairman Brown said we should rebuild our supply chain by curbing offshoring, corporate offshoring. I agree. He talked a lot about corporate greed contributing to inflation. OK. But how about regulatory greed contributing to corporate greed? How do you expect corporations to reinvest money if you overregulate their ability to invest that money right here in the United States of America? You want to onshore some things? How about energy policy? How about instead of looking to Venezuela or Iran for oil supply, or Russia, or rather than looking to China for electric vehicles and chips and solar panels, how about we have a strategy that onshores those things by reducing regulations, reducing taxes, and letting those corporations reinvest their profits rather than stock buybacks or dividends?

This idea that somehow the Federal Reserve is supposed to keep inflation in check while half of the Government works against it is mind-boggling.

Now I know, Mr. Chairman, you do not like to comment on policy. You and I have gone around and around about this. You were anxious to advise us to spend lots of money during the pandemic. I do not think a lot of people blame you for that. You would not respond to efforts by the Biden administration after we were in a robust recovery from not spending so much money. OK, I can appreciate the change.

But now we are in this debate between the Republicans and Democrats, between particularly the House Speaker and President on how to raise the debt ceiling, and you have made some pretty strong comments about raising the debt ceiling, absent from structural reforms that would actually help us get back to a reasonable growth.

And so I warn you again, if you are going to make political comments, if you are going to advise us on policy, be consistent with it.

Now, I want to get back to the greening of the Federal Reserve and these, I call them, stress tests. You can call them whatever we call them. But I am concerned that now the Federal Reserve is starting down this path. Maybe it is slightly, at first, about climate stress testing.

I just want to ask you this. If we are going to go down that path, if the Federal Reserve is now going to become part of the Federal climate police force, are we going to consider the ramifications of having entire communities and economies, factories and manufacturers, you know, whatever energy entities, large server farms, leaving them susceptible to a very unreliable, very expensive energy source? Is that part of the stress test?

Mr. POWELL. No. Those are considerations for elected people, not for us. We have a narrow role to play here, but it is real role, and I can talk about that if you would like.

Senator CRAMER. Yeah, I would like you to, because again, if we are going to start doing stress tests for the six largest financial institutions related to climate—which really is more weather than climate—then are we going to consider the effects of an unreliable energy source at several locations throughout our country?

Mr. POWELL. Our only focus is on the safety and soundness of these institutions and do they understand and can they manage all of the risks that they run in their business model. That is our only goal. Again, we are not looking to be climate policymakers.

Climate policy is clearly going to have effects on regions, on companies, on individuals, on countries, disparate effects, and that is not for unelected people like us, who have a narrow mandate, but I think it does touch climate. And you are right to be concerned that we find ourselves on a slippery slope, but honestly, I think the climate scenarios are something that the banks are already doing themselves, and climate guidance is something that they are looking for. They want to know how we are thinking about this. But we will try really hard not to get on a slippery slope and find ourselves becoming climate policymakers. It is just not appropriate for an independent agency.

Senator CRAMER. OK, and I completely agree and I hope you stick to that, and I think you ought to ask the banks to consider what kind of vulnerabilities that might expose.

With regard to what Senator Warren was saying on her monologue, one thing about idealogues, the have the luxury of binary choices. You have a really big job and you have a single, in my mind, one and a half, maybe two missions. I think the first one handles the second ones OK. But it has got to be tough when the White House is working against you and you do not have to comment.

Thank you. Thank you, Mr. Chairman.

Chair BROWN. Senator Tester, of Montana, is recognized.

Senator TESTER. Chair Powell, thank you for being here today, and thank you for serving in this critical role at this critical time. I have talked many times in this Committee, and I especially, right now, cannot overstate the importance of the Fed's independence. I said in the previous Administration. I say it now. We cannot be playing politics with our economy, and that is a fact.

From a climate standpoint I will just tell you it is entirely artificial right now anyway because if you look at the hundreds of billions of dollars this country puts out every year in disasters due to climate instability, we ought to be asking our question, is that sustainable, because quite frankly, it has to be done, and I do not think it is sustainable. So we have got to start looking for some solutions on the climate side sooner rather than later.

The Reserve has a tough job, and I really appreciate how you have done it—reasonable, working together, making hard decisions for the good of the economy. We have to get this right.

So the question is, how much has inflation decreased since its peak?

Mr. POWELL. It depends on the measure, but meaningfully, at least a couple of percentage points.

Senator TESTER. OK. And has unemployment gone down as inflation has gone down?

Mr. POWELL. Unemployment has gone down. Yes, it has, to now a 54-year low.

Senator TESTER. Yeah. So the question becomes—and I always think back to in 1998, I bought some property, and the interest on that property was 10 percent in 1998, and I thought I got a hell of a deal, by the way. I thought it was just great.

But the truth is interest rates have been artificially low for the last, what, 20 years probably? And the question becomes, as you look at the economy and as you try to make the determination whether the inflation is caused by demand or supply, where does all that fall in to you, your decisionmaking, moving forward?

Mr. POWELL. You mean the level of interest rates?

Senator TESTER. Right.

Mr. POWELL. In theory there is this thing called the neutral level of interest, and we know it only by its works, and neutral is the level that neither pushes the economy up nor pulls it down. And it changes over time. This is the thing about these important variables in economics.

So what has happened until now is that the neutral level of interest went down and down and down to the point where many countries had zero interest rates and very low inflation. Now we have this series of shocks associated with the pandemic, and we have rates at 4.5 percent, our policy rate, and we have the labor market very strong, and inflation reacting somewhat, and it does raise the question of where is the neutral rate. Honestly, we do not know. I think we look at the current situation and we see that there is not a lot of evidence—it is hard to make a case that we have over-tightened it. It means we need to continue to tighten.

I think we are very mindful of the lags with which our policy works. We do not think we need a significant increase in unemployment, and we are certainly not aiming for one. But we do think that there will be some softening in labor market conditions to get to 2 percent inflation.

Senator TESTER. When you are looking at interest rates I know we talk about energy prices here and the price of gasoline, and then if you go over and Europe is much, much higher. I am just curious. Are we comparable with interest rates here as with, say, Europe?

Mr. POWELL. We are very close to where Canada is. We are a little bit higher than where Europe is. Europe has traditionally had much lower inflation. They now have very high inflation, and they are still increasing rates. But they are a bit lower in terms of rates.

Senator TESTER. So if we do not get the inflation under control—and like I said, I think the steps you have taken have been reasonable and measured—if we do not get it under control, really what are the impacts of that?

Mr. POWELL. Well, the social costs of failure is one way to think about it, are very, very high. So if inflation were to continue at some point that will become the psychology, and businesses will come to expect high inflation, and that will make it more self-perpetuating. That will mean an up-and-down economy. It will mean something that looks more like what we have seen in periods of high inflation. Capital allocation is difficult in a world like that. It is not a good time for the economy.

What we want to do is restore price stability, firmly, back at 2 percent so that we can have the kind of strong labor market for a sustained period that we had before.

Senator TESTER [presiding]. Once again, thank you for your work. Thank you for your independence. Senator Daines.

Mr. POWELL. Thank you.

Senator DAINES [presiding]. Thank you, Senator Tester. I will be handing it off to Senator Cortez Masto when I am finished up as well.

Mr. Chairman, good to have you here today. Back in Montana, the number one issue I hear, certainly across the State, is the high cost of gas, the high cost of groceries, and overall how their paychecks are shrinking because of inflation. It is a crushing blow. It has real-life impacts. It is a top-of-mind issue for Montanans.

It is also important to note the devastating impact it is going to have on our Nation's economic future. In fact, in October of last year I sent a letter to Congressional Budget Office Director Swagel regarding the impact that high inflation and the elevated interest rates would have the cost of servicing the Federal debt. His response painted a less-than-rosy picture.

But then we got CBO's updated 10-year baseline forecast in February, and it confirmed the truly dire situation that we find ourselves in. Driven by interest payments on the debt, the CBO now projects that cumulative deficits during the 10-year window—and I recognize where deficits come from. It is irresponsible spending here in Washington. But the cumulative deficits during the 10-year window will exceed $20 trillion. The cumulative deficit. I am not talking the debt, because it is going to grow the total Federal debt to more than $51 trillion by 2033.

Now 2033 used to sound like a long way away. We are 10 years away. Ten years go by very, very quickly. Within 5 years we are going to spend more on annual interest on the national debt than we spend on national defense. Think about that for a moment. These are coming out of the CBO.

These absolutely shocking but, quite frankly, predictable projections go back to a debate we vigorously had here in the Banking Committee. I remember when Lawrence Summers, of course, the former Secretary of Treasury under President Clinton, economic advisor to President Obama, he warned us. He said—and he was frankly warning my colleagues across the aisle—he said you cannot move forward if these purely partisan—at that time a $1.9 trillion spending extravaganza, we had $1 of unspent COVID money in December of 2020. And that passed on a purely partisan vote. We said it is going to start to ignite the inflation fires.

So I certainly hope the President's budget, which we expect to see later this week, will propose pro-growth policies that can get us out of this mess, and I would argue almost an existential crisis if we look at what is going to come at us here over the course of the next 10 years with debt and service on that debt.

Unfortunately, as the President said in his State of the Union address, the President said he is going to raise taxes. That is recipe for disaster. It is going to crush productivity, discourage investment, stifle economic growth even further.

I want to turn to my questions now, Chairman Powell. You are raising interest rates to combat the inflation we have seen in the economy over the past few years. Is that correct?

Mr. POWELL. Yes.

Senator DAINES. And although this is the domain of Treasury, a higher Fed fund rate will mean higher borrowing costs. Is that correct?

Mr. POWELL. Yes, all else equal.

Senator DAINES. So I just want to connect the dots here. Inflation was sparked, one of the big reasons was massive spending here in Washington, and now we are going to be bearing the challenges with higher debt service over the course of the next several years, where we are going to see debt service exceeding defense spending, which as we see the threats of China, threats around the world, I think it is very, very concerning. Now as a grandfather of four, soon to be five, grandchildren, these are things you think about more and more as you look forward.

I want to change here and talk about American energy. When the war in Ukraine broke out many feared that Russia would cut off natural gas exports and cause energy inflation to spike. Prices did not spike as much as anticipated due, in large part, to the fact that American companies stepped up to the plate.

As of late last year, the European Union now receives more liquified natural gas from the United States producers than it does from Russian producers, and that is good thing for the world to see more U.S.-produced energy.

Chairman Powell, do you believe that European and American inflation would have been manageable if not for American energy producers?

Mr. POWELL. I certainly think that our particular area of natural gas assets have helped Europe make the transition.

Senator DAINES. Any sense of how much worse the global energy picture would be if you would imagine a world where we are not producing and shipping energy to other countries?

Mr. POWELL. It would be hard to estimate.

Senator DAINES. Probably worse?

Mr. POWELL. Yeah, I mean, I think it has been—Europe has managed better than expected, and a part of that story is just U.S. energy exports. Also the winter was not as bad, and the Germans made some good decisions.

Senator DAINES. Yeah. We made some prayers. They said we need to pray for a warm winter for Europe and I think they got one, which was somewhat helpful.

I am out of time here. I am going to send this back over to Senator Cortez Masto.

Senator CORTEZ MASTO [presiding]. Thank you.

Chairman Powell, it is great to see you. Thank you so much. I know it has been a long morning. I always appreciate you coming to talk with us here on the Committee.

I want to first align myself with the remarks from Chairman Menendez supporting a Latino nominee to the open seat on the Federal Reserve. It has been more than 100 years, and a Latino has never served on the Federal Reserve board, and I know there are many strong Latino economists and economic experts who would capably serve. So I want to put that out there.

Chairman Powell, I also sit on Senate Finance. Right across the way we are talking about affordable housing. And I think for purposes of so many of us across the country, including in Nevada, when we talk about affordable housing it is also about workforce housing. It is about making sure families that are working so hard have an opportunity to keep a roof over their head. Right now in

Nevada, if you are making minimum wage, you have to work 75 hours a week just to be able to afford housing.

And so I want to talk to you about this. I was distressed to see in the report that activity in the housing sector has contracted as a result of the elevated mortgage rates, and you have been talking about that. I often hear from Nevadans who say, "I do not know if I am ever going to own a home," and many feel resigned to being stuck in a cycle of renting.

So Chairman, how do the Federal Reserve economists and leaders think about the balance between keeping interest rates low to spur that affordable home building and home buying while addressing inflation?

Mr. POWELL. We have a dual mandate from Congress, as you well know, which is maximum employment and price stability, and that is really what we take into account. And, of course, interest-sensitive spending is the thing that gets the most support when we cut rates and the thing that is most affected when we raise rates, and that means housing to a significant extent. That is not a choice that we make. That is just the way it works. And we only have, really, one tool, which is monetary policy.

So, you know, we do not really try to use our tools to effect broader housing policy but really just to achieve our statutory goals.

Senator CORTEZ MASTO. It happens to just unfortunately be an effect as you try to achieve your statutory goal. Is that correct?

Mr. POWELL. Yes.

Senator CORTEZ MASTO. And I want to have the opportunity to address Senator Warren's conversation with you earlier about the tools that you have and the impact it has on causing, potentially, more people to be unemployed, and this obviously has an impact on their ability to afford homes as well. Can you address that?

Mr. POWELL. I would be glad to. I want to be clear that we do not seek, and we do not believe we need to have a very significant downturn in the labor market. And it is not just hope. I think if you look at the situation in the labor market you have got all these job openings and, in principle, you could reduce the job openings without seeing a really significant increase in unemployment. Also, you are starting from such a strong labor market, it seems as though you are a long way away from anything that looks like a recession just looking at the labor market by itself.

So honestly, we do not know that we need, that there will need to be a really significant downturn.

Other business cycles had quite different back stories than this one, and we are going to have to find out whether that matters or not. But I do think, and I have said all along, and my colleagues and I have too, that we believe that we can—there is path to restoring 2 percent inflation with less significant effects on the labor market than have typically been seen in downturns.

Senator CORTEZ MASTO. And for purposes of the general public, the people, the Nevadans that I know that are struggling—we have talked about this, and thank you for always being willing to talk with me—we have one of the highest unemployment rates in the country. Our service sector was hit so hard. We are still at over 5 percent just in southern Nevada. We have high gas prices. We have grocery prices. We have housing prices that are high.

So one of the things that you have commented on, and you just did again, but I know it was in your opening remarks, and it is quoted right here, and let me just say, you say, "Our overarching focus is using our tools to bring inflation back down to our 2 percent goal and to keep longer-term inflation expectations well anchored."

For the general public, for those working families and people, why 2 percent? Why is getting it to 2 percent so important?

Mr. POWELL. So that has become the globally agreed. Essentially all central banks target 2 percent inflation in one form or another.

Senator CORTEZ MASTO. How does that help my Nevada families? How does that help people in Nevada?

Mr. POWELL. I will tell you how it does. I guess it is not obvious how that is. But 2 percent inflation, to have people believe that inflation is going to go back to 2 percent really anchors inflation there because the evidence and the modern belief is that people's expectations about inflation actually have an effect on inflation. If you expect inflation to go up 5 percent, then it will, you know, if everyone kind of expects that, because that is what businesses and households will be expecting, and it will kind of happen because they expect it.

So having a 2 percent inflation goal, which we had for many years, de facto we had it, then we formally adopted it in 2012, but for years before that we were effectively targeting 2 percent inflation, and what that meant was that one of the reasons why inflation was low and predictable is having a real target and sticking to it, not changing it at convenient moments.

So we think it is really important that we do stick to a 2 percent inflation target and not consider changing it. We are not going to do that. People will be better off if the whole question of high inflation is just not part of their lives. That is kind of the definition of price stability, is that people live their lives without having to think about inflation all the time.

Senator CORTEZ MASTO. Thank you. I notice my time is up. Thank you so much.

Senator Lummis.

Senator LUMMIS [presiding]. Thank you very much, Madam Chairman, and welcome, Chairman Powell.

When you are setting these rates and making these decisions and seeking that 2 percent magic number, are you considering the cost of borrowing for the United States, knowing that Congress has overborrowed and that we have overspent and that the national debt is at now at least 97 percent of GDP, and we are going to face challenges, of our own making. This is not about what the Fed has done. This is about what the Congress has done that you have to factor into your decisions. Do you think about the costs of borrowing for the United States itself?

Mr. POWELL. No, we do not, and we are not going to. In other words, that would be fiscal dominance. If we were constrained in our monetary policy by the budgetary situation of the United States—and we are not; we are clearly not—the path we are on is not sustainable but the level of debt that we have is sustainable. Put it that way.

So we do not think about interest costs when we make monetary policy. We think about maximum employment and price stability.

Senator LUMMIS. It is your opinion that the level of debt we have is sustainable?

Mr. POWELL. Yes. I mean, clearly we have the largest economy in the world. We can service this debt. That is not the problem. The problem is that we are on a path where the debt is growing substantially faster than the economy, and that is kind of, by definition, in the long run, unsustainable. And the way countries have fixed that is with longer-term programs that have bipartisan support and that address the actual problem in the budget. That is really the formula.

Senator LUMMIS. Thank you. I am going to switch to stablecoins. You are a member of the President's Working Group on Financial Markets. The working group called for bank-like regulation of stablecoins in late 2021. Then, on January 3rd of this year, in a joint staff statement, the Federal banking agencies stated that even after the bank's capital, BSA/AML, and risk management, a bank issuing a stablecoin on a, quote, "open public or decentralized network is highly likely to be inconsistent with safe and sound banking practices."

I am going to say that again. Even after a bank's capital, BSA/AML, and risk management, a bank issuing a stablecoin on an open public or decentralized network is highly likely to be inconsistent with safe and sound banking practices.

So I am a little confused about where we are headed on stablecoins. Does the January 3rd statement mean that the Fed has decided that stablecoins on a permission-less distributed ledger have no place in banks?

Mr. POWELL. So I think that there are real concerns about permission-less public blockchains, and the reason is that they have been so susceptible to fraud, to money laundering, and all of those things. So I think what you heard from the Federal banking agencies, in one of their reports, was that they would tend to look at those as not consistent with safety and soundness.

Senator LUMMIS. And what about properly regulated stablecoins? Do you think they could have a place in our banking system?

Mr. POWELL. I certainly think that in a world of appropriate regulation, where the stablecoin activity gets the same regulation as comparable products in different places, then there certainly could be a place for stablecoins in our financial services sector.

Senator LUMMIS. Thank you. The European Union, U.K., Australia, Switzerland, Singapore, and others have all moved over the last few years to create a legislative framework for digital assets. The European Union, in particular, is attempting to be a standard-setter again, like it was with its data protection rule.

Is the United States in danger of being a rule taker, not a rule-maker, when it comes to digital assets?

Mr. POWELL. I do think it would be important for us to have a workable legal framework around digital activities. I think that is important, and something Congress, in principle, needs to do because we cannot really do that.

Senator LUMMIS. Yeah. Thank you. Senator Gillibrand and I agree with you.

One area we have already seen is in the Basel Committee on Bank Supervision. They proposed prudential treatment for crypto assets framework, setting forth banks' capital standards for digital assets. The Basel Committee's framework does not impose a capital charge for digital asset custody, whereas the SEC's Staff Accounting Bulletin No. 121 imposes a prohibitive capital charge through the back door and places consumers at risk in bankruptcy.

Similarly, the Basel Committee framework allows banks to issue or hold digital assets on their balance sheet if the requisite capital is set aside.

So back to January 3, 2023. The Fed and other bank regulators have said that it is forbidden for a U.S. bank to conduct these activities no matter the capital.

So my question is, what does the rest of the world know about digital asset regulation that we do not, that the Fed does not?

Mr. POWELL. So as we discussed, this is an SEC staff accounting bulletin, and it is not something that the Fed issued, and I would be loath to comment directly on it.

Senator LUMMIS. The issue is, and what concerns me, is that the Fed and other Federal banking agencies are not following international norms on digital asset regulation. That is just my comment.

Thank you, Chairman Powell, for being here.

I now recognize Senator Smith.

Senator SMITH [presiding]. Well, thank you, and Chairman Powell, it looks as if Senator Britt and I are the last people standing at this Committee hearing. Thank you for passing on the gavel to Senator Lummis. And I want to thank you for your service and for our recent conversation.

And before I get into my questions I would just like to note there has been a good back-and-forth amongst our Committee around some of the big economic challenges and opportunities that we face in this country, and I would just like to note that the programs and the spending that the Ranking Member and some of our colleagues have blamed for inflation provided critical relief that kept working families and small businesses afloat during a global pandemic. And in fact, many of these policies were passed on a bipartisan basis and signed into law by both Republican and Democratic Presidents.

And I also just want to add that the laws that the Democrats passed to lower prescription drug costs and health care costs and to lower energy costs for Americans are helping to lower basic costs for families, all of which, by the way, was fully paid for.

So I return, Mr. Chair, to what you have said to me privately and to all of us publicly, which is what we ought to be looking for is striving for bipartisan solutions to find a path forward, and, in fact, Senator Lummis and I were just talking about this yesterday when it came to housing policy. So I just want to put that out there.

When you and I spoke yesterday briefly we talked about the Community Reinvestment Act, and I know that I appreciated the Chair raising this point earlier in the hearing. But I want to just return to that briefly. I am very glad to see, it has been about a year since the Fed and the OCC and the FDIC issued their proposed rule to modernize implementation of the Community Reinvestment Act. I do not think that the proposal was perfect by any means, but it does make really important improvements to how, through the CRA, financial services organizations can serve and meet the needs of communities that are full of assets but lack the resources to make it happen like wealthy communities can.

So I think, Chairman Powell, you indicated that you expect this new CRA rule to be finalized in the coming months. Is that what you indicated?

Mr. POWELL. Yes. That is right.

Senator SMITH. And can you just tell us, with the departure of Dr. Brainard, who will be spearheading the CRA efforts?

Mr. POWELL. I have asked Vice Chair Barr to be responsible for moving the project forward. Of course, it has to the whole board and everyone gets a vote on that. But he will be pushing it forward.

Senator SMITH. That is great. Thank you.

And I was glad to see that disaster preparedness and climate resiliency were added to the definition of community development activities that would be eligible for the CRA credit, and this is important, of course, because low- and moderate-income folks and the communities that they live in often face some of the worst impacts of climate change and extreme weather events. This is not social engineering. This is dealing with the actual costs and challenges that people experience because of climate change.

So, Chairman Powell, can you talk to us a little bit about how you see that change and how it fits with the CRA's overarching objectives?

Mr. POWELL. I think it fits for the reasons that you said. Honestly, I am a week or so away from getting a briefing on where the proposal lies, so I am reluctant to touch on it. Again, I would rather wait until after I am fully briefed on where that agreement came out, after the FOMC meeting.

Senator SMITH. Thank you. That is fine. I look forward to continuing this conversation with you——

Mr. POWELL. As will I.

Senator SMITH. ——and with Mr. Barr, and I just appreciate this. My view of this is that climate change and the economy are inextricably linked and the reality is that climate-related action or inaction has a direct financial impact on people and our economy. And was wondering if you would just be willing to update us briefly on some of the next steps that the Fed is going to be looking at as you evaluate the resilience of financial institutions with respect to climate risk. There is this pilot project that just was started in January, I think it was, of this year, and I am curious to know how you see next steps there.

Mr. POWELL. So we are doing really two things. One is we are doing a climate stress scenario, which the banks are already doing, the large banks, the six that we are working with. And that is really just to begin the process of understanding the risk that are associated with this over the longer term. Again, they are already doing it and it is something—there is a lot of learning going on, around the world actually.

The other thing we are doing is providing guidance. The banks want clear guidance. They actually want one set of rules globally, the big banks that do business around the world. They are hoping that they are not in a world where there are just different regulatory regimes everywhere they go. So we are kind of working on that as well.

Senator SMITH. Great. Thank you very much, Mr. Chair.

Mr. POWELL. Thank you.

Chair BROWN [presiding]. Thank you, Senator Smith.

Senator Tillis, of North Carolina, is recognized.

Senator TILLIS. Thank you, Mr. Chairman. Chair Powell, thank you for being here.

In your opening statement—I was here for that—I think you touched on some of the interest rate-sensitive components of GDP and non-interest rate-sensitive components of GDP. I think you said that we do have a concern in the latter group—inflation expectations, labor market tightening, et cetera.

Can you tell me a little bit about how you are looking at the interest rate-sensitive and non-interest rate-sensitive readings and whether the Fed—what sort of Fed actions can take place to avoid a zero landing?

Mr. POWELL. Sure. So the housing sector, of course, interest-sensitive spending is the thing that is very directly affected by our policies, almost right away, and the poster child for that is housing. And so you have seen mortgage rates now go back up over 6 percent. You have seen housing starts come down. The activity in housing has declined as people are reluctant to get out of the low-rate mortgages they have had before. So housing activity is slowing down. On the other hand, housing prices went up in the aggregate more than 40 percent since the beginning of the pandemic, so we may be seeing some price correction on that too. So that is coming along.

And housing inflation, which is a big part of the CPI, a little bit smaller part of the PCU, the inflation measures we follow, that we rely on, that will be coming down because of the slowdown in the housing market.

I guess I would say the service sector is probably less interest-sensitive than that, and that is restaurants, it is travel services, travel and leisure, it is health care, it is financial services, health care services, all those services, and that is a big, big part of our economy. This sector is 56 percent of consumer spending on non-energy and food.

So it is very important, and it is about having a little bit softer demand and about having some softening in labor market conditions, we think. Our tools will work on that, but we do expect that that will take time.

Senator TILLIS. Thank you. I know the Chairman, in his opening comments, mentioned, I believe—I do not want to misquote him—that we have too little capital in the banking sector. It may be true of a couple of banking institutions, but how do you feel about the current capital that our broader banking sector, irrespective of where they are in size, what concerns, if any, do you have about the capital that we see out there already?

Mr. POWELL. So I supported all of the capital raising that we did. I joined the Fed in 2012, when we were in the middle of implementing all those Dodd-Frank increases, and I supported all of them, after careful thought and discussion with my colleagues.

I think the new Vice Chair is doing what new Vice Chairs do, which is to take a fresh look and ask the question, even though I think we all agree capital is strong. Certainly the Vice Chair does. The question is, is it at the right level, and I think that is what happens with a new Vice Chair for Supervision. We do not have any proposal yet but at some point we will.

Senator TILLIS. Yeah. I am going to be meeting with the Vice Chair and we will drill down on that topic. But I was over in Finance Committee so I was not here, but I do now that several members—well, first off we know that Vice Chair Barr is looking at a holistic review of capital requirements. I think that is a good idea.

But I have to ask a question. Does the Fed consider the bipartisan-passed Senate bill 2155, which is currently the law of the land, superior to any of the Basel requirements or any holistic review process. It is the law of the land. How does that weigh in to how these reviews go?

Mr. POWELL. So 2155 was—I think you are talking about tailoring.

Senator TILLIS. Yeah.

Mr. POWELL. Dodd-Frank actually called for tailoring and what 2155 did was it changed “may tailor” to “shall tailor,” and it also changed the thresholds. But tailoring is an absolutely bedrock aspect of our bank regulatory system, and anything that we do is going to reflect what we think is appropriate tailoring between the different sizes and risks of the financial institutions that we supervise and regulate.

Senator TILLIS. What we were trying to accomplish as a part of that—I do not expect you to respond. I know that we are coming to the end of the hearing—is that a holistic review of a financial services institution is going to reveal the fact that many of these financial institutions are very different based on the activities that they are most involved in. And those sorts of holistic reviews may actually result in increasing capital requirements for two banks that look like peers but not for another because of the inherent risk associated with their business focus. Does that make sense?

Mr. POWELL. To your earlier point, though, the law, the Dodd-Frank language, as amended, actually requires that we take those things into consideration.

Senator TILLIS. And I hope that we will.

Mr. POWELL. We will.

Senator TILLIS. Thank you.

Chair BROWN. Thank you, Senator Tillis.

Senator Warnock is recognized, from Georgia.

Senator WARNOCK. Thank you so very much, Mr. Chairman.

Before I begin my questions, I know that this Committee will soon consider a new nominee to serve on the Federal Reserve Board of Governors, and while it has not historically been the case it seems to me that the board should reflect the diversity of our Nation, that those things are connected, policy and representation, are connected. And I hope that we will see, sitting before this Committee, a nominee that pushes us closer toward our ideals of e pluribus unum out, out of many, one, and I support Senator Menendez and others who have called for a diverse nominee, specifically. The fact that we have never had a Latino person serve on the Federal Reserve board I think is a huge oversight, and I hope we can move quickly in that directly.

That said, my State of Georgia is in a housing crisis, like much of the country. The Federal Reserve Bank of Atlanta has designated owning a home in Atlanta as unaffordable to the average home buyer. But this is not just a city problem. Harris County, Georgia, with a population of less than 35,000, sitting on the border of Alabama, is also raised as unaffordable.

In the midst of this housing crisis, the Federal Reserve continues to raise interest rates. This makes mortgages a lot more expensive for families, especially young families looking to buy a house. According to the National Association of Realtors, the share of first-time home buyers is at an all-time low, while the average age of a purchaser is at an all-time high.

Chairman Powell, you have said that there has been, quote, "an imbalance in the housing market," but if you are a Georgia family, parents in their mid 30s, young children, and all you want is to be able to afford your first home and place and build equity to 1 day pass that equity on to your kids, how are the Fed's actions helping that family afford a home?

Mr. POWELL. Our mandate is to use our tools to foster maximum employment and price stability, and we are using those tools really now to restore price stability at a time of the highest inflation in 40 years. I think that the same people who are having high mortgage costs, if they have a floating rate mortgage, are also experiencing high costs for all the basic necessities of life. And one of our most fundamental rules at the central bank is to keep price stability. So we have to prioritize that in what we do.

Senator WARNOCK. I understand the tools and the mandate, but my concern is that we could have a cure that is worse than the disease. It does not do families any good if we stabilize housing prices while mortgage rates continue to skyrocket. It does not matter to me why a house is unaffordable. Maybe the house is unaffordable. Maybe the mortgage is unaffordable. Unaffordable is unaffordable.

How does the Federal Reserve consider the total price of home ownership, including cost of mortgages, in executing that mandate to keep prices stable?

Mr. POWELL. Housing inflation is a very important component of various inflation indexes, and the way that his calculated is the economists look at rents, and then for people who own a home they impute a rent, depending on the value of the home. So it actually does factor in. And I would say measures of new leases that are being signed, and new housing prices, show significant declines in inflation, not in price but in inflation. And that will play through so that overall inflation over the course of the next 6 months or year will decline.

Senator WARNOCK. If we are seeing mortgage rates go up, yes or no, does this discourage folks who may have a low-interest mortgage rate from putting their home on the market and then possibly paying double the cost on a mortgage for their new house?

Mr. POWELL. It certainly could. People who are in a fixed rate, low-rate mortgage, I would assume many of them are not moving.

Senator WARNOCK. Does raising the Federal interest rate change the cost of borrowing for a company hoping to develop new housing?

Mr. POWELL. Yes.

Senator WARNOCK. Does it make it more expensive for suppliers to finance expanding production to meet supply needs?

Mr. POWELL. It does.

Senator WARNOCK. Does it give businesses less wiggle room to offer higher wages and attract qualified workers?

Mr. POWELL. Indeed.

Senator WARNOCK. So all of these actions have to be taken into account. Federal Reserve does not control housing supply but its action do have a massive effect on housing supply. And some of these housing effects, it seems to me, will be felt for many years, well beyond when interest rate hikes have slowed or rates have even gone down.

And I know you have got a difficult job and a tough situation, but I just hope that the Fed will think more about its actions and how they affect housing supply even as it attempts to control housing demand. Thank you.

Chair BROWN. Thank you, Senator Warnock.

The last questioner, I believe, is Senator Sinema, who is remote, from Arizona.

Senator SINEMA. Thank you, Mr. Chairman, and Chairman Powell, thank you for being here today.

In raising interest rates last month by 25 basis points the FOMC cited Russia's war against Ukraine as a key contributor to elevated global uncertainty. The war has serious implications for global energy and agricultural markets, and as you know, energy inflation, in particular, can appear in the form of higher prices of other goods and services.

This feels like a substantial driver of inflation overall, and in my mind you cannot understand the global economy fully without assessing the range of possible outcomes in Ukraine. As we have also seen, the war created new supply chain problems overnight and has caused abrupt price swings in select committees.

How is the FOMC assessing the economic impact of the war and the range of potential outcomes in order to inform how it sets monetary policy?

Mr. POWELL. I guess there are two things to say. One is that the principal way that the way has affected our economy is really through commodity prices, grain and particularly energy prices. That is the main thing, and those have both flattened out. Energy prices globally have settled down, they are at a higher level, and food prices as well, to some extent.

The second thing I would say is that it represents a significant risk. So the war in Ukraine, the outcome is uncertain. Developments there are uncertain. And you have to think of it as a source of potential risk to the global economy and to our economy.

We look at alternative scenarios and things like that. We do not really do it from a geopolitical standpoint but we do, of course, model scenarios where commodity prices are higher and things that would look like what could happen from Ukraine.

Senator SINEMA. Thank you. At home, Arizona families are struggling to navigate this economy. Higher prices are making it more difficult to afford groceries, gas, rents, and airfare, but on the other hand, rising interest rates are crowding out investment and making it more difficult for first-time home buyers to buy a home. Inflation has also slowed housing development to a halt in Arizona, and as you know, Chairman, housing is a major economic contributor in my State.

It is also clear that more spending comes with tradeoffs, and it is why attacking inflation has historically been so difficult and yet it is more important than ever that we get it under control.

There has been much debate about a soft landing, where we get inflation under control without triggering a recession, versus a hard landing, where inflation comes down but triggers a painful recession. Some economists are currently saying they see no landing right now, that growth is actually accelerating and that more aggressive actions will be needed to get inflation under control. If true, that would be problematic.

What do you think about that assessment?

Mr. POWELL. Well, as I mentioned earlier, I think if you look at the data that has been coming in since earlier this year, you have seen stronger labor market conditions, higher inflation, stronger consumer spending, and also we saw some of the low inflation readings from the fourth quarter of last year revised away. You take all of those, they may be, to some extent, related to things like seasonal adjustments or a warm January. But nonetheless, they all point in the same direction and they do suggest the possibility that we ultimately would need to raise rates higher than had been expected.

Of course, we have two or three more very important data releases to analyze before the time of the FOMC meeting. Those are going to be very important in the assessment we have of this relatively recent data. We will be looking carefully at that, and all of that will go into making the decision, which we have not made, but making the decisions that we will make about what to do at the March meeting.

Senator SINEMA. Thank you. On February 23rd, the Fed, the FDIC, and the OCC released another joint statement on crypto assets and liquidity risks posed to banking organizations. It is clear that regulators see undue risk for banks in the current environment and are taking a more conservative approach.

Do you believe these risks are inherent to crypto assets and how they behave, or is some of the risk the product of the current regulatory and policy landscape for crypto assets in the U.S.?

Mr. POWELL. So we are seeing, really, in the last close to a year now, we have seen just a remarkable set of events in the crypto space. Lots of companies collapsing. We have seen massive fraud. We have seen all kinds of things.

I think we have to be open to the idea that somewhere in there there is technology that can be featured in productive innovation that makes people's lives better. However, in the near term we see, in crypto activity, lots of things that suggest that regulated financial institutions should be quite cautious in doing things in the crypto space. And we have issued three or four releases to the banks, along with the OCC and the FDIC, the Fed has, and they essentially say you really need to be careful here. You need to be careful. It is early days with crypto. There is not the appropriate regulation. We are learning lots about the risks, and they are many of the same risks that run in other parts of the financial system, but without appropriate regulation.

Chair BROWN. Thank you, Chairman Powell.

Senator SINEMA. Thank you.

Chair BROWN. Thank you, Senator Sinema.

We conclude the hearing. The Fed must make sure that workers and families are at the center of every decision it makes to strengthen our economy. We have heard a lot today about the role that Wall Street plays in our economy too. As you have said, Mr. Chair, we know that higher capital requirements make banks safer and stronger. It allows them to make investments in their workers and their communities and our economy. That is what they should be doing instead of spending billions on buy-backs.

I look forward, Chair Powell, to working with you to strengthen our economy.

For Senators who wish to submit questions for the hearing record, these questions are due 1 week from today, Tuesday, March 14th. To Chair Powell, please submit your responses to questions for the record 45 days from the day you receive them.

I thank my colleagues for the very, very good attendance today. Only one Member on each side was not here, one for health reasons and the other just because he is doing 12 different things. So I appreciate all that and thanks for your testimony and your public service, Mr. Chairman.

Mr. POWELL. Thank you, Mr. Chairman.

Chair BROWN. The hearing is adjourned.

[Whereupon, at 12:23 p.m., the hearing was adjourned.]

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

PREPARED STATEMENT OF CHAIR SHERROD BROWN

Today we examine the Fed's actions to combat inflation and whether these actions are working—including how these actions affect Americans' jobs and their paychecks.

Prices are still too high across many parts of the economy. And we all know who feels it the most when the costs of groceries and rent go up—it's not the economic pundits and politicians who lecture us about discipline and stability.

It's not the corporate executives who pretend they're making "tough choices" about prices while reporting record profit increases quarter after quarter and doing more and more stock buybacks.

It's the people working hourly jobs to make ends meet. It's seniors on fixed incomes and Social Security. It's everyone who gets their income from a paycheck each month—not an investment portfolio.

It's also those same Americans who stand to lose the most if the Fed's actions to curb inflation go too far.

Because no matter what goes wrong in our economy—a global pandemic, a war in Eastern Europe, weather disasters—profits somehow always manage to go up.

And workers are always left paying the price.

As you have noted, Chair Powell, the Fed's tools are only one element in our fight against inflation.

This is a complex problem, and interest rates are a single, blunt tool.

Raising interest rates can't rebuild our supply chains and fix demand imbalances from the pandemic.

Raising interest rates won't end Russia's brutal invasion of Ukraine.

Raising interest rates won't prevent avian flu from devastating one third of our egg supply, or weather disasters from destroying key crops.

And raising interest rates certainly won't stop big corporations from exploiting all of these crises to jack up prices far beyond the increase in their costs.

Last year, corporate profits hit a record high. Corporate PR chiefs assure us that these corporations just have to raise prices. Their costs are going up, the workers just want to be paid too much, they have no other choice—they tell us.

Yet when you look at their profits and their executive salaries and their stock buyback plans, it sure doesn't look like corporations have exhausted every available alternative.

This is so brazen, even global bankers called on the Fed to identify this profiteering as one of the biggest drivers of inflation.

Paul Donovan, Chief Economist of global wealth management at UBS wrote "[the] Fed should make clear that raising profit margins are spurring inflation . . . Companies have passed higher costs on to consumers. But they have also taken advantage of circumstances to expand profit margins. The broadening of inflation beyond commodity prices is more profit margin expansion than wage cost pressures."

Think about that—from a chief economist at UBS:

"They have also taken advantage of circumstances to expand profit margins. The broadening of inflation beyond commodity prices is more profit margin expansion than wage cost pressures."

The Fed can't force corporations to change their ways or rewrite the Wall Street business model on its own.

But you could talk about it.

High-interest rates, falling wages, and increasing unemployment are all hallmarks of failed policies that end up helping Wall Street, large corporations, and the wealthy.

Because let's be clear what we're talking about when use the economic-speak that can cloud this conversation.

"Cooling" the economy means laying off workers.

"Lowering demand" means workers getting fewer raises.

Of course there are times when the Fed must act. We cannot allow inflation to become entrenched.

We've seen encouraging signs that isn't happening. And there are other ways we can bring prices down.

Instead of lowering demand—again, making people poorer, laying people off, denying workers raises—we can speed up and strengthen our supply chains. We can bring critical manufacturing industries back to the U.S. We can rebuild our infrastructure.

It's what we are doing with the CHIPS Act, with the Inflation Reduction Act, with the Bipartisan Infrastructure Bill.

For the first time in decades, we are finally recognizing the damage that I and many of my colleagues warned corporate offshoring would do to our economy.

Look at East Palestine, Ohio.

America learned about this small town last month, when a Norfolk Southern train derailed and spewed hazardous material into this community.

East Palestine is more than just a disaster headline.

Columbiana County, once the center of American ceramics manufacturing—at one time producing 80 percent of the ceramics in the country.

When I was there last week, I was talking with the sheriff at the 1820 Candle Company, and he was talking about how the last one just closed a few years back.

Like so many industries, those jobs all moved overseas.

And we know why. It's the same reason Norfolk Southern cut costs at the expense of safety, eliminating a third of its workers in less than 10 years.

And it's the same reason corporations are now keeping prices high even as supply chains stabilize.

It's the Wall Street business model. Quarter after quarter, corporations are expected to cut costs, at any cost:

They skimp on safety.

They move production overseas to countries where they can pay workers less, because of trade deals they lobbied for.

And Wall Street demands they post profit increases—even in the middle of a global pandemic.

That's the problem with our economy.

And not only will higher interest rates not solve it—if they're overdone, they'll make it worse.

We cannot risk undermining one of the successes of our current economy.

For the first time in decades, workers are finally—finally—starting to get a little power. Unemployment is at an historic low—3.4 percent.

That's not just a number. That means Americans have more opportunity and options, even in places that haven't seen a lot of that in recent years. It means people have the power to demand raises, and retirement security, and paid sick days, and control over their schedules.

And it means more Americans have the dignity that comes with a good job that provides for your family.

We must ensure that all Americans have the opportunity for that dignity of work.

This is a critical time, and the consequences of missteps could be severe.

Mr. Chairman, two more things that could affect you:

It's not just monetary policy that threatens Americans' pocketbooks.

Some of my colleagues have threatened the Nation's full faith and credit by holding the debt ceiling hostage for partisan politics. Instead of paying our bills on time, they're threatening all Americans.

The Fifth Circuit's Consumer Financial Protection Bureau ruling could also cause unimaginable instability and chaos for consumers and our financial system.

The Fifth Circuit is Wall Street's favorite courthouse.

It recently ruled the CFPB's independent funding is unconstitutional. If the Supreme Court upholds the Fifth Circuit's ruling, it will devastate the CFPB and threaten the independent funding of many other Federal agencies, including the Federal Reserve.

I look forward to hearing today how the Fed will balance its dual mandate, and continue to promote an economy where everyone who wants a good job can find one—an economy that works for everyone.

PREPARED STATEMENT OF SENATOR TIM SCOTT

Sitting here, looking at my prepared remarks . . . there is an opening coming where Vice Chair Brainard is moving on, I think it's really important for us to make sure that all the information that we need in order to make a good decision on the next [nomination] that we have in a timely fashion. So, I would really implore the Chair to make sure that happens. That every question, every questionnaire that is asked from the person, we get. Every Member of this Committee has their questions answered in a timely fashion, and that the staff has their answers in a timely fashion.

Listening to Chairman Brown, I thought to myself: "Fascinating, truly fascinating." I concluded that while I know Chairman Brown pretty well, I am sure he is sincere.

But let me just say this, spending and printing trillions of dollars, caving to the radical Left in this country, seeing policies posited and then implemented that led to the worst inflation in 40 years, seeing our inflation at 9.1 percent, seeing American families struggle because of the weight of the Government on their shoulders, seeing the devastation from South Carolina to Ohio—it's unbelievable that the progressives in this country who caused 9.1 percent inflation would then turn somewhere besides the mirror to see the absolute devastation caused by their out-of-control spending is remarkable. Remarkable.

To stop the out-of-control inflation caused by the out-of-control spending, the Fed steps in to cool the economy. Well, the definition of cooling the economy is necessary because we've seen the most radical approach, to a problem that was in our rearview mirror, being used to bring in a level of socialism and spending that our Nation has not seen in my lifetime.

The facts are very simple: when you get to 9.1 percent inflation in this Nation, as a kid who grew up in a single-parent household mired in poverty, a 40 percent—today, a 100 percent just a year ago—increase in the gas prices devastates single mothers around this country. For seniors on fixed income whose savings are being depleted, with an average cost just last month of a $433 increase because of inflation. For my friends on the other side of the aisle to look any place besides a mirror, I find stunning.

The truth is that when your food prices go up over 20 percent, when your electricity is up over 20 percent, you have to ask yourself: "Where in the world are they?" They cannot be in this universe, it must be an alternate universe where in fact it is okay for us to prices go through the roof and our economy not stumble, but fall into a ditch. Why are we in the ditch? Because progressives used the pandemic as a way to usher in a form of spending that takes the money out of the pockets of everyday Americans and puts it in the coffers of the Government.

There is a better way. The better way is to trust the American people. And when you do so, you don't have to have the Fed come in and raise interest rates so high to quell the challenges in our economy so that today versus 18 months ago, the price of the same house for your mortgage payment is twice as high. Why? Because of the runaway spending of our friends on the other side of the aisle.

I'm sure I do not have time for my opening comments, what I will say without any question, as I look around the country, and I ask myself how devastating is it that today it costs $433 more dollars than it did a year ago, the answer is it is a crisis when the average family in our country didn't have $400 in their savings for an emergency, to have prices go up by this amount is devastating. To have a conversation about rents around the country, looking at the inflationary effect and the absolute devastation of a snarling supply chain, we haven't seen in my lifetime, run by my friends and the progressives, unbelievable.

Now to get to you, Chairman Powell. One of the comments you made that I think is really important in one of the speeches you gave in January. "It is essential," you said, "that we stick to our statutory goals and authorities, and that we resist the temptation to broaden our scope to address other important social issues of the day. Taking on new goals, however worthy, without a clear statutory mandate would undermine the case for our independence."

You further noted that, and I quote, "Without explicit congressional legislation, it would be inappropriate for us to use our monetary policy or supervisory tools to promote a greener economy or to achieve other climate-based goals. We are not, and will not be, a climate policymaker."

Do you still stand by those comments? "CHAIRMAN POWELL: 'I do.'"

Finally, several of my Republican colleagues and I sent a letter to you discussing Vice Chair of Supervision Michael Barr's plan to conduct a "holistic" review of capital standards. I look forward to discussing those capital standards during my Q and A, and I will thank you for our recent conversation that we had that helped illuminate some of the necessary challenges that we face as a Nation and your answers to it. Thank you.

PREPARED STATEMENT OF JEROME H. POWELL

CHAIR, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

MARCH 7, 2023

Chairman Brown, Ranking Member Scott, and other Members of the Committee, I appreciate the opportunity to present the Federal Reserve's semiannual *Monetary Policy Report.*

My colleagues and I are acutely aware that high inflation is causing significant hardship, and we are strongly committed to returning inflation to our 2 percent goal. Over the past year, we have taken forceful actions to tighten the stance of monetary policy. We have covered a lot of ground, and the full effects of our tightening so far are yet to be felt. Even so, we have more work to do. Our policy actions are guided by our dual mandate to promote maximum employment and stable prices. Without price stability, the economy does not work for anyone. In particular, without price stability, we will not achieve a sustained period of labor market conditions that benefit all.

I will review the current economic situation before turning to monetary policy.

Current Economic Situation and Outlook

The data from January on employment, consumer spending, manufacturing production, and inflation have partly reversed the softening trends that we had seen in the data just a month ago. Some of this reversal likely reflects the unseasonably warm weather in January in much of the country. Still, the breadth of the reversal along with revisions to the previous quarter suggests that inflationary pressures are running higher than expected at the time of our previous Federal Open Market Committee (FOMC) meeting.

From a broader perspective, inflation has moderated somewhat since the middle of last year but remains well above the FOMC's longer-run objective of 2 percent. The 12-month change in total personal consumption expenditures (PCE) prices has slowed from its peak of 7 percent in June to 5.4 percent in January as energy prices have declined and supply chain bottlenecks have eased.

Over the past 12 months, core PCE inflation, which excludes the volatile food and energy prices, was 4.7 percent. As supply chain bottlenecks have eased and tighter policy has restrained demand, inflation in the core goods sector has fallen. And while housing services inflation remains too high, the flattening out in rents evident in recently signed leases points to a deceleration in this component of inflation over the year ahead.

That said, there is little sign of disinflation thus far in the category of core services excluding housing, which accounts for more than half of core consumer expenditures. To restore price stability, we will need to see lower inflation in this sector, and there will very likely be some softening in labor market conditions. Although nominal wage gains have slowed somewhat in recent months, they remain above what is consistent with 2 percent inflation and current trends in productivity. Strong wage growth is good for workers but only if it is not eroded by inflation.

Turning to growth, the U.S. economy slowed significantly last year, with real gross domestic product rising at a below-trend pace of 0.9 percent. Although consumer spending appears to be expanding at a solid pace this quarter, other recent indicators point to subdued growth of spending and production. Activity in the housing sector continues to weaken, largely reflecting higher mortgage rates. Higher interest rates and slower output growth also appear to be weighing on business fixed investment.

Despite the slowdown in growth, the labor market remains extremely tight. The unemployment rate was 3.4 percent in January, its lowest level since 1969. Job gains remained very strong in January, while the supply of labor has continued to lag.[1] As of the end of December, there were 1.9 job openings for each unemployed individual, close to the all-time peak recorded last March, while unemployment insurance claims have remained near historical lows.

Monetary Policy

With inflation well above our longer-run goal of 2 percent and with the labor market remaining extremely tight, the FOMC has continued to tighten the stance of monetary policy, raising interest rates by 4½ percentage points over the past year. We continue to anticipate that ongoing increases in the target range for the Federal funds rate will be appropriate in order to attain a stance of monetary policy that is sufficiently restrictive to return inflation to 2 percent over time. In addition, we are continuing the process of significantly reducing the size of our balance sheet.[2]

We are seeing the effects of our policy actions on demand in the most interest-sensitive sectors of the economy. It will take time, however, for the full effects of monetary restraint to be realized, especially on inflation. In light of the cumulative tightening of monetary policy and the lags with which monetary policy affects economic activity and inflation, the Committee slowed the pace of interest rate increases over its past two meetings. We will continue to make our decisions meeting by meeting, taking into account the totality of incoming data and their implications for the outlook for economic activity and inflation.

[1] A box in our latest *Monetary Policy Report*, "Why Has the Labor Force Recovery Been So Slow?" discusses the factors that have been holding back labor supply.

[2] A box in our latest *Monetary Policy Report*, "Developments in the Federal Reserve's Balance Sheet and Money Markets", discusses changes in the size of the Federal Reserve's balance sheet.

Although inflation has been moderating in recent months, the process of getting inflation back down to 2 percent has a long way to go and is likely to be bumpy. As I mentioned, the latest economic data have come in stronger than expected, which suggests that the ultimate level of interest rates is likely to be higher than previously anticipated. If the totality of the data were to indicate that faster tightening is warranted, we would be prepared to increase the pace of rate hikes. Restoring price stability will likely require that we maintain a restrictive stance of monetary policy for some time.

Our overarching focus is using our tools to bring inflation back down to our 2 percent goal and to keep longer-term inflation expectations well anchored. Restoring price stability is essential to set the stage for achieving maximum employment and stable prices over the longer run. The historical record cautions strongly against prematurely loosening policy. We will stay the course until the job is done.

To conclude, we understand that our actions affect communities, families, and businesses across the country. Everything we do is in service to our public mission. We at the Federal Reserve will do everything we can to achieve our maximum-employment and price-stability goals.

Thank you. I am happy to take your questions.

RESPONSES TO WRITTEN QUESTIONS OF CHAIR BROWN FROM JEROME H. POWELL

Q.1. Your testimony highlighted several economic risks impacting the banking system. To prepare for these risks, banks need robust capital to continue lending and serve their customers in an economic downturn.

How do strong capital requirements protect the banking system, and how do they protect working Americans and small businesses?

A.1. Robust capital requirements are fundamental to the strength and stability of our financial system because they help ensure that banks are able to absorb losses and continue their vital role in financial intermediation, including their ability to lend to households and businesses, through good times and bad.

Q.2. During an economic downturn, what choices do banks have to maintain or even build capital and reduce risk to their balance sheets while still lending to Americans?

A.2. As a general matter, banks may maintain capital during an economic downturn by preserving retained earnings—for example, by reducing expenses or dividend payments and other capital distributions. They may also issue new capital instruments to investors. Such measures can be taken during an economic downturn to support lending to creditworthy borrowers.

Q.3. Capital frameworks tailored by the bank's size, activity, and complexity are helpful but inadequate. Capital protects against the unexpected; there is potential for the capital framework to underestimate losses and not account for emerging risks. A well-designed regulatory capital framework must include risk-based and risk-insensitive components, such as the supplementary leverage ratio.

Will the Federal Reserve commit to maintaining a comprehensive capital framework ensuring a capital cushion against known and unknown risks for all banks?

Will the regulatory capital requirements be tailored so that the banks presenting the greatest risk to America's financial stability maintain proportionally more capital than community banks?

A.3. Robust capital requirements are fundamental to the strength and stability of our financial system. The Federal Reserve's framework includes both risk-based and leverage capital standards. The risk-based capital standards, on the one hand, assign capital requirements commensurate with the riskiness of a firm's activities. The leverage standards, on the other hand, do not differentiate by the relative risk of a firm's activities, serving as a complement to the risk-based standards to safeguard against any imprecise assessment of risk. Our framework also takes into account the size and complexity of financial institutions, requiring countercyclical measures, stress testing, and increased capital requirements for the largest firms and simpler, less burdensome requirements for smaller qualifying firms. All of these requirements support the resilience of the financial system.

Banks and the financial system are constantly evolving. Accordingly, we require financial institutions to have an established, robust, and comprehensive approach for identifying, assessing, and addressing all risks stemming from their unique business activities under normal and stressed conditions. Similarly, regulation and supervision must also evolve to be effective as our understanding of these risks deepens over time.

Q.4. Consumers, investors, and all types of market participants increasingly choose to make free market decisions based upon environmentally and socially conscious factors. This is done for many reasons including greater efficiency and increased cost savings. However, many critics call these decisions "misguided" and "harmful to the economy." Critics threaten retaliatory action against people and corporations for making their own choices in the free market. Do the data collected by and economic projections produced by the Federal Reserve indicate that a shift in preferences to consumer and investor decision making influenced by more environmentally or socially conscious considerations is likely to cause harm to or impair the economy?

A.4. Changes in preferences and technologies always have the potential to create disruptions for some groups of consumers or firms. As a result of new technologies or changes in consumer preferences, some firms and industries may experience an increase in demand for their products or services, and others may experience a decrease in demand. Likewise, some consumers may see their economic situations improve, and others may experience challenges. It is difficult to isolate the aggregate effects of a given change in preferences and technologies, but economists generally think that innovation and business dynamism in reaction to a changing landscape of consumer preferences or to the adoption and incorporation of new technologies makes for a stronger economy over time.

Q.5. Mortgage rates have tracked closely with the Fed's rate hikes. The average 30-year fixed mortgage rate is about 6.5 percent, more than double that 2 years ago. Rate hikes drive a housing market, pushing home ownership out of reach for younger, lower-income Americans and reducing the supply of homes for sale as existing homeowners delay moving so they can hold onto their low-cost mortgage. Meanwhile, the wealthy and investors are buying up those properties that do come on the market with all-cash offers. In the words of the National Association of Realtors' chief economist: "Only the wealthy are essentially buying homes. If this trend was to continue, that means something fundamentally is wrong with society." I agree. What can Congress and the Federal Reserve do to address housing market inequality—and the wealth inequality that is driven by housing inequality—while working to reduce inflation?

A.5. The large increase in mortgage rates has indeed reduced home purchases by lower-income households more than those by higher-income households. [1] I am mindful that this is one of the unfortunate costs of reducing inflation. But inflation has also had a disproportionately large effect on households that spend the majority of their income on necessities like food, energy, and shelter. Furthermore, following through on our commitment to return inflation

[1] See Ringo, Daniel. "Declining Affordability and Home Purchase Borrowing by Lower Income Households", FEDS Notes July 2022.

to 2 percent is essential to avoiding an entrenchment of higher inflation expectations that could require even more aggressive policy action in the future. It is crucial that we restore price stability because without it we will not achieve a sustained period of strong labor market conditions that benefit all. Pursuing our dual mandate of maximum employment and price stability is the best way for the Federal Reserve to promote widely shared prosperity.

The Federal Reserve also uses our regulatory toolkit to support mortgage borrowing by lower income households. Specifically, through the Community Reinvestment Act (CRA), we (along with the Federal Deposit Insurance Corporation and the Office of the Comptroller of the Currency) encourage mortgage lenders to meet the credit needs of low- to moderate-income (LMI) borrowers and of borrowers living in LMI neighborhoods. In 2022, the banking agencies issued a proposal to modernize the regulations specifying how CRA is implemented. One of the goals of the proposal is to expand access to credit, investment, and basic banking services in low- and moderate-income communities.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR MENENDEZ FROM JEROME H. POWELL

Q.1. In November, the Federal Reserve released its latest Diversity, Equity, and Inclusion Strategic Plan. One of the actions listed in that plan suggests that Fed will task its divisions to develop action plans with relevant and measurable results to address underrepresented workforce demographics in job families like economists and senior professionals. When will those action plans be complete, and can you commit to sharing them with my office?

A.1. We appreciate your interest in the Board's Diversity, Equity, and Inclusion Strategic Plan and welcome the opportunity discuss our strategic plan and our approach for implementing it. Board staff are working with your staff to share additional information with your office.

Q.2. In Section 956 of the Dodd-Frank Act Congress instructed the Federal Reserve and other regulators to jointly issue rules to rein in the incentive-based executive compensation plans that contributed to the financial crisis by encouraging risky behavior. Congress set a deadline of May 2011 for this rule, but thus far no rule has been finalized. What is the status of this rule? Will you commit to placing this on your regulatory agenda as reported to the Office of Information and Regulatory Affairs?

A.2. The Board is actively working with the Federal banking agencies, Federal Housing Finance Agency, Securities and Exchange Commission, and National Credit Union Administration to implement section 956 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. Specifically, we are preparing a proposal that would implement prohibitions against incentive compensation arrangements that could provide excessive compensation or lead to material financial loss and requiring disclosure related to incentive compensation arrangements.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR SINEMA FROM JEROME H. POWELL

Q.1. To understand the economy and how best to respond to it, it is important that we better understand wage growth. Employers in Arizona tell me it's extremely difficult to hire workers, while workers in Arizona tell me that any wage gains they have accrued over the past few years have been largely wiped out by inflation. The current data are noisy and make it difficult to isolate and understand wage growth without capturing underlying drivers. Would the Federal Reserve consider studying and publishing a labor income measure?

A.1. There are many high-quality measures of wages that we consider as monetary policymakers. For example, we look at a number of different measures of nominal wage growth, including the Employment Cost Index, Average Hourly Earnings, and Compensation per Hour, all published by the Bureau of Labor Statistics (BLS). While no measure is perfect, taken as a whole, they provide a reasonably accurate picture of the behavior of aggregate wages.

Of course, individual wage growth often differs from the average, and thus, it is often helpful to look at how wage growth differs across different groups of the population. The series mentioned above do this for different industries and occupations, and the Federal Reserve Bank of Atlanta (FRB Atlanta) Wage Growth Tracker does this for different demographic groups. The BLS's Current Population Survey, which is the data that underlies the FRB Atlanta Wage Growth Tracker, provides highly detailed individual-level data on wages. The Longitudinal Employer Household Dynamics dataset provides detailed wage data on individuals and firms. These sources, as well as data from the payroll processing firm ADP, are used by researchers at the Federal Reserve and other research institutions to study the behavior of wages. We are always looking for new and timely data to improve our assessment of economic activity, including wages, and we actively engage with other statistical agencies to encourage improvement in their wage measures.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR FETTERMAN FROM JEROME H. POWELL

Q.1. Chairman Powell, as was raised in the hearing, the Federal Reserve has no tool at its disposal to stanch the loss of jobs and rise in unemployment that follows an increase in interest rates, resulting in a "runaway train" of climbing unemployment. How does the Federal Reserve model and analyze this longer-term effect of rising unemployment following an interest rate increase, and how is that data used in determining whether such an increase would be contrary to fulfilling the Federal Reserve's dual mandate?

A.1. The Federal Reserve uses a broad variety of models and other types of analysis to study the effect of interest rates (as well as broader financial conditions) on the unemployment rate, inflation, and economic output. Our models, as well as economic reasoning, suggest that the high inflation the economy is experiencing currently is the result of aggregate demand exceeding aggregate supply. These models and other types of analysis also suggest that higher interest rates reduce growth in aggregate demand, which, in the current context, would help bring demand back into alignment with supply and bring down inflation. Soft growth in aggregate demand can also lead to increases in unemployment. While it is possible to bring inflation down without a large increase in unemployment, such an outcome will depend on a number of factors, including the absence of significant adverse shocks to inflation or economic activity.

When inflation is high, as it is now, the economy does not work for anyone. High inflation imposes hardship on households and businesses, and it is especially painful to those least able to meet the higher costs of essentials like food, housing, and transportation. We saw in the latter parts of the last expansion that a sustained strong labor market together with price stability produced broad benefits to households, particularly those in low- and moderate-income communities. The economy can return to a period of sustained labor market strength, but this can only take place in an environment of price stability. As a result, to fulfill our dual mandate of price stability and maximum employment, it is imperative that we bring inflation down to our 2 percent target.

Q.2. Considering the recent failure of Silicon Valley Bank, as well as Signature Bank and Silvergate Bank, how could have more thorough oversight by the Federal Reserve, such as through the use of stress tests as required for larger banks, helped to avert the crisis?

A.2. The Federal Reserve relies on a broad set of supervisory and regulatory tools to help assess the range of risks affecting large institutions, including monitoring firm practices for mitigating interest rate and liquidity risks.

Capital stress testing is one of the many supervisory tools used to monitor large banks, and we continuously look for ways to expand the risk capture of the stress test. While the stress test that the Federal Reserve Board (Board) uses to set capital requirements for large banks places a significant emphasis on the types of credit-driven downturns that have occurred in severe post-war U.S. recessions, the Board has explored the effects of different interest rate environments in the supervisory stress test over the years. In recent years, the 2017 adverse scenario featured a steepening yield curve, as did the 2018 severely adverse scenario. The Board is also investigating the use of multiple scenarios to capture a wider range of risks and uncover channels for contagion.

As noted in the *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank* released on April 28, tailoring changes reduced the coverage and timeliness of Board stress tests for some firms. As with other findings from this report, we will be revisiting this approach as we seek to improve our supervisory and regulatory abilities.

Q.3. How did the Economic Growth, Regulatory Relief and Consumer Protection Act of 2018 limit the Federal Reserve's ability to conduct oversight of banks of a similar size to Silicon Valley Bank?

A.3. The Economic Growth, Regulatory Relief, and Consumer Protection Act of 2018 (EGRRCPA) amended section 165 of the Dodd-Frank Wall Street Reform and Consumer Protection Act by generally raising the minimum asset threshold for application of prudential standards under section 165 from $50 billion in total consolidated assets to $250 billion in total consolidated assets. In addition, under EGRRCPA, the Board must make certain findings before applying any enhanced prudential standard to BHCs with total assets between $100 billion and $250 billion.

Q.4. What sort of tools and regulations that could be provided via legislation would support the Federal Reserve in its efforts to more thoroughly oversee and monitor banks to prevent any future failures such as those seen in recent months?

A.4. The Federal Reserve is committed to maintaining and enhancing its comprehensive regulatory framework for the banks it supervises and has numerous supervisory and regulatory tools available to oversee and monitor banks. These tools are designed to enhance the resiliency of a bank and to reduce the impact on the financial system and the broader economy in the event of a firm's failure or material weakness. Under existing law, we have the discretion and tools we need to improve supervision and regulation and are committed to doing so.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR CRAPO FROM JEROME H. POWELL

Q.1. In its latest baselines, the Congressional Budget Office projects that inflation will stay above the Federal Reserve's 2 percent target over the next few years, peaking this year and settling just above the 2 percent target through 2027.

Do you agree with these projections? Will the Federal Reserve commit to stronger action to bring inflation back to its target?

A.1. The Congressional Budget Office's inflation projection—that inflation will come down significantly and be near the Federal Open Market Committee's (FOMC) 2 percent objective by 2025—is broadly in line with that of most private forecasters, and it is consistent with the FOMC's Summary of Economic Projections. Of course, all economic forecasts are uncertain, and that is especially so given the unprecedented situation of the past few years. The Federal Reserve is strongly committed to returning inflation to our 2 percent goal and has taken forceful actions to tighten the stance of monetary policy. We continue to closely monitor incoming information in order to assess the implications for monetary policy. In determining the extent of additional policy firming that may be appropriate to return inflation to 2 percent over time, the Committee will take into account the cumulative tightening of monetary policy, the lags with which monetary policy affects economic activity and inflation, and economic and financial developments.

Q.2. CBO projects this fiscal year's deficit to total $1.4 trillion, almost half-a-trillion larger than expected 2 years ago. Taxpayers are now double paying for partisan Government overspending—first when the dollars flew out the door and on the interest of that debt. This year's annual deficit will become just our interest payments in a decade, more than doubling our $640 billion debt servicing payments, unless Congress acts to rein in spending and inflation.

Mr. Powell, all other things being equal, would the Fed be better able to moderate interest rate increases if the Federal Government reins in overspending? And would moderating reduce both the rate and principal of our long-term debt servicing cost?

A.2. It is the responsibility of the Congress and the Administration to decide on appropriate fiscal policy. At the Federal Reserve, we are focused on using our monetary policy tools to restore price stability and are strongly dedicated to this goal.

Regarding debt sustainability, as I have said previously, the Federal Government debt is on an unsustainable path insomuch as the CBO projects that Federal debt will be increasing, relative to the size of the economy, over the longer run. The details of how and when Federal debt sustainability should be achieved are for Congress and the Administration to decide, not the Federal Reserve.

Q.3. I understand that the Real Time Payment (RTP) network, the private sector instant payment system that's been in operation for years, can now reach about 65 percent of all U.S. deposit accounts. I also understand that the Treasury Department is not using RTP to get benefit payments to individuals quickly. This technology could have been particularly beneficial as the Government worked to distribute COVID relief payments at the height of the pandemic. Instead, I understand that Treasury is focusing its resources on enabling the use of the Fed's competing FedNow network, which is scheduled to go live later this year.

On the day FedNow does finally launch, will it have the same reach as RTP and, if not, how long will it take to get there?

A.3. The Federal Reserve's overarching policy goal for the FedNow Service is to provide equal access to instant payments infrastructure to a broad range of depository institutions across the country. We continue to work to ensure that a large percentage of deposit accounts have access to the service as soon as possible. As we have stated previously a particular objective is to ensure that the FedNow Service is available to small- and medium-sized banks and credit unions. To that end, we are working closely with a number of small- and medium-sized banks and credit unions in the FedNow pilot program to provide technical assistance as they onboard to the service and conduct testing. In addition, we are encouraging the service providers who provide access to Federal Reserve payment services for thousands of community institutions across the country to accelerate access to the FedNow Service for these institutions.

In terms of timing, at the July launch of the FedNow Service a limited number of depository institutions—including large banks, community banks, and credit unions—will be ready to send and receive customer payments. We expect this number to grow in the months following the launch as more institutions complete readiness activities and onboard to the service. We recognize that attaining broad reach for the FedNow Service across the thousands of depository institutions in this country will be a gradual process. We are committed to maintaining our strong level of industry engagement in the coming years to support these institutions, and the service providers that enable their use of our services, in transitioning to a round-the-clock operating environment.

Q.4. Do you agree that instant payments would be beneficial to both those receiving benefits as well as the Federal Government? If so, will you work with Treasury toward that end?

A.4. The FedNow Service is intended to be a flexible, neutral platform that supports a broad variety of instant payments and upon which the private sector can innovate. Use cases for instant payments include situations where rapid access to funds is important for recipients, such as insurance or benefit payments after an accident or natural disaster and expedited payroll for gig-economy workers. Instant payments are also beneficial for helping senders manage cash flows such as last-minute bill payments or small business payments for supplies upon delivery. Because instant payments are flexible and use-case agnostic, we expect that over time, various Government agencies will find it beneficial to leverage instant payments for a variety of needs.

The U.S. Department of the Treasury's Bureau of the Fiscal Service is a participant in the FedNow pilot program and is actively testing instant payment disbursements and collections. We look forward to continued collaboration with the Treasury Department as it prepares to join the launch of the service in July.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR TILLIS FROM JEROME H. POWELL

Q.1. As I noted during the Banking Committee hearing on June 22, I remain concerned that the Fed and its Reserve Banks continue a pattern of stonewalling reasonable requests for information. The latest example concerns the fairness, transparency, and consistency of Fed decisions concerning highly valuable Fed master accounts. Kansas City Fed President Esther George recently refused, once again, to provide information to Senate Banking Committee Ranking Member Pat Toomey (R-PA) regarding the unusual case of Reserve Trust's Fed master account. [1]

But this is far from the only example. I am likewise aware that last year, several Reserve Banks—specifically, the Boston Fed, San Francisco Fed, Minneapolis Fed, and Atlanta Fed—repeatedly refused to provide any documents in response to Ranking Member Toomey's inquiry about their embrace of politically charged social causes outside the Fed's historical mission and statutory mandate. [2]

This pattern of obstruction raises concerns that Reserve Banks believe they can circumvent congressional oversight. As former Obama administration official and Brookings Institution scholar Aaron Klein recently remarked, "If the Kansas City Fed is not accountable to Congress for regulatory decisions, then to whom are they accountable?" [3]

Do you think it is appropriate for Reserve Banks to refuse to comply with requests for information and documents from Congress?

A.1. The Federal Reserve Board (Board) is committed to public transparency. The Board understands and respects the critical importance of congressional oversight of our activities. We work col-

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[1] *https://www.kansascityfed.org/AboutUs/documents/8854/06-16-22-Toomey-Letter-from-Esther-George.pdf*

[2] *https://www.banking.senate.gov/newsroom/minority/toomey-blasts-regional-fed-banks-for-refusing-to-comply-with-congressional-request*

[3] *https://www.americanbanker.com/news/the-broad-implications-of-pat-toomeys-standoff-with-k-c-feds-president*

laboratively and cooperatively with Members of Congress to provide information on a broad range of issues, and we expect Reserve Banks to respond appropriately to congressional requests for information as well. In March, the Reserve Banks publicly announced a systemwide effort to develop a uniform information disclosure policy to further increase transparency and accountability. I support their effort on this important initiative.

Q.2. What steps will you take to ensure that Reserve Banks are responsive to requests for information and documents from Congress?

A.2. Please see my response to Question 1.

Q.3. Specifically, what steps will you take to ensure that the Kansas City Fed complies with congressional requests for information concerning Reserve Trust's master account?

A.3. Please see my response to Question 1.

Q.4. I am also concerned about a recent Securities and Exchange Commission proposal to dramatically reinterpret the definition of a "Government securities dealer," in which the Commission would require many large investors to register as broker-dealers. This may have significant unintended impacts on U.S. Treasury market participation, liquidity, and resiliency.

Was the Federal Reserve Board consulted in the development of this proposal?

A.4. The Federal Reserve remains committed to a safe and efficient market for Treasury securities. With regard to the proposed rule of the Securities and Exchange Commission (SEC), "Further Definition of 'As a Part of a Regular Business' in the Definition of Dealer and Government Securities Dealer", Federal Reserve staff has had contact with staff of the SEC regarding its proposal. As the SEC considers the comments it received on the proposal, and assesses how to move forward, our staff is ready to provide technical assistance as requested.

Q.5. Will you commit to consider the potential market impacts of this significant proposal and to engage with the other members of the interagency working group on Treasury markets to fully assess its costs and benefits?

A.5. Federal Reserve staff actively participate in the Interagency Working Group on Treasury Market Surveillance (IAWG), including in work to better understand participation in the U.S. Treasury market and ways in which to improve its resilience. A safe and efficient market for Treasury securities is critical to the transmission of monetary policy, and to the broader health of the global financial system.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR KENNEDY FROM JEROME H. POWELL

Q.1. The stated purpose of the Community Reinvestment Act statute is to encourage banks "to help meet the credit needs of the local communities in which they are chartered consistent with the safe and sound operation of such institutions." Yet, the proposal would create new Retail Lending Assessment Areas (RLAAs) where a bank makes 100 mortgages or 250 small business loans. These

RLAAs could span very large geographies—often thousands of square miles. What's more, the RLAA triggers would be immaterial relative to the lending volume of some banks.

How does this aspect of the proposal not exceed the agencies' statutory mandate to focus on local communities?

A.1. An important aspect of the interagency proposal is that it sought to adapt to the expanded role of mobile and online banking by updating the approach for where banks are evaluated for their CRA performance, consistent with the statutory requirement to assess an institution's record of meeting the credit needs of its entire community. While maintaining a focus on bank branches, the proposal asked for feedback on evaluating large bank performance in areas where they have a concentration of mortgage or small business lending outside of where they have branches.

The agencies included information in the proposal on the potential effects of different retail lending thresholds on large banks. The agencies asked for feedback on a number of aspects of the retail lending assessment area proposal, including whether a bank should be evaluated for all of its major product lines in each retail lending assessment area and whether there are alternative methods that the agencies should consider for evaluating outside lending that would preserve a bank's obligation to meet the needs of its local communities.

The agencies are in the process of carefully considering the comments received on the proposal.

Q.2. According to the agencies' own analysis of historical data, 34 percent of "large" banks (banks over $2B in assets) would fail their Community Reinvestment Act exam in their new Retail Lending Assessment Areas under the proposed rule. Moreover, the proposal's performance benchmarks are pegged to the CRA performance of other banks operating in that assessment area, thereby making it mathematically impossible that all banks would perform at the satisfactory level on their CRA exams.

How does this not raise safety and soundness concerns? Shouldn't regulatory expectations be achievable for all banks?

A.2. I agree that regulatory expectations should be clear, transparent, and achievable for banks. The CRA proposal sought to provide greater clarity, consistency, and transparency regarding how a bank's retail lending performance translates into CRA conclusions and ratings. To that end, the agencies proposed numerical thresholds intended to set performance expectations for the different Retail Lending Test conclusions. The agencies sought feedback on whether the proposed retail lending metrics and thresholds were appropriate and were set at the appropriate levels.

The agencies are in the process of carefully considering the comments received on the proposal.

Q.3. Community Reinvestment Act modernization is likely to involve significant complexity, lengthy regulations, and a relatively short implementation period. This spells difficulty in implementing the regulators' expectations and is particularly difficult for smaller banks that lack resources internally and for external consultants. In the past, the agencies have been willing to make presentations about new rules, but I am concerned about the highly scripted nature of recent agency efforts where staff read their presentations verbatim and do not allow bankers an opportunity to ask questions or where speakers decline to answer questions. This approach is not conducive to banks' understanding of regulatory expectations, and regulators should be concerned about that.

What preparations is the Federal Reserve making to provide high-quality implementation support to bankers? Do you plan to provide useful examples, case studies, and an opportunity to ask questions and get answers? Given the proposal's very short implementation period of one year, are you prepared to roll out this assistance contemporaneously with the new rule?

A.3. The comments submitted in response to the proposal included perspectives on the appropriate implementation period for a CRA final rule, including some views recommending a longer implementation period. The agencies are in the process of carefully considering these comments.

On the question of whether the agencies plan to answer questions and provide other materials to support implementation of any final rule, we expect that there will be broad outreach to all stakeholders to explain the final rule. This outreach would begin upon release of any final rule.

Q.4. When looking at the text of the Community Reinvestment Act, Congress was clear that banks should be evaluated on the basis of where they have branch offices.

Certainly, banking has changed considerably since the original passage of the CRA, but do you think that banking regulators should be able to vastly expand the evaluation area of banks without the approval of Congress and in contravention of the law?

A.4. The statute requires the agencies to assess an institution's record of meeting the credit needs of its entire community. As noted previously, the agencies asked for feedback on whether large banks should be assessed outside of branch-based assessment areas in areas where they have a concentration of mortgage or small business lending. My colleagues and I are committed to carefully reviewing any concerns expressed by commenters and considering ways to address these issues in any final rule while staying true to the statutory authority granted by Congress.

Q.5. Chairman Powell, the three banking regulators are still in the process of updating the Community Reinvestment Act. I think we all agree that the CRA is an incredibly important tool to serve LMI communities and that the rule needs to be updated. However, I believe that it should be done in a way that is in line with the CRA statute and Congressional intent. I have heard concerns that the creation of retail lending assessment areas under the proposed rule may actually be counterproductive to the goals of CRA and result in changes to bank strategy so as to not trigger new regulatory requirements in areas where loan volumes are immaterial to a bank's overall business.

Are you concerned by this potential outcome should the proposed rule be finalized with very few changes?

A.5. As noted previously, the agencies are carefully reviewing any concerns expressed by commenters, including on potential unintended consequences of the retail lending assessment area proposal.

Q.6. With the departure of Fed Vice Chair Brainard, do you have an update in the timing of the release of the Community Reinvestment Act final rule and how long banks would have to come into compliance with the rule?

A.6. As previously noted, the Board and the other agencies are still in the process of carefully considering the comments received on the proposal.

As to how long banks would have to come into compliance with the rule, the agencies continue to review the comments and discuss potential alternatives to the proposal.

Q.7. Given the complexity of the proposal, it seems to me like banks should have plenty of time to establish the systems needed to be in compliance.

Who within the Federal Reserve is taking over the responsibility of the CRA with the recent departure of Ms. Brainard?

A.7. Vice Chair for Supervision Barr is leading the CRA rulemaking effort for the Board.

Q.8. The Fed recently launched a pilot project for Climate Scenario Analysis (CSA) "to learn about large banking organizations' climate risk-management practices and challenges and to enhance the ability of both large banking organizations and supervisors to identify, measure, monitor, and manage climate-related financial risks." The scenarios are based on those developed by the Network for Greening the Financial System (NGFS), of which the Federal Reserve is a member. The NGFS scenarios are based on a goal to reduce emissions—the net zero goal.

How will the Fed and the other bank regulators ensure that, whether through these exercises or via other supervisory efforts, they are not influencing banks' decision to lend to specific customers and the pricing of these transactions?

A.8. The Federal Reserve's mandate with respect to climate change is important but narrow, focused on our supervisory responsibilities and our role in promoting a safe and stable financial system. The Federal Reserve does not dictate banking organizations' business decisions to lend or not lend to specific firms or sectors on any particular terms. Those business decisions should be made by the banking organizations themselves.

The climate scenarios used in the Federal Reserve's pilot climate scenario analysis exercise with six of the largest banking organizations are neither forecasts nor policy prescriptions and do not necessarily represent the most likely future outcomes. Rather, they represent a range of plausible future outcomes that can help build understanding of how certain climate-related financial risks could manifest for large banking organizations and how these risks may differ from the past. The Federal Reserve anticipates publishing insights gained from this pilot exercise at an aggregate level, reflecting what has been learned about climate-related financial risk management practices. No firm-specific information will be released in connection with this pilot exercise, and the pilot exercise will not have direct capital or supervisory implications.

Q.9. Once finalized, the internationally developed Principles for Climate-related Financial Risk for Large Banks may alter the provision of financial services to certain industries and communities in the United States. The economic effects of this will be felt by all banks, which will need to adapt to the resulting market changes and ensure that financial services to vulnerable communities and customers are preserved.

How is the Federal Reserve weighing these costs when considering U.S. implementation? How is the Federal Reserve ensuring that international rulemakings are transparent and that development and implementation of international standards aligns with the Administrative Procedures Act?

A.9. The Federal Reserve's mandate with respect to climate change is important but narrow, focused on our supervisory responsibilities and our role in promoting a safe and stable financial system. In light of the cross-border and cross-sectoral nature of climate-related financial risks, the Federal Reserve has been engaging with a wide range of domestic and international stakeholders, including foreign supervisors and international bodies, to better understand the potential impacts of climate-related financial risks on supervised institutions and financial stability. The Federal Reserve approaches these engagements through the lens of our existing mandates and authorities, particularly those relating to the regulation and supervision of financial institutions and the stability of the broader financial system. We recognize the benefit of engaging with other regulatory agencies, central banks, and international bodies on these issues while taking into account the important differences across jurisdictions and our own domestic mandates.

The Federal Reserve intends to work closely with the Office of the Comptroller of the Currency (OCC) and the Federal Deposit Insurance Corporation (FDIC) to issue final principles for climate-related financial risk management for large banking organizations. In December 2022, the Federal Reserve requested comment on draft principles; similar draft principles were published for comment by the OCC and the FDIC in December 2021 and April 2022, respectively. The Federal Reserve's intention is for the principles to be issued as supervisory guidance, and, consistent with the Federal Reserve's rule on guidance, the principles would neither have the force and effect of law nor impose any new requirements on supervised institutions. As such, the principles would not be subject to the notice-and-comment requirements of the Administrative Procedure Act. Nevertheless, the Federal Reserve proposed the draft principles for public comment and the Federal Reserve is considering all comments received in developing any final principles.

Q.10. As the Federal reserve looks at "transition risk" how will you ensure that political or other nonprudential agendas do not become entangled in your work? As an example, transition risks under one administration may look significantly different than they did under the next Administration.

How does the Fed plan to account for changes in policy which can occur in a shorter timeframe than those that you may be considering? Or is transition risk analysis necessarily limited to shorter timeframes because of the potential for changes in policy direction?

A.10. The Federal Reserve's mandate with respect to climate change is important but narrow, focused on our supervisory responsibilities and our role in promoting a safe and stable financial system. The Federal Reserve is working to understand how climate-related financial risks may pose risks to individual banking organizations and the financial system. Scenario analysis can be a helpful risk management tool for both firms and regulators to better understand the resilience of supervised institutions to a range of plausible but uncertain climate outcomes. The Federal Reserve is currently conducting a pilot climate scenario analysis exercise with six of the largest banking organizations to evaluate the potential impact of climate-related financial risks on select portfolios across multiple scenarios. This pilot exercise is intended to deepen understanding of risk management practices and to build capacity of large banking organizations and supervisors to identify, measure, monitor, and manage climate-related financial risks.

The pilot exercise includes physical and transition risk scenarios. Transition risks refer to stresses to certain institutions, sectors, or regions arising from the shifts in policy, consumer and business sentiment, or technologies associated with the changes that would be part of a transition to a lower carbon economy. The transition risk scenarios used in the pilot climate scenario analysis reflect different combinations of economic, technological, and policy assumptions that generate projections for economic and financial variables like GDP growth and carbon prices, but they do not represent forecasts or policy recommendations. Instead, these scenarios serve as useful reference points to consider how economic and financial variables might evolve under different sets of plausible conditions. The scenarios used in this pilot climate scenario analysis exercise are neither forecasts nor policy prescriptions and do not necessarily represent the most likely future outcomes. Rather, they represent a range of plausible future outcomes that can help build understanding of how certain climate-related financial risks could manifest for large banking organizations and how these risks may differ from the past.

In the transition risk module of the pilot exercise, participating institutions will estimate relevant risk parameters over a 10-year projection horizon on an annual basis. While transition risks are anticipated to manifest over a longer time horizon than is typically considered for large banking organizations' risk management and strategic planning, transition risks could manifest sooner than anticipated and in a disorderly manner. Longer time horizons incorporate a greater degree of uncertainty given embedded assumptions about consumer or investor behavior, the pace of technological change, and policy developments. The pilot exercise's 10-year horizon is intended to balance the potential longer-term nature of transition risks, projection uncertainty, and desire for the pilot exercise to result in decision-useful information.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR HAGERTY FROM JEROME H. POWELL

Q.1. The biannual *Monetary Policy Report* notes that the Federal Reserve's net income turned negative in September 2022 and that losses have resulted in a "deferred asset" of about $36 billion to date and that the SOMA portfolio was experiencing a $1.1 trillion unrealized loss as of September. 12 U.S.C. §5497(a)(1) provides that the Consumer Financial Protection Bureau (CFPB) is funded by a "transfer . . . from the combined earnings of the Federal Reserve System."

Please provide the legal justification for the continued transfer of funds from the Federal Reserve to the CFPB despite the fact that the Federal Reserve has negative net income, as well as any internal opinions or briefings on this issue.

A.1. Congress established the funding mechanism for the Consumer Financial Protection Bureau (CFPB) under the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act). Under the Dodd-Frank Act the Federal Reserve Board is not granted any discretion to determine the CFPB's funding level. Rather, the Director of the CFPB determines the funding needed to carry out its responsibilities, up to an annual cap. The Dodd-Frank Act sets the annual cap based on a percentage of the operating expenses of the entire Federal Reserve System (System). The Act also states that the funding for the CFPB comes from the combined earnings of the System, rather than the net earnings.

It is the purview of Congress to enact any changes to this framework.

ADDITIONAL MATERIAL SUPPLIED FOR THE RECORD

For use at 11:00 a.m. EST
March 3, 2023

MONETARY POLICY REPORT

March 3, 2023

Board of Governors of the Federal Reserve System

LETTER OF TRANSMITTAL

BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM

Washington, D.C., March 3, 2023

THE PRESIDENT OF THE SENATE
THE SPEAKER OF THE HOUSE OF REPRESENTATIVES

The Board of Governors is pleased to submit its *Monetary Policy Report* pursuant to section 2B of the Federal Reserve Act.

Sincerely,

Jerome H. Powell

Jerome H. Powell, Chair

Statement on Longer-Run Goals and Monetary Policy Strategy

Adopted effective January 24, 2012; as reaffirmed effective January 31, 2023

The Federal Open Market Committee (FOMC) is firmly committed to fulfilling its statutory mandate from the Congress of promoting maximum employment, stable prices, and moderate long-term interest rates. The Committee seeks to explain its monetary policy decisions to the public as clearly as possible. Such clarity facilitates well-informed decisionmaking by households and businesses, reduces economic and financial uncertainty, increases the effectiveness of monetary policy, and enhances transparency and accountability, which are essential in a democratic society.

Employment, inflation, and long-term interest rates fluctuate over time in response to economic and financial disturbances. Monetary policy plays an important role in stabilizing the economy in response to these disturbances. The Committee's primary means of adjusting the stance of monetary policy is through changes in the target range for the federal funds rate. The Committee judges that the level of the federal funds rate consistent with maximum employment and price stability over the longer run has declined relative to its historical average. Therefore, the federal funds rate is likely to be constrained by its effective lower bound more frequently than in the past. Owing in part to the proximity of interest rates to the effective lower bound, the Committee judges that downward risks to employment and inflation have increased. The Committee is prepared to use its full range of tools to achieve its maximum employment and price stability goals.

The maximum level of employment is a broad-based and inclusive goal that is not directly measurable and changes over time owing largely to nonmonetary factors that affect the structure and dynamics of the labor market. Consequently, it would not be appropriate to specify a fixed goal for employment; rather, the Committee's policy decisions must be informed by assessments of the shortfalls of employment from its maximum level, recognizing that such assessments are necessarily uncertain and subject to revision. The Committee considers a wide range of indicators in making these assessments.

The inflation rate over the longer run is primarily determined by monetary policy, and hence the Committee has the ability to specify a longer-run goal for inflation. The Committee reaffirms its judgment that inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve's statutory mandate. The Committee judges that longer-term inflation expectations that are well anchored at 2 percent foster price stability and moderate long-term interest rates and enhance the Committee's ability to promote maximum employment in the face of significant economic disturbances. In order to anchor longer-term inflation expectations at this level, the Committee seeks to achieve inflation that averages 2 percent over time, and therefore judges that, following periods when inflation has been running persistently below 2 percent, appropriate monetary policy will likely aim to achieve inflation moderately above 2 percent for some time.

Monetary policy actions tend to influence economic activity, employment, and prices with a lag. In setting monetary policy, the Committee seeks over time to mitigate shortfalls of employment from the Committee's assessment of its maximum level and deviations of inflation from its longer-run goal. Moreover, sustainably achieving maximum employment and price stability depends on a stable financial system. Therefore, the Committee's policy decisions reflect its longer-run goals, its medium-term outlook, and its assessments of the balance of risks, including risks to the financial system that could impede the attainment of the Committee's goals.

The Committee's employment and inflation objectives are generally complementary. However, under circumstances in which the Committee judges that the objectives are not complementary, it takes into account the employment shortfalls and inflation deviations and the potentially different time horizons over which employment and inflation are projected to return to levels judged consistent with its mandate.

The Committee intends to review these principles and to make adjustments as appropriate at its annual organizational meeting each January, and to undertake roughly every 5 years a thorough public review of its monetary policy strategy, tools, and communication practices.

Contents

Note: This report reflects information that was publicly available as of 4 p.m. EST on March 1, 2023. Unless otherwise stated, the time series in the figures extend through, for daily data, February 28, 2023; for monthly data, January 2023; and, for quarterly data, 2022:Q4. In bar charts, except as noted, the change for a given period is measured to its final quarter from the final quarter of the preceding period.

Summary

Although inflation has slowed since the middle of last year as supply bottlenecks eased and energy prices declined, it remains well above the Federal Open Market Committee's (FOMC) objective of 2 percent. The labor market remains extremely tight, with robust job gains, the unemployment rate at historically low levels, and nominal wage growth slowing but still elevated. Real gross domestic product (GDP) growth picked up in the second half of 2022, although the underlying momentum in the economy likely remains subdued. Bringing inflation back to 2 percent will likely require a period of below-trend growth and some softening of labor market conditions.

In response to high inflation, the FOMC continued to rapidly increase interest rates and reduce its securities holdings. The Committee has raised the target range for the federal funds rate a further 3 percentage points since June, bringing the range to 4½ to 4¾ percent, and indicated that it anticipates that ongoing increases in the target range will be appropriate. The Federal Reserve has also reduced its holdings of Treasury securities and agency mortgage-backed securities by about $500 billion since June, further tightening financial conditions.

The Federal Reserve is acutely aware that high inflation imposes significant hardship, especially on those least able to meet the higher costs of essentials. The Committee is strongly committed to returning inflation to its 2 percent objective.

Recent Economic and Financial Developments

Inflation. Consumer price inflation, as measured by the 12-month change in the price index for personal consumption expenditures (PCE), was 5.4 percent in January, down from its peak of 7 percent last June but still well above the FOMC's 2 percent objective. Core PCE prices—which exclude volatile food and energy prices and are generally considered a better guide to the direction of future inflation—also slowed but still increased 4.7 percent over the 12 months ending in January. As supply chain bottlenecks have eased, increases in core goods prices slowed considerably in the second half of last year. Within core services prices, housing services inflation has been high, but slowing increases in rents for new tenants in the second half of last year point to lower inflation for housing services in the year ahead. For other services, however, price inflation remains elevated, and prospects for slowing inflation may depend in part on an easing of tight labor market conditions. Measures of longer-term inflation expectations remain within the range of values seen in the decade before the pandemic and continue to be broadly consistent with the FOMC's longer-run objective of 2 percent, suggesting that high inflation is not becoming entrenched.

The labor market. The labor market has remained extremely tight, with job gains averaging 380,000 per month since the middle of last year and the unemployment rate remaining at historical lows. Labor demand in many parts of the economy exceeds the supply of available workers, with the labor force participation rate essentially unchanged from one year ago. Nominal wage gains slowed over the second half of 2022, but they remain above the pace consistent with 2 percent inflation over the longer term, given prevailing trends in productivity growth.

Economic activity. Real GDP is reported to have fallen in the first half of 2022 but to have then risen at roughly a 3 percent pace in the second half. Some of the swings in growth reflect fluctuations in volatile expenditure categories such as net exports and inventory investment. Private domestic final demand, which excludes these volatile components, rose at a subdued rate in both the first and second halves last year. Consumer spending has continued to rise at a solid pace, supported by the savings accumulated during the pandemic. However, manufacturing output declined in recent months, and the housing sector has continued to contract in response to elevated mortgage rates.

Financial conditions. Financial conditions have tightened further since June and are significantly tighter than a year ago. The FOMC has raised the target range for the federal funds rate a further 3 percentage points since June, and the market-implied expected path of the federal funds rate over the next year also shifted up notably. Yields on nominal Treasury securities across maturities have risen considerably further since June, while investment-grade corporate bond yields and mortgage rates have also increased but by less than Treasury rates. Equity prices were volatile but increased moderately on net. The rise in interest rates over the past year has weighed on financing activity. Issuance of leveraged loans and speculative-grade corporate bonds slowed substantially in the second half of the year, while investment-grade bond issuance declined modestly. Business loans at banks continued to grow in the second half of 2022 but decelerated in the fourth quarter. While business credit quality remains strong, some indicators of future business defaults are somewhat elevated. For households, mortgage originations continued to decline materially, although consumer loans (such as auto loans and credit cards) grew further. Delinquency rates for credit cards and auto loans rose last year.

Financial stability. Against the backdrop of a weaker economic outlook, higher interest rates, and elevated uncertainty since June, financial vulnerabilities remain moderate overall. Valuations in equity markets remained notable and ticked up, on net, as equity prices increased moderately even as earnings expectations declined late in the year. Real estate prices remain high relative to fundamentals, such as rents, despite a marked slowing in price increases. While market functioning remained orderly, market liquidity—the ability to trade assets without a large effect on market prices—remained low in several key asset markets, including in the Treasury market, when compared with levels before the COVID-19 pandemic. Nonfinancial business and household debt grew in line with GDP, leaving vulnerabilities associated with borrowing by businesses and households unchanged at moderate levels. Risk-based capital ratios at banks declined a touch last year but remain well above regulatory requirements. Funding risks at domestic banks and broker-dealers remain low, and the large banks at the core of the financial system continue to have ample liquidity. Prime and tax-exempt money market funds, as well as many bond and bank-loan mutual funds, continue to be susceptible to runs. (See the box "Developments Related to Financial Stability" in Part 1.)

International developments. Foreign economic growth moderated in the second half of last year, weighed down by the economic fallout of Russia's war against Ukraine and a slowdown in China related to COVID-19. Despite some signs of easing in headline inflation abroad, core foreign inflation remains high and inflationary pressures are broad, in part reflecting tight labor markets and the pass-through of past energy price increases to other prices. In response to persistently high inflation, many major foreign central banks, along with the Fed, have tightened the stance of monetary policy significantly since June. More recently, many foreign central banks slowed the pace of their policy rate increases, signaled that such a slowing is coming, or paused policy rate hikes to take stock of the effects of policy tightening thus far on their economies.

Financial conditions abroad have tightened modestly, on net, since the middle of last year. Global sovereign bond yields rose from continued tightening of foreign monetary policy and spillovers from increases in U.S. yields. Equity prices abroad rose toward the end of the year amid surprising resilience of European economies and the removal of China's zero-COVID policy. Meanwhile, the trade-weighted exchange value of the U.S. dollar is a touch higher since mid-2022.

Monetary Policy

In response to high inflation, the Committee last year rapidly increased the target range for the federal funds rate and began reducing its securities holdings. Adjustments to both interest rates and the balance sheet are playing a role in firming the stance of monetary policy in support of the Committee's maximum-employment and price-stability goals.

Interest rate policy. The FOMC continued to swiftly increase the target range for the federal funds rate, bringing it to the current range of 4½ to 4¾ percent. In light of the cumulative tightening of monetary policy and the lags with which monetary policy affects economic activity and inflation, the Committee slowed the pace of policy tightening at the December and January meetings but indicated that it anticipates that ongoing increases in the target range will be appropriate in order to attain a stance of monetary policy that is sufficiently restrictive to return inflation to 2 percent over time.

Balance sheet policy. The Federal Reserve has continued the process of significantly reducing its holdings of Treasury and agency securities in a predictable manner.[1] Beginning in June of last year, principal payments from securities held in the System Open Market Account have been reinvested only to the extent that they exceeded monthly caps.

Special Topics

Employment and earnings across groups. At the onset of the pandemic, employment fell by more for disadvantaged groups than the overall population, but tight labor market conditions over the past two years have largely reversed those movements. As the labor market tightened, employment grew faster for African Americans and Hispanics, and for less educated workers, than for other workers. Wages have grown more rapidly for these workers also, as extremely strong labor demand has outstripped available labor supply. However, while disparities in employment have largely returned to pre-pandemic levels, there remain significant disparities in absolute levels of employment across groups. (See the box "Developments in Employment and Earnings across Demographic Groups" in Part 1.)

Weak labor supply. Even with labor demand remarkably strong, the labor force has been slow to recover from the pandemic, leaving a significant labor supply shortfall relative to the levels expected before the pandemic. More than half of that labor force shortfall reflects a lower labor force participation rate because of a wave of retirements beyond what would have been expected given demographic trends. The remaining shortfall is attributable to slower population growth, which in turn reflects both the higher mortality primarily due to COVID and lower rates of immigration in the first two years of the pandemic. (See the box "Why Has the Labor Force Recovery Been So Slow?" in Part 1.)

Monetary policy rules. Simple monetary policy rules, which prescribe a setting for the policy interest rate based on a small number of other economic variables, can provide useful guidance to policymakers. Since 2021, inflation has run well above the Committee's 2 percent

1. See the May 4, 2022, press release regarding the Plans for Reducing the Size of the Federal Reserve's Balance Sheet, available on the Board's website at https://www.federalreserve.gov/newsevents/pressreleases/monetary20220504b.htm.

longer-run objective, and labor market conditions have been very tight over the past year. As a result, simple monetary policy rules have prescribed levels for the federal funds rate that are well above those observed over the past decade. (See the box "Monetary Policy Rules in the Current Environment" in Part 2.)

Federal Reserve's balance sheet and money markets. The size of the Federal Reserve's balance sheet decreased as the Federal Reserve reduced its securities holdings. Reserve balances—the largest liability on the Federal Reserve's balance sheet—continued to fall. Take-up in the overnight reverse repurchase agreement (ON RRP) facility remained elevated, as low rates on repurchase agreements persisted amid still abundant liquidity and limited Treasury bill supply. The ON RRP facility continued to serve its intended purpose of helping to provide a floor under short-term interest rates and supporting effective implementation of monetary policy. Because of the significant increases in administered rates to address high inflation, the Federal Reserve's interest expenses rose considerably, and, as a result, net income turned negative. (See the box "Developments in the Federal Reserve's Balance Sheet and Money Markets" in Part 2.)

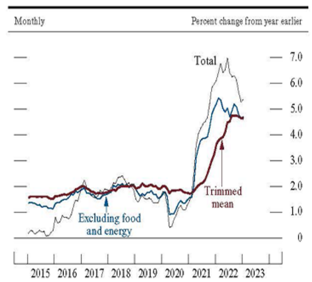
Part 1
Recent Economic and Financial Developments

Domestic Developments

Inflation has declined in recent months but remains elevated . . .

Inflation, as measured by the 12-month change in the price index for personal consumption expenditures (PCE), stepped down from its peak of 7.0 percent in June of last year to 5.4 percent in January, still notably above the Federal Open Market Committee's (FOMC) longer-run objective of 2 percent (figure 1). Core PCE prices—which exclude volatile food and energy prices and are generally considered a better guide to the direction of future inflation—rose 4.7 percent over the 12 months to January, down from the above 5 percent pace that prevailed last spring.[2]

1. Personal consumption expenditures price indexes

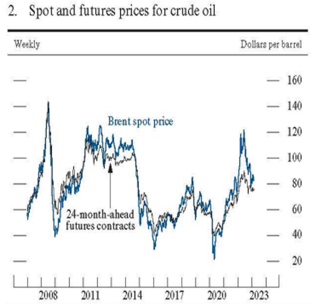


Source: For trimmed mean, Federal Reserve Bank of Dallas; for all else, Bureau of Economic Analysis; all via Haver Analytics.

. . . in part because energy prices declined in the second half of last year, while food price inflation slowed but remains high

After rising sharply in the first half of last year, oil prices peaked and have since declined. This decline comes mainly on global growth concerns and despite a European Union embargo on Russian crude oil and petroleum products (figure 2). As a result of these movements, gasoline prices declined over the second half of last year following their earlier large increases. On net, the PCE energy price index in January stood 10 percent above its level 12 months earlier (figure 3).

2. Spot and futures prices for crude oil

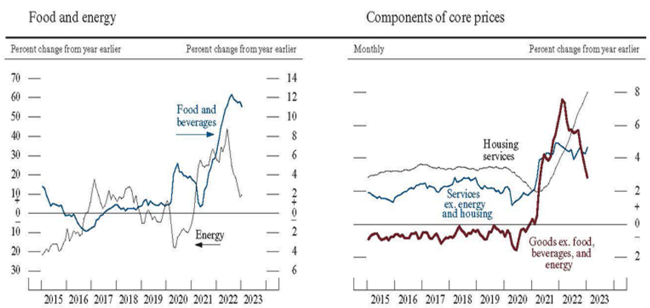


Note: The data are weekly averages of daily data and extend through February 24, 2023.
Source: ICE Brent Futures via Bloomberg.

Food price increases slowed in recent months, but, given earlier sizable increases, grocery store prices are up 11 percent over the 12 months ending in January. After having

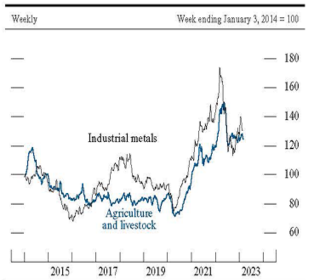
2. The latest 12-month changes in PCE prices are likely overstated at present (and will remain so until the annual revisions of the national income and product accounts in September) because they only incompletely incorporate new seasonally adjusted consumer price index data. The current overstatement in headline and core PCE inflation appears to be roughly 0.2 percentage point and 0.1 percentage point, respectively.

3. Subcomponents of personal consumption expenditures price indexes



NOTE: The data are monthly.
SOURCE: Bureau of Economic Analysis via Haver Analytics.

4. Spot prices for commodities



NOTE: The data are weekly averages of daily data and extend through February 24, 2023.
SOURCE: For industrial metals, S&P GSCI Industrial Metals Spot Index; for agriculture and livestock, S&P GSCI Agriculture & Livestock Spot Index; both via Haver Analytics.

spiked at the start of the war in Ukraine, prices of most food commodities (agricultural products and livestock) have stabilized in recent months, likely contributing to the recent slowing of food price increases (figure 4).

Prices of both energy and food are of particular importance for lower-income households, for which such necessities are a large share of expenditures.

Softer core goods prices reflect easing supply bottlenecks and declines in import prices . . .

Recent inflation performance has varied markedly across spending categories. Price increases for goods (outside of food and energy) slowed considerably in the latter part of 2022. Demand for these goods appears to have stabilized, and supply chain issues and other capacity constraints have waned. For example, transportation costs have fallen, and supplier delivery times have improved notably (figure 5). In addition, nonfuel import prices have declined, on net, since last spring, bringing the 12-month change down to around 1 percent from a peak of almost 8 percent early last year (figure 6). This moderation occurred following both the appreciation of the dollar that occurred earlier in the year and declines in commodity prices such as those for industrial metals.

The easing of inflation pressures in goods has been especially pronounced for durable goods, where prices have declined, on net, since June of last year. In particular, used motor vehicle prices, which skyrocketed in 2021 amid reduced production of new cars and trucks, have fallen more than 9 percent over that period.

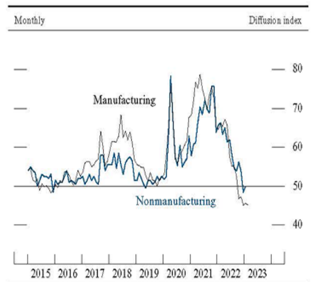
. . . while core services price inflation remains elevated

In contrast, core services price inflation remains elevated (figure 3). Housing services prices have risen especially rapidly, up 8 percent over the 12 months ending in January. However, market rents on new housing leases to new tenants, which had risen strongly over the past two years, have decelerated sharply and flattened out since autumn (figure 7). Because prices for housing services measure the rents paid by all tenants (and the equivalent rent implicitly paid by all homeowners)—including those whose leases have not yet come up for renewal—they tend to adjust slowly to changes in rental market conditions and should therefore be expected to decelerate over the year ahead. In contrast, prices for other core services—a broad group that includes services such as travel and dining, financial services, and car repair—rose 4.7 percent over the 12 months ending in January and have not yet shown clear signs of slowing. Some softening of labor market conditions will likely be required for core services price inflation to abate.

Measures of longer-term inflation expectations have remained contained, while shorter-term expectations have partially reversed their earlier increases

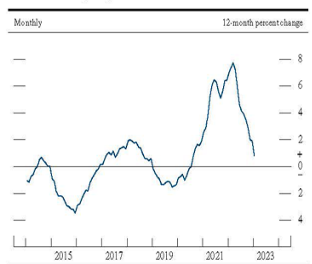
Inflation expectations likely influence actual inflation by affecting wage- and price-setting decisions. Over the past year, survey-based measures of expected inflation over a longer horizon remained within the range of values seen in the years before the pandemic and appear broadly consistent with the FOMC's longer-run 2 percent inflation objective. That is evident for the median value for expected inflation over the next 5 to 10 years from

5. Suppliers' delivery times



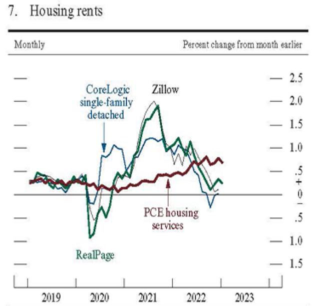
NOTE: Data for manufacturing extend through February 2023. Values greater than 50 indicate that more respondents reported longer delivery times relative to a month earlier than reported shorter delivery times.
SOURCE: Institute for Supply Management, *Report on Business.*

6. Nonfuel import price index



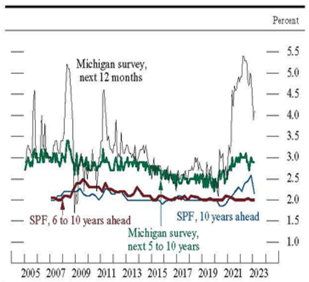
SOURCE: Bureau of Labor Statistics via Haver Analytics.

7. Housing rents



NOTE: CoreLogic and Zillow data extend through December 2022. Zillow, CoreLogic, and RealPage measure market-rate rents–that is, rents for a new lease by a new tenant.
SOURCE: Bureau of Economic Analysis, personal consumption expenditures (PCE), via Haver Analytics; CoreLogic, Inc.; Zillow, Inc.; RealPage, Inc.; Federal Reserve Board staff calculations.

8. Measures of inflation expectations

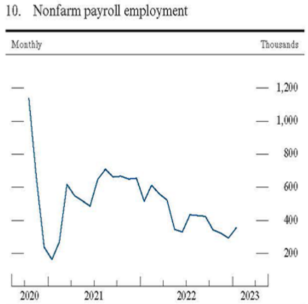


NOTE: The Survey of Professional Forecasters (SPF) data are quarterly, begin in 2007:Q1, and extend through 2023:Q1. The data for the Michigan survey are monthly and extend through February 2023.
SOURCE: University of Michigan Surveys of Consumers; Federal Reserve Bank of Philadelphia, SPF.

9. Inflation compensation implied by Treasury Inflation-Protected Securities

NOTE: The data are at a business-day frequency and are estimated from smoothed nominal and inflation-indexed Treasury yield curves.
SOURCE: Federal Reserve Bank of New York; Federal Reserve Board staff calculations.

10. Nonfarm payroll employment



NOTE: The data shown are a 3-month moving average of the change in nonfarm payroll employment.
SOURCE: Bureau of Labor Statistics via Haver Analytics.

the University of Michigan Surveys of Consumers (figure 8). And while expected inflation over the next 10 years in the Survey of Professional Forecasters, conducted by the Federal Reserve Bank of Philadelphia, has moved up somewhat, that increase is driven by expectations for the next few years: The median forecaster in the survey expects PCE price inflation to average 2 percent over the five years beginning five years from now.

Furthermore, inflation expectations over a shorter horizon—which tend to follow observed inflation and rose when inflation turned up—moved lower in the second half of 2022 and into 2023, accompanying the softer inflation readings over this period. In the Michigan survey, the median value for inflation expectations over the next year was 4.1 percent in February, a step-down from the values in the middle of 2022. Expected inflation for the next year from the Survey of Consumer Expectations, conducted by the Federal Reserve Bank of New York, has also moved lower in recent months.

Market-based measures of longer-term inflation compensation, which are based on financial instruments linked to inflation, are also broadly in line with readings seen in the years before the pandemic. A measure of inflation compensation over the next 5 years implied by Treasury Inflation-Protected Securities moved notably lower last year, and inflation compensation 5 to 10 years ahead still appears consistent with inflation returning to 2 percent (figure 9).

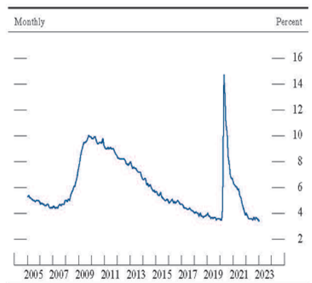
The labor market has continued to strengthen

Payroll employment gains averaged 380,000 per month since the middle of 2022, down from the 445,000 per month pace in the first half but still quite robust (figure 10). Employment in the leisure and hospitality sector continued its steady recovery from the pandemic, and payrolls also increased robustly in health services and in state and local governments.[3] Alternative indicators of employment—the Bureau of Labor Statistics' household survey, the Federal Reserve Board staff's measure of private employment using data from the payroll processing firm ADP, and the Quarterly Census of Employment and Wages—suggest a slower pace of job gains last year, particularly in the first half. However, these other indicators suggest continued job gains in recent months, roughly in line with published payroll data.

The unemployment rate has remained at historically low levels (figure 11). At 3.4 percent in January, the jobless rate was a touch below its level right before the pandemic. Unemployment rates among various age, educational attainment, gender, and ethnic and racial groups are also near their respective historical lows (figure 12). (The box "Developments in Employment and Earnings across Demographic Groups" provides further details.)

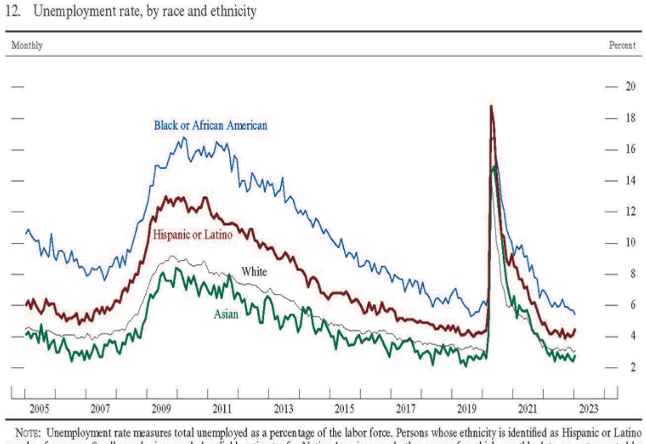
3. Two sectors where employment growth slowed notably in the second half were transportation and warehousing—where employment had expanded robustly since the onset of the pandemic—and retail trade.

11. Civilian unemployment rate



SOURCE: Bureau of Labor Statistics via Haver Analytics.

12. Unemployment rate, by race and ethnicity



NOTE: Unemployment rate measures total unemployed as a percentage of the labor force. Persons whose ethnicity is identified as Hispanic or Latino may be of any race. Small sample sizes preclude reliable estimates for Native Americans and other groups for which monthly data are not reported by the Bureau of Labor Statistics.
SOURCE: Bureau of Labor Statistics via Haver Analytics.

Developments in Employment and Earnings across Demographic Groups

As the labor market has recovered from the depths of the pandemic, conditions have become extremely tight. Tight labor markets, characterized by low unemployment and plentiful job openings, have historically proven especially beneficial to minorities and less educated workers.[1] These disproportionate benefits can help make up for disproportionate losses experienced by the same groups during recessions.

Tight labor market conditions have largely erased the pandemic-induced widening of the gaps in employment across different groups. As shown in the left panel of figure A, both men and women aged 25 to 54 with a high school degree or less saw much larger employment declines in early 2020 than workers with at least some college education, but by the end of 2022, this gap had almost entirely closed.[2] The same story is true among both Black or African American and Hispanic or Latino workers aged 25 to 54, as shown in the right panel. From mid-2021 through 2022, as labor market conditions became extremely tight, employment rose faster for the groups that saw larger initial declines. However, while disparities in employment have largely returned to pre-pandemic levels, these disparities are significant in absolute levels of employment across groups.

Differences in employment dynamics between groups during the pandemic stem from a mixture of demand and supply factors. On the labor demand side, for example, the leisure and hospitality sector experienced severe losses in 2020 but has seen a strong rebound in employment growth in the past two years. Since workers with a high school degree or less are historically more than twice as likely as workers with a college degree to be employed in leisure and hospitality, part of this group's unusually large employment decline and rebound is likely attributable to the fluctuations in labor demand from this sector.[3] On the labor supply side, many parents left work during the pandemic period when schools and childcare facilities were closed. This phenomenon appears to have been particularly acute for women, especially

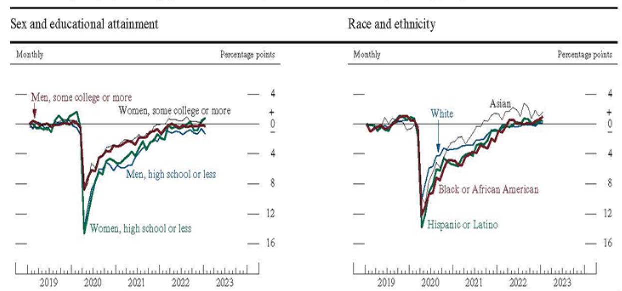
(continued)

1. See Arthur M. Okun (1973), "Upward Mobility in a High-Pressure Economy," *Brookings Papers on Economic Activity*, no. 1, pp. 207–61, https://www.brookings.edu/wp-content/uploads/1973/01/1973a_bpea_okun_fellner_greenspan.pdf; and Stephanie R. Aaronson, Mary C. Daly, William L. Wascher, and David W. Wilcox (2019), "Okun Revisited: Who Benefits Most from a Strong Economy?" *Brookings Papers on Economic Activity*, Spring, pp. 333–75, https://www.brookings.edu/wp-content/uploads/2019/03/aaronson_web.pdf.

2. Women saw slightly greater employment losses relative to men with a similar educational background at the beginning of the pandemic but also experienced a slightly more rapid recovery. The disproportionate effect of the pandemic on women contrasts with previous recessions, when employment has historically fallen more among men than women.

3. Similarly, Black or African American, Hispanic or Latino, and Asian workers are also overrepresented in the leisure and hospitality industry relative to white workers, although these differences are smaller than differences by education. See Guido Matias Cortes and Eliza Forsythe (2022), "Heterogeneous Labor Market Impacts of the COVID-19 Pandemic," *ILR Review*, vol. 76 (January), pp. 30–55.

A. Prime-age employment-to-population ratios compared with the 2019 average ratio, by group



Note: Prime age is 25 to 54. All series are seasonally adjusted by the Federal Reserve Board staff.
Source: Bureau of Labor Statistics; U.S. Census Bureau, Current Population Survey; Federal Reserve Board staff calculations.

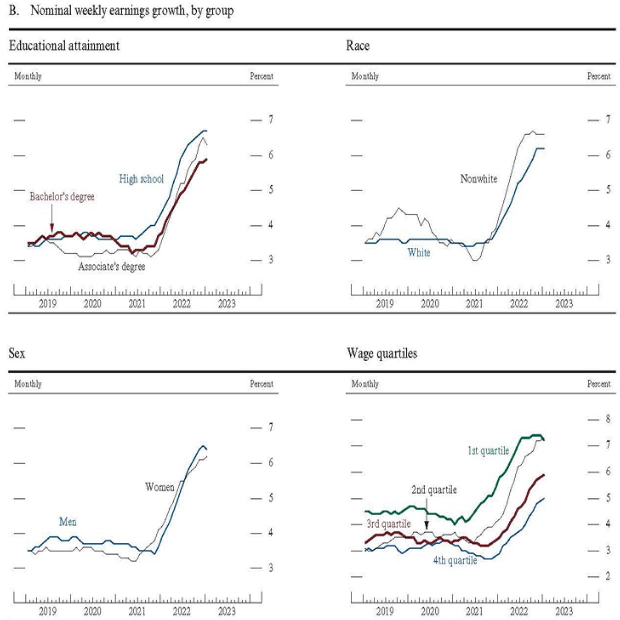
Black and Hispanic mothers, as well as those with less education.[4] (For more discussion of recent labor supply developments, see the box "Why Has the Labor Force Recovery Been So Slow?")

As labor market conditions have tightened, wage growth has risen sharply, especially for the least advantaged groups. As shown in the upper panels of figure B, growth of nominal hourly wages jumped in 2022, but growth was higher for non-college-educated workers than for college-educated workers and higher for nonwhite workers than for white workers. This largely reflects that wage growth has been consistently stronger at the lower end of the income distribution (see the lower-right panel).[5] Importantly, these higher rates of wage growth for less advantaged groups coincided with the faster increase in employment, indicating that labor supply could not keep up with the growth in labor demand.

4. See Joshua Montes, Christopher Smith, and Isabel Leigh (2021), "Caregiving for Children and Parental Labor Force Participation during the Pandemic," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, November 5), https://www.federalreserve.gov/econres/notes/feds-notes/caregiving-for-children-and-parental-labor-force-participation-during-the-pandemic-20211105.htm.

5. Wage growth for the bottom quartile was a bit stronger than for other groups even before the pandemic, as labor market conditions tightened at the end of the previous expansion.

B. Nominal weekly earnings growth, by group



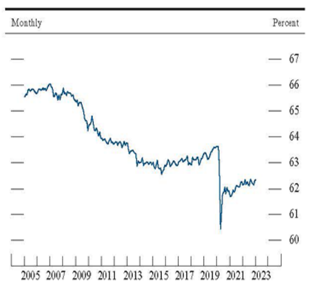
Note: Series show 12-month moving averages of the median percent change in the nominal hourly wage of individuals observed 12 months apart. In the bottom right panel, workers are assigned to wage quartiles based on the average of their wage reports in both Current Population Survey outgoing rotation group interviews; workers in the lowest 25 percent of the average wage distribution are assigned to the 1st quartile, and those in the top 25 percent are assigned to the 4th quartile.

Source: Federal Reserve Bank of Atlanta, Wage Growth Tracker; Bureau of Labor Statistics; U.S. Census Bureau, Current Population Survey.

Labor demand has remained very strong, showing only tentative signs of easing . . .

Demand for labor continued to be very strong in the second half of 2022. The Job Openings and Labor Turnover Survey indicated that there were 11 million job openings at the end of December—down about 850,000 from the all-time high recorded last March but still more than 50 percent above pre-pandemic levels. An alternative measure of job vacancies constructed by Federal Reserve Board staff using job postings data from the large online job board Indeed also shows that vacancies moved gradually lower throughout 2022 but remain well above pre-pandemic levels. Many employers report having scaled back their hiring plans somewhat, though levels of anticipated hiring remain high by historical standards.[4] Also consistent with strong labor demand, initial claims for unemployment insurance have remained at historically low levels.

13. Labor force participation rate



NOTE: The labor force participation rate is a percentage of the population aged 16 and over. Data are adjusted for the January 2022 updated population controls. See Bureau of Labor Statistics (2022), "Adjustments to Household Survey Population Estimates in January 2022," Current Population Survey Technical Documentation, February, https://www.bls.gov/cps/population-control-adjustments-2022.pdf.

SOURCE: Bureau of Labor Statistics via Haver Analytics.

. . . while labor supply has increased only modestly . . .

Meanwhile, the supply of labor increased only modestly last year. The labor force participation rate, which measures the share of people either working or actively seeking work, was essentially flat last year and remains roughly 1¼ percentage points below its February 2020 level (figure 13).[5] (See the box "Why Has the Labor Force Recovery Been So Slow?")

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4. For example, the (net) share of employers planning to increase payrolls in coming months, as reported by both the staffing firm ManpowerGroup and the National Federation of Independent Business, has come down in recent months but remains elevated.

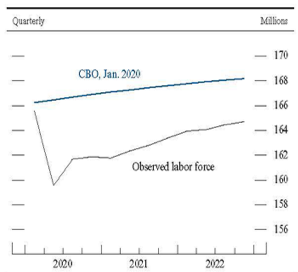
5. This labor force participation rate (LFPR) estimate and figure 13 adjust the historical data to account for the updated population estimates produced by the Census Bureau and incorporated by the Bureau of Labor Statistics in their January 2022 Employment Situation report. Without making an adjustment for these updated population estimates, the LFPR would erroneously appear to have improved more since the onset of the pandemic and to be only about 1 percentage point below its pre-pandemic level.

Why Has the Labor Force Recovery Been So Slow?

By many measures, the labor market has recovered strongly. Unemployment is low, job growth has been robust, and job opportunities are abundant. However, the labor market has underperformed in one key dimension: The labor force, or the number of people working or looking for work, is well below levels projected by most observers before the pandemic. This shortfall has contributed to a widening gap between labor demand and labor supply and to widespread labor shortages.

One estimate of the shortfall compares the labor force that the nation has now to the labor force that might have been expected given past economic and demographic trends. One way to make such a comparison is to look at what professional forecasters at some point in the past expected the labor force to be now. For example, comparing the current level of the labor force with the Congressional Budget Office's January 2020 projection of its current level suggests a shortfall of about 3½ million (figure A).[1] That figure is likely an upper bound on the true shortfall, in light of new data not yet incorporated into the Census Bureau's publicly available population estimates and so not in these calculations.[2] Even so, the shortfall appears large and economically significant, and it reflects both a lower labor force participation rate and slower population growth than was expected without the pandemic (figure B).

A. Labor force relative to an ex-pandemic counterfactual



NOTE: The "CBO, Jan. 2020" line appends the Congressional Budget Office's (CBO) January 2020 projected labor force growth onto the level of the labor force at the start of the pandemic through the end of 2022.
SOURCE: Congressional Budget Office; Federal Reserve Board staff calculations.

B. Decomposition of the current labor force shortfall

Millions of people

Total shortfall	3.5
LFPR	2.1
Population	1.4
Excess deaths since COVID	.5
Net migration slowdown since COVID	.9

Note: The labor force shortfall is calculated over the period from 2019:Q4 to 2022:Q4.
Source: Current Population Survey; CDC mortality statistics; staff calculations.

Lower labor force participation

The labor force participation rate dropped sharply at the onset of the pandemic and has remained persistently below pre-pandemic levels ever since then (figure 13, main text). Earlier in the pandemic, the low level of participation reflected several pandemic-related influences (figure C). Many people left the labor force to care for sick relatives or for children learning

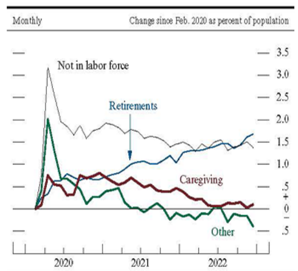
(continued on next page)

1. All analysis in this discussion is through the end of 2022 and based on data from the Current Population Survey that are adjusted for the January 2022 updated population controls as described in the main text. To account for the effect of those population controls on the level of the labor force, the shortfall is calculated by appending the Congressional Budget Office's (CBO) January 2020 projected labor force growth from the start of the pandemic through the end of 2022 onto the level of the labor force just before the start of the pandemic that is adjusted for population controls. The CBO projected the labor force participation rate (LFPR) to decline about ¼ percentage point per year from 2020 onward, consistent with the downward pressure on the LFPR from the aging of the baby boomers into retirement ages. The CBO also projected the population to increase at an average annual rate of 2.1 million from 2020 onward. See Congressional Budget Office (2020), *The Budget and Economic Outlook: 2020 to 2030* (Washington: CBO, January), https://www.cbo.gov/publication/56073.

2. This analysis does not adjust for the updated January 2023 population controls. The January 2023 updated population controls revised up the level of the labor force in December 2022 by 871,000 people, which suggests that the labor force shortfall may be materially smaller. However, as the detailed population estimates are not yet available, it is not possible to precisely estimate the level of the labor force before the pandemic that reflects the January 2023 updated population controls.

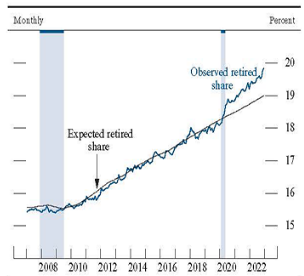
Why Has the Labor Force Recovery Been So Slow? *(continued)*

C. Nonparticipation in the labor force as a percent of the population and by reason, relative to February 2020



NOTE: The curves show estimates of the percent of the population indicating they are not in the labor force for various reasons, relative to February 2020 values. The "Other" category includes disability, illness, school, and all other reasons. The data extend through December 2022.
SOURCE: Staff estimates using microdata from the Current Population Survey, Bureau of Labor Statistics.

D. Retired share of the population (aged 16 and older), actual relative to expected



NOTE: Data are adjusted for the January 2022 updated population controls. The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research. The data extend through December 2022.
SOURCE: Joshua Montes, Christopher Smith, and Juliana Dajon (2022), "'The Great Retirement Boom': The Pandemic-Era Surge in Retirements and Implications for Future Labor Force Participation," Finance and Economics Discussion Series 2022-081 (Washington: Board of Governors, November), https://doi.org/10.17016/FEDS.2022.081.

remotely. Others withdrew because they were sick with COVID-19 or feared getting COVID-19 at work. Many others retired early. As COVID concerns have waned, the influence of caregiving and fears of contracting COVID at work have diminished, whereas the contribution of retirements has increased. As a result, essentially all of the current participation rate shortfall can be accounted for by the higher percentage of the population that is retired.

The retired share of the population jumped sharply at the onset of the pandemic (figure D, blue line). Some of this increase was to be expected. In the decade leading up to the pandemic, retirements increased steadily as the baby-boom cohort aged. If the pandemic had not occurred, this trend of rising retirements would have likely continued (figure D, black line). Currently, however, the total number of people retired is well above that expected level. Excess retirements (the difference between total and expected) number roughly 2.2 million and are concentrated among older Americans, particularly among people aged 65 and over.[3]

Several factors have led to people retiring before they otherwise would have. Health concerns likely contributed to a portion of the excess retirements, as COVID poses a particularly large risk to the health of older people. In addition, many older workers lost their jobs early in the pandemic when layoffs were historically high, and finding new employment may have been particularly difficult for those workers given pandemic-related disruptions to the work environment and health concerns. Indeed, workers aged 65 and over who lost their job during the pandemic had much lower reemployment rates and much higher rates of labor force exit than did similarly aged displaced

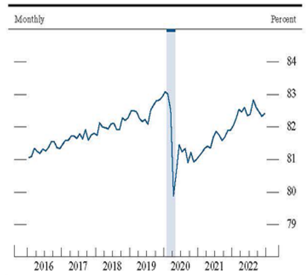
(continued)

3. For more on pandemic retirements, see Joshua Montes, Christopher Smith, and Juliana Dajon (2022), "'The Great Retirement Boom': The Pandemic-Era Surge in Retirements and Implications for Future Labor Force Participation," Finance and Economics Discussion Series 2022-081 (Washington: Board of Governors of the Federal Reserve System, November), https://doi.org/10.17016/FEDS.2022.081.

workers in the years just before the pandemic.[4] Further, increases in wealth, fueled by gains in the stock market and rising house prices in the first two years of the pandemic, may have allowed some people to retire early, and research suggests that excess retirements have been largest among college-educated and white workers—the groups that likely benefited most from the stock market and house price gains earlier in the pandemic. There is little sign yet of a reduction in excess retirements. Instead, older workers are still retiring at higher rates than before the pandemic, and retirees are not returning to the labor force in sufficient numbers to reduce the total number of retirees.

In contrast, participation for those aged 25 to 54 (prime age) has mostly returned to pre-COVID levels (figure E). This recovery likely reflects the abundance of job opportunities and strong wage growth as well as the waning influence of COVID-related factors. However, the prime-age participation rate did move somewhat lower the last few months of 2022. Although the drag on participation from caregiving has diminished since the first year of the pandemic, it remains elevated relative to its pre-pandemic level and, in fact, moved higher over the second half of 2022—perhaps because many caretakers have been unable to participate in the labor force because of flu, COVID, or other respiratory illness among their children and other family members.[5] Further, many workers are still out of work because they are sick with COVID or continue to suffer lingering symptoms from previous COVID infections ("long COVID"), and their illness is likely depressing participation to some extent.[6]

E. Labor force participation rate for prime-age people



NOTE: The shaded bar indicates a period of business recession as defined by the National Bureau of Economic Research. The data extend through December 2022.

SOURCE: Bureau of Labor Statistics via Haver Analytics.

Lower population growth

The second contributor to the labor force shortfall is slower population growth. Over the decade before the pandemic, the population increased about 1 percent per year. Since the start of 2020, annual population growth has slowed to about ½ percent per year, on average, resulting in slower labor force growth for a given participation rate. That slowdown reflects two factors. First, primarily because of COVID, mortality over the past few years has far exceeded what was expected before the pandemic; even though the mortality was concentrated among older Americans who are less likely to be working, it still has contributed about 500,000 to the labor force shortfall. Second, pandemic-related restrictions on entry into

(continued on next page)

4. See Bureau of Labor Statistics (2022), "Displaced Workers Summary," Economic News Release, August 26, https://www.bls.gov/news.release/disp.nr0.htm.

5. For more on how caregiving burdens affected labor force participation in the first year and a half of the pandemic, see, for example, Joshua Montes, Christopher Smith, and Isabel Leigh (2021), "Caregiving for Children and Parental Labor Force Participation during the Pandemic," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, November 5), https://doi.org/10.17016/2380-7172.3013.

6. See, for example, Gopi Shah Goda and Evan J. Soltas (2022), "The Impacts of COVID-19 Illnesses on Workers," NBER Working Paper Series 30435 (Cambridge, Mass.: National Bureau of Economic Research, September), https://doi.org/10.3386/w30435; Louise Sheiner and Nasiha Salwati (2022), "How Much Is Long COVID Reducing Labor Force Participation? Not Much (So Far)," Hutchins Center Working Paper Series 80 (Washington: Brookings Institution, October), https://www.brookings.edu/wp-content/uploads/2022/10/WP80-Sheiner-Salwati_10.27.pdf; and Brendan M. Price (2022), "Long COVID, Cognitive Impairment, and the Stalled Decline in Disability Rates," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, August 5), https://doi.org/10.17016/2380-7172.3189.

Why Has the Labor Force Recovery Been So Slow? *(continued)*

the U.S. substantially slowed total immigration in the first two years of the pandemic. Although net migration rebounded considerably in 2022, lower net international migration since the start of the pandemic has lowered the labor force by as much as 900,000 people relative to pre-pandemic trends.[7]

Looking ahead

Due to the aging of the population, a meaningful reversal of the run-up in the retired share of the population seems unlikely, and the labor force participation rate is likely to remain well below its level from before the pandemic. It is possible that some of those who retired during the pandemic will reenter the labor force, but the persistently high level of excess retirements suggests this reentry is not yet happening. In contrast, some further gains in labor force participation among younger people may be possible. Over the five years before the pandemic, the participation rate for 25-to-54-year-olds increased significantly, partially reversing a multidecade decline in their labor force participation, and the participation rate for this group seemed poised for further gains had the pandemic not occurred. However, even if further increases in participation among younger people occur, those increases would likely only gradually reduce the overall labor force shortfall.

Regarding population growth, as pandemic-related restrictions on immigration have eased, immigration has started to rebound. If net migration continues to move higher, it may help alleviate labor shortages, as immigrant workers have tended to work in industries and jobs where labor shortages appear particularly acute, such as childcare, health care, and accommodation and food services.[8]

7. There is considerable uncertainty about the contribution of changes in immigration since the start of the pandemic to the labor force shortfall, especially in light of the revisions to the historical level of the labor force due to the January 2023 updated population controls and because of the pickup in immigration over 2022, which lowered its contribution to the labor force shortfall. The 900,000-person contribution of lower immigration to the labor force shortfall is likely an upper-bound estimate.

8. Immigration had slowed markedly in the few years before the pandemic. If immigration rises only to the relatively low levels prevailing before the pandemic, the population will grow at a historically low rate.

. . . resulting in an extremely tight labor market

As a result, the labor market remains extremely tight despite some tentative signs of modest easing. The number of total available jobs (measured by total employment plus posted job openings) continues to far exceed the number of available workers (measured by the size of the labor force). This jobs–workers gap was 5.3 million at the end of the year, down about 600,000 from the peak recorded last March but still very elevated by historical standards (figure 14).[6] The share of workers quitting jobs each month, an indicator of the availability of attractive job prospects, was 2.7 percent at the end of the year, somewhat below the all-time high of 3 percent reported a year earlier but still elevated. Similarly, households' and small businesses' perceptions of labor market tightness have come down from their recent peaks but remain high. And many employers across Federal Reserve Districts reported some easing of hiring and retention difficulties but continued to view labor market conditions as tight.[7]

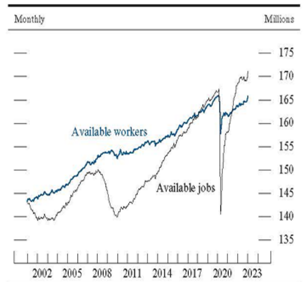
Wage growth has slowed but remains elevated

Wage growth slowed in the second half of 2022 but was still elevated (figure 15). Total hourly compensation as measured by the employment cost index increased at an annual rate of 4.1 percent in the second half of last year, a strong gain but a step-down from the 6.0 percent increase observed during the first half. Increases in average hourly earnings (a less comprehensive measure of compensation) have slowed as well, rising 4.4 percent over the 12 months to January, down from 5.7 percent over the preceding 12 months. Wage growth as computed by the Federal Reserve Bank of

6. The ratio of job openings to unemployment shows that there were 1.9 job openings per unemployed person in December 2022. For comparison, this ratio averaged 1.2 in 2019 and 0.6 over the 10-year period from 2010 to 2019.

7. See the January 2023 Beige Book, available on the Board's website at https://www.federalreserve.gov/monetarypolicy/publications/beige-book-default.htm.

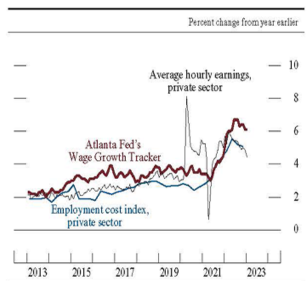
14. Available jobs versus available workers



NOTE: Available jobs are employment plus job openings as of the end of the previous month. Available workers are the labor force. Data are adjusted for the January 2022 updated population controls. See Bureau of Labor Statistics (2022), "Adjustments to Household Survey Population Estimates in January 2022," Current Population Survey Technical Documentation, February, https://www.bls.gov/cps/population-control-adjustments-2022.pdf.

SOURCE: Bureau of Labor Statistics; Job Openings and Labor Turnover Survey; all via Haver Analytics; Federal Reserve Board staff calculations.

15. Measures of change in hourly compensation



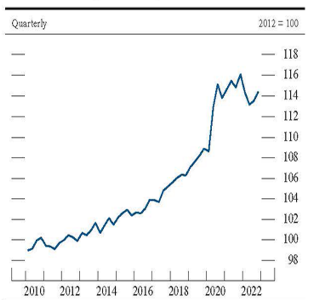
NOTE: For the private-sector employment cost index, change is over the 12 months ending in the last month of each quarter; for private-sector average hourly earnings, the data are 12-month percent changes; for the Atlanta Fed's Wage Growth Tracker, the data are shown as a 3-month moving average of the 12-month percent change.

SOURCE: Bureau of Labor Statistics; Federal Reserve Bank of Atlanta, Wage Growth Tracker; all via Haver Analytics.

Atlanta, which tracks the median 12-month wage growth of individuals responding to the Current Population Survey, was 6.1 percent in January, down from its peak last summer but well above the 3 to 4 percent pace reported over the previous few years.

Following a period of strong growth, labor productivity weakened last year

16. U.S. labor productivity



NOTE: The data are output per hour in the nonfarm business sector.
SOURCE: Bureau of Labor Statistics via Haver Analytics.

The extent to which wage gains raise firms' costs and act as a source of inflation pressure depends importantly on the pace of productivity growth. Productivity rose at a rapid average pace of 3¼ percent over 2020 and 2021, but it declined last year as output growth slowed and employment growth held up (figure 16). In retrospect, much of the strong productivity growth in 2020 and 2021 seems to have been the result of temporary pandemic-related factors such that the decline in 2022 may reflect a normalization as productivity moves back toward its trend. In 2021, as the economy reopened, firms struggled to hire workers, and many firms temporarily operated with overstretched workforces.[8] Subsequently, the slowdown in aggregate demand last year allowed many firms to catch up in their hiring.[9]

The pace of productivity growth going forward remains very uncertain. Productivity growth averaged only about 1 percent per year during the expansion that preceded the pandemic recession, and it is possible that the economy will return to a similar low-productivity growth regime. However, it also seems possible that the high rate of new business formation, widespread adoption of remote-work technology, and the wave of

8. In 2020, there were also significant composition effects boosting labor productivity, as pandemic-induced employment losses were largest in lower-productivity services sectors. Employment composition looks to have largely normalized by 2021.

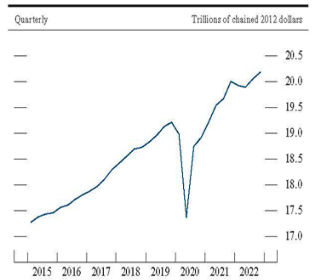
9. Consistent with this view, the November 2022 Beige Book reported that many employers cited concerns that their workforce was being overworked as an important reason for hiring; see that publication, which can be found on the Board's website at https://www.federalreserve.gov/monetarypolicy/files/BeigeBook_20221130.pdf.

labor-saving investments that the pandemic brought about could boost productivity growth above that pace in coming years.

Momentum in gross domestic product has slowed

After the strong rebound in 2021 from the pandemic-induced recession, economic activity lost momentum last year. Although real gross domestic product (GDP) is reported to have risen at a solid 3.0 percent pace in the second half of 2022, growth in real private domestic final purchases—consumer spending plus residential and business fixed investment, a measure of output that often better reflects the underlying momentum of economic activity—slowed to just a 0.6 percent pace (figure 17). Consumer spending growth held up last year, but the fundamentals that underpin household spending have deteriorated. Business investment rose moderately in the second half of 2022, although new orders indexes, business sentiment, and profit expectations suggest that spending growth may slow. And activity in the housing sector contracted sharply last year in response to elevated mortgage rates. Finally, manufacturing output moved lower, on net, over the past few months, with surveys of manufacturing pointing to continued weakness in coming months. Diffusion indexes of new orders from various manufacturing surveys are well into contractionary territory, and backlogs of existing orders have declined sharply.

17. Real gross domestic product

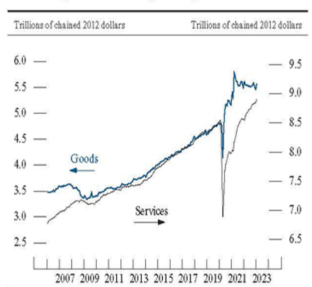


SOURCE: Bureau of Economic Analysis via Haver Analytics.

Consumer spending grew moderately last year . . .

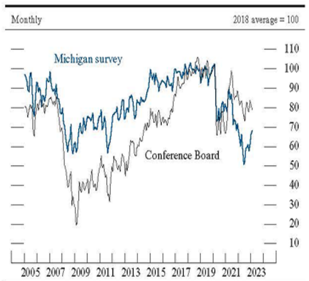
Consumer spending adjusted for inflation grew at a 1.8 percent rate in the second half of 2022, about the same pace as in the first half of the year. And, averaging through some recent volatility, consumer spending has continued to look solid in the most recent data. Spending increases over the past year have been concentrated in services, whereas spending on goods has remained roughly flat since mid-2021 following its surge during 2020 and early 2021, suggesting that consumers' spending habits have been returning toward their pre-pandemic patterns (figure 18).

18. Real personal consumption expenditures



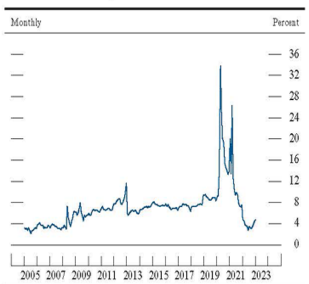
NOTE: The data are monthly.
SOURCE: Bureau of Economic Analysis via Haver Analytics.

19. Indexes of consumer sentiment



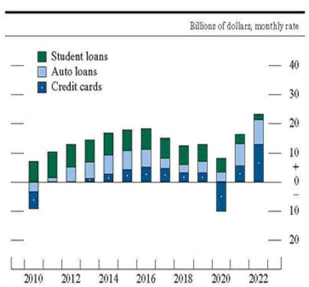
NOTE: The data extend through February 2023.
SOURCE: University of Michigan Surveys of Consumers; Conference Board.

20. Personal saving rate



SOURCE: Bureau of Economic Analysis via Haver Analytics.

21. Consumer credit flows



SOURCE: Federal Reserve Board, Statistical Release G.19, "Consumer Credit."

. . . even as real disposable income fell and consumer confidence was low

The fundamentals for household spending, however, appear to be somewhat less supportive of spending growth. Despite the sizable increases in jobs and wages last year, after factoring in the rise in prices, higher tax payments, and reduced transfers, real disposable income fell 1.4 percent in 2022. And the University of Michigan index of consumer sentiment remains very low by historical standards despite a move higher in the second half of 2022 (figure 19).

As real incomes fell, households likely relied on the savings that had been accumulated during the pandemic as well as higher wealth—reflecting, in part, house price gains over the past few years that outweighed the drag from recent equity price declines—to fund continued consumption. As a result, the personal saving rate fell to its lowest levels since the Great Recession (figure 20).

Consumer financing conditions have tightened somewhat

Interest rates on credit cards and auto loans continued to increase last year and are now higher than the levels observed in 2018 at the peak of the previous monetary policy tightening cycle. In addition, banks reported tighter lending standards across consumer credit products in the second half of 2022, in part reflecting increases in delinquency rates and concerns about further future deterioration in credit performance. After reaching record lows in 2021, delinquency rates for credit cards and auto loans rose last year. That said, the share of delinquent balances for credit cards remained low, while that for auto loans is just a little above its pre-pandemic level. Despite these tighter financial conditions, financing has been generally available to support consumer spending, and consumer credit continued to expand in the past several months (figure 21). Total credit card balances have increased across the credit score distribution, and auto loans continued to rise at a robust pace.

Housing market activity has declined sharply

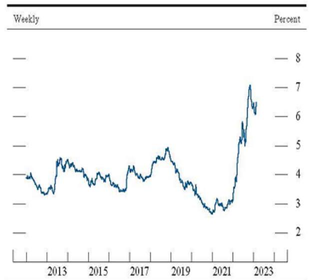
After rising further over the summer, mortgage rates have fallen back some but remain roughly 3 percentage points higher than their levels a year ago (figure 22). Although mortgage credit broadly remains available, the move up in mortgage rates (along with the earlier large home price increases) has greatly reduced affordability and further depressed homebuying sentiment, leading to a sharp decline in demand to purchase homes. Home sales fell precipitously last year and are now at levels seen during the financial crisis, while house prices have ceased their sharp increases (figures 23 and 24).

The drop in housing demand, combined with a larger-than-normal backlog of homes already in the construction pipeline, has led builders to sharply cut back the number of new housing starts. Single-family starts collapsed from their 2021 highs, though multifamily starts have held up, likely supported by a shift in demand toward rentals given the decline in purchase affordability (figure 25).

Capital spending grew at a solid pace in the second half last year but has been slowing

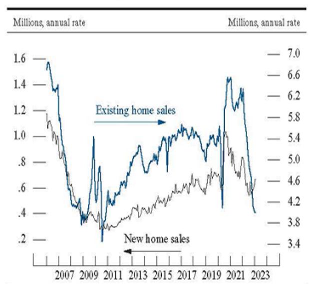
Business investment in equipment and intangible capital grew at a solid 5 percent pace in the second half of 2022 (figure 26). The increase in part reflects a jump in spending on transportation equipment, as supply bottlenecks in the motor vehicles sector eased and aircraft shipments stepped up. Excluding the volatile transportation category, investment in equipment and intangibles declined in the fourth quarter, likely reflecting tighter financial conditions for businesses as well as tepid growth in demand. In contrast, investment in nonresidential structures—which tends to respond with a lag to economic conditions—has shown signs of turning up of late, after falling further last year amid ongoing pandemic-related weakness in demand for categories such as office buildings.

22. Mortgage interest rates



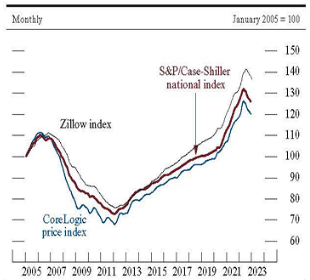
Note: The data are contract rates on 30-year, fixed-rate conventional home mortgage commitments and extend through February 23, 2023.
Source: Freddie Mac Primary Mortgage Market Survey.

23. New and existing home sales



Note: The data are monthly. New home sales include only single-family sales. Existing home sales include single-family, condo, and co-op sales.
Source: For new home sales, U.S. Census Bureau; for existing home sales, National Association of Realtors; all via Haver Analytics.

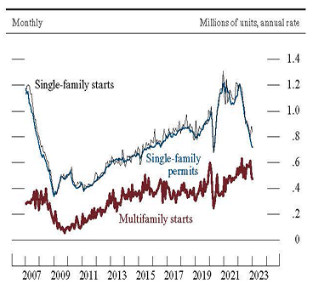
24. Real prices of existing single-family houses



NOTE: Series are deflated by the personal consumption expenditures price index. CoreLogic is not seasonally adjusted. The data for S&P Case-Shiller and CoreLogic extend through December 2022.

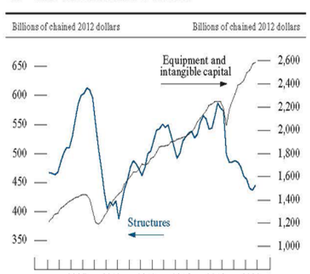
SOURCE: Bureau of Economic Analysis via Haver Analytics; CoreLogic Home Price Index; Zillow, Inc., Real Estate Data; S&P/Case-Shiller U.S. National Home Price Index. The S&P/Case-Shiller index is a product of S&P Dow Jones Indices LLC and/or its affiliates. (For Dow Jones Indices licensing information, see the note on the Contents page.)

25. Private housing starts and permits



SOURCE: U.S. Census Bureau via Haver Analytics.

26. Real business fixed investment



NOTE: Business fixed investment is known as "private nonresidential fixed investment" in the national income and product accounts. The data are quarterly.

SOURCE: Bureau of Economic Analysis via Haver Analytics.

While business sentiment has declined significantly and financial conditions have tightened, survey indicators of capital spending plans have continued to hold up and remain above levels that would normally be associated with a sharp downturn in capital spending.

Business financing conditions tightened, but credit generally remained available

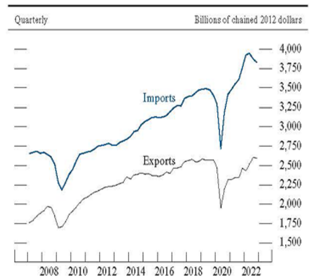
Credit remained available to most nonfinancial corporations but at generally higher interest rates and under tighter financial conditions more broadly. Issuance of leveraged loans and speculative-grade corporate bonds slowed substantially in the second half of the year, while investment-grade bond issuance declined modestly. Banks tightened lending standards on commercial and industrial loans and commercial real estate loans over the third and fourth quarters of 2022. Credit remained tight for lower-rated borrowers and tightened further for bank-dependent borrowers. Business loans at banks continued to grow in the second half of 2022 but started to decelerate in the fourth quarter, thus moderating the robust pace of growth observed earlier in the year. Despite the increase in borrowing costs, credit quality has remained strong for most nonfinancial firms. However, some predictors of future business defaults suggest that defaults are more likely.

Meanwhile, financing conditions for small businesses have remained stable over the past year. While credit supply appears to have tightened slightly and interest rates on small business loans have risen notably in recent months, credit availability is broadly in line with pre-pandemic levels. Loan performance remains strong but shows signs of weakening, as default and delinquency rates remain below their pre-pandemic levels but have risen moderately since last spring.

Trade softened amid slowing goods demand

After growing at a notable pace during the first half of the year, real imports declined in the second half, reflecting softening domestic demand for goods (figure 27). Real exports increased modestly, restrained by the past appreciation of the dollar and weak foreign demand. Real exports of services, especially travel services, continue to slowly recover but remain subdued. The current account deficit as a share of GDP narrowed over the second half of last year but remains wider than before the pandemic.

27. Real imports and exports of goods and services



SOURCE: Bureau of Economic Analysis via Haver Analytics.

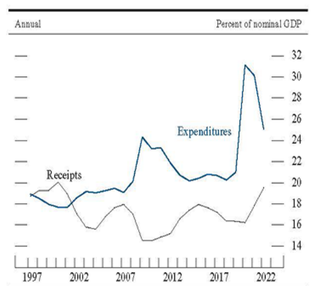
The support to economic activity from federal fiscal actions has largely phased out

The federal government enacted a historic set of fiscal policies to alleviate hardship caused by the pandemic and to support the economic recovery. Policies such as stimulus checks, supplemental unemployment insurance, and child tax credit payments aided households; grants-in-aid supported state and local governments; and business support programs such as the Paycheck Protection Program helped support firms. The support to the level of GDP from these temporary policies has been diminishing, and their unwinding likely imposed a drag on GDP growth in 2022 as the effects on spending waned.

The budget deficit fell sharply from pandemic highs, causing growth in federal debt to moderate

Fiscal policies enacted since the start of the pandemic, combined with the effects of automatic stabilizers—the reduction in tax receipts and the increase in transfers that occur because of subdued economic activity—caused the federal deficit to surge to 15 percent of GDP in fiscal 2020 and to more than 12 percent in fiscal 2021 (figure 28).[10] However,

28. Federal receipts and expenditures

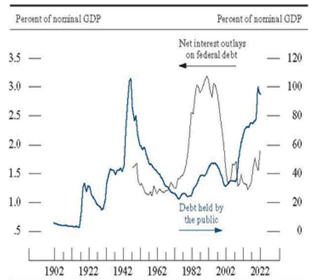


NOTE: The receipts and expenditures data are on a unified-budget basis and are for fiscal years (October through September); gross domestic product (GDP) data are on a 4-quarter basis ending in Q3.

SOURCE: Department of the Treasury, Financial Management Service; Office of Management and Budget and Bureau of Economic Analysis via Haver Analytics.

10. For more information, see Congressional Budget Office (2020), "The Budgetary Effects of Laws Enacted in Response to the 2020 Coronavirus Pandemic, March and April 2020," June, https://www.cbo.gov/system/files/2020-06/56403-CBO-covid-legislation.pdf; Congressional Budget Office (2021), "The Budgetary Effects of Major Laws Enacted in Response to the 2020–21 Coronavirus Pandemic, December 2020 and March 2021," September, https://www.cbo.gov/system/files/2021-09/57343-Pandemic.pdf; and Congressional Budget Office (2021), "Senate Amendment 2137 to H.R. 3684, the Infrastructure Investment and Jobs Act, as Proposed on August 1, 2021," August 9, https://www.cbo.gov/system/files/2021-08/hr3684_infrastructure.pdf.

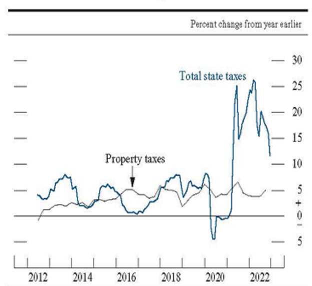
29. Federal government debt and net interest outlays



NOTE: The data for net interest outlays are annual, begin in 1948, and extend through 2022. Net interest outlays are the cost of servicing the debt held by the public. Federal debt held by the public equals federal debt less Treasury securities held in federal employee defined-benefit retirement accounts, evaluated at the end of the quarter. The data for federal debt are annual from 1901 to 1951 and a four-quarter moving average thereafter and extend through 2022:Q3. GDP is gross domestic product.

SOURCE: For GDP, Bureau of Economic Analysis via Haver Analytics; for federal debt, Congressional Budget Office and Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

30. State and local tax receipts



NOTE: State tax data are year-over-year percent changes of 12-month moving averages, begin in June 2012, extend through December 2022, and are aggregated over all states except Wyoming, for which data are not available. Revenues from Washington, D.C., are also excluded. The data extend only through September 2022 for New Mexico and November 2022 for Nevada and South Dakota, as these states have longer reporting lags than others. Property tax data are year-over-year percent changes of 4-quarter moving averages, begin in 2012:Q2, extend through 2022:Q3, and are primarily collected by local governments.

SOURCE: Monthly State Government Tax Revenue Data via Urban Institute; U.S. Census Bureau, Quarterly Summary of State and Local Government Tax Revenue.

with pandemic-related fiscal support fading and receipts on the rise, the deficit fell to 5.5 percent of GDP in 2022.

As a result of the unprecedented fiscal support enacted early in the pandemic, federal debt held by the public jumped roughly 20 percentage points to 100 percent of GDP in fiscal 2020—the highest debt-to-GDP ratio since 1947 (figure 29). With deficits falling and economic growth rebounding since fiscal 2020, the debt-to-GDP ratio has since leveled off but is expected to remain elevated compared with the years before the pandemic. With interest rates on the rise, net interest outlays have recently picked up and are expected to continue to grow over the next few years.

State and local government budget positions remain strong . . .

Federal policymakers provided a historical level of fiscal support to state and local governments during the pandemic, leaving the sector in a strong budget position overall. In addition, total state tax collections rose appreciably in 2021 and 2022, pushed up by the economic recovery (figure 30). In response to their strong budget positions, lawmakers cut state taxes by roughly $16 billion in state fiscal year 2023 according to the National Association of State Budget Officers.

At the local level, property taxes have continued to rise, and the typically long lags between changes in the market value of real estate and changes in taxable assessments suggest that property tax revenues will continue to grow despite the recent sharp deceleration in house prices.

. . . yet employment and construction outlays are still below their pre-pandemic levels

Despite the strong fiscal position of state and local governments, the sector's payrolls have regained approximately three-fourths of their sizable pandemic losses, and real infrastructure spending by these governments is 10 percent below pre-pandemic levels. Nevertheless, both infrastructure outlays and employment showed signs of a recovery in the second half of 2022 (figure 31).

Financial Developments

The expected level of the federal funds rate over the next year shifted up notably

The FOMC raised the target range for the federal funds rate a further 3 percentage points since June. Market-based measures of the path of the federal funds rate expected to prevail through the first half of 2024 also shifted up notably over the same period (figure 32).[11] According to these market-based measures, investors anticipate that the federal funds rate will peak at more than 5 percent in mid-2023, which is about 2 percentage points higher than the peak rate that had been expected in June. The market path implies that market participants believe that the federal funds rate will fall gradually starting around the fourth quarter of 2023 and will reach about 3.3 percent by the end of 2025. The results of the Survey of Primary Dealers and the Survey of Market Participants, both conducted by the Federal Reserve Bank of New York in January, similarly indicate that respondents' projections of the most likely path of the federal funds rate over 2023 and 2024 shifted up significantly since June.[12]

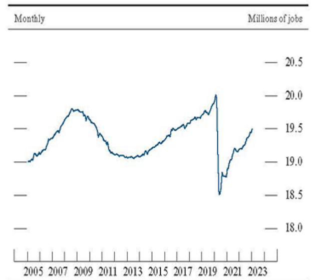
Yields on U.S. nominal Treasury securities also rose considerably

Short-term yields have increased substantially further since June, reflecting expectations for a higher path for the federal funds rate, while long-term yields have risen notably further, following a considerable rise in yields across maturities over the first half of 2022 (figure 33). The increases in nominal yields

11. These measures are based on market prices for effective federal funds overnight interest rate swaps and are not adjusted for term premiums.

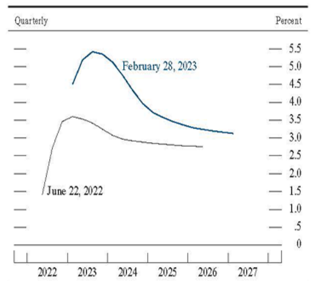
12. The results of the Survey of Primary Dealers and the Survey of Market Participants are available on the Federal Reserve Bank of New York's website at https://www.newyorkfed.org/markets/primarydealer_survey_questions.html and https://www.newyorkfed.org/markets/survey_market_participants, respectively.

31. State and local government payroll employment



SOURCE: Bureau of Labor Statistics via Haver Analytics.

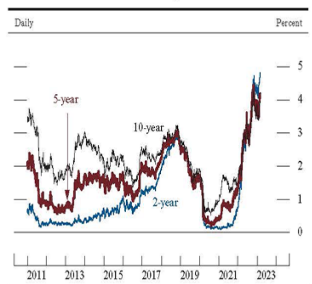
32. Market-implied federal funds rate path



NOTE: The federal funds rate path is implied by quotes on overnight index swaps—a derivative contract tied to the effective federal funds rate. The implied path as of June 22, 2022, is compared with that as of February 28, 2023. The path is estimated with a spline approach, assuming a term premium of 0 basis points. The June 22, 2022, path extends through 2026:Q2 and the February 28, 2023, path through 2027:Q1.

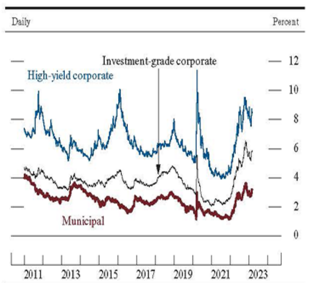
SOURCE: Bloomberg; Federal Reserve Board staff estimates.

33. Yields on nominal Treasury securities



SOURCE: Department of the Treasury via Haver Analytics.

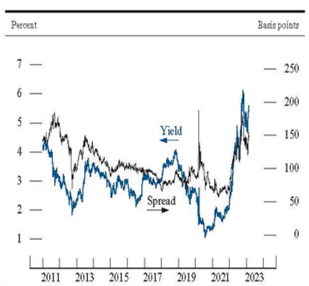
34. Corporate bond yields, by securities rating, and municipal bond yield



NOTE: Investment-grade corporate reflects the effective yield of the ICE Bank of America Merrill Lynch (BofAML) triple-B U.S. Corporate Index (C0A4). High-yield corporate reflects the effective yield of the ICE BofAML High Yield Index (H0A0). Municipal reflects the yield to worst of the ICE BofAML U.S. Municipal Securities Index (U0A0).

SOURCE: ICE Data Indices, LLC, used with permission.

35. Yield and spread on agency mortgage-backed securities



NOTE: The data are daily. Yield shown is for the uniform mortgage-backed securities 30-year current coupon, the coupon rate at which new mortgage-backed securities would be priced at par, or face, value, for dates after May 31, 2019; for earlier dates, the yield shown is for the Fannie Mae 30-year current coupon. Spread shown is to the average of the 5-year and 10-year nominal Treasury yields.

SOURCE: Department of the Treasury; J.P. Morgan. Courtesy of J.P. Morgan Chase & Co., Copyright 2023.

since June were primarily accounted for by higher real yields, consistent with expectations for more restrictive monetary policy.

Yields on other long-term debt increased modestly

After increasing substantially over the first half of 2022, corporate bond yields for investment-grade borrowers and yields for municipal borrowers have increased moderately further since June, while yields for speculative-grade corporate borrowers are about unchanged (figure 34). Corporate and municipal bond spreads over comparable-maturity Treasury securities have declined somewhat since June, particularly so for speculative-grade corporate bonds, and are now near levels prevailing shortly before the pandemic. Corporate and municipal credit quality remains strong, and defaults have been low in 2022 and thus far in 2023. However, an indicator of future business defaults is elevated.

Yields on agency mortgage-backed securities (MBS)—an important pricing factor for home mortgage rates—generally moved in line with longer-dated Treasury yields since June and have increased notably on net (figure 35). The MBS spread remains elevated relative to pre-pandemic levels, at least partly resulting from the large amount of interest rate volatility, which reduces the value of holding MBS.

Broad equity price indexes increased moderately, on net, amid substantial volatility

After declining sharply over the first half of 2022, broad equity price indexes have been volatile and have increased moderately since June, on net, as inflation pressures showed some signs of easing and earnings remained resilient (figure 36). One-month option-implied volatility on the S&P 500 index—the VIX—has declined notably but remains moderately above the median of its historical distribution (figure 37). (For a discussion of financial stability issues, see the box "Developments Related to Financial Stability.")

Major asset markets functioned in an orderly way, but some measures suggest persistence of low liquidity

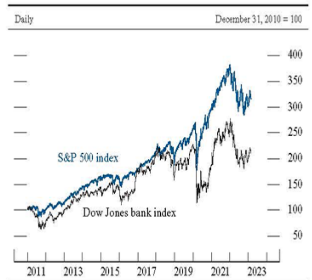
Consistent with ongoing higher interest rate volatility, liquidity conditions in the Treasury cash market continue to remain low relative to pre-pandemic levels. Market depth—a measure of the availability of contracts to trade at best quoted prices—for Treasury securities remains near historically low levels, particularly for short-term Treasury securities, and bid-ask spreads remain elevated relative to pre-pandemic levels. However, trading volumes in Treasury securities markets have remained about in line with historical levels, and market functioning has not been materially impaired. Equity market liquidity has improved somewhat since the summer but is still strained compared with pre-COVID levels. Corporate and municipal secondary bond markets continue to function well; transaction costs in these markets remained fairly low by historical standards.

Short-term funding market conditions remained stable

Conditions in short-term funding markets have remained stable. Increases in the FOMC's target range for the federal funds rate were transmitted effectively to other overnight rates. The effective federal funds rate and other unsecured overnight rates have been a few basis points below the interest rate on reserve balances since June. Secured overnight rates have been somewhat lower than unsecured rates but have shown some signs of firming more recently.

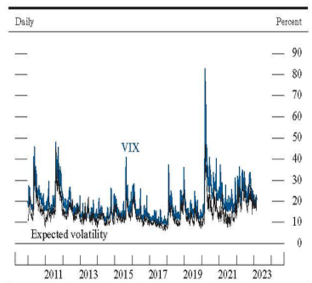
Prime money market funds (MMFs) have seen a notable increase in assets under management (AUM) since June, but government MMF AUM have remained relatively flat. Both prime and government MMFs have shortened their portfolios' weighted average maturities to

36. Equity prices



SOURCE: S&P Dow Jones Indices LLC via Bloomberg. (For Dow Jones Indices licensing information, see the note on the Contents page.)

37. S&P 500 volatility



NOTE: The VIX is an option-implied volatility measure that represents the expected annualized variability of the S&P 500 index over the following 30 days. The expected volatility series shows a forecast of 1-month realized volatility, using a heterogeneous autoregressive model based on 5-minute S&P 500 returns.

SOURCE: Cboe Volatility Index® (VIX®) via Bloomberg; Refinitiv DataScope; Federal Reserve Board staff estimates.

Developments Related to Financial Stability

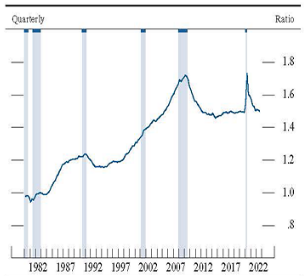
This discussion reviews vulnerabilities in the U.S. financial system. The framework used by the Federal Reserve Board for assessing the resilience of the U.S. financial system focuses on financial vulnerabilities in four broad areas: asset valuations, business and household debt, leverage in the financial sector, and funding risks. Against the backdrop of a weaker economic outlook, higher interest rates, and elevated uncertainty over the second half of the year, financial vulnerabilities remain moderate overall. Valuation pressures in equity markets increased modestly, and real estate prices continued to be high relative to fundamentals, such as rents, despite a marked slowing in price increases. Nonfinancial business and household debt grew in line with gross domestic product (GDP), leaving vulnerabilities associated with borrowing by businesses and households unchanged at moderate levels, and vulnerabilities from financial-sector leverage remained well within their historical range. Funding risks at domestic banks are low, but structural vulnerabilities persist at some money market funds, bond funds, and stablecoins.

Broad equity prices increased moderately since the middle of last year even as earning expectations fell as the economic outlook weakened. As a result, overall valuation pressures, as measured by the ratio of prices to expected earnings, ticked up. Spreads on corporate bonds declined moderately over the past six months and remain roughly in line with their historical median. The prices of several crypto-assets fell substantially after a widely publicized bankruptcy filing in November, but spillovers from crypto markets to the broader financial system were limited. Residential real estate valuations remain elevated despite the rise in mortgage rates and sharply decelerating real estate prices, as the increase in house prices over the past two years has substantially exceeded the increase in rents. Similarly, commercial real estate prices relative to the income associated with such properties remain high by historical standards. Indicators for market liquidity such as market depth, a measure of the availability of contracts to trade at best quoted prices, and price impact, a measure of how much prices move in response to large directional orders, remain low in several important markets—including the Treasury market—relative to pre-pandemic levels. However, market functioning remained orderly.

The total combined debt of households and nonfinancial businesses grew roughly in line with GDP, leaving the credit-to-GDP ratio roughly flat and close to its pre-pandemic level (figure A). Household balance sheets remained strong, with continued buffers of excess savings built up over 2020 and 2021 and sizable home equity cushions. Most of the increases in real household debt were accounted for by borrowers with prime credit scores, for whom delinquency rates remain low and stable. In contrast, some signs of increased stress have become apparent for households at the lower end of the income distribution as delinquency rates for near-prime and subprime borrowers have risen. Business leverage continues to be elevated by historical standards, but indicators of credit quality have remained solid and, thus far, the increase in interest rates has not weighted materially on the ability of businesses to service their debt.

(continued)

A. Private nonfinancial-sector credit-to-GDP ratio



NOTE: Data extend through 2022:Q3. The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research. GDP is gross domestic product.

SOURCE: Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States"; Bureau of Economic Analysis, national income and product accounts; Federal Reserve Board staff calculations.

Vulnerabilities from financial-sector leverage are roughly in line with historically average levels. Risk-based capital ratios at domestic bank holding companies declined last year, in part due to strong loan growth, but remain well above regulatory requirements. Moreover, even as rising interest rates have led to declines in the value of available-for-sale securities held on bank balance sheets, earnings and credit quality remain strong for banks. Leverage at certain nonbank financial institutions, including life insurers and hedge funds, has remained near historical highs. While data limitations and the complexity of hedge fund strategies can obscure the true nature of leverage in that sector, one common measure of hedge fund leverage, the ratio of gross notional exposure to equity capital, remained elevated in the third quarter of 2022—the most recent data available.

Funding risks at domestic banks and broker-dealers remain low. Liquidity coverage ratios indicate that large banks continue to have ample liquidity to meet severe deposit outflows. However, prime and tax-exempt money market funds, as well as certain other cash-investment vehicles, remain susceptible to runs. Many bond and bank-loan mutual funds continue to be vulnerable to large redemptions, because they hold assets that can become illiquid amid stress.

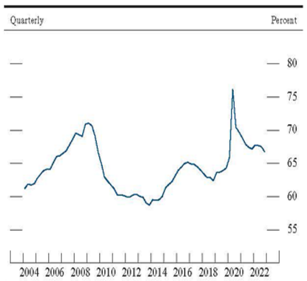
Near-term risks to financial stability are little changed. A recession would likely limit the ability of some households and firms to service their debt, potentially increasing delinquency rates. If a recession were to coincide with higher-than-expected inflation and interest rates, the strains on households, businesses, and the financial sector would be exacerbated. Moreover, low liquidity in some financial markets may amplify the volatility of asset prices, impair market functioning, and cause funding pressures at financial intermediaries. International developments such as Russia's continuing war against Ukraine or stresses in China could cause some strains in parts of the U.S. financial system. Finally, cyber risk in the financial system, defined as the risk of loss or operational disruptions relating to dependence on computer systems and digital technology, has increased over time and could impair the U.S. financial system.

near historical lows, likely in response to the continued increase in short-term rates and fund managers' uncertainty about the future path of interest rates. Both elevated AUM and short weighted average maturities at MMFs, as well as a limited supply of Treasury bills, have contributed to continuing elevated take-up at the Federal Reserve's overnight reverse repurchase agreement facility.

Bank credit continued to expand, but growth decelerated in the fourth quarter

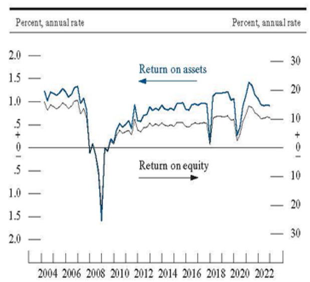
Total loans and leases outstanding at commercial banks have continued to expand since June, although the pace of growth has moderated in recent months (figure 38). Banks reported tighter standards and weaker demand for most loan categories over the third and fourth quarters of 2022 in the October and January Senior Loan Officer Opinion Surveys on Bank Lending Practices. Interest rates on bank loans increased through the second half of 2022, in line with the current tightening cycle. Bank profitability in the second half of 2022 remained robust overall, driven by strong net interest income, but revenues and earnings in the fourth quarter were generally weaker, particularly among banks with a greater share of income derived from investment banking activities (figure 39). Bank equity prices increased moderately, on net, in line with broader equity price indexes (figure 36). Delinquency rates on bank loans remained low in the fourth quarter of 2022 relative to historical averages. However, loan loss provisions have increased in recent quarters, consistent with banks' expectations for credit losses to increase in the future, and delinquency rates rose slightly last year for some loan types such as credit cards and auto loans.

38. Ratio of total commercial bank credit to nominal gross domestic product



SOURCE: Federal Reserve Board, Statistical Release H.8, "Assets and Liabilities of Commercial Banks in the United States"; Bureau of Economic Analysis via Haver Analytics.

39. Profitability of bank holding companies



NOTE: The data are quarterly.
SOURCE: Federal Reserve Board, Form FR Y-9C, Consolidated Financial Statements for Holding Companies.

International Developments

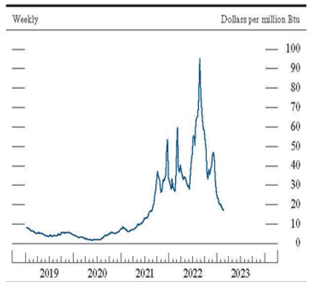
Economic activity abroad has softened . . .

Following solid growth early last year, foreign economic growth slowed, especially at the end of the year, weighed down by a COVID-related slowdown in China, the economic fallout of Russia's war against Ukraine, and tighter financial conditions. A stringent clampdown on COVID cases in the fall brought a marked deceleration in Chinese economic activity. In Europe, GDP growth stepped down notably in the second half of the year as high energy prices compressed real incomes and depressed confidence of households and businesses. In addition to tighter financial conditions, weaker global demand also damped activity in emerging market economies (EMEs), where exports have fallen notably.

More recently, however, economic indicators suggest that a recovery has started to take hold in China following the rapid abandonment of its zero-COVID policy. In Europe, economic activity, although still subdued, is proving more resilient than expected and is being supported by a sharp fall in natural gas prices to below their levels preceding the Russian invasion of Ukraine in 2022 (figure 40).

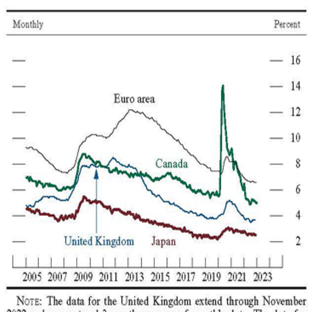
Despite softer activity in the second half of last year, labor markets remained strong in most advanced foreign economies (AFEs), with unemployment rates at or near decades lows (figure 41). As in the U.S., low jobless rates in part reflect continued high labor demand. Job vacancy rates in AFEs eased slightly in recent months but remain near historically high levels, pointing to continued difficulties in hiring. In addition, labor supply challenges in some foreign economies have contributed to tight labor market conditions. For example, the labor force participation rate in the U.K. has not risen back to its pre-pandemic level, reflecting the slow ongoing recovery from a broad range of pandemic-related factors, including long-term

40. European Union natural gas prices



NOTE: The data are weekly averages of daily data and extend through February 24, 2023.
SOURCE: ICE Dutch TTF Futures via Haver Analytics.

41. Unemployment rate in selected advanced foreign economies



NOTE: The data for the United Kingdom extend through November 2022 and are centered 3-month averages of monthly data. The data for the euro area and Japan extend through December 2022.
SOURCE: For the United Kingdom, Office for National Statistics; for Japan, Ministry of Health, Labour and Welfare; for the euro area, Statistical Office of the European Communities; for Canada, Statistics Canada; all via Haver Analytics.

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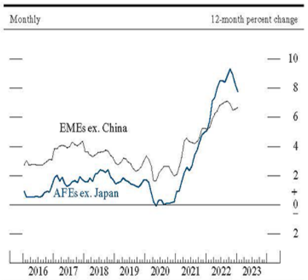
sickness and early retirements. In Canada, reduced immigration flows at the onset of the pandemic and an aging population have contributed to slower labor force growth in recent years.

Global supply chains continued to normalize over the latter half of 2022, helped by the slowdown in foreign economic growth. Transportation and production bottlenecks continued to abate amid weakening demand for goods. Recent data suggest that congestion at U.S. ports has broadly decreased. Container spot prices have declined sharply, especially for shipping from China to the West Coast. Both air cargo and ocean cargo transit times from Asia to North America have declined from their early 2022 peaks.

42. Consumer price inflation in foreign economies



NOTE: The advanced foreign economy (AFE) aggregate is the average of Canada, the euro area, and the United Kingdom, weighted by shares of U.S. non-oil goods imports. The emerging market economy (EME) aggregate is the average of Argentina, Brazil, Chile, Colombia, Hong Kong, India, Indonesia, Israel, Malaysia, Mexico, Philippines, Russia, Saudi Arabia, Singapore, South Korea, Taiwan, Thailand, and Vietnam, weighted by shares of U.S. non-oil goods imports. The inflation measure is the Harmonised Index of Consumer Prices for the euro area and the consumer price index for other economies.

SOURCE: Haver Analytics.

. . . and foreign inflationary pressures have broadened . . .

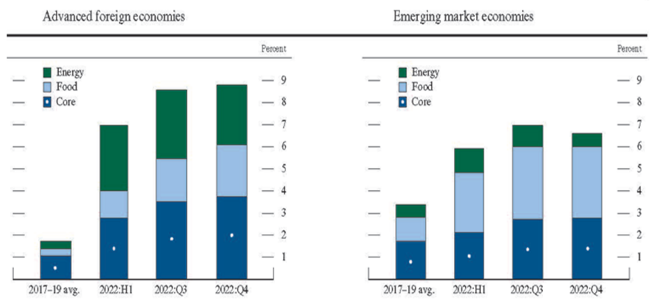
Foreign headline inflation abroad has started falling as effects of earlier commodity price increases have waned, though the decline so far has been less pronounced than in the U.S. (figure 42). Energy inflation has moderated in foreign economies, but food inflation remained strong through year-end (figure 43).

While headline inflation has begun easing, core inflation has been running firmly above its pre-COVID average in the second half of 2022. Pass-through from past energy price increases into other prices, robust wage growth stemming from tight labor markets, and past exchange rate depreciation in some economies have all contributed to elevated core inflation abroad. Core goods inflation has begun moderating, helped by fewer supply bottlenecks and a rebalancing of consumption away from goods. Services inflation, however, remains persistent.

. . . leading many foreign central banks to continue tightening monetary policy

In response to persistent inflationary pressures, foreign central banks—especially those in AFEs—raised policy rates expeditiously. Some also started reducing, or laid out plans to reduce, the size of their balance sheets. In

43. Foreign consumer price inflation components



NOTE: The advanced foreign economy (AFE) aggregate is the average of Canada, the euro area, and the United Kingdom, weighted by shares of U.S. non-oil goods imports. The emerging market economy (EME) aggregate is the average of Argentina, Brazil, Chile, Colombia, Hong Kong, India, Indonesia, Israel, Malaysia, Mexico, Philippines, Russia, Saudi Arabia, Singapore, South Korea, Taiwan, Thailand, and Vietnam, weighted by shares of U.S. non-oil goods imports. The inflation measure is the Harmonised Index of Consumer Prices for the euro area and the consumer price index for other economies. The key identifies bars in order from top to bottom. The data show percent changes from year-ago levels.
SOURCE: Haver Analytics.

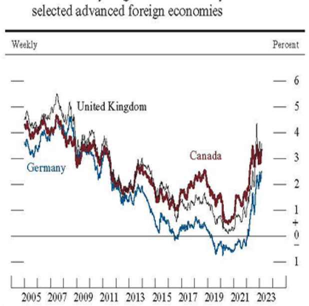
light of the cumulative increase in policy rates and signs that inflation is easing, many foreign central banks have in recent months slowed the pace of their policy rate increases, signaled that such a slowing is coming, or paused policy rate hikes to take stock of the effects of policy tightening thus far on their economies. Even so, most foreign central banks have communicated that they would maintain sufficiently restrictive policy stances to lower inflation to target.

The European Central Bank has communicated its intention to continue raising its policy rate, citing strong underlying price pressures, while the Bank of England has signaled additional tightening will be warranted if inflationary pressures, especially from the labor market, prove more persistent than anticipated. Both these central banks have indicated that future policy decisions depend on realized progress toward their inflation goals. In January, the Bank of Canada conveyed that it was pausing policy rate hikes to assess the effect of the cumulative rise in interest rates on inflation and the economy. That said, the Bank of Canada also warned that it stood ready to raise its policy rate further if needed to lower inflation to its 2 percent target. In contrast to other foreign central banks, and notwithstanding a widening of the trading band on 10-year Japanese government bond yields, the Bank of Japan reaffirmed that it intends to maintain accommodative monetary conditions "as long as it is necessary" to achieve its 2 percent inflation target, including by conducting further asset purchases.

Within EMEs, the Central Bank of Brazil has left its policy rate unchanged since the middle of 2022 but recently indicated that it will resume tightening the stance of policy if reductions in inflation do not progress as expected. Other EME central banks, including the Bank of Mexico and Reserve Bank of India, have conveyed the possibility of further rate increases given still-elevated core inflation.

The synchronous nature of the recent increases in global interest rates has raised concerns about possible adverse international spillovers of tighter monetary policy. Simulations from global macroeconomic models suggest that U.S. monetary policy actions can produce notable spillovers abroad, especially given the dollar's dominant role in international trade and finance. Spillovers from foreign economies' policy actions to the U.S. can be sizable as well, particularly when many central banks tighten policy simultaneously.[13]

44. Nominal 10-year government bond yields in selected advanced foreign economies



NOTE: The data are weekly averages of daily benchmark yields and extend through February 24, 2023.
SOURCE: Bloomberg.

Financial conditions abroad have tightened

Since the middle of last year, market-based measures of monetary policy expectations and sovereign bond yields have moved significantly higher in many AFEs (figure 44). The rise in sovereign bond yields reflects rapid tightening in monetary policy and spillovers from higher U.S. yields. Fiscal announcements in the U.K. in late September drove significant global bond market volatility and yield increases, although

13. For a discussion of these spillovers, their channels of transmission, and their likely effects on growth, see Dario Caldara, Francesco Ferrante, and Albert Queralto (2022), "International Spillovers of Tighter Monetary Policy," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, December 22), https://doi.org/10.17016/2380-7172.3238.

these moves largely retraced following changes in government policy plans. The Bank of Japan widened the trading band of its yield curve control policy framework, allowing Japanese 10-year interest rates to rise and leading Japanese yields across the curve to rise. Euro-area yields rose amid communications from the European Central Bank that were perceived as more restrictive than expected.

After declining over the first half of last year, prices of foreign risky assets turned higher toward the end of the year. Foreign equity indexes increased across major economies, buoyed by moderation in U.S. and European inflation readings and by recent economic developments that suggest improved growth prospects in China and Europe (figure 45). In addition, equities abroad were supported by China's shift away from its zero-COVID policy, which led to improved sentiment regarding China's medium-term growth prospects. Financial conditions in EMEs have improved since year-end. Outflows from EME-focused investment funds, which had been slowing toward the end of last year, turned to inflows this year, while EME sovereign spreads are little changed.

The broad dollar index—a measure of the trade-weighted value of the dollar against foreign currencies—continued to rise over the summer and through the beginning of the fourth quarter but, more recently, has largely reversed those increases (figure 46). Widening yield differentials between the U.S. and the rest of the world and concerns around foreign growth pushed the dollar higher through October of last year, prompting several central banks, especially in Asia, to intervene in foreign exchange markets to support their currencies. Since peaking in October, the dollar has largely retraced those gains, reflecting softer inflation data in the U.S., tighter monetary policy abroad, and better prospects for foreign economic growth. Still, the broad dollar index remains stronger than it was in early 2021. After reaching multidecade lows against the dollar in October, the Japanese yen rebounded following the adjustment of the Bank of Japan's yield curve control policy.

45. Equity indexes for selected foreign economies

NOTE: The data are weekly averages of daily data and extend through February 24, 2023.
SOURCE: For the euro area, Dow Jones Euro Stoxx Index; for Japan, Tokyo Stock Price Index; for China, Shanghai Composite Index; all via Bloomberg. (For Dow Jones Indices licensing information, see the note on the Contents page.)

46. U.S. dollar exchange rate index

NOTE: The data, which are in foreign currency units per dollar, are weekly averages of daily values of the broad dollar index. The data extend through February 24, 2023. As indicated by the leftmost arrow, increases in the data reflect U.S. dollar appreciation and decreases reflect U.S. dollar depreciation.
SOURCE: Federal Reserve Board, Statistical Release H.10, "Foreign Exchange Rates."

Part 2
Monetary Policy

The Federal Open Market Committee continued to increase the federal funds rate . . .

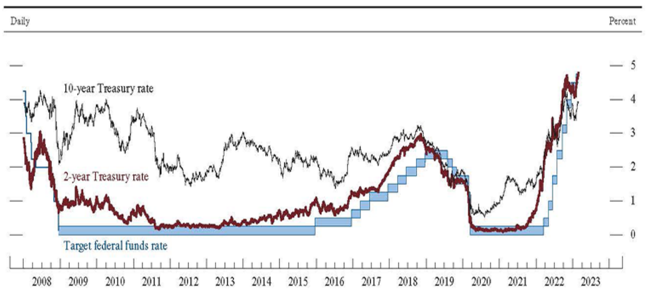
With inflation still well above the Federal Open Market Committee's (FOMC) 2 percent objective and with labor market conditions remaining tight, the Committee continued to swiftly raise the target range for the federal funds rate. Since June, the Committee raised the target range by 3 percentage points, from 1½ to 1¾ percent to 4½ to 4¾ percent (figure 47). In light of the cumulative tightening of monetary policy and the lags with which monetary policy affects economic activity and inflation, after having increased the federal funds rate by 75 basis points at its meetings in June, July, September, and November, the Committee slowed the pace of policy firming at its December and January meetings to 50 basis points and 25 basis points, respectively. The Committee indicated that it anticipates that ongoing increases in the target range will be appropriate in order to attain a stance of monetary policy that is sufficiently restrictive to return inflation to 2 percent over time.

. . . and has continued the process of significantly reducing its holdings of Treasury and agency securities

The Committee has continued to implement its plan for significantly reducing the size of the Federal Reserve's balance sheet in a predictable manner.[14] Beginning in June, principal payments from securities held in the System Open Market Account (SOMA) have been reinvested only to the extent that they exceeded monthly caps. For Treasury securities, the cap was initially set at $30 billion per month and, in September, was increased to $60 billion per month. For agency debt and agency mortgage-backed securities, the cap was initially set at $17.5 billion per month and, in September, was increased to $35 billion per month. As a result of these actions, holdings of Treasury and agency securities in the SOMA have declined

14. See the May 4, 2022, press release regarding the Plans for Reducing the Size of the Federal Reserve's Balance Sheet, available on the Board's website at https://www.federalreserve.gov/newsevents/pressreleases/monetary20220504b.htm.

47. Selected interest rates



Note: The 2-year and 10-year Treasury rates are the constant-maturity yields based on the most actively traded securities.
Source: Department of the Treasury; Federal Reserve Board.

by about $500 billion to around $8 trillion, or 31 percent of U.S. nominal gross domestic product, since the process to reduce securities holdings began (figure 48). Reserve balances have fallen by about $200 billion to around $3 trillion over that period. (See the box "Developments in the Federal Reserve's Balance Sheet and Money Markets.")

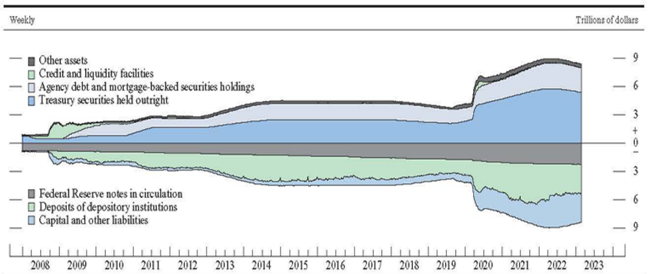
The Committee has stated that it intends to maintain securities holdings in amounts needed to implement monetary policy efficiently and effectively in its ample-reserves regime. To ensure a smooth transition, the Committee intends to slow and then stop reductions in its securities holdings when reserve balances are somewhat above the level the Committee judges to be consistent with ample reserves. Once balance sheet runoff has ceased, reserve balances will likely continue to decline at a slower pace—reflecting growth in other Federal Reserve liabilities—until the Committee judges that reserve balances are at the level required for implementing policy efficiently and effectively in its ample-reserves regime.

The FOMC will continue to monitor the implications of incoming information for the economic outlook

The FOMC is strongly committed to returning inflation to its 2 percent objective. In assessing the appropriate stance of monetary policy, the Committee will continue to monitor the implications of incoming information for the economic outlook. The Committee's assessments will take into account a wide range of information, including readings on labor market conditions, inflation pressures and inflation expectations, and financial and international developments. The Committee has noted that it is also prepared to adjust any of the details of its approach to reducing the size of the balance sheet in light of economic and financial developments.

In addition to considering a wide range of economic and financial data, the Committee gathers information from business contacts and other informed parties around the country, as summarized in the Beige Book. To hear from a broad range of stakeholders in

48. Federal Reserve assets and liabilities



NOTE: "Other assets" includes repurchase agreements, FIMA (Foreign and International Monetary Authorities) repurchase agreements, and unamortized premiums and discounts on securities held outright. "Credit and liquidity facilities" consists of primary, secondary, and seasonal credit; term auction credit; central bank liquidity swaps; support for Maiden Lane, Bear Stearns Companies, Inc., and AIG; and other credit and liquidity facilities, including the Primary Dealer Credit Facility, the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility, the Commercial Paper Funding Facility, the Term Asset-Backed Securities Loan Facility, the Primary and Secondary Market Corporate Credit Facilities, the Paycheck Protection Program Liquidity Facility, the Municipal Liquidity Facility, and the Main Street Lending Program. "Agency debt and mortgage-backed securities holdings" includes agency residential mortgage-backed securities and agency commercial mortgage-backed securities. "Capital and other liabilities" includes reverse repurchase agreements, the U.S. Treasury General Account, and the U.S. Treasury Supplementary Financing Account. The key identifies shaded areas in order from top to bottom. The data extend through February 22, 2023.
SOURCE: Federal Reserve Board, Statistical Release H.4.1, "Factors Affecting Reserve Balances."

the U.S. economy about how monetary policy affects people's daily lives and livelihoods, the Federal Reserve has continued to gather insights through the *Fed Listens* initiative and the Federal Reserve System's community development outreach. Policymakers also routinely consult prescriptions for the policy interest rate provided by various monetary policy rules. These rule prescriptions can provide useful benchmarks for the FOMC. Although simple rules cannot capture all of the complexities of monetary policy, and many practical considerations make it undesirable for the FOMC to adhere strictly to the prescriptions of any specific rule, some principles of good monetary policy can be illustrated by these policy rules (see the box "Monetary Policy Rules in the Current Environment").

Developments in the Federal Reserve's Balance Sheet and Money Markets

The Federal Open Market Committee (FOMC) began to significantly reduce the size of the Federal Reserve's balance sheet in June 2022. Since that time, total assets have decreased by $550 billion, leaving the total size of the balance sheet at about $8.4 trillion (figures A and B). This discussion reviews recent developments in the Federal Reserve's balance sheet and money market conditions.

Reserve balances—the largest liability on the Federal Reserve's balance sheet—have declined by about $200 billion since June 2022 (figure C).[1] The ongoing reduction in the Federal Reserve's securities holdings would reduce the level of reserve balances one-for-one, if all other balance sheet items stayed constant.

After fluctuating around $2.2 trillion over the second half of 2022, usage at the overnight reverse repurchase agreement (ON RRP) facility increased toward year-end and reached a record high of $2.55 trillion on December 30. Since early January, ON RRP take-up has declined to about $2.1 trillion at the time of this report. Low rates on private money market instruments—reflecting still abundant liquidity in the banking system and limited Treasury bill supply—have contributed to the overall high level of take-up. In addition, uncertainty about the economic outlook—and, as a result, about the magnitude and pace of policy rate increases—continued to contribute to a preference for short-duration assets, like those provided by the ON RRP facility.

(continued)

1. Reserve balances consist of deposits held at Federal Reserve Banks by depository institutions, such as commercial banks, savings banks, credit unions, thrift institutions, and U.S. branches and agencies of foreign banks. Reserve balances allow depository institutions to facilitate daily payment flows, both in ordinary times and in stress scenarios, without borrowing funds or selling assets.

A. Balance sheet comparison

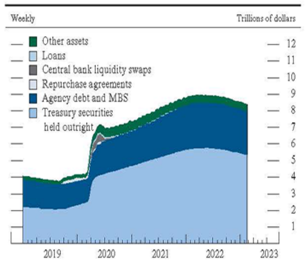
Billions of dollars

	February 22, 2023	June 15, 2022	Change
Assets			
Total securities			
Treasury securities	5,364	5,763	-399
Agency debt and MBS	2,623	2,730	-107
Net unamortized premiums	308	336	-28
Repurchase agreements	0	0	0
Loans and lending facilities			
PPPLF	11	19	-8
Other loans and lending facilities	34	38	-4
Central bank liquidity swaps	0	0	0
Other assets	41	47	-6
Total assets	**8,382**	**8,932**	**-550**
Liabilities			
Federal Reserve notes	2,252	2,227	25
Reserves held by depository institutions	2,984	3,190	-206
Reverse repurchase agreements			
Foreign official and international accounts	358	259	99
Others	2,114	2,163	-49
U.S. Treasury General Account	451	770	-319
Other deposits	193	258	-65
Other liabilities and capital	32	66	-34
Total liabilities and capital	**8,382**	**8,932**	**-550**

NOTE: MBS is mortgage-backed securities. PPPLF is Paycheck Protection Program Liquidity Facility.

SOURCE: Federal Reserve Board, Statistical Release H.4.1, "Factors Affecting Reserve Balances."

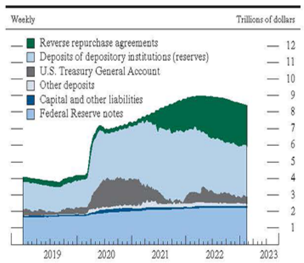
B. Federal Reserve assets



NOTE: MBS is mortgage-backed securities. The key identifies shaded areas in order from top to bottom. The data extend through February 22, 2023.

SOURCE: Federal Reserve Board, Statistical Release H.4.1, "Factors Affecting Reserve Balances."

C. Federal Reserve liabilities



NOTE: "Capital and other liabilities" includes Treasury contributions. The key identifies shaded areas in order from top to bottom. The data extend through February 22, 2023.

SOURCE: Federal Reserve Board, Statistical Release H.4.1, "Factors Affecting Reserve Balances."

The ON RRP facility is intended to help keep the effective federal funds rate from falling below the target range set by the FOMC, as institutions with access to the ON RRP should be unwilling to lend funds below the ON RRP's offering rate. The facility continued to serve this intended purpose, and the Federal Reserve's administered rates—interest on reserve balances and the ON RRP offering rate—were highly effective at maintaining the effective federal funds rate within the target range as the FOMC has tightened the stance of monetary policy since last March.

The Federal Reserve System had an estimated consolidated net income of about $58 billion over 2022. Given the significant increases in policy rates in response to sustained inflation pressures, the Federal Reserve's interest expenses have risen considerably, and, as a result, net income turned negative in September.[2] Because the Federal Reserve no longer has positive net income to remit to the Treasury Department, as of February 2023, the Federal Reserve's balance sheet now reports a deferred asset of about $36 billion. The deferred asset is equal to the cumulative shortfall of net income and represents the amount of future net income that will need to be realized before remittances to the Treasury resume.[3] Although remittances are suspended at the time of this report, over the past decade and a half, the Federal Reserve has remitted over $1 trillion to the Treasury. Net income is expected to again turn positive as interest expenses fall, and remittances will resume once the temporary deferred asset falls to zero.[4] Negative net income and the associated deferred asset do not affect the Federal Reserve's conduct of monetary policy or its ability to meet its financial obligations.

2. The ongoing monetary tightening also reduces the market value of the Federal Reserve's securities holdings by putting upward pressure on longer-term market interest rates. The System Open Market Account (SOMA) portfolio was in an estimated unrealized loss position of about $1.1 trillion as of September 2022. Under the current May 2022 Plans for Reducing the Size of the Federal Reserve's Balance Sheet, unrealized gains or losses will not flow through to the Federal Reserve's net income, as SOMA securities will be held until maturity. An individual security's market value converges to its face value as it approaches maturity, and, so long as the security is held until that time, any gains or losses due to interest rate fluctuations remain unrealized. Further information on the topics of the Federal Reserve's income and the SOMA portfolio's unrealized position is available in two FEDS Notes articles. For a discussion of concepts related to net income and the SOMA portfolio's unrealized position, see Alyssa Anderson, Dave Na, Bernd Schlusche, and Zeynep Senyuz (2022), "An Analysis of the Interest Rate Risk of the Federal Reserve's Balance Sheet, Part 1: Background and Historical Perspective," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, July 15), https://doi.org/10.17016/2380-7172.3173; and for illustrative projections of the Federal Reserve's balance sheet and income under a wide range of potential interest rate paths, see Alyssa Anderson, Philippa Marks, Dave Na, Bernd Schlusche, and Zeynep Senyuz (2022), "An Analysis of the Interest Rate Risk of the Federal Reserve's Balance Sheet, Part 2: Projections under Alternative Interest Rate Paths," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, July 15), https://doi.org/10.17016/2380-7172.3174.

3. Because of variation in the timing and magnitude of payments for expenditures, interest income, and interest expense, individual Reserve Banks may have positive earnings while Systemwide net income is negative. As net income is remitted on a weekly basis at the Reserve Bank level, individual Reserve Banks may occasionally remit small amounts of positive earnings to the Treasury while the Systemwide deferred asset grows.

4. As a result of the ongoing reduction in the size of the Federal Reserve's balance sheet, it is expected that interest expenses will fall over time as they are tied to a smaller total amount of liabilities.

Monetary Policy Rules in the Current Environment

Simple interest rate rules relate a policy interest rate, such as the federal funds rate, to a small number of other economic variables—typically including the current deviation of inflation from its target value and a measure of resource slack in the economy. Policymakers consult policy rate prescriptions derived from a variety of policy rules as part of their monetary policy deliberations without mechanically following the prescriptions of any particular rule.

Since 2021, inflation has run well above the Committee's 2 percent longer-run objective, and labor market conditions have been very tight over the past year. Reflecting these developments, the simple monetary policy rules considered in this discussion have called for levels of the federal funds rate well above those observed over the past decade. Also because of the persistently high levels of inflation, the Federal Open Market Committee (FOMC) has expeditiously raised the target range for the federal funds rate and has reduced its holdings of Treasury securities and agency debt and agency mortgage-backed securities at a historically rapid pace.

Selected Policy Rules: Descriptions

In many economic models, desirable economic outcomes can be achieved if monetary policy responds in a predictable way to changes in economic conditions. In recognition of this idea, economists have analyzed many monetary policy rules, including the well-known Taylor (1993) rule, the "balanced approach" rule, the "adjusted Taylor (1993)" rule, and the "first difference" rule.[1] Figure A shows these rules, along with a "balanced-approach (shortfalls)" rule, which represents one simple way to illustrate the Committee's focus on shortfalls from maximum employment.[2] All of these simple rules shown embody key design principles of good monetary policy, including that the policy rate should be adjusted forcefully enough over time to ensure a return of inflation to the central bank's longer-run objective and to anchor longer-term inflation expectations at levels consistent with that objective.

All five rules feature the difference between inflation and the FOMC's longer-run objective of 2 percent. The five rules use the unemployment rate gap, measured as the difference between an estimate of the rate of unemployment in the longer run (u_t^{LR}) and the current unemployment rate; the first-difference rule includes the change in the unemployment rate gap rather than its level.[3] All but the first-difference rule include an

(continued)

1. The Taylor (1993) rule was introduced in John B. Taylor (1993), "Discretion versus Policy Rules in Practice," Carnegie-Rochester Conference Series on Public Policy, vol. 39 (December), pp. 195–214. The balanced-approach rule was analyzed in John B. Taylor (1999), "A Historical Analysis of Monetary Policy Rules," in John B. Taylor, ed., *Monetary Policy Rules* (Chicago: University of Chicago Press), pp. 319–41. The adjusted Taylor (1993) rule was studied in David Reifschneider and John C. Williams (2000), "Three Lessons for Monetary Policy in a Low-Inflation Era," *Journal of Money, Credit and Banking,* vol. 32 (November), pp. 936–66. The first-difference rule is based on a rule suggested by Athanasios Orphanides (2003), "Historical Monetary Policy Analysis and the Taylor Rule," *Journal of Monetary Economics*, vol. 50 (July), pp. 983–1022. A review of policy rules is in John B. Taylor and John C. Williams (2011), "Simple and Robust Rules for Monetary Policy," in Benjamin M. Friedman and Michael Woodford, eds., *Handbook of Monetary Economics*, vol. 3B (Amsterdam: North-Holland), pp. 829–59. The same volume of the *Handbook of Monetary Economics* also discusses approaches other than policy rules for deriving policy rate prescriptions.

2. Since August 2020, the FOMC's Statement on Longer-Run Goals and Monetary Policy Strategy has referred to "shortfalls of employment" from the Committee's assessment of its maximum level rather than the "deviations of employment" used in the previous statement. The balanced-approach (shortfalls) rule reflects this change by responding asymmetrically to unemployment rates above or below their estimated longer-run value: When unemployment is above that value, the policy rates are identical to those prescribed by the balanced-approach rule, whereas when unemployment is below that value, policy rates do not rise because of further declines in the unemployment rate. As a result, the prescription of the balanced-approach (shortfalls) rule in 2022:Q4 is more accommodative than that of the balanced-approach rule.

3. Implementations of simple rules often use the output gap as a measure of resource slack in the economy. The rules described in figure A instead use the unemployment rate gap because that gap better captures the FOMC's statutory goal to promote maximum employment. Movements in these alternative measures of resource utilization tend to be highly correlated. For more information, see the note below figure A.

A. Monetary policy rules

Taylor (1993) rule	$R_t^{T93} = r_t^{LR} + \pi_t + 0.5(\pi_t - \pi^{LR}) + (u_t^{LR} - u_t)$
Balanced-approach rule	$R_t^{BA} = r_t^{LR} + \pi_t + 0.5(\pi_t - \pi^{LR}) + 2(u_t^{LR} - u_t)$
Balanced-approach (shortfalls) rule	$R_t^{BAS} = r_t^{LR} + \pi_t + 0.5(\pi_t - \pi^{LR}) + 2min\{(u_t^{LR} - u_t), 0\}$
Adjusted Taylor (1993) rule	$R_t^{T93adj} = max\{R_t^{T93} - Z_t, \text{ELB}\}$
First-difference rule	$R_t^{FD} = R_{t-1} + 0.5(\pi_t - \pi^{LR}) + (u_t^{LR} - u_t) - (u_{t-4}^{LR} - u_{t-4})$

NOTE: R_t^{T93}, R_t^{BA}, R_t^{BAS}, R_t^{T93adj}, and R_t^{FD} represent the values of the nominal federal funds rate prescribed by the Taylor (1993), balanced-approach, balanced-approach (shortfalls), adjusted Taylor (1993), and first-difference rules, respectively.

R_{t-1} denotes the midpoint of the target range for the federal funds rate for quarter $t-1$, u_t is the unemployment rate in quarter t, and r_t^{LR} is the level of the neutral real federal funds rate in the longer run that is expected to be consistent with sustaining maximum employment and inflation at the FOMC's 2 percent longer-run objective, represented by π^{LR}. π_t denotes the realized four-quarter price inflation for quarter t. In addition, u_t^{LR} is the rate of unemployment expected in the longer run. Z_t is the cumulative sum of past deviations of the federal funds rate from the prescriptions of the Taylor (1993) rule when that rule prescribes setting the federal funds rate below an effective lower bound of 12.5 basis points.

The Taylor (1993) rule and other policy rules generally respond to the deviation of real output from its full capacity level. In these equations, the output gap has been replaced with the gap between the rate of unemployment in the longer run and its actual level (using a relationship known as Okun's law) to represent the rules in terms of the unemployment rate. The rules are implemented as responding to core PCE inflation rather than to headline PCE inflation because current and near-term core inflation rates tend to outperform headline inflation rates as predictors of the medium-term behavior of headline inflation.

estimate of the neutral real interest rate in the longer run (r_t^{LR}).[4]

Unlike the other simple rules featured here, the adjusted Taylor (1993) rule recognizes that the federal funds rate cannot be reduced materially below the effective lower bound. To make up for the cumulative shortfall in policy accommodation following a recession during which the federal funds rate is constrained by its effective lower bound, the adjusted Taylor (1993) rule prescribes delaying the return of the policy rate to the (positive) levels prescribed by the standard Taylor (1993) rule until after the economy begins to recover.

4. The neutral real interest rate in the longer run (r_t^{LR}) is the level of the real federal funds rate that is expected to be consistent, in the longer run, with maximum employment and stable inflation. Like u_t^{LR}, r_t^{LR} is determined largely by nonmonetary factors. The first-difference rule shown in figure A does not require an estimate of r_t^{LR}, a feature that is touted by proponents of such rules as providing an element of robustness. However, this rule has its own shortcomings. For example, research suggests that this sort of rule often results in greater volatility in employment and inflation relative to what would be obtained under the Taylor (1993) and balanced-approach rules.

Policy Rules: Limitations

Simple policy rules are also subject to important limitations. One important limitation is that simple policy rules were designed and tested under very different economic conditions than those faced at present. In addition, the simple policy rules respond to only a small set of economic variables and thus necessarily abstract from many of the factors that the FOMC considers when it assesses the appropriate setting of the policy rate. Another important limitation is that most simple policy rules do not take into account the effective lower bound on interest rates, which limits the extent to which the policy rate can be lowered to support the economy. This constraint was particularly evident during the pandemic-driven recession, when the lower bound on the policy rate motivated the FOMC's other policy actions to

(continued on next page)

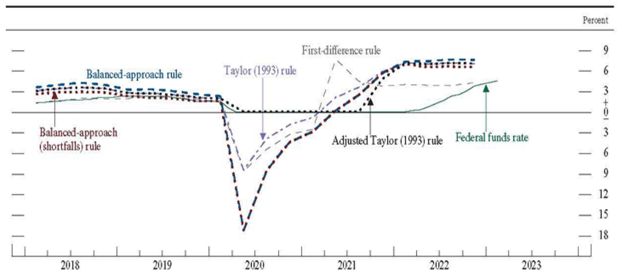
Monetary Policy Rules in the Current Environment *(continued)*

support the economy. Relatedly, another limitation is that simple policy rules do not take into account the other tools of monetary policy, such as balance sheet policies. Finally, simple policy rules generally abstract from the risk-management considerations associated with uncertainty about economic relationships and the evolution of the economy.

Selected Policy Rules: Prescriptions

Figure B shows historical prescriptions for the federal funds rate under the five simple rules considered. For each quarterly period, the figure reports the policy rates prescribed by the rules, taking as given the prevailing economic conditions and survey-based estimates of u_t^{LR} and r_t^{LR} at the time. All of the rules considered called for a highly accommodative stance for monetary policy in response to the pandemic-driven recession, followed by values above the effective lower bound as inflation picked up and labor market conditions strengthened. For most of 2022, the prescriptions for the federal funds rate were between 4 and 8 percent; these values are well above the levels observed before the pandemic and reflect, in large part, elevated inflation readings. Throughout 2021 and 2022, the target range for the federal funds rate was below the prescriptions of most of the simple rules, though that gap has narrowed considerably as the FOMC has expeditiously tightened the stance of monetary policy and inflation has begun to moderate.

B. Historical federal funds rate prescriptions from simple policy rules



NOTE: The rules use historical values of core personal consumption expenditures inflation, the unemployment rate, and, where applicable, historical values of the midpoint of the target range for the federal funds rate. Quarterly projections of longer-run values for the federal funds rate and the unemployment rate used in the computation of the rules' prescriptions are derived through interpolations of biannual projections from Blue Chip Economic Indicators. The longer-run value for inflation is set to 2 percent. The rules prescriptions are quarterly, and the federal funds rate data are the monthly average of the daily midpoint of the target range for the federal funds rate and extend through February 2023.

SOURCE: Federal Reserve Bank of Philadelphia; Wolters Kluwer, Blue Chip Economic Indicators; Federal Reserve Board staff estimates.

Part 3
Summary of Economic Projections

The following material was released after the conclusion of the December 13–14, 2022, meeting of the Federal Open Market Committee.

In conjunction with the Federal Open Market Committee (FOMC) meeting held on December 13–14, 2022, meeting participants submitted their projections of the most likely outcomes for real gross domestic product (GDP) growth, the unemployment rate, and inflation for each year from 2022 to 2025 and over the longer run. Each participant's projections were based on information available at the time of the meeting, together with her or his assessment of appropriate monetary policy—including a path for the federal funds rate and its longer-run value—and assumptions about other factors likely to affect economic outcomes. The longer-run projections represent each participant's assessment of the value to which each variable would be expected to converge, over time, under appropriate monetary policy and in the absence of further shocks to the economy. "Appropriate monetary policy" is defined as the future path of policy that each participant deems most likely to foster outcomes for economic activity and inflation that best satisfy his or her individual interpretation of the statutory mandate to promote maximum employment and price stability.

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assumptions of projected appropriate monetary policy, December 2022

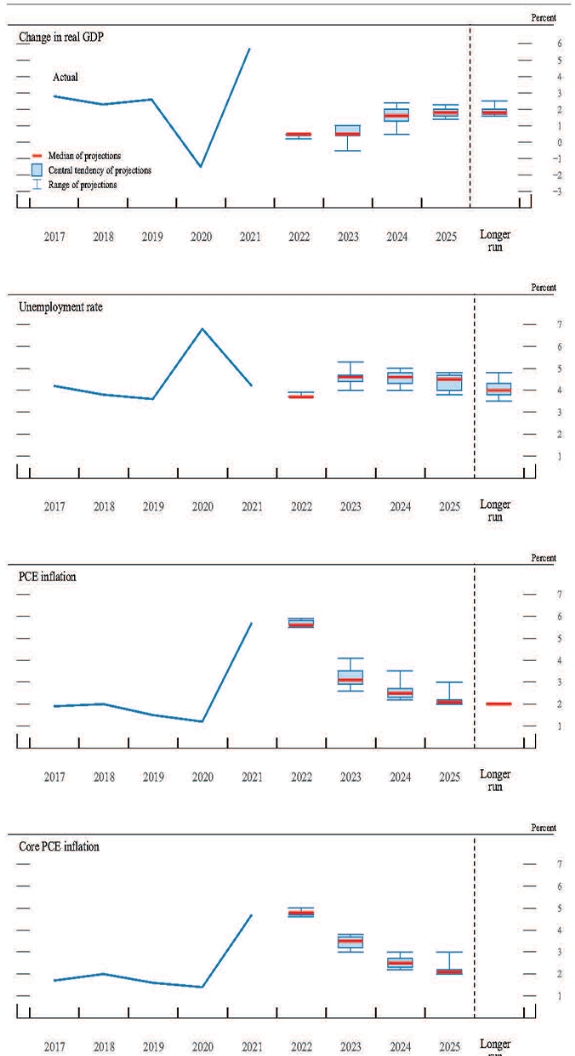
Percent

Variable	Median[1]					Central tendency[2]					Range[3]				
	2022	2023	2024	2025	Longer run	2022	2023	2024	2025	Longer run	2022	2023	2024	2025	Longer run
Change in real GDP	0.5	0.5	1.6	1.8	1.8	0.4–0.5	0.4–1.0	1.3–2.0	1.6–2.0	1.7–2.0	0.2–0.5	-0.5–1.0	0.5–2.4	1.4–2.3	1.6–2.5
September projection	0.2	1.2	1.7	1.8	1.8	0.1–0.3	0.5–1.5	1.4–2.0	1.6–2.0	1.7–2.0	0.0–0.5	-0.3–1.9	1.0–2.6	1.4–2.4	1.6–2.2
Unemployment rate	3.7	4.6	4.6	4.5	4.0	3.7	4.4–4.7	4.3–4.8	4.0–4.7	3.8–4.3	3.7–3.9	4.0–5.3	4.0–5.0	3.8–4.8	3.5–4.8
September projection	3.8	4.4	4.4	4.3	4.0	3.8–3.9	4.1–4.5	4.0–4.6	4.0–4.5	3.8–4.3	3.7–4.0	3.7–5.0	3.7–4.7	3.7–4.6	3.5–4.5
PCE inflation	5.6	3.1	2.5	2.1	2.0	5.6–5.8	2.9–3.5	2.3–2.7	2.0–2.2	2.0	5.5–5.9	2.6–4.1	2.2–3.5	2.0–3.0	2.0
September projection	5.4	2.8	2.3	2.0	2.0	5.3–5.7	2.6–3.5	2.1–2.6	2.0–2.2	2.0	5.0–6.2	2.4–4.1	2.0–3.0	2.0–2.5	2.0
Core PCE inflation[4]	4.8	3.5	2.5	2.1		4.7–4.8	3.2–3.7	2.3–2.7	2.0–2.2		4.6–5.0	3.0–3.8	2.2–3.0	2.0–3.0	
September projection	4.5	3.1	2.3	2.1		4.4–4.6	3.0–3.4	2.2–2.5	2.0–2.2		4.3–4.8	2.8–3.5	2.0–2.8	2.0–2.5	
Memo: Projected appropriate policy path															
Federal funds rate	4.4	5.1	4.1	3.1	2.5	4.4	5.1–5.4	3.9–4.9	2.6–3.9	2.3–2.5	4.4	4.9–5.6	3.1–5.6	2.4–5.6	2.3–3.3
September projection	4.4	4.6	3.9	2.9	2.5	4.1–4.4	4.4–4.9	3.4–4.4	2.4–3.4	2.3–2.5	3.9–4.6	3.9–4.9	2.6–4.6	2.4–4.6	2.3–3.0

Note: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are percent changes from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy. Longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy. The projections for the federal funds rate are the value of the midpoint of the projected appropriate target range for the federal funds rate or the projected appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run. The September projections were made in conjunction with the meeting of the Federal Open Market Committee on September 20-21, 2022. One participant did not submit longer-run projections for the change in real GDP, the unemployment rate, or the federal funds rate in conjunction with the September 20-21, 2022, meeting, and one participant did not submit such projections in conjunction with the December 13–14, 2022, meeting.

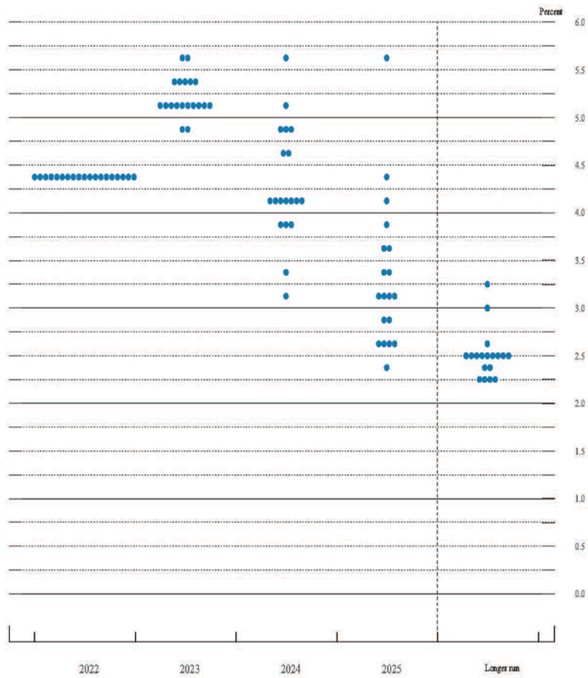
1. For each period, the median is the middle projection when the projections are arranged from lowest to highest. When the number of projections is even, the median is the average of the two middle projections.
2. The central tendency excludes the three highest and three lowest projections for each variable in each year.
3. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.
4. Longer-run projections for core PCE inflation are not collected.

Figure 1. Medians, central tendencies, and ranges of economic projections, 2022–25 and over the longer run



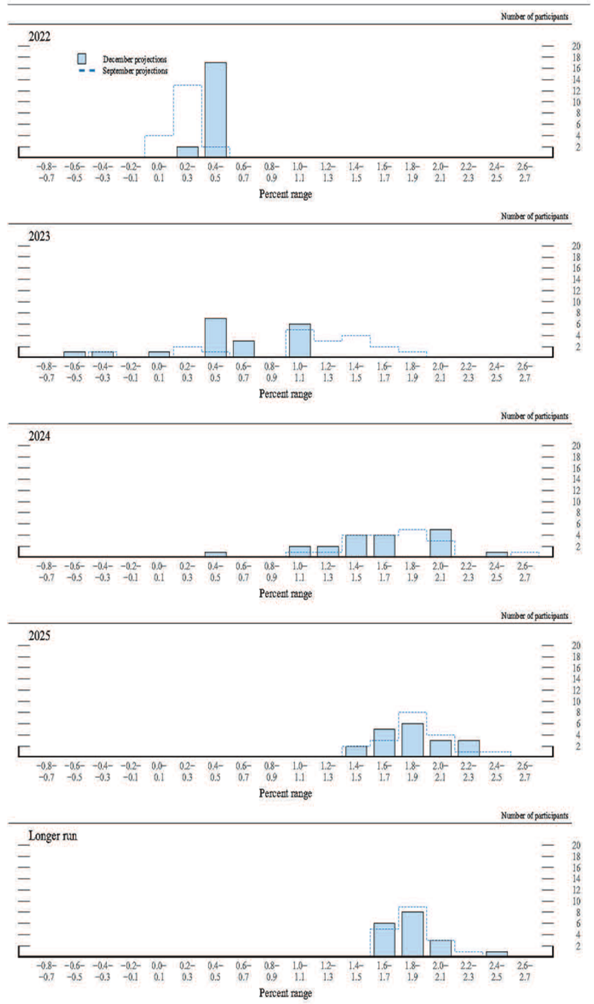
NOTE: Definitions of variables and other explanations are in the notes to table 1. The data for the actual values of the variables are annual.

Figure 2. FOMC participants' assessments of appropriate monetary policy: Midpoint of target range or target level for the federal funds rate



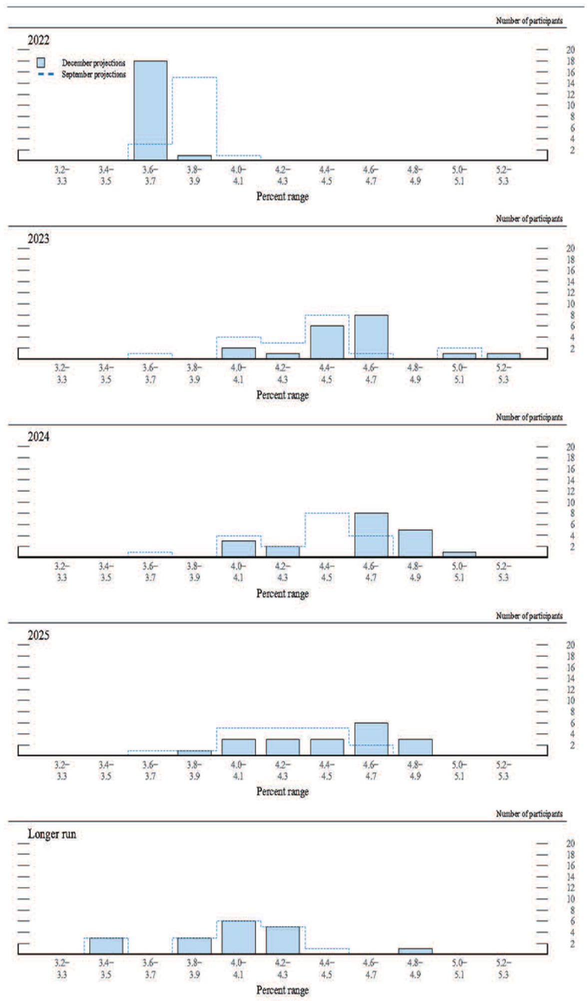
NOTE: Each shaded circle indicates the value (rounded to the nearest 1/8 percentage point) of an individual participant's judgment of the midpoint of the appropriate target range for the federal funds rate or the appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run. One participant did not submit longer-run projections for the federal funds rate.

Figure 3.A. Distribution of participants' projections for the change in real GDP, 2022–25 and over the longer run



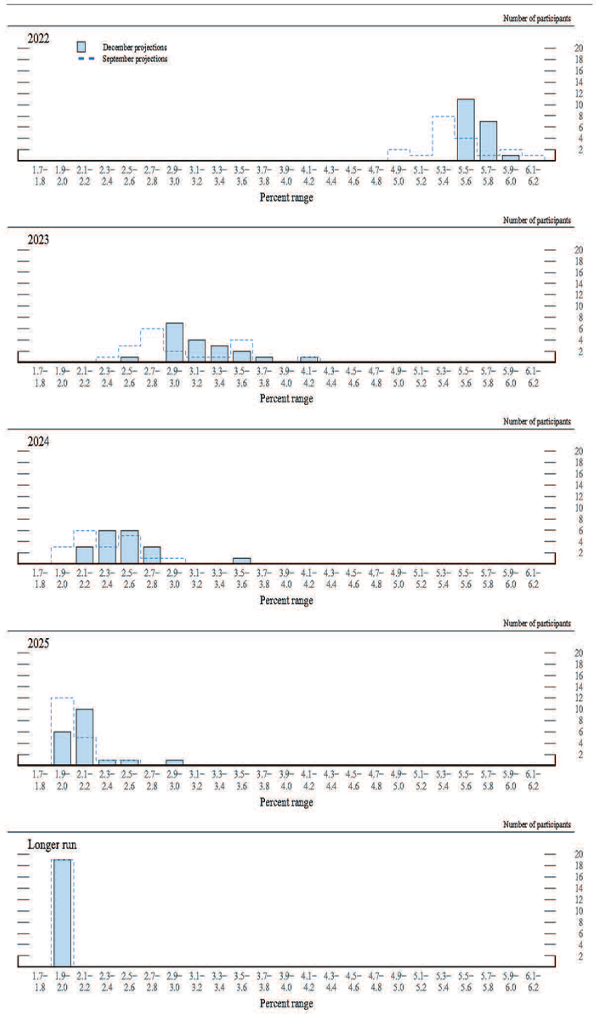
Note: Definitions of variables and other explanations are in the notes to table 1.

Figure 3.B. Distribution of participants' projections for the unemployment rate, 2022–25 and over the longer run



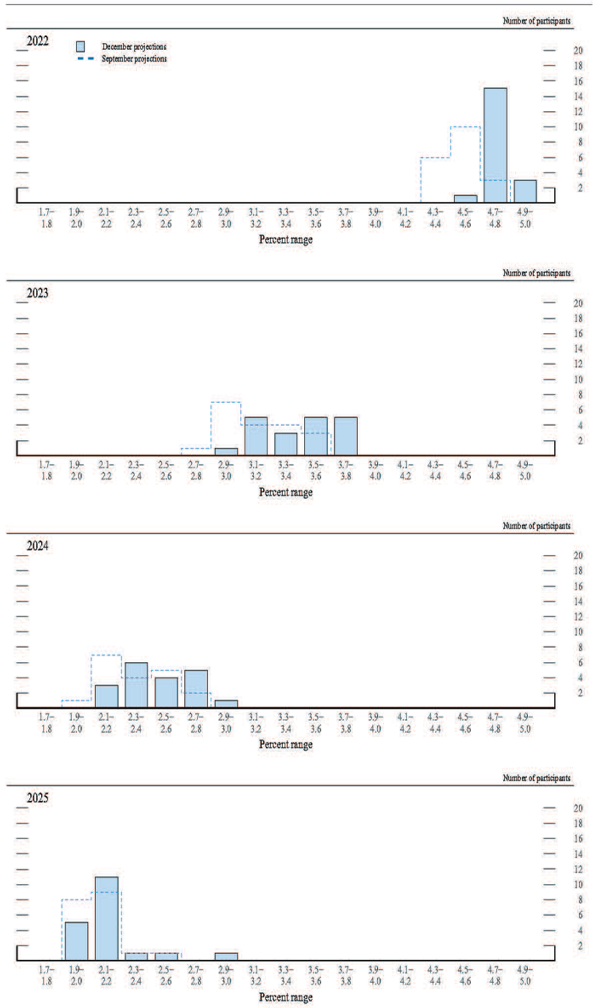
NOTE: Definitions of variables and other explanations are in the notes to table 1.

Figure 3.C. Distribution of participants' projections for PCE inflation, 2022–25 and over the longer run



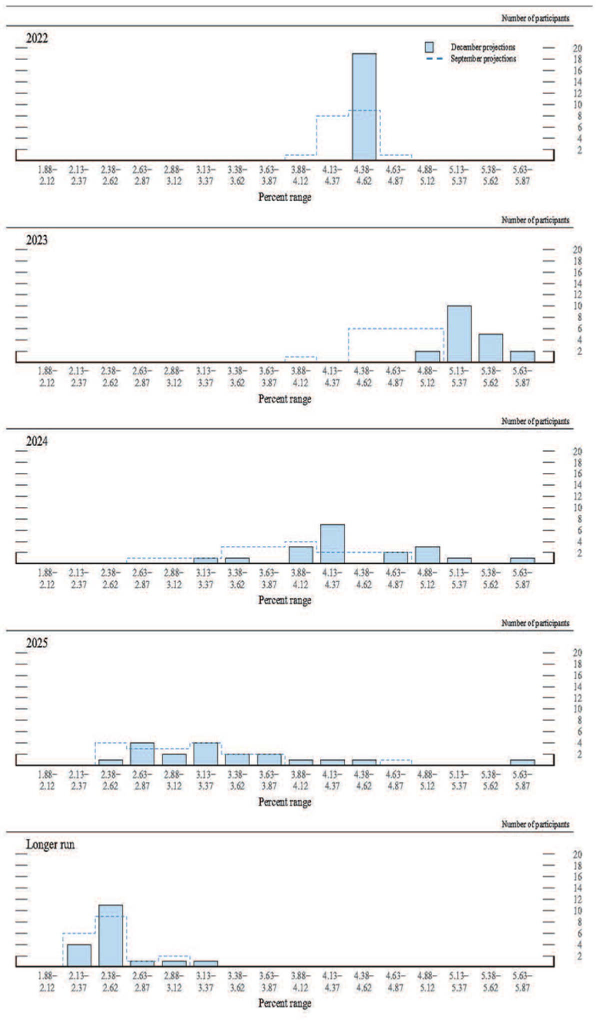
Note: Definitions of variables and other explanations are in the notes to table 1.

Figure 3.D. Distribution of participants' projections for core PCE inflation, 2022–25



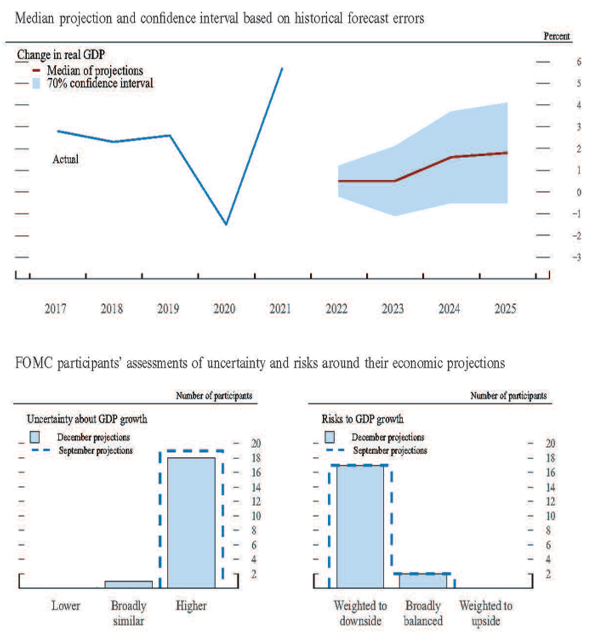
NOTE: Definitions of variables and other explanations are in the notes to table 1.

Figure 3.E. Distribution of participants' judgments of the midpoint of the appropriate target range for the federal funds rate or the appropriate target level for the federal funds rate, 2022–25 and over the longer run



Note: Definitions of variables and other explanations are in the notes to table 1.

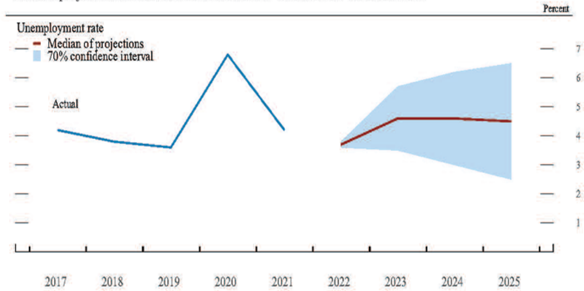
Figure 4.A. Uncertainty and risks in projections of GDP growth



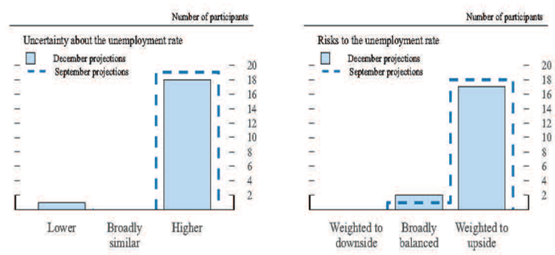
NOTE: The blue and red lines in the top panel show actual values and median projected values, respectively, of the percent change in real gross domestic product (GDP) from the fourth quarter of the previous year to the fourth quarter of the year indicated. The confidence interval around the median projected values is assumed to be symmetric and is based on root mean squared errors of various private and government forecasts made over the previous 20 years; more information about these data is available in table 2. Because current conditions may differ from those that prevailed, on average, over the previous 20 years, the width and shape of the confidence interval estimated on the basis of the historical forecast errors may not reflect FOMC participants' current assessments of the uncertainty and risks around their projections; these current assessments are summarized in the lower panels. Generally speaking, participants who judge the uncertainty about their projections as "broadly similar" to the average levels of the past 20 years would view the width of the confidence interval shown in the historical fan chart as largely consistent with their assessments of the uncertainty about their projections. Likewise, participants who judge the risks to their projections as "broadly balanced" would view the confidence interval around their projections as approximately symmetric. For definitions of uncertainty and risks in economic projections, see the box "Forecast Uncertainty."

Figure 4.B. Uncertainty and risks in projections of the unemployment rate

Median projection and confidence interval based on historical forecast errors

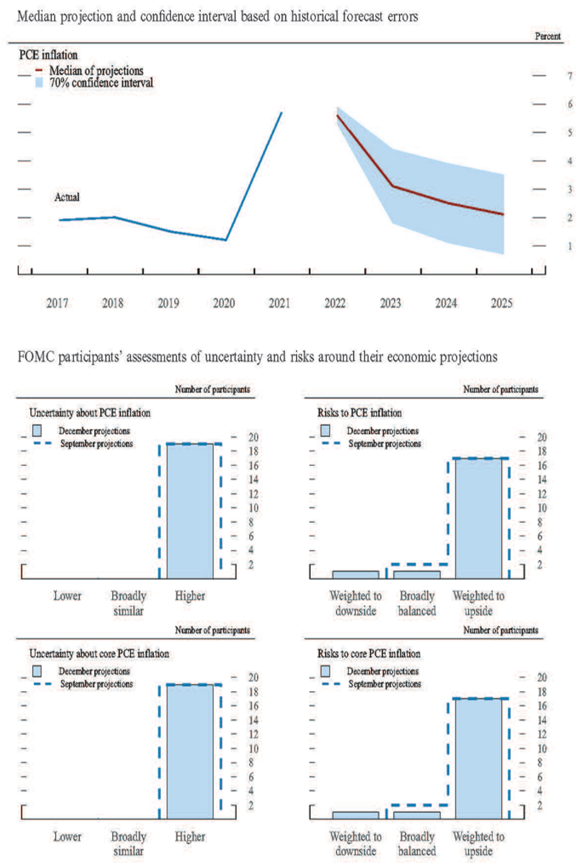


FOMC participants' assessments of uncertainty and risks around their economic projections



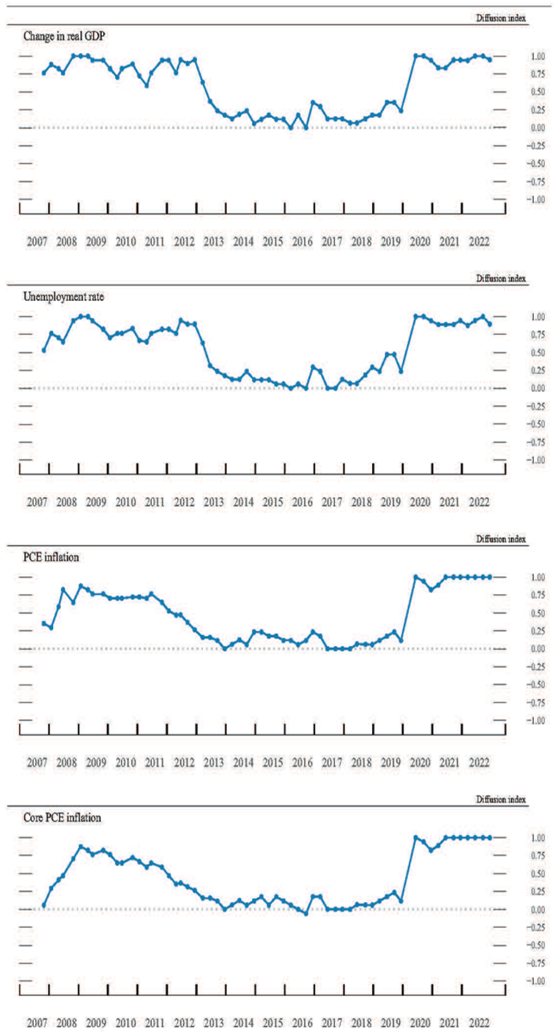
NOTE: The blue and red lines in the top panel show actual values and median projected values, respectively, of the average civilian unemployment rate in the fourth quarter of the year indicated. The confidence interval around the median projected values is assumed to be symmetric and is based on root mean squared errors of various private and government forecasts made over the previous 20 years; more information about these data is available in table 2. Because current conditions may differ from those that prevailed, on average, over the previous 20 years, the width and shape of the confidence interval estimated on the basis of the historical forecast errors may not reflect FOMC participants' current assessments of the uncertainty and risks around their projections; these current assessments are summarized in the lower panels. Generally speaking, participants who judge the uncertainty about their projections as "broadly similar" to the average levels of the past 20 years would view the width of the confidence interval shown in the historical fan chart as largely consistent with their assessments of the uncertainty about their projections. Likewise, participants who judge the risks to their projections as "broadly balanced" would view the confidence interval around their projections as approximately symmetric. For definitions of uncertainty and risks in economic projections, see the box "Forecast Uncertainty."

Figure 4.C. Uncertainty and risks in projections of PCE inflation



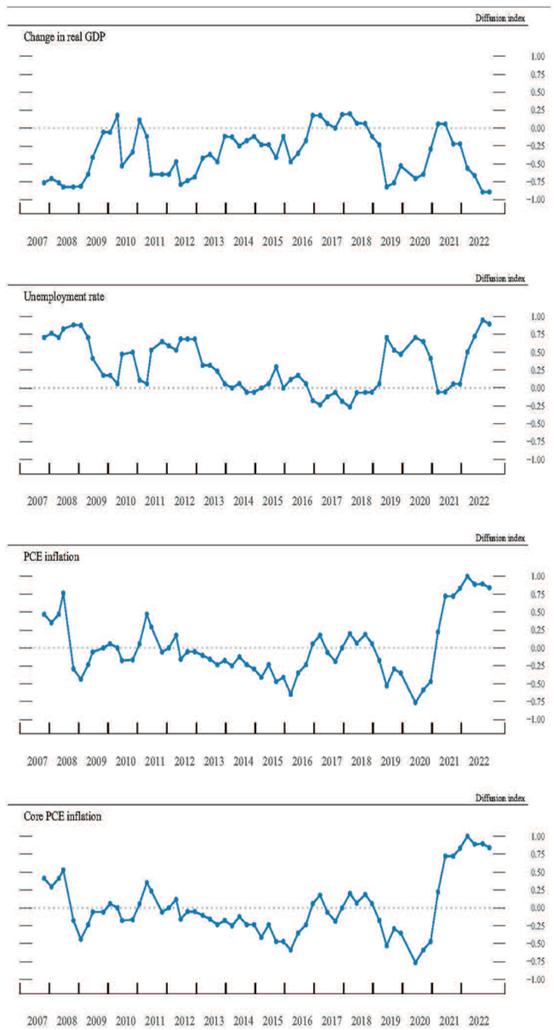
NOTE: The blue and red lines in the top panel show actual values and median projected values, respectively, of the percent change in the price index for personal consumption expenditures (PCE) from the fourth quarter of the previous year to the fourth quarter of the year indicated. The confidence interval around the median projected values is assumed to be symmetric and is based on root mean squared errors of various private and government forecasts made over the previous 20 years; more information about these data is available in table 2. Because current conditions may differ from those that prevailed, on average, over the previous 20 years, the width and shape of the confidence interval estimated on the basis of the historical forecast errors may not reflect FOMC participants' current assessments of the uncertainty and risks around their projections; these current assessments are summarized in the lower panels. Generally speaking, participants who judge the uncertainty about their projections as "broadly similar" to the average levels of the past 20 years would view the width of the confidence interval shown in the historical fan chart as largely consistent with their assessments of the uncertainty about their projections. Likewise, participants who judge the risks to their projections as "broadly balanced" would view the confidence interval around their projections as approximately symmetric. For definitions of uncertainty and risks in economic projections, see the box "Forecast Uncertainty."

Figure 4.D. Diffusion indexes of participants' uncertainty assessments



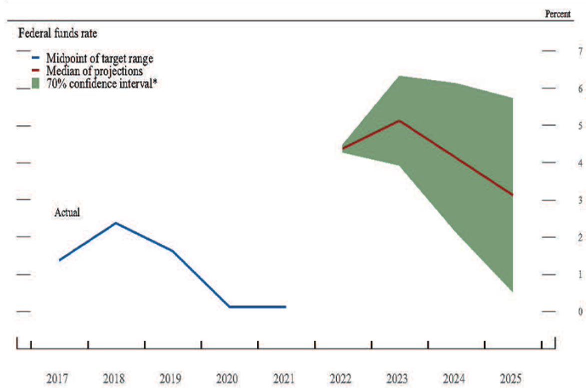
NOTE: For each SEP, participants provided responses to the question "Please indicate your judgment of the uncertainty attached to your projections relative to the levels of uncertainty over the past 20 years." Each point in the diffusion indexes represents the number of participants who responded "Higher" minus the number who responded "Lower," divided by the total number of participants. Figure excludes March 2020 when no projections were submitted.

Figure 4.E. Diffusion indexes of participants' risk weightings



NOTE: For each SEP, participants provided responses to the question "Please indicate your judgment of the risk weighting around your projections." Each point in the diffusion indexes represents the number of participants who responded "Weighted to the Upside" minus the number who responded "Weighted to the Downside," divided by the total number of participants. Figure excludes March 2020 when no projections were submitted.

Figure 5. Uncertainty and risks in projections of the federal funds rate



NOTE: The blue and red lines are based on actual values and median projected values, respectively, of the Committee's target for the federal funds rate at the end of the year indicated. The actual values are the midpoint of the target range; the median projected values are based on either the midpoint of the target range or the target level. The confidence interval around the median projected values is based on root mean squared errors of various private and government forecasts made over the previous 20 years. The confidence interval is not strictly consistent with the projections for the federal funds rate, primarily because these projections are not forecasts of the likeliest outcomes for the federal funds rate, but rather projections of participants' individual assessments of appropriate monetary policy. Still, historical forecast errors provide a broad sense of the uncertainty around the future path of the federal funds rate generated by the uncertainty about the macroeconomic variables as well as additional adjustments to monetary policy that may be appropriate to offset the effects of shocks to the economy.

The confidence interval is assumed to be symmetric except when it is truncated at zero - the bottom of the lowest target range for the federal funds rate that has been adopted in the past by the Committee. This truncation would not be intended to indicate the likelihood of the use of negative interest rates to provide additional monetary policy accommodation if doing so was judged appropriate. In such situations, the Committee could also employ other tools, including forward guidance and large-scale asset purchases, to provide additional accommodation. Because current conditions may differ from those that prevailed, on average, over the previous 20 years, the width and shape of the confidence interval estimated on the basis of the historical forecast errors may not reflect FOMC participants' current assessments of the uncertainty and risks around their projections.

* The confidence interval is derived from forecasts of the average level of short-term interest rates in the fourth quarter of the year indicated; more information about these data is available in table 2. The shaded area encompasses less than a 70 percent confidence interval if the confidence interval has been truncated at zero.

Table 2. Average historical projection error ranges
Percentage points

Variable	2022	2023	2024	2025
Change in real GDP[1]	± 0.7	± 1.6	± 2.1	± 2.3
Unemployment rate[1]	± 0.1	± 1.1	± 1.6	± 2.0
Total consumer prices[2]	± 0.3	± 1.3	± 1.4	± 1.4
Short-term interest rates[3]	± 0.1	± 1.2	± 2.0	± 2.6

NOTE: Error ranges shown are measured as plus or minus the root mean squared error of projections for 2002 through 2021 that were released in the winter by various private and government forecasters. As described in the box "Forecast Uncertainty," under certain assumptions, there is about a 70 percent probability that actual outcomes for real GDP, unemployment, consumer prices, and the federal funds rate will be in ranges implied by the average size of projection errors made in the past. For more information, see David Reifschneider and Peter Tulip (2017), "Gauging the Uncertainty of the Economic Outlook Using Historical Forecasting Errors: The Federal Reserve's Approach," Finance and Economics Discussion Series 2017-020 (Washington: Board of Governors of the Federal Reserve System, February), https://dx.doi.org/10.17016/FEDS.2017.020.

1. Definitions of variables are in the general note to table 1.

2. Measure is the overall consumer price index, the price measure that has been most widely used in government and private economic forecasts. Projections are percent changes on a fourth quarter to fourth quarter basis.

3. For Federal Reserve staff forecasts, measure is the federal funds rate. For other forecasts, measure is the rate on 3-month Treasury bills. Projection errors are calculated using average levels, in percent, in the fourth quarter.

Forecast Uncertainty

The economic projections provided by the members of the Board of Governors and the presidents of the Federal Reserve Banks inform discussions of monetary policy among policymakers and can aid public understanding of the basis for policy actions. Considerable uncertainty attends these projections, however. The economic and statistical models and relationships used to help produce economic forecasts are necessarily imperfect descriptions of the real world, and the future path of the economy can be affected by myriad unforeseen developments and events. Thus, in setting the stance of monetary policy, participants consider not only what appears to be the most likely economic outcome as embodied in their projections, but also the range of alternative possibilities, the likelihood of their occurring, and the potential costs to the economy should they occur.

Table 2 summarizes the average historical accuracy of a range of forecasts, including those reported in past *Monetary Policy Reports* and those prepared by the Federal Reserve Board's staff in advance of meetings of the Federal Open Market Committee (FOMC). The projection error ranges shown in the table illustrate the considerable uncertainty associated with economic forecasts. For example, suppose a participant projects that real gross domestic product (GDP) and total consumer prices will rise steadily at annual rates of, respectively, 3 percent and 2 percent. If the uncertainty attending those projections is similar to that experienced in the past and the risks around the projections are broadly balanced, the numbers reported in table 2 would imply a probability of about 70 percent that actual GDP would expand within a range of 2.3 to 3.7 percent in the current year, 1.4 to 4.6 percent in the second year, 0.9 to 5.1 percent in the third year, and 0.7 to 5.3 percent in the fourth year. The corresponding 70 percent confidence intervals for overall inflation would be 1.7 to 2.3 percent in the current year, 0.7 to 3.3 percent in the second year, and 0.6 to 3.4 percent in the third and fourth years. Figures 4.A through 4.C illustrate these confidence bounds in "fan charts" that are symmetric and centered on the medians of FOMC participants' projections for GDP growth, the unemployment rate, and inflation. However, in some instances, the risks around the projections may not be symmetric. In particular, the unemployment rate cannot be negative; furthermore, the risks around a particular projection might be tilted to either the upside or the downside, in which case the corresponding fan chart would be asymmetrically positioned around the median projection.

Because current conditions may differ from those that prevailed, on average, over history, participants provide judgments as to whether the uncertainty attached to their projections of each economic variable is greater than, smaller than, or broadly similar to typical levels of forecast uncertainty seen in the past 20 years, as presented in table 2 and reflected in the widths of the confidence intervals shown in the top panels of figures 4.A through 4.C. Participants' current

(continued)

assessments of the uncertainty surrounding their projections are summarized in the bottom-left panels of those figures. Participants also provide judgments as to whether the risks to their projections are weighted to the upside, are weighted to the downside, or are broadly balanced. That is, while the symmetric historical fan charts shown in the top panels of figures 4.A through 4.C imply that the risks to participants' projections are balanced, participants may judge that there is a greater risk that a given variable will be above rather than below their projections. These judgments are summarized in the lower-right panels of figures 4.A through 4.C.

As with real activity and inflation, the outlook for the future path of the federal funds rate is subject to considerable uncertainty. This uncertainty arises primarily because each participant's assessment of the appropriate stance of monetary policy depends importantly on the evolution of real activity and inflation over time. If economic conditions evolve in an unexpected manner, then assessments of the appropriate setting of the federal funds rate would change from that point forward. The final line in table 2 shows the error ranges for forecasts of short-term interest rates. They suggest that the historical confidence intervals associated with projections of the federal funds rate are quite wide. It should be noted, however, that these confidence intervals are not strictly consistent with the projections for the federal funds rate, as these projections are not forecasts of the most likely quarterly outcomes but rather are projections of participants' individual assessments of appropriate monetary policy and are on an end-of-year basis. However, the forecast errors should provide a sense of the uncertainty around the future path of the federal funds rate generated by the uncertainty about the macroeconomic variables as well as additional adjustments to monetary policy that would be appropriate to offset the effects of shocks to the economy.

If at some point in the future the confidence interval around the federal funds rate were to extend below zero, it would be truncated at zero for purposes of the fan chart shown in figure 5; zero is the bottom of the lowest target range for the federal funds rate that has been adopted by the Committee in the past. This approach to the construction of the federal funds rate fan chart would be merely a convention; it would not have any implications for possible future policy decisions regarding the use of negative interest rates to provide additional monetary policy accommodation if doing so were appropriate. In such situations, the Committee could also employ other tools, including forward guidance and asset purchases, to provide additional accommodation.

While figures 4.A through 4.C provide information on the uncertainty around the economic projections, figure 1 provides information on the range of views across FOMC participants. A comparison of figure 1 with figures 4.A through 4.C shows that the dispersion of the projections across participants is much smaller than the average forecast errors over the past 20 years.

Abbreviations

AFE	advanced foreign economy
AUM	assets under management
COVID-19	coronavirus disease 2019
EME	emerging market economy
FOMC	Federal Open Market Committee; also, the Committee
GDP	gross domestic product
MBS	mortgage-backed securities
MMF	money market fund
ON RRP	overnight reverse repurchase agreement
PCE	personal consumption expenditures
SOMA	System Open Market Account
S&P	Standard & Poor's
VIX	implied volatility for the S&P 500 index

LETTER FROM ELECTRONIC PAYMENT COALITION

EPC Electronic Payments Coalition

March 7, 2023

The Honorable Sharrod Brown
Chairman
Senate Committee on Banking, Housing, and Urban Affairs
534 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Tim Scott
Ranking Member
Senate Committee on Banking, Housing, and Urban Affairs
534 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Brown and Ranking Member Scott:

The members of the Electronic Payments Coalition, which represent virtually all banks and credit unions, write to express our strong interest in the repeal of the Durbin Amendment. We put this forth in an effort to best protect consumers – particularly low-income consumers – from experiencing a loss of their benefits, rewards and security, as well as general financial losses.

As debit cards continue to rise in consumer popularity – particularly since the height of the pandemic – the numerous financial institutions we represent have seen firsthand the harm that the Durbin Amendment has caused for the communities in which they reside. While the Durbin Amendment was initially intended to alleviate tension following the 2008 recession for consumers, merchants and community financial institutions alike, continual studies have demonstrated that each of these groups have only been harmed by its effects.

A recently updated Durbin studies paper highlighted these issues and laid out reasoning for the long-overdue repeal of the Durbin Amendment. The report notes several key findings:

- In lobbying for an interchange fee cap, proponents of the Durbin amendment argued that consumers would benefit because merchants would face lower costs and pass these savings to consumers in the form of lower prices. In practice, however, the opposite has occurred:
    - Over the last 11 years, merchants have reaped roughly $106 billion (and counting) in interchange-related savings, while study after study has demonstrated that consumers are left footing the bill.
    - Consumers have experienced a sharp decline in the availability of debit card rewards programs, as well as decreased availability of free checking accounts, higher minimum balance requirements, and higher fees.
- Prior to the enactment of the Durbin amendment, consumers frequently benefitted from reward programs tied to their debit card spending.
    - Following the passage of the Durbin amendment, data from Phoenix Marketing International shows that the percentage of debit cardholders who received rewards from those cards fell by 30%.

- Similarly, a study conducted by consultancy Oliver Wyman found that within one year of the enactment of the Durbin amendment, 30% of covered issuers eliminated or downsized their debit card rewards programs, and a total of 81% did not plan to offer a rewards program in the future.
- The Durbin amendment has also led to a decline in the availability of free checking. A 2017 Federal Reserve study found that as a result of capping debit interchange fees, banks were 35% less likely to offer consumers free checking. Based on this finding, the authors estimated that if the Durbin amendment had not been passed, twice as many consumers would enjoy free checking than at the time of the study — translating to tens of millions of consumers who now face checking account fees as a direct result of the Durbin amendment.
- The reduction in debit rewards and free checking combined with higher minimum balance requirements and account fees have made it more difficult for some consumers to afford a bank account. Underbanked and unbanked populations, who are usually low-income consumers, have likely been disproportionately affected by rising costs of checking accounts.
- The Durbin amendment allows merchants to re-route debit transactions from among networks chosen by the issuer, granting merchants both the ability and incentive to select the network with the lowest fees, regardless of its commitment to security.

It is well past time that Congress repeals the Durbin Amendment. In short, it has led to a loss in access for debit rewards programs, free checking accounts, contributed to higher banking fees, and eliminated the choice of network for the routing of debit transactions – all while having not delivered on the promised lower prices from the retail industry.

Members of the Electronic Payments Coalition appreciate your consideration of our concerns and look forward to working hand-in-hand to ensure the true protection of communities, consumers and the financial institutions they interact with each and every day.

Sincerely,

Jeffrey A. Tassey

Jeff Tassey,
Chairman of the Board
Electronic Payments Coalition

EPC Electronic Payments Coalition

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STATEMENT SUBMITTED BY ACCOUNTABLE.US

Thank you to Chairman Brown, and members of the Committee for the opportunity to submit this statement for the record of the hearing entitled "The Federal Reserve's Semi-Annual Monetary Policy Report" and the testimony of the Honorable Jerome Powell, Chair of the Board of Governors of the Federal Reserve System.

Accountable.US is a nonpartisan organization that shines a light on corporations and special interests that too often wield unchecked power and influence in Washington and beyond. We conduct investigations and bring attention to our findings to help create an economy that works for everyone, a democracy that functions, and a sustainable environment for future generations. We believe corporations and special interests have too much power and the people have too little. It is our mission to change this.

In our view, the Federal Reserve should stop doing more harm than good for the economy. The Fed's choice to raise interest rates higher and higher is stunting economic growth, while doing little to combat a leading cause of inflation: corporate greed. Naturally, a recession would be devastating for workers and consumers. Congress needs to act now on President Biden's agenda to crack down on industry overcharging, and ensure greedy corporations finally pay their fair share in taxes.

The biggest companies represented by key sectors in the U.S. Labor Department's Consumer Price Index (CPI) have needlessly and excessively hiked prices on consumers based on their own earnings calls which have shown higher profits as well as billions of dollars in new shareholder giveaways. The Fed's staggering eight interest rate hikes in a row have done little to contain this clear corporate greed problem, but instead invited a new one: a potential recession.

The latest CPI showed inflation is slowing overall while most industry sectors continue to raise prices on average consumers. While higher interest rates have failed to address ongoing corporate profiteering keeping prices high, during the hearing Federal Reserve Chairman Jerome Powell declared interest rates are "likely to be higher" than previously expected despite the Fed's own economists projecting higher rates will drive up the unemployment rate to 4.6 percent – a staggering 2 million layoffs.

Doing More Harm Than Good: Higher rates have already slowed wage growth and caused a decline in demand in the U.S. manufacturing sector. While millions of Americans losing their jobs appears to be an acceptable outcome for Chairman Powell, experts are speculating the Fed could pause further hikes in the aftermath of Silicon Valley Bank's collapse. Other poorly managed banks that made risky decisions after Dodd-Frank safeguards were gutted also find themselves in trouble under higher rates.

The Fed's aggressive interest rate hikes are driving wages down and unemployment up while destabilizing the financial industry – and the economic consequences are just beginning to be felt. Raising rates again would be a colossal mistake for working families and the health of our economy. Higher interest rates have done little to deter the corporate greed epidemic keeping consumer prices high and will not be worth the cost of some 2 million American jobs.

According to Accountable.US research, a chorus of experts agree: raising interest rates again may cause an unnecessary recession.

- **Former Federal Reserve Economist and Council of Economic Advisers Senior Economist Claudia Sahm** said "it is inexcusable, bordering on dangerous for the Fed to be raising rates so aggressively," warning it would cause "great pain" without addressing longer-term economic issues.

- The **United Nations Conference On Trade And Development** criticized the Federal Reserve and other central banks for seeking to reduce inflation through interest rate hikes despite the risk of a global recession, with a senior official suggesting it was "'a very dangerous approach.'"

- **Economic Policy Institute Research Director Josh Bivens** has warned "'we are now pointing the plane at the ground pretty hard and hitting the accelerator,'" called it a "'fallacy'" that the Fed can hike rates without widespread consequences, and said he was "'so worried'" that there will be inadequate public assistance during a recession after critics blamed government stimulus for inflation.

Members of Congress also agree:

- **Senate Banking Committee Chair Sherrod Brown (D-OH)** sent a letter to Chairman Powell in October 2022 reminding him of the Federal Reserve's "responsibility to maintain full employment," writing that "We can't risk the livelihoods of millions of Americans who can't afford it."

- **House Financial Services Ranking Member Maxine Waters (D-CA)** sent a letter to Chairman Powell in November 2022 expressing her concern that "rapid and continued interest rate hikes may only serve in the long run to be an over-correction that results in recession."

- **Sen. Elizabeth Warren (D-MA)**, who previously signed onto a letter cautioning Powell against rate increases, warned that the latest interest rate increase was "still pushing the envelope 'too far, too fast,'" and that "'if the Fed keeps pushing these extreme interest rate hikes, they can tip this whole economy off an economic cliff.'"

- **Sen. John Hickenlooper (D-CO)** urged the Federal Reserve to pause raising interest rates, warning that continued interest rate hikes will "make it more expensive for small businesses" and put "a drag on consumer spending," all while "widespread concern of a recession continues."

- **House Budget Committee Ranking Member Brendan F. Boyle (D-PA)** shared his concern "that raising rates too high and too fast could endanger the record job growth" while reminding the Federal Reserve of its dual mandate to maintain maximum employment, alongside price stability.

According to a March 2022 Accountable.US analysis, corporate profiteering across industries is exacerbating inflation while rewarding shareholders with over $140 billion after raising prices on consumers. The top three corporations in several major categories under the CPI—including food, energy, commodities, health care and shelter—used higher prices not to just cover their own expenses, but to line their shareholders' pockets on the backs of hardworking consumers in 2021. Accountable.US found these companies all raised prices on consumer staples and/or benefited from increased costs while making $151 billion in increased profits from their last reported earnings periods.

Adding insult to injury, these same companies increased spending on shareholder handouts like stock buybacks and dividends by 25%, totaling over $140.6 billion – raising serious questions whether industry price hikes correspond with their own added costs during the pandemic given the staggering level of profit they are enjoying and their extreme generosity to shareholders. The findings came as President Biden vowed last year to fight inflation and combat corporate profiteering in an effort to help struggling Americans.

Across nearly every industry that is measured for price changes, we're seeing highly profitable corporations demand more money for consumer staples that families depend on. These companies would have consumers believe they marked up prices just to keep up with outside costs, but the tens of billions in extra profits and generous giveaways to investors show otherwise. It simply doesn't add up. Despite what they claim, these highly profitable businesses do have a choice, and they're choosing to fatten their bottom line rather than keep consumer prices stable.

The report followed Accountable.US' previous research on how clear pandemic profiteering from the big shipping, trucking and railroad companies were making inflation/supply chain problems worse for everyday consumers.

KEY FINDINGS:

Food At Home: As grocery prices increased 6.5% in 2021, the country's largest grocery chains—Walmart, Kroger, and Costco—benefited from price increases while their fiscal year net incomes increased by a total of $238 million while stock buybacks and dividends increased by over $12 billion.

Food Away From Home: As prices increased 6% in 2021, two of the biggest U.S. food chains—McDonald's and YUM! Brands—saw profits increase by over $3.4 billion in FY 2021 while boosting shareholder handouts by over $1.48 billion. Meanwhile, Starbucks, the second-biggest restaurant chain, saw its FY 2021 profits increase by nearly $3.2 billion.

Gasoline: As gasoline prices increased 49.6% in 2021, the three biggest U.S. oil companies—ExxonMobil, Chevron, and Marathon Petroleum—benefited from higher prices, seeing previously negative profits jump nearly $87.5 billion while boosting shareholder handouts by over $4.5 billion in FY 2021.

Utility Gas & Electricity: As gas and electric utility prices climbed 24.1% and 6.3% respectively in 2021, the three biggest U.S. gas and electric companies—Exelon, Duke, and Southern Company—all benefited from higher rates, with profits climbing by $1.64 billion while spending $7.3 billion on shareholder handouts in FY 2021.

New Vehicles: As new vehicle prices increased nearly 12% in 2021, the two top-selling U.S. automakers—General Motors and Ford—saw profits climb at least $22.7 billion and spent nearly $586 million on shareholder handouts in 2021.

Used Vehicles: While used vehicle prices climbed 37.3% in 2021, the biggest used car dealers—CarMax, Carvana, and AutoNation—saw profits climb by over $1.4 billion while shareholder handouts increased by over $2.2 billion.

Apparel: While apparel prices climbed 5.8% in 2021, the biggest clothing companies—TJX, Nike, and Gap—saw profits climb by over $4.5 billion while boosting shareholder handouts by over $5 billion that year.

Medical Commodities: While medical care prices increased 2.2% in 2021, the biggest drugmakers—Johnson & Johnson, Pfizer, and AbbVie—saw profits jump by over 90% to $54 billion while boosting shareholder handouts by nearly $2.6 billion.

Medical Services: While medical care prices climbed 2.2% in 2021, the biggest healthcare companies—CVS, UnitedHealth, and Cigna—benefited from increased consumer costs as they saw profits of nearly $31 billion while boosting shareholder handouts by over $2 billion.

Shelter: While shelter prices increased 4.1% in 2021, the biggest apartment companies—Mid-America Apartment Communities, Starwood Property Trust, and AvalonBay—touted rent hikes as they saw profits climb $588 million while increasing shareholder dividends by $24.4 million that year.

How many CEOs are asking themselves, "If that company is getting away with profiteering during inflation, why can't we?" It's all the more reason why Congress needs to act now on President Biden's agenda to rein in corporate greed and the Fed needs to stop putting everyday Americans at risk.

Thank you for your consideration.