James Bullard:

Thank you. Well, good morning and thanks very much for the kind introduction. I was talking with John Kemper before we started and he was reminding me that last year we had the Russia, Ukraine War. In this year we have a lot of financial stress, so maybe we won't do this next year, but I'm happy to be here and this is a great event. It's great to see you all out here today. I am going to just give you my take on the current macroeconomic situation, which has evolved a lot over the last 10 or 14 days or so. I'll hit on a lot of the themes I like to hit on in thinking about the macroeconomy right now. So we do have financial stress over the last two weeks that came as a surprise and I'll talk about that. In macroeconomic terms, we usually think in terms of quarters, but this just happened in about two weeks here.

But I will say and emphasize that the macroprudential policy response has been swift and appropriate and I think it will contain the stress, and so I'll talk about that. Meanwhile, the real economy has been stronger than expected during the first quarter of 2023 and inflation remains too high. I'll review the data on that. But basically we've been surprised to the upside on the macroeconomy as we've come into 2023 here, now the first quarter's almost over, so it looks like a stronger first quarter than expected. I'll also say that during 2022, we did a front loaded strategy on monetary policy, a lot of interest rate hikes during 2022, designed to keep inflation expectations in check and designed to bring inflation back to target relatively quickly. In macroeconomic terms, I think that's going to be helpful in our disinflationary efforts during 2023. So we'll look at that.

And then finally, I think the overall message here is that we do have macroprudential policy tools which have been deployed. They can contain financial stress while appropriate monetary policy can continue to put downward pressure on inflation. So we do have tools to do both. We're deploying those effectively and I think we'll be successful. Financial stress has returned. I'll just review some of the main things that have happened. We had two US banks with crypto related strategies, Signature Bank in New York and Silvergate Capital in California. They've closed after the failure of FTX, a cryptocurrency exchange late last year. The FTX case is in criminal court, and that trial will be later this year. But they were considered one of the better players in the crypto market, and obviously they've stumbled badly here late last year. The banks that were trying to cater to the crypto world, Signature and Silvergate, they had strategies that probably weren't going to be very effective following FTX, and so they're now out of business. That's one thing that has happened just in the last two weeks here.

We've also had the California based Silicon Valley Bank, SVB, suffering a rapid run on deposits, and that has been closed by the FDIC as well. SVB had a very unusual strategy from the point of view of other banks, which are far more conservative than they were. They're situated right in the middle of Silicon Valley. They took on a lot of deposits, tens of billions of dollars of deposits during the pandemic as Silicon Valley boomed during the pandemic. And a lot of those deposits were uninsured upwards of 95% according to media reports. That's very, very unusual in the world of banking that you would have those kinds of circumstances all at once. They did suffer a rapid run on their deposits and now they're closed down. Equity holders who were wiped out, depositors were made whole in the end. This is from a business standpoint, the people that put their money into the business have been wiped out, but the depositors were made whole. So that I think is a very unusual case and I think you'd be hard-pressed to find other banks that had the kind of situation that SVB had.

Now in Europe, we do have Credit Suisse, which is a very large bank, but also a bank that's been troubled not just in the last few weeks here, but really over a decade or more. Their business has declined over time. They've been involved in court in various countries for things that they've been involved with. So they've had a lot of trouble in a lot of different ways. They are a wealth management business. They've been losing customers on that dimension. And the Suisse authorities did come in last

weekend and say that implement a plan to merge them with Union Bank, Switzerland, UBS. Switzerland just has the two very large banks. This is something I think that have been at least rumored to be on the table for a long time. And the Suisse authorities made the decision to go ahead and make this merger. The stock of UBS traded up following the deal.

So I think markets are giving this, at least for now, a thumbs up, that the combined entity will be able to be successful, that UBS will be able to reorganize the assets in a way to have a strong business going forward. That I think was also a swift response to financial stress and a logical outcome for that particular situation. Now, these developments have led to volatile trading in bank equities. Not surprising. Investors are certainly searching out where the value is in the banking industry, and that's showing up in increased measures of financial stress. None of that's surprising, but I do think that the response to the situation by regulatory authorities has been strong. Before I get off this slide, I would just remind everyone that we're operating in a post Dodd-Frank world, a world where we already went through a financial crisis during 2007 to 2009, and regulators have many, many more tools than they had at that time or that had to be developed at that time.

Those can be deployed now in yesterday, Secretary Yellen, said we're willing and able to do more if necessary as we go forward. So I think everyone needs to keep in mind that there are many macro credential tools that could be deployed and could be deployed quickly if necessary. But this is just a rundown of what has happened. As I say, I think the response has been very good. Here's a killer chart for this talk, which I know you're always looking for when I'm giving a talk. This is a different measures of financial stress and I put them all on one chart because there are many measures of financial conditions and financial stress that are out there, these different indexes. If you're going to look at one, you might as well look at the very best one, the St. Louis Fed financial stress index, which is on here in the blue, but just to convince you that we don't have a crazy measure.

Bloomberg and another one also on here, the DB, I guess is also on here, and there are many others that could be put on here. And if you look at this carefully, the St. Louis Fed financial stress index is on the left axis. So that one means financial stress is higher when the line is higher, and then the other two are on the right axis. They mean that financial conditions are tighter when the number is lower. So we put that upside down as negative numbers going up there on the right hand side, but you can see that if you scale it appropriately, the indexes are measuring essentially the same thing. They're trying to measure ideas about credit spreads getting wider, volatility getting higher, market anticipation of problems reflected in market pricing becoming more acute. That's what these kinds of indexes are trying to measure. And I deliberately took this all the way back to 2008 on the horizontal axis.

So you can see the whole picture here all the way up to the most recent readings, which would be this week for most of these indexes. They're either weekly or daily indexes. You can see some big spikes here in this picture. One is in 2008, so that was the big crisis, and this financial stress was extremely high at that point. Then they all came down for a decade or more. The next spike that you see there, that's the pandemic April, May of 2020, and I do think in April and May of 2020, there was serious questions being raised in financial markets, whether we would reenter a financial crisis at that time. And Chair Powell and working with the US Treasury and sister regulatory agencies managed to avert that in the spring of 2020. You can see at at that point, the financial stress indexes and financial conditions indexes came all the way back down to zero. Zeros kind of means normal times in this picture.

I think that was a great success story of the implementation of policy during the pandemic. Then we got even less financial stress after the pandemic and then a little more volatility as we come out of the pandemic into 2022 where the Fed is raising rates a lot. And then we've circled the very last observation here, but the point of this picture is that yes, financial stress is up, it's not zero anymore, it's higher, but it's not at the level that it was in April and May of 2020 as the pandemic was coming on. And it's

certainly not at the level of 2008, 2009 way back on the left hand part of this chart. So yes, we had some unusual developments in banking and certainly the SVB case was unusual, and yes, that has caused stress in financial markets. A lot of the reason that line is up on the very right hand part of the chart is the volatility of interest rates in recent days, but still not really anywhere near the level of the pandemic or of 2008, 2009.

I spent a lot of time on this chart, but I thought that was an interesting finding. Of course, we don't know quite what will happen going forward, but so far so good. And I do think that the response to the crisis so far has been appropriate. Again, this is hitting on some of the points I've already jumped ahead in my mind here. But the Global Financial Crisis caused a rethink of macroprudential policy. It put a lot more tools on the table, not just here in the United States but around the world. And so it was natural as financial stress developed here that we could employ some of the tools that were developed or first utilized at the time of 2007 to 2009 or during the pandemic 2020 to limit the macroeconomic damage that might have otherwise occurred. In particular in the US, the Fed worked with the US Treasury and other regulatory agencies to use 13(3) provisions in the Dodd-Frank.

Those are the emergency lending provisions in the Dodd-Frank Act to create the bank term funding program, the BTFP, and I'm sure you've all memorized this acronym already, but this program seems to be likely highly effective. It's doing exactly what you would need to do in this situation. You have banks that may have securities that have lost value as interest rates rise, that's what happens, but they can post those back to the Fed and borrow money against them to meet any liquidity issues that they might have. This seems like it's going to be very effective, at least in my judgment. I think this was the right response to the current situation. Similarly, overseas, and if you did have other problems overseas, you could see other regulatory authorities coming into action, but they acted quickly to ask UBS to buy CS as a method of preventing additional fallout from the CS decline that happened over a weekend.

It was not pleasant to try to do a big merger like that over the weekend, but it can be done. And again, I think that response was appropriate. And then as Secretary Yellen said yesterday, authorities can take more actions if necessary going forward. So I just think this is a different world than the 2007 to 2009 world where you're inventing things on the fly, Chair Bernanke had to think about new tools that had to be developed, approved by Congress perhaps. Here you have the tools in the toolbox and you can take out the appropriate tools to fight the stress as necessary.

The last thing I want to say on financial stress is that the Fed has been raising the policy rate over the last year to combat the highest inflation in the US since the 1980s. The inflation problem is real and is large, and I would just say anytime that you do this, even with a lot of forward guidance, and I gave some forward guidance to you guys here last year at this very meeting where I said I thought we were going to have to raise the policy rate a lot, but even with considerable forward guidance, you can't really expect every entity in the financial world to adjust appropriately to the higher interest rate environment. Here's some examples on that third bullet point, if you know monetary history of the United States, you'll remember these examples.

But in each case, these examples did get a lot of attention at the time and did get a lot of response at the time, but they were not ultimately harbingers of poor macro performance in the US. So I think that's probably the kind of case that we're in. Meanwhile, the data has been stronger than expected. A lot of people were expecting a week, first quarter of 2023, but the Atlanta Fed's GDPNow, which is their tracking estimate of first quarter growth is 3.2%. In the US terms, that's a high number, that's above the potential growth rate that comes on top of above trend growth in the second half of 2022. So that would be three quarters in a row if that pans out. We've also seen strong consumption, which is associated with the strong GDP growth. Here's my GDP picture. The blue bars are the GDP quarterly numbers at an annual rate.

2021, on the left hand part of this chart, you see a lot of tall blue bars, that was just outstanding. You're coming out of the pandemic, you're getting really fast growth 6, 7% in a lot of those quarters. Then something funny happened in the first half of 2022, last year, you got negative growth in the first half. A lot of talk about that. People weren't really sure because we were still adding jobs at a rapid rate. Unemployment was still coming down, but that was below potential growth rate. And then in the second half of 2022, the two blue bars on the right hand side, again above potential growth, a lot was said about that too, that that was surprised to the upside. And now that little dot there, which is that Atlanta Fed's GDPNow again looks like above trend growth. This paints a picture of an economy that's been quite resilient during the second half of 2022 and coming into 2023.

So I think we have a lot more momentum than previously thought coming into this year, and that's going to make the inflation problem harder to handle. Let's go to the next slide here. This is the consumption picture. This is the level of real personal consumption expenditures. That is how many Doritos you and I are purchasing to watch the basketball tournament. This obviously went way down during the pandemic, which is the gray bar there. This picture goes back to 2012, but if you draw a trend line from 2000 to 2019 before the pandemic, you get that dotted line there and we're well above this dotted line. So again, you have an idea that the US economy is doing quite well on many dimensions. And why is that? It's a lot of it is coming from the labor market and the labor market is very strong in the United States by almost anyone's estimate.

The number of job openings per unemployed worker remains very high. I'll show you a picture of that. The labor market situation is unprecedented in the sense that there seems to be a shortage of workers relative to what you would've seen during most of the post-war era. Unemployment insurance claims extremely low. Unemployment itself very low. If you want a broader measure of labor market conditions like the Kansas City Fed's labor market conditions index, it remains super high. So normally what you would say is if people have jobs and they're able to get jobs, even if they get disrupted, they're able to get another job, that bodes well for consumption expenditures, the largest component of GDP. So this certainly looks very good for the economy at this point. I've got a bunch of pictures for you here. Here's vacancies per unemployed person.

This goes back to 2000, shaded areas or recessions, but the numbers that we're seeing now are just crazy high and really haven't come down very much. So the right hand part of this chart, we're still looking at almost two to one. That is two job openings for every unemployed worker. So even if you hear about layoffs with that kind of job openings ratio, the disrupted workers should be able to go and get another job if they want to. And so hopefully they're able to do that. But this is really unprecedented, this very high level here. This is another picture meant to show that the labor market situation is unprecedented. The gold line is available jobs, which is job openings plus the employment number, and the blue line is available workers the size of the labor force. So you can see here the blue line is usually above the gold line going back to 1980 in this picture.

But wait a minute, if you look at the right hand part of this chart, the gold line is above the blue line. So this is unprecedented almost. We had a little bit of this pre-pandemic in 2019, 2018 there in this chart. But this is not the normal situation. Normally you've got kind of a lot of workers who are doing lengthy searches, are having trouble finding the job, that kind of thing. That's not what you have here. So this is a very different picture from what you would normally see. Why is the blue line so low? There's a good story behind that and Chair Powell has talked about it. I could go into it more during Q and A if you want, but older workers not coming back into the labor force as readily as they used to. Daycare not recovering as much post pandemic as you would've otherwise thought.

Immigration for a long time, dampened now has come back some, but they're just workers that aren't there, the blue line, workers that aren't there that would've been there in the past and the gold line has

moved up dramatically. You've just got this unprecedented situation, something we haven't seen in 40 years. Here's the unemployment insurance claims picture. This is a little bit different here. This shows every week of the year on the horizontal axis. The week one is on the left hand side, week 52 is on the right hand side, and then all the different years that shows a number of unemployment insurance claims weekly are plotted. You could see 2020 is a crazy pandemic year and went off the chart here, but all the other years were pretty good years for unemployment. You could see the red dots there on the left hand part is so far in 2023. So far in 2023, we're seeing no hint of let up in the unemployment insurance claims, it was just very low, the number we had yesterday below 200,000, that's just very, very low for the US economy.

So you just don't have a lot of people being thrown out of work and having to go collect unemployment insurance, not right now anyway. Here's a measure of overall labor market conditions. You take all kinds of different measures of the labor market and put them all into one index. The Kansas City Fed does this for us. This goes back to 2006. You can kind of see how this looks over time. Zero is normal labor market conditions in this picture, and you can see we're basically at a all-time high or close to an all-time high in this picture and still super strong labor market. Let's turn to inflation. And we do want inflation to come down. We have a 2% inflation target in the US, that inflation target is specified in terms of headline, personal consumption expenditures inflation, PCE, and there's going to be a quiz later on these acronyms so make sure that you get them all.

It's true that headline inflation has declined, but headline inflation can be affected by fluctuations in energy and food prices. If you look at measures of inflation that strip out those movements, they have declined as well, but not as much as the headline measure. Here's the picture. This is inflation as measured over the previous 12 months. This goes back before the pandemic to 2019. The blue line is headline inflation, the gold line is core inflation, and the gray line is a geeky measure, which you would expect from me being a geek. The Dallas Fed trimmed means, so that one does a better job I think of throwing out extreme price movements either on the low side or the high side.

You can see before the pandemic in 2019, we were talking about inflation being below target or at target based on these three measures. The inflation really just started two years ago in March of 2021 as the lines came off zero or came off below zero and went higher. And we're still trying to adjust. Now these curves are, if you squint, are moving down on the right hand part of this picture and in particular headline inflation was 7% at the peak. Now maybe 5.5% on this measure, so that's good news, but it's not 2% and we know that part of that is energy prices. If you look at the gold line, it might have peaked at 5.5%, now below 5%. That's progress, but not as much progress as you might have thought. And the latest report went in the wrong direction a little bit. So not as much disinflation as we would've liked. And if you look at the Dallas Fed trimmed mean measure the gray line, it was below 4% and you'd really have to squint to see any improvement on that particular measure.

We need these to come down to 2% and we did put a restrictive monetary policy in place to try to get that to happen. But we're definitely looking for this data to improve as we go through 2023. Some good news for you, inflation expectations are relatively low. So inflation expectations in literature on macroeconomic theory, it says that inflation expectations affect actual inflation. So the way you can think of this is that if businesses are making pricing decisions, they're kind of trying to think in their head about, "Well, how much do you think prices will go up over the next six months or the next year?" And then they're trying to price their product appropriately given that expectation that's in their head. But these expectations have come down because of the Fed's policy and that bodes well for the disinflationary process in 2023.

Here's another killer graph, two for one this morning on the killer graph. This is a market-based measure of what the market thinks inflation is going to be. Over the next two years, the blue line, five years, the gold line, and five years after that, the gray line. So you can see this goes back to 2021.

And the point of this is that in January of 2021, the left hand part of this chart, markets weren't expecting basically any inflation at all. Those numbers there on the left hand side are consistent with the 2% inflation target in these measures. Then between, as inflation went up during 2021 and 2022 and started to come back down, these expectations moved a lot. The two-year inflation expectation at one point was near 5%. The five-year inflation expectation was near 3.5%. That's not good. Those should always be close to 2%. But the good news is on the right hand part of this chart, as the Fed has gotten serious and stressed that we're going to keep inflation under control, these inflation expectations have come back down under 3% and to levels that are more consistent with the Fed's inflation target of 2%. So this bodes well for disinflation in 2023.

I have one more point to make and I'll get out of here. It's true that the financial stress can be harrowing. Things happen very quickly. Information is flying around in financial markets, but financial stress also reduces the level of interest rates typically, and lower rates in turn tend to be a bullish factor for the macroeconomy. During the current stress, the 10-year treasury yield has actually declined despite our hawkish stance in our hawkish setting. The 10-year has actually declined by about 50 basis points on the two-year treasury yield, it's declined by about 100 basis points. There is some self correction going on here that this would mitigate some of the negative macroeconomic fallout that might otherwise occur in the aftermath of a period of financial stress. So there's kind of a natural mechanism at play here. Here's the chart. This is daily data on yields. The two-year yield is the blue line and the 10-year yield is the gold line here. You could see we were going along from January to March, but then with the Silicon Valley Bank run, financial stress ensued and rates went down.

In particular the 10 years were a real benchmark yield and is down about 50 basis points. That might help us a little bit going forward. So a little bit of a silver lining. Okay, so what did I say? Certainly financial stress has increased in recent days. I do think that the macroprudential response has been swift and appropriate and regulators stand ready to take additional action if necessary. In the meantime, incoming macroeconomic data been stronger than expected. Inflation remains too high. FOMC policy during the last year has been very good and has kept market-based measures of inflation expectations relatively low that should feed through to actual inflation during 2023. So let's hope that that occurs and appropriate macroprudential policy can contain financial stress while at the same time appropriate monetary policy can continue to put downward pressure on inflation. Thanks very much. Thanks for coming out this morning and I appreciate your attention during this talk. Thank you.

Speaker 2:

Please welcome, consumer and banking vice chair at US Bank, Tim Welsh.

Jason Welsh:

Hey, great comments.

James Bullard:

Thank you.

Jason Welsh:

Thank you so much. Great to be with all of you. As Jason had mentioned in his very generous comments earlier, my name is Tim Welsh. I'm the vice chair of consumer and business banking at US Bank. I'm also the board chair of Greater MSP, which is a sister organization to Greater St. Louis and US Bank are proud members of GSL. Honored to be with you today and very honored, President Bullard, to have a chance to chat with you a little bit about this. I want to pick up on many of the themes that you talked about. First of all, inflation. It sounded like in your comments, you're feeling quite optimistic about the progress we're making on inflation, but more to do. I wonder if you could just remind all of us how you think of progress. What do you think? Where are the goals? Remind us of where we're trying to get to and what are some of the things that you feel like are working right now in any areas of concern that you have in the inflation front?

James Bullard:

We do have a mandate legislated by Congress and the president to maintain stable prices for the US economy, that's in the law. We've defined stable prices as 2% inflation. That's an international standard that was developed in the 1990s. I think it would be a disaster to abandon that standard that would set all the other countries to abandon their standards and we'd be back to the 1970s. So we don't want to do that. We want to stick to our 2% goal, and that's based on headline PCE inflation. That was one of the lines in the picture there that has come down from high levels.

But I'm a little concerned that some of that decline or a lot of it might probably came from energy price changes and that can be kind of volatile. You don't want to live and die on international commodity markets on this. That's why we look at the other measures as well. They have come down to some but not as much. And so we need those to improve in quarters ahead. I think they will in response to our policy, but we just don't have the data in hand yet on that. That's where we are in the mandate.

Jason Welsh:

That's where we're going. Great, thank you. Now one of the other topics you talked upon obviously touched on, which is closely related to inflation, which is wages and jobs. And we're seeing, as you highlighted, a very strong labor market. We talked to, and I know you talked to, businesses all the time facing challenges with finding new talent. How do you think this labor situation works out? I mean, you highlighted the fact that there are fewer people, for example, in the labor force. Project a little bit for where do you expect unemployment to go and how do we help all these businesses find that people they need to grow?

James Bullard:

I mean, my read of it is, I've talked to many of you, but businesses are still scrambling, I would say, for workers, but being good business people, they also have other ideas about what they might do. One is to substitute capital for labor, more automation, realign their business processes so they don't need quite as many people. I think that kind of thing is occurring. I think they get more inventive about compensation plans for people, redesign jobs so that they can attract workers. I think that's happening, and I think the supply situation is changing some. Immigration is up from where it was, so that's helping a little bit. I think that older people may become somewhat more comfortable coming back into the workforce. So you may see that dimension changing somewhat going forward. A lot of things can happen here, but markets will adjust. It's just not going to happen very quickly, I think.

Jason Welsh:

And I'd love if you could just elaborate a little bit more on that, because one of the things that we're seeing too is people learning new skills, for example, to be able to adapt to the changing environment. You talked about businesses adapting themselves. I think you're describing a quite resilient economy that when faced with these kinds of challenges continues to adapt. Is that generally your perception that both individuals and businesses are continuing to adapt very rapidly?

James Bullard:

I think they are. And certainly this capital for labor kind of idea. A lot of companies have ideas about, "We could automate and we could buy this expensive machine and then we wouldn't need as many workers." And then they didn't do it, and they put that idea on the shelf, but now they're dusting it off. Saying, "Well, it's so hard to get workers now. Maybe now's the time to bite the bullet and go ahead and try to implement this new process." I do hear stories about that, and that's overall good for the economy. There's no reason to have people doing the work if you can automate it and then those people can get higher skills and maybe reallocate into higher paying jobs. So ideally that's the way this would work.

Jason Welsh:

Fantastic. Now I want to pick up on the financial markets and the banking sector that you touched upon. People have obviously been reading the headlines the last few weeks, and I think one of the issues with the banks that you had alluded to is people are concerned that there might be deeper, more structural challenges in the banking system. What are you seeing? Are there those challenges and do you believe the we're in a position to address whatever concerns there may be?

James Bullard:

As Chair Powell said at the press conference, US banking system remains very strong and very resilient. I would just amplify that if you look at the banking sector by the numbers, it's really in very good shape. Something like SVB happens, which is very unanticipated, I think even by the executives at SVB. And this was not sort of widely known and it was very sudden. Of course that's going to create angst and make everybody look at their business plans and make investors reassess and that's appropriate and that's what has happened. But I think it was a quirky situation and I also think that we have the tools to handle any fallout from it. And I think we've implemented one tool, which is the bank term lending program, which I think will be very successful in handling any immediate problems that occur.

Jason Welsh:

It's great to hear that confidence that you express. Now, cognizant, I'd like to shift a little bit to the fact that we're part of a GSL event here. I'm obviously very passionate about Minneapolis as well. You spend a lot of time, I know, thinking about regions and local economies. What are some of the things that you see and you suggest that places like Minneapolis, St. Louis need to do to keep themselves vibrant? Are there ideas that you've seen in the research of things other cities are doing well, anything that you'd highlight in either of these cities, but how do we keep ourselves at the cutting edge so that we can continue to have a vibrant and inclusive economy?

James Bullard:

Well, one thing, I think it's really great to have a group like this, and I think all cities should have a group that's thinking strategically for the region, trying to think about good things. What are the strengths? What are the areas that we can likely succeed going forward? How can we get good things to happen? I think that's very important. I do think that the Midwest has clear advantages in the current environment with, as compared to the coast, which have become very expensive. Some of you know that a few years ago I did a study of per capita income by Metropolitan statistical area. At the time, there were 53 large metropolitan statistical areas in the US. The question I asked is, which ones of these have the highest per capita income? Because as a macroeconomy, that's the kind of thing I want to talk about and focus on.

And you have to take account of the cost of living in these various places. You may get a higher paying job in some cities, but then that gets eaten away because the cost of living is so high in various places. In that study, St. Louis came out number seven out of the 53, Minneapolis also in the top 10 out of the 53 big metropolitan statistical areas. Very large cities like New York, Chicago, and Los Angeles trailed, and even cities that sometimes get a lot of kudos like Atlanta, Indianapolis, Pittsburgh often gets credited. Not that they haven't done good things in those places, but per capita income is lower in those places. Dallas lower in those places than Minneapolis or St. Louis.

Also in that study, the place to watch, and you guys all know this, Nashville, Tennessee, absolute boom town and seems to continue to be a boom town. That's one to look at and think about because if you just look on a map, it doesn't look like that's going to be the place that's going to be the hot place, but it has been for the last 10 to 15 years. So they're doing something right over there.

Jason Welsh:

Clearly are. Sometimes when people look at studies like that, they can say, "Well, the averages may be good, but there can be a lot of dispersion in that." And one of the things I think was interesting about your study is that you found that in places like St. Louis, Minneapolis, that there is actually less inequality in some of those places. Wonder if you could talk about the inequality as well.

James Bullard:

So if you want to move to a place that has less income inequality, it would be places in the Midwest, like Minneapolis or St. Louis. The other places on the coast and the very largest cities, that's where a lot of the inequality is located. It makes a lot of sense. You have a place like New York City will attract very wealthy people and maybe from foreign countries as well, but also have a large group of very poor people. So their inequality is super high. We don't have as much of that, so we don't get that kind of inequality. Not that we don't have issues. All cities have issues, but it's not as high or as rampant, let's say, as it is in some of the coastal cities.

Jason Welsh:

Well, it's great to see that in the Midwest, we're doing a lot of things well. Thank you for those insights. It's been a real joy to hear you today. Thank you for your comments to this group. I want to particularly thank Jason and GSL for hosting this event. Congratulations, by the way, on the amazing success of GSL in the first couple years. It's really remarkable to see. We're grateful to be partners. Thank you all for being here. We're delighted to host this event. And thank you again, President Bullard, for your comments today.

James Bullard:

Great. Thanks so much.