

Transcript  
*FedTalk: 2025 Economic Outlook*  
Federal Reserve Bank of Cleveland  
January 16, 2025

*Presentation*

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**Russell Mills:**

Good afternoon. Thank you for joining us and welcome to today's *FedTalk*. I'm Russell Mills, Senior Regional Officer of the Pittsburgh branch of the Federal Reserve Bank of Cleveland. It's my pleasure to kick off the 2025 *FedTalk* season with our annual economic outlook presentation by Federal Reserve Bank of Cleveland, Senior Vice President and Director of Research Ed Knotek. *FedTalk* is the Cleveland Fed Speaker Series in which we share research that is relevant to our community. Past events have covered such subjects as the racial wealth gap, access to the labor market and financial literacy. All our events can be found on our website [clevelandfed.org](https://clevelandfed.org).

A few housekeeping items before we begin. During this event, your microphone and camera are disabled. Please type and submit your questions for Ed in the chat box. In case the Zoom meeting drops. Please use the dial in information provided in the invitation to join the call. And before we begin our program, I'd like to state the views shared today by myself and Ed Knotek are our own and not necessarily those of the Federal Reserve Bank of Cleveland or the Federal Reserve System. So, I have the pleasure of introducing Ed Knotek. Ed is the Senior Vice President and Director of Research here at the Cleveland Fed. Ed joined the Cleveland Fed in 2012 and assumed his role as Research Director in 2023. Ed, I'll turn over the show to you. Thank you very much.

**Edward Knotek:**

All right, thank you Russ and my thanks to all of you for joining us today as we kick off our 2025 *FedTalk* Series. So, as Russ said, my name is Ed Knotek, I'm the research director here at the Cleveland Fed, I'll be presenting the 2025 economic outlook today. Oops, I've already messed up things, so there we go. So, give me one second, here we are, there we are. Thank you very much. All right, so just because we're a belt and suspenders type of operation, as is always the case, the views that I will express are going to be my own today and not necessarily those of the Federal Reserve Bank of Cleveland or the Federal Reserve System.

So, in my presentation today, I'll be making four main points. First, the economy looks to have grown at a solid pace in 2024, supported by strong consumer spending. Second, the labor market remains healthy while the unemployment rate has moved up since early 2023, it remains relatively low by historical standards. Third, inflation has moderated over the last two years, but

it's still above 2%. And fourth, projections from the FOMC's December meeting suggest that monetary policymakers expect the federal funds rate will continue to decline this year, but generally by less than it declined in 2024.

So, as any good macroeconomist, let me start first with real gross domestic product or GDP, which is the broadest measure of spending in the economy, capturing spending by households, businesses, and governments. The data indicate that real GDP grew at a solid pace in 2024, as shown in the black diamonds in this chart, real GDP grew at about a 2.5% rate through the first three quarters of last year, reflecting normal data collection lags. Data for the fourth quarter haven't been released yet, but economists in the blue-chip economic indicator survey estimate that growth in the fourth quarter was in the one and a half to two and three quarters percent range.

In absolute terms, this is pretty good growth for the economy. So, let me next break down GDP growth into its main components. Consumer spending, investment, government spending and international trade is captured by net exports. The colored bars in this chart show the contributions to GDP growth. Consumer spending, which accounts for two-thirds of overall spending is in the light blue areas at the top of each set of stacked bars. As you can see, consumer spending played a large role in driving growth last year, especially in the third quarter.

Anecdotal reports on holiday spending in yesterday's beige book and today's retail sales report were consistent with solid consumption growth in the fourth quarter as well. Throughout last year, business fixed investment in gray and government spending in dark blue also added to growth. Residential investment in orange was more variable over the course of the year, which I'll come back to later. Finally, net exports weighed on growth last year. But first let me dive into consumer spending a little bit further. So first off, let me take a look at consumers attitudes. While consumers continue to spend at a pretty good clip, consumer attitudes are generally subdued compared with where they were before the pandemic.

The blue line has the University of Michigan's consumer sentiment measure and the orange line has the conference board's consumer confidence measure. You can see that these measures are capturing slightly different concepts, but ultimately, they're asking people for their views on the economy. Both are below where they were in 2018 to 2019, but it's worth pointing out that there's been some improvement in the consumer sentiment measure since mid-2022, reflecting slowing inflation, which we'll discuss further later. So, what is supporting consumer spending? Well, one major support has been strong income growth.

Here I have disposable personal income in the blue line, which reflects many factors behind income. So, wages for one have been increasing, we'll talk more about that later on. But we've also seen increases in the number of people employed, what economists call the extensive margin, reflecting a strong labor market. We've also seen increases in proprietor's income, rental income, interest and dividends. Another factor is fiscal transfers, especially during the pandemic as shown by the big vertical spikes in the blue line alongside rising social benefits such as social security.

So, personal outlays in orange, which is a fancy way of saying spending have been rising in part from rising incomes, but other factors are at play as well. So, while not shown in this chart, wealth has also been rising, which has been supporting consumer spending from sharp increases in equity markets over the last two years and also rising home prices for house owners. Now, what's interesting is that consumer spending patterns since the onset of the pandemic have been quite different and experienced a persistent shift especially towards goods. So, this shift was

especially stark early in the pandemic when consumers avoided high contact services, but they quickly ramped up their spending on goods in mid-2020 and early 2021.

And interestingly, these shifts have persisted rather than reverting back. So, in this chart you can see that real spending on durable goods in the green line has increased by about 33% compared with its February 2020 level. Real spending on services in the gray line is up only 12%. So, moving on from consumer spending, let's turn next to the housing market. Looking first at house sales, the left chart here shows new single-family home sales while the chart on the right shows existing single-family home sales. In both cases there was a large jump in sales in 2020 as demand surged amid low mortgage rates.

And as preferences also shifted toward owner-occupied homes and towards different geographies. In the market for new homes, the surge faded quickly as prices rose reflecting limited inventory and more costly construction materials. In the market for existing homes, the surge remained for a while into early 2022, but the sales pace began to decline as mortgage rates rose that year. Over the last two years or so, the sales pace has been trending sideways for the most part. Now, one factor behind this flat trend in house sales is mortgage rates. So, the 30-year mortgage rate went from around 3.5% at the start of 2022 to around 7% by the end of that year.

It's been near that level since, albeit with some substantive fluctuations including a decline last summer and then a rebound in the last few months. Mortgage rates are driven by a number of factors, but one key factor is movements in longer-term treasury yields. So, longer-term treasury yields are well above their pre-pandemic levels and they've also increased by about one percentage point since last fall. Another key factor behind housing affordability and the status of the housing market is home prices.

Now, the recent slowing in the housing market has been very different compared with what happened around the 2007 to 2009 recession. Then there was too much inventory relative to demand. Now, housing inventories remain relatively low on the market. So, with relatively few homes on the market, home prices have been high and have stayed high. Nationally, home prices are up about 50% since early 2020. The story is roughly similar across the four major metro areas here in the fourth district as shown in this chart. Looking a little bit more at construction with relatively low housing inventories, new single-family housing starts are at a level a little bit above their pre-pandemic pace as shown in the blue line on the left side of this chart.

Construction activity in the multifamily housing market had ramped up in 2021 and 2022 as increased household formation pushed up rents and builders responded to those high rents by building more units. More recently, multifamily building activity has slowed, as has new tenant rent growth. In the right chart, you can see construction spending split into residential and non-residential segments. One key factor behind the increase in non-residential construction spending has been spending on manufacturing structures, which has been boosted by the need to restore supply chains following the pandemic, large and longer-term investments in emerging industries and in response to the CHIPS Act and the Inflation Reduction Act.

As you can see in the red line, the level of such spending has remained high, but the growth rate slowed last year. Other measures also point to some firming in business activity. For example, manufacturing surveys have pointed to subdued conditions since mid-2022. Industrial production has been flat since that time as well. But in the last couple of months, survey data point to some firming and new orders for manufactured goods, which is often correlated with business spending on equipment.

Let me turn next to the labor market, starting with the unemployment rate, which is one of the best known labor market statistics. The unemployment rate was 4.1% in December 2024. It had peaked at almost 15% in April 2020, so this represents a dramatic improvement. Now, as you can see on the left, the unemployment rate is up a little from its lows in 2023 when it had fallen to as low as 3.4% in April of that year, which was a 54-year low. Meanwhile, in the right chart, the labor force participation rate has been trending upward over the last three years. Now, it's worth pointing out the demographic trends, especially the aging of the baby boom generation, are putting downward pressure on participation rates.

So, a rising participation rate is one sign of increasing labor supply. While the unemployment rate has moved up a bit recently, it's still low by historical standards. So, for a little historical context, here are the data going back through the late 1940s. The unemployment rate has been at its current level in only a few expansions over the decades. Another key indicator of the health of the labor market is job growth, the chart on the left shows the net change in payrolls from one month to the next. In December, firms added 256,000 workers on net according to the Bureau of Labor Statistics, a pretty healthy pace. But you can see that the pace of job gains has been slowing over the last few years, albeit unevenly.

Over the last three months, employers added 170,000 jobs per month on average. This is about equal to the average pace of job gains in 2019. The recent increase in the unemployment rate and the slowing in payroll growth suggests that the labor market is not quite as hot as it had been earlier in the expansion. Other indicators point to the same picture. Here I'm showing the ratio of job vacancies to the number of unemployed workers, what economists often call the VU ratio. This ratio is one simple measure of labor demand relative to labor supply.

You can see that there were about two vacant jobs per unemployed worker at the peak in 2021. Since then, however, this ratio has steadily declined and in the last few months it's shown some tentative signs as stabilizing just above one, which is not far from its level in 2018 and 2019. So, in my mind, this ratio suggests that there's now more balance between job openings and job seekers than it was the case a few years ago. Now, consistent with that better balance, wage growth has also slowed. So, here I plot growth in one measure of wages called the employment cost index.

In blue we have the employment cost index for compensation of all civilian workers, which is largely driven by wages and salaries, which is plotted in orange. Now, based on this measure, wages grew at just under a 4% rate through the third quarter of last year. So, wage growth is slowing compared with where it had been in early 2022, but it's still elevated compared with its pre-pandemic levels. A key open question is what, if anything, this might mean for inflation? Now, to the extent that this elevated wage growth reflects a lagged catch-up to past inflation and potentially strong productivity growth, then it may have minimal inflationary consequences.

And indeed, recently productivity growth data have been quite strong. In fact, an economic commentary that just came out of the Cleveland Fed this week estimates that there is a 40% probability that the economy has shifted into a high trend productivity growth regime. Now, if sustained high trend productivity growth would allow for higher non-inflationary wage growth, then it would otherwise have been the case. But as you might imagine, it'll take more time to determine whether that is in any case, the regime that we currently are in or not. So, with that segue, let me turn to examining prices and inflation in some detail.

As you may know, the FOMC has a longer-term inflation objective of 2% inflation as measured by changes in the price index for personal consumption expenditures or PCE inflation. So, I'll

focus on PCE based inflation measures today. And it's important to remember that inflation is looking at the rate of change in broad price indexes. My first chart here shows that inflation rates across multiple measures have come down from their peaks. Overall, or headline PCE inflation is in blue. It has fallen from a peak of 7.2% in June of 2022 to 2.4% as of last November. The squares show estimates from the Cleveland Fed's inflation now casting model, which we publish online on a daily basis, which expects headline PCE inflation to edge up to 2.6% in December before falling to 2.4% in January.

Core PCE inflation, which excludes fluctuations in food and energy prices, is an orange. It's fallen from 5.6% to 2.8%. The squares show that our inflation now casting model expects core PCE inflation to move down further to about 2.6% in January. And lastly, median PCE inflation in gray is also calculated by the Cleveland Fed based on price changes in the middle of the distribution of prices, it too has fallen from 6.1% to 3.1%. So, let me make three additional points on this chart. First, while they've all come down this year-over-year inflation rates are still a little bit above 2%, which is the FYMC's longer term objective.

Second, it's worth noting that toward the left side of this chart in 2018, all three of these measures were right around 2% in that year. And third, median inflation is somewhat higher than headline and core inflation rates, which means that the inflation is being pulled down by a small number of components in the left or lower tail of the distribution of price changes. So, let me dig a little bit further by breaking down PCE inflation into five major components. Energy, food, technically food at home, core goods, housing, and core services excluding housing. Before doing so, this chart shows the relative importances of these five components for consumer spending, which determines their weights in inflation.

Food and energy are small components based on spending shares, but they can also be quite volatile, which means that frequently they can move overall inflation. Core inflation excludes these series and consists of the other three major components. Core goods such as autos, apparel, and recreational items are about a quarter of spending. And as I noted earlier, services are about two thirds of spending with services excluding housing in red about half of consumer spending. So, if I plot inflation rates in each of these five components, they've all come down from their peaks though to varying degrees. Energy inflation and food inflation have both come down by a lot.

Here you can see the initial surge in energy prices in 2021, which then continued into 2022 with the Russian invasion of Ukraine. Since then, however, energy inflation has been declining and was negative for much of the last two years, meaning that energy prices have been falling. Food inflation which had also surged into double digits has also fallen back. Food prices rose 1% on average over the last year based on PC prices. Let me turn next to the components of core inflation. Core goods inflation in gray has been running a touch below zero, similar to its pre-pandemic pace.

Services inflation though is still elevated. This is true for core services excluding housing in red, which is still one to two percentage points above where it was before the pandemic. Inflation and housing services in the light blue line is similarly higher than it had been, though this series has been making some notable downward progress over the last couple of years. So, in general, these lower inflation rates reflect a better balance between supply and demand in the economy and in the labor market than was the case in the 2021 to 2023 period. Now, I'd be remiss if I didn't dig even deeper into at least one of these components as an economist. So, let me a little bit more deeply into the housing services inflation part.

And there's one interesting nugget about how the statistical agencies calculate housing services inflation. So, there's a very specific way that the agencies calculate inflation and the way that this housing services inflation is calculated suggests that there's likely lower inflation still to come, though the timing and magnitude of the decline are uncertain. So, housing services inflation is based on rents because it's a user concept and either this is the rent that people pay if they're renting their home or their apartment or if they're homeowners, it's the implied rent that they would pay to rent that same home.

Now, rents tend not to change frequently, so they're sampled only every six months, which can build a lag into movements in housing inflation. But in addition, from one month to the next, very few rental properties turn over to a new tenant. But those that do are more sensitive to market conditions. So, this chart is plotting growth in new tenant rents. As you can see, growth in new tenant rents had jumped in 2021 as household formation increased, but that growth in new tenant rents has come back down.

And now toward the right-hand side of this chart, new tenant rent growth is similar to its pre-pandemic pace. Research from the Cleveland Fed both was helpful or to construct this chart in the first place and then also analyze what this means for housing inflation going forward. And some of that more recent research finds that it typically takes some time for growth in these new tenant rents to be fully passed through to the official housing services measures. So, with that, let's take a look ahead. So, the economy is entering 2025 with solid momentum, a healthy labor market and inflation readings that are elevated but well off of their peaks.

As a result of these conditions, the Federal Open Market Committee reduced the target range for the federal funds rate by one percentage point last year. Looking at the outlook for 2025 and beyond, a few of the key factors that will drive the economy this year include fundamentals that are supporting consumer and business spending, including confidence or sentiment measures, incomes and asset prices. Secondly, the potential for changes in government policies, which includes fiscal decisions over taxes and spending, including tariff policies and potential changes to immigration policy that have been in the news. And third, the future path of monetary policy.

So, putting these pieces together, let me briefly turn to the forecast. To do so, I'll show the forecast the FOMC participants made for their December FOMC meeting. Now, of course different forecasters have different views on both the fundamentals that I just mentioned, but also how the economy will fare ahead. For example, as Fed chair Jerome Powell indicated in his December press conference some forecast incorporate different perspective government policies than others. The red dots are the medians across the individual projections for a particular year or the middle forecast, and I'll focus on those.

But the blue bands or boxes provide the central tendency across the projections and the whiskers or error bars provide the range of views helping you to see the forecast dispersion. So, after growing at an above trend pace in 2024, the median FOMC participant expected that GDP growth would step down this year to a pace just above 2%, which is still a little higher than its longer run estimate. Growth over 2026 and 2027 was projected to edge down a little from that rate. In terms of the labor market, as noted earlier, the unemployment rate ended last year at 4.1%.

This chart shows that the median FOMC participant expected that the unemployment rate would be little changed by the end of this year, ending the year up just a touch at 4.3%. The unemployment rate was then projected to remain steady at that level, which is very similar to its longer run estimate. Turning to inflation in terms of PCE inflation, FOMC participants expected

that inflation would fall to 2% over time. The median FOMC participant projected that headline PCE inflation would be 2.4% over the four quarters of 2025, which is equal to its current reading. PCE inflation is then expected to decline back toward 2% over 2026 and 2027.

In the longer run, all FOMC participants believe that inflation would be equal to the FOMC's inflation objective of 2%. And finally, let's turn to monetary policy. FOMC participants in general projected that the federal funds rate would decline this year. This so-called DOT plot shows participants' expectations for the appropriate level of the federal funds rate at the end of each calendar year and in the longer run. The current target range for the federal funds rate is four and a quarter to 4.5%. At the end of this year, the median FOMC participant projected the appropriate level for the federal funds rate would be 3.9%.

Before turning to questions, let me briefly put in a plug for the Bank's Center for Inflation Research whose resources were mentioned several times in this presentation. The Cleveland Fed's Center for Inflation Research is focused on improving the understanding of inflation and its dynamics. It provides inflation content for researchers, policymakers and the public, ranging from an Inflation 101 page, an educational explainer videos to inflation data and indicators such as our inflation now casting page and median CPI. Survey estimates of inflation expectations including our survey of firm's inflation expectations and in-depth analyses via our Economic Commentary and working paper series.

So, I'll stop here, but thanks again for attending today. The Cleveland Fed has many resources available to you if you're interested in learning more, and I look forward to addressing some of your questions. So, thank you.

### **Russell Mills:**

Thank you, Ed, that was wonderful. I appreciate you doing the wonderful economic outlook talk today. So, we have a list of questions that we're sending in advance that folks, when they registered for the talk today submitted. If you have additional questions that came to mind when Ed was giving his presentation, please put those in the chat and those will come to me through our chat here. So, Ed, I'd like to start off by asking several folks who registered had a general theme around this particular question. There's a considerable uncertainty about trade immigration, fiscal policy regulations stemming from the incoming administration's likely policies.

Could you give us a sense of how the Cleveland Fed is incorporating these uncertainties into our forecasting models looking at the economy in the years ahead?

### **Edward Knotek:**

Sure, good question Russ. And thank you for asking this and thank you to the audience members for submitting this. I think this is definitely on people's minds, it's definitely in the news. It's something that we here at the Cleveland Fed are paying close attention to, but also the economics profession more broadly. So, I'll take a step back and maybe think through the lens of the December FOMC SEP that I just showed. So, in there, as I had noted and Chair Powell had indicated, some people had included some estimates for what might happen this year, some people didn't.

So, there's a range of views on the likely policies, and I think that the key here is that the details are going to matter and in many cases as a profession don't have all the details. So, it's the

specifics, it's the timing, it's exactly what policies will be put in place, when they'll be put in place, what types of responses could be put in place that will ultimately be very important in driving the economy and forecasts of the economy. So, we think about things like trade policies, so when I think about trade policies, there's been a lot of discussion of tariffs.

What tariffs are basically a tax on imports, it's very common for that to increase the cost of those imports, but exactly how that will play out dynamically through the economy there is a little bit more uncertainty if we think about changes to immigration policy. So that certainly could affect the size and composition of the US labor force either in the near term or over time. Fewer workers could affect things like wages, prices, and output. If I think about fiscal policies, there could be an extension of current tax policies that may not have too large of an impact on the outlook, but certainly if you change current policies that could impact the outlook, whether it's on the tax or the spending side.

Same with regulatory changes. Again, it depends on what those look like, which sectors may or may not be impacted and how they'd play out. So, the bottom line is that I think on net, many economists, if you look across a number of the proposals that are out there, suggest that these different proposals could boost growth. At least some of them are likely to raise costs and at least some prices, but there's a lot of uncertainty around what the effects would be. And so again, just going back to where we were a little bit ago, the December FOMC submissions, you saw growth projections being pretty solid for this year, inflation coming in around 2.5%.

And believe it or not, these forecasts are very similar to private sector economist forecasts for 2025 through, for example, like the blue-chip economic indicator survey. So, there's a lot of uncertainty though around those point estimates that we don't want to downplay.

### **Russell Mills:**

And I guess I'd follow up, the academic literature seems mixed on this subject of particularly around tariffs and inflationary pressures. Is that your read on the situation as well?

### **Edward Knotek:**

Thanks Russ. Yes, so I think in some ways there's some consensus, but in other ways a lot of differences of opinion. So again, let's think about just tariffs, prices and inflation more generally. So, a lot of this is going to depend on the details, what may or may not be imposed in the United States. How in if foreign countries would respond, the timing, would it be all at once? Would it be spaced out? So, all of these details would certainly matter. You're taking a step back and thinking about the academic literature. So, at a very high level, tariffs constitute attacks on imports, they're intended to raise the cost of imports.

So, it's a reasonable starting point to think that this would indeed raise import prices and potentially lower import quantities. There is some academic literature that suggests that that's a very typical response to tariffs, but then there's lots of other margins that you have to start thinking about. For example, does this mean that consumers would substitute to domestic outputs or would they substitute to imports from other countries? There's also a question of just how much exactly would be passed through to prices, especially to consumer prices. Because there's channels of distribution, right?

There's the price at the dock, so to speak and then there's the price on the shelf and those prices aren't necessarily going to be the same. There's wholesalers, retailers, there's different margins



of adjustment that could be used. A lot of this depends on things like an economics jargon, the elasticity of demand, how willing people are to substitute to other goods, how willing businesses are to accept lower profits, how robust supply chains, how robust and flexible supply chains are, how much substitution there'd be from other countries.

So, there's a lot of channels that at play. I think just to sum up the academic literature, in my reading of the literature is that tariffs do pass through to import prices more or less fully. But then from import prices to final prices, I think much of that gets passed through, but maybe not all. But again, there's a variety of estimates in the literature. And then the last point that I would raise is that a lot of that's partial equilibrium. You also have to be thinking about general equilibrium effects. So, higher tariffs, there's the question around what would be the foreign economy's responses? What would happen to foreign economies? Would they slow? Does that cause a dollar to appreciate?

An appreciating dollar could potentially offset some portion of the higher import prices in general. There's a question of how would other firms here respond to higher prices? How would potential tariffs impact the economy given recent events, given that we've had elevated inflation readings in the recent years, would that lead to more or less pass through now than maybe in the past? Would this be a one-time event that just raises the price level? Is it going to be a sequence of events that affects inflation over a broader horizon?

And then lastly, I would just throw out there what people might think about the future going forward. Does this impact their future planning, their inflation expectations? Economists talk a lot about inflation expectations. If those are anchored, maybe this is a one-off event. If they aren't anchored, then it could be more persistent. So again, that just scratches the surface of all the things that need to be unpacked to think fully through whatever policies may actually be put in place.

### **Russell Mills:**

Great. Thanks Ed. And I think that really provides some context about how complicated the topic is, right? A lot of what we get questions about or what we hear about on this topic is are very yes no and requests for yes, no answers. And oftentimes it isn't that simple. But let's pivot and talk about another topic that has something to do with inflation. One of the questions that a respondent or a registered participant put in was, has the Cleveland Fed seen increases in productivity in recent months? And you touched on this a bit in the presentation. They were particularly interested in productivity gains and manufacturing and what the impact on those gains might be for the outlook on things like wages and inflation.

### **Edward Knotek:**

Yeah, it's a great question and it's a very exciting topic. So, they're in the data, when we look at the data, there have been some pretty big increases in productivity since the pandemic. So, we've seen high productivity growth since the pandemic. That's at the economy-wide level. If you look at the manufacturing sector, there have been increases in productivity in the manufacturing sector as well, especially relative to its recent trends. So, in the recent past, manufacturing productivity has actually been falling. Now, you've seen it move up and tick up a little bit. So, that's been a real change from the relative past and the recent past.

But more broadly, it's very common to look at non-farm business sector productivity. We've seen some pretty big gains and actually, as I alluded to, we just had a piece come out of the

Cleveland Fed this week on productivity and whether we might be in a higher productivity regime. So, just taking a step back, what does productivity mean? So, productivity, we usually measure it as output per hour. So, if there's higher productivity or faster productivity growth, that means that one hour of work leads to more economic output or faster economic growth. Okay?

So, that in general is a very good thing for the economy because it can basically allow for stronger non-inflationary wage growth and it puts less pressure on inflation. So, if you have more productivity, that means again, that workers can produce more for the same number of work hours, which means that in turn they can earn more and spend it on those additional goods and services that are being produced. If we look at the history, there was strong productivity growth prior to 1973. Then for reasons that economists are still debating productivity growth appeared to have downshifted in the 1970s and 80s and early 1990s.

We then had an increase another uptick in the productivity growth regime in the late 1990s reflecting the IT revolution. Unfortunately, that did not last that long and productivity growth came back down in the 2000s and 2010s. So now, the economic commentary that just came out this week looks at the possibility that we might be reverting back to that higher productivity growth regime. The estimates in the piece are about 40%, which is a distinct increase from where we were before the pandemic, but certainly not a sure thing.

So, this is something that economists are looking at quite a bit that we here at the Cleveland Fed are looking at as well. It'd be very exciting and a great development if that higher productivity growth could be sustained, and that certainly would help to contribute to high nominal wage growth, but potentially in a non-inflationary environment.

#### **Russell Mills:**

So, we were talking about in your presentation, you talked quite a bit about the labor force and how that leveled off and who might be entering and exiting the labor force. One thing that keeps some people from entering the labor force is obviously access to child care and the ability to seek that. One person who was registered for the webinar today asked, it seemed like they ran in a child care firm in the Cleveland area, asked if our community development research team had seen an increase in demand for child care services. Particularly as we've seen an increase in the labor force participation rate for prime age women over the last year, I believe it hit a high watermark earlier this year.

Any insights into that particular topic and what the link might be as we see more women enter the labor force and what that might mean for child care and community development services?

#### **Edward Knotek:**

Yeah, thanks Russ. And just to give a plug, so the Cleveland Fed does a lot of outreach in our district. So, our regional team, including Russ, we are out there pounding the pavement, proverbially and physically talking to business contacts, but we're also talking to community contacts, especially through our community development team. So, we try to have an ear to the ground and hear what's going on, where the pain points are. And so yes, the short answer is yes, we are hearing from some contacts about an increased demand for child care services and certainly for many households. We're hearing also that this is a pain point for a couple of reasons.

One is just the expense, so child care is quite a large expense, especially for larger families, but secondly are just difficulties in finding child care even at higher prices. There are certainly access issues to child care. So, we're definitely hearing those challenges in the CD space. This is something that multiple groups here at the Cleveland Fed are working on and paying attention to precisely because child care does affect labor force participation. It could be a barrier to getting more people into the labor force over time. And so, that's something that we definitely are paying attention to and investigating.

And actually, our communications team had just put out a piece, a long piece on child care challenges as well. So, I think that our staff will be able to put a link to that piece in the chat, but this is definitely an area that we've heard about from contacts and we continue to study and pay attention to.

**Russell Mills:**

Thanks, Ed. We've had a couple questions come in the chat that I'd like to throw out back to our previous topic on productivity. One, a couple of the questions that have come in around the theme of artificial intelligence. One question was, are we able to quantify any productivity gains from the transition to AI? And if so, what does it look like? I guess I'll reframe it a bit more broadly. What are we hearing from our contacts in terms of the transition and the uptick of AI within their enterprises to increase productivity?

**Edward Knotek:**

Good question, Russ. And if you were giving this *FedTalk*, I might've asked you the same thing, but I see you're putting me on the spot.

**Russell Mills:**

And I can chime in too, I guess.

**Edward Knotek:**

That's fair. No, no, no. Well, but no, it's a good question. This is certainly a very hot topic. It's definitely in the news, getting a lot of play. Let's talk a little bit about the data. So, I think economists are certainly talking about AI, what it means, not just in the near term, but the medium term, the longer term. As you might imagine, there are a range of views, some economists think that this could be really transformational. Others think that it's likely to contribute a little bit, but maybe not that much because it's just the case that there's new innovations all the time that are happening, and this is just the latest of them, so very, very disparate views.

So far, my reading is that AI is probably a contributor, but I'm not sure that it's been a major contributor to some of the productivity numbers that I mentioned a little bit ago, just because it is so new. And oftentimes with these general-purpose technologies, it takes a while for them to be fully integrated into the production network, into production chains, into business processes. Now, that having been said, I do think that there are anecdotes pointing to gains in productivity from AI, Gen AI, large language models and the like. So, every so often some of the anecdotes that we will hear that come into the Cleveland Fed will be in the 10% to 20% increases in productivity range, which certainly that's great to the extent that those gains can be sustained.

Because as we think about productivity growth, I mean there's the productivity level, but what you'd like to see is gains in productivity that continue to persist over a long period of time. So, I think there's that question of is this going to be a level shift in productivity or is this going to change the long-term growth rate of productivity? It's still very, very early days to have that conversation, but so short answer, anecdotally, definitely hearing some news, but it still seems like it's early days to see this in the broad productivity statistics at this point.

**Russell Mills:**

Yeah, I think that's interesting Ed. And going back to our first question about what we saw in the policy environment around tariffs. Have we heard from businesses or are you seeing in the data that some businesses are taking steps to adjust to the shifting policy environment by perhaps pulling ahead purchases? Also, I'll throw in a question that maybe is related to that. Have you seen or do you maybe believe that consumers are pulling ahead purchases in anticipation of higher inflation in the coming year, maybe in quarter four or maybe early in quarter one for both of those because of higher inflation expectations?

**Edward Knotek:**

Yeah, good question. So, I think the way that I'm viewing it is scattered anecdotes might be the way that I would phrase things. There are some scattered anecdotes of stronger spending on motor vehicles in a few cases here and there. We're hearing scattered anecdotes around some stocking up inventory building. But in terms of the aggregate data so far, sometimes because of data lags, it's very tough to see those types of dynamics in the macro data or the aggregate statistics at this point in time. So, a little bit of support on the anecdotal side that's coming in, but certainly something that we're paying attention to.

**Russell Mills:**

Yeah, that's pretty much pretty consistent with what I've also heard as well. Let's pivot to a bit of a different topic from the great state of Kentucky, which in our district, eastern Kentucky. So, somebody, a participant from Kentucky, sent in a question that said, the Kentucky economy is at a high point with several large manufacturing projects going into operation this year, particularly in EV battery production. And so, given the macroeconomic factors generally, what do you see determining the outlook for growth? And I phrase this more broadly in so-called megaprojects, and so we've heard about the Intel factory outside of Columbus.

There was another large announcement today about a defense contractor outside of Ohio. For these large megaprojects that tend to be an EV, solar manufacturing data centers, what's the outlook for those look like in our region, do you think, for 2025?

**Edward Knotek:**

Yeah, good question, Russ. And so, as a starting point right now, the economy appears to be pretty strong. The labor market's healthy, so certainly in my mind a strong economy with strong growth that should help to continue to support these types of projects going forward. But the reality is that some of these megaprojects are really, really long-term projects and in order to make them make economic sense, the businesses behind them have to be looking well into the future, not just at the current business cycle, but across business cycles for potentially even decades thinking about the investments.

So, there certainly has been growing demand for electricity, computing capacity. There's a lot of interest in the next generation of vehicles, whether that's hybrids or EVs. We, just a moment ago talking about advances in AI, computing power, Generative AI, those advances continue. So, we are seeing in the data some of this increase in manufacturing capacity. So, in the one chart that I showed, there has been massive growth in manufacturing structures investment. It's still at high level, so a lot of this building is still happening, even if the growth rate has slowed.

And it's interesting because building the plants is just step one. Then you also have to outfit the plants, and that also is going to be a long and expansive and expensive project. Certainly, government policies can and do play a role in getting these projects going and or where they're located. So, subsidies oftentimes matter, that could be federal, but also state and local subsidies. You have tax incentives, you in some cases have direct spending by the federal government on particular projects. And then of course regulatory policies can factor into what gets started, where it gets started and the like.

But I think again, I would just take a step back and go back to the beginning that many of these are really huge mega projects, they have long timeframes to actually implement, they have even longer timeframes to get a return on that investment. So, near-term policies and economic conditions, they matter but they're only a small part of the equation, I think, when you think about these really long-term investments.

#### **Russell Mills:**

Interesting. And we had another question coming in and I chuckled when I came in because I think it's one that you and I probably struggle with in our work quite a bit. So, the question is very broad in general, but how consistent are regional trends and how similar are they to national trends? A very simple, yet very complicated question to answer.

#### **Edward Knotek:**

Indeed, indeed. Yes, so our fourth district, we'll represent the fourth district here. The fourth district includes Ohio, eastern Kentucky, the northern Panhandle of West Virginia and Western Pennsylvania. I don't think we're too dissimilar from the nation in many ways in terms of we might be a little bit overweight in manufacturing given our history, but we have a knowledge economy, we have a little bit of an Ag sector, we have a mining sector. So, we're very representative in many ways. When I look at the unemployment rate in our district, it mirrors the nation quite closely. It's surged during the pandemic, it's come down, it's remained low.

So, in that sense, it seems like the fourth district right now is fairly well aligned with the nation. We have some research here at the Cleveland Fed that looks at the beige book. It looks at regional diffusion indexes and things like that that tries to map these regional conditions to national conditions. That research using large language models does find that anecdotal reports in the beige book can help around turning points to help identify turning points. So, that does suggest that there is information coming from anecdotes and the regional information that is collected by the Federal Reserve to help with the national business cycle.

So, it doesn't mean though that regions and that even as you go into the sub-regions specific states or even metro areas are always going to be correlated, in fact, they aren't. It's not uncommon for particular parts of the country to go in one direction while the rest of the country goes in the other direction. Certainly, over time, you've seen regional recessions that have not shown up in the nation and vice versa. You've had times of slow growth nationwide where

certain areas have continued to boom. So, that is something that researchers are paying attention to.

As we collect our regional data from the fourth district, we're sensitive to that this is about the fourth district. And then we try to think carefully about what inferences we can draw from that for the nation.

**Russell Mills:**

Ed, I'd be remiss if I didn't mention a piece of my co-author Brett Hunter and I published yesterday that looks at employment recovery from the post-pandemic recession and how our region differs from other regions across the country. I think we have a variety of those district data briefs that we publish as well. And so, those are also available on our website that dive into those topics because I think they're very important. All right, Ed, last question I think given the time, and I think it's right in your wheelhouse and it's probably most central to what we do. So, what is the prognosis for inflation to come down to the 2% target and how long would it take?

**Edward Knotek:**

It seems like a simple question, right Russ?

**Russell Mills:**

Yup.

**Edward Knotek:**

So, as I showed earlier, I think it makes sense to look at forecasts from a variety of forecasters. There's research that suggests that consensus forecasts tend outperform single forecasts. So, when I showed earlier the FOMC's projections from the December SEP in general, the consensus among the FOMC participants was that PC inflation would be about two and a half percent this year, step down to a little bit over 2% in 2026 and then return to 2% in 2027. Of course, that's a forecast. There's always uncertainty around every forecast, in fact, the forecasting literature, it measures uncertainty in many, many ways, but those are the point forecasts of the federal open market committee participants.

Private forecasters, professional forecasters generally also have inflation stepping down next year. But again, I think there's always uncertainty around any forecast because the outlook can play out in very different ways. The economy is constantly hit by shocks, and that's just something that I think is always in forecasters minds.

**Russell Mills:**

Great. Well thanks Ed. Thank you very much for the informative outlook talk today. Very much appreciate it. And thank you to all of our attendees today. We had a great number of attendees today and I very much appreciate you taking the time. In the chat, you should see a link to a post-session survey. This survey will also pop up in your browser after the Zoom session is closed. We invite you to take a moment to complete this survey to share your valuable feedback. Information about today's program will be sent in a follow-up email and a video and audio recording of the event will be posted on [clevelandfed.org/fedtalk](https://clevelandfed.org/fedtalk).

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