

## Christopher J Waller: Policy risks have changed

Remarks by Mr Christopher J Waller, Member of the Board of Governors of the Federal Reserve System, at The Centre for Central Banking Guest Lecture, Frankfurt School of Finance and Management, Frankfurt am Main, 22 May 2026.

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Thank you, Jens, and thank you to the Frankfurt School of Finance and Management for the opportunity to speak to you today.<sup>1</sup> Like other central banks, the Federal Reserve is confronted with how to respond to the effects of the conflict in the Middle East, which has constrained supplies and raised prices for petroleum and other goods. While I am hopeful that the conflict is on a path toward a peaceful resolution, it is unclear how long these supply disruptions and their economic impact will last, and that has become one of the biggest questions for the U.S. economy and the path of monetary policy.

What does this mean for the Fed's dual mandate? As I will explain, while I still harbor concerns about the strength of the labor market in the United States, because of the growing length of the conflict, I have become more concerned that higher energy prices may have a lasting effect on inflation.

A year ago, when higher import tariffs raised goods prices, I still supported reducing the Federal Open Market Committee's (FOMC) policy rate because of my expectation that this one-time increase in prices would not have a lasting impact on inflation. That appears to be the right call. And while I was initially hopeful that the Middle East conflict would be quickly resolved and that the FOMC could similarly look through the effects on prices, uncertainty over the conflict and how the energy shock will spread to other prices led me to support a pause in rate cuts at the FOMC's last meeting in April.

Over the past several weeks, data on the labor market and inflation have validated this judgment. Recent jobs data show that the labor market appears to be stabilizing and the unemployment rate is fairly low and stable. But higher energy and commodity prices are pushing up headline inflation and prices for other goods. Inflation is not headed in the right direction. Based on this recent data, I would support removing the "easing bias" language in our policy statement to make it clear that a rate cut is no more likely in the future than a rate increase.

That doesn't mean, however, that I think we should be considering rate increases in the near future. While the labor market is on a more stable footing, it is not booming, and with monetary policy still at a restrictive setting, raising the policy rate could cause damage. The oil shock's effect on prices may dissipate soon, in which case raising rates may only begin to bite after inflation has started coming back down. But I can no longer rule out rate hikes further down the road if inflation does not abate soon, and that is especially true if measures of inflation expectations, some of which have risen lately, show signs of becoming unanchored.

With regard to future rate cuts, I am going to need to see improvement on inflation or a significant deterioration in the labor market before I would consider reducing the policy rate. So, on net, my current policy position is to hold rates steady for the near term.

Today my focus is inflation, but let me start with the outlook for economic activity and the labor market. Recent data indicate that gross domestic product has continued to grow at a solid pace, boosted by torrid business investment related to artificial intelligence (AI) and resilient consumer spending, despite higher prices and related low readings in surveys of consumer sentiment.

Real GDP grew 2.1 percent in 2025, at a 2 percent rate in the first quarter, and my estimate is that this is close to the pace in the second quarter. Retail sales grew 0.5 percent in April, in part because of a surge in spending at gasoline stations, but spending also rose at other establishments, including restaurants and bars, a discretionary category that suggests that consumers are still opening their wallets. Higher prices are likely the reason that consumer sentiment has fallen to record low levels, as registered in the Michigan Survey, but so far that hasn't been reflected in a pullback in spending. It usually takes a little time for an energy price shock to crimp consumer spending on other goods and services, and another factor that may be delaying the response is the impact of higher federal income tax refunds due to last year's legislation. There are estimates that about 100 million households are seeing their tax bills reduced modestly. But these refunds are concentrated among those of higher income, so it isn't helping the lower-income households who have been feeling the burden of higher gasoline prices over the past few months. Overall, households are saving less, and the saving rate, which was high in the wake of the pandemic, reached a four-year low of 3.6 percent in March. Spending did fall in April at auto dealerships as well as furniture and clothing outlets and department stores, and I will be watching carefully to see whether this persists. Meanwhile, manufacturing production rose at a solid pace in April, and investment in high-tech goods related to the AI buildout is continuing to be a big factor driving GDP growth. I see no signs of this investment slowing down.

After worrying about a deterioration in the labor market through most of 2025, recent data has indicated to me that labor supply and demand have finally come into a rough balance. Hiring ticked up in March to its highest level in more than a year, and job openings have been steady in recent months. The unemployment rate in April held steady at 4.3 percent, close to my estimate of its long-run level, and those of my FOMC colleagues. The economy created a net 115,000 jobs in April and averaged 48,000 new jobs over the past three months.<sup>2</sup> That is historically a low level and, in the past, has been a sign of weakness, but with labor force growth also near zero due to an aging population and low net immigration, little or no job creation is now consistent with a stable labor market. That said, the United States hasn't often experienced little or no growth in labor supply, and in the absence of historical experience, it is hard to judge how employers may react now to a downturn in demand, were one to occur.

My concerns about employment were a big factor in my support for 75 basis points of rate cuts in the second half of 2025, and I believe that this easing of policy helped

stabilize the labor market. Despite my lingering concerns going forward, I don't see the prospect of a weakening labor market as the dominant force that should be guiding monetary policy in the months ahead.

Instead, my focus is on inflation and the effects of the energy price shock caused by the Middle East conflict. Last spring, inflation was close to the FOMC's 2 percent goal when another price shock, this time from import tariffs, threatened to push inflation higher. I believed that the effects of tariffs on inflation would be short-lived and that the FOMC should look through them in setting policy. And in fact, Federal Reserve researchers have concluded that the effects on inflation at this point are very small.<sup>3</sup> But we are now faced with a Middle East conflict that is pushing up inflation. This time, the ultimate impact on inflation will depend on the length of the conflict, how severely supplies are disrupted, and the pass-through of input costs to final product prices. To me, the impact of these factors on inflation is more uncertain than was the impact of tariffs.

As expected, higher energy prices drove up headline inflation again in April, after doing so in March, but one surprise was the extent of the increases in other prices. Consumer price index (CPI) inflation was up 0.6 percent last month, with a 3.8 percent jump in energy prices. More concerning was that grocery prices in April were up 0.7 percent, apparel 0.6 percent, and services excluding energy 0.5 percent. These are all sizable monthly growth rates and come on the heels of other significant increases. Also concerning is how broad price increases have been lately. About half of the categories of goods and services prices tracked in consumer inflation have been up 3 percent or more this year, a historically large share.

Taking into account producer prices, which were up sharply in April, I estimate that personal consumption expenditures (PCE) inflation, the FOMC's preferred measure, rose around 3.8 percent over the previous 12 months, the highest in three years, and well above the FOMC's target of 2 percent. Excluding food and energy prices, which tend to be volatile, policymakers watch "core" inflation as a good guide to price increases in the months ahead, and April core PCE inflation was up about 3.3 percent year over year, which is the most in two and a half years. None of this is good news.

The large increase in energy prices could reverse when the Middle East conflict abates, and this deflation would actually subtract from headline inflation, lowering it quickly. Oil market traders are betting that most of this reversal will occur by the end of the year. But in truth, no one knows how the military conflict will play out, or even how quickly a continued ceasefire or peace would restore shipping and allow the repair and reopening of damaged infrastructure. I said in a speech on April 17 that I thought markets were underpricing the risk of prolonged high energy prices, and I still think they are.

A risk that is getting more real every day is that the longer the energy price shock continues, the greater the chance that these increases bleed into prices for other goods and services. The breadth of the consumer price increases in April and the even sharper increases in producer prices last month do concern me.

Separately, purchasing managers for both manufacturing and nonmanufacturing businesses are reporting that their input costs are rising. The input price index for manufacturing firms has jumped from 59 to 84.6 over the past three months, matching the level reached in April 2022, the same reading as during the thick of the pandemic-

related supply chain crisis. Input price increases are not as dramatic among nonmanufacturing firms, which are the lion's share of U.S. businesses, but they are still elevated. The price index for these purchasing managers held steady at 70.7 in April, its highest reading since October 2022. Inflation then had fallen to 7.8 percent, but only after the FOMC had begun to sharply raise interest rates seven months earlier.

Purchasing managers frequently cited energy as their principal input cost increase, and, as I said, I do expect that these prices will eventually come down. The key for their planning, and for monetary policymaking, is whether the energy price shock is seen to be as transitory as last year's tariffs appear to be, or whether consumers, investors, and business managers believe it will echo the longer-term disruptions we saw after the pandemic. In other words, the outcome will be significantly affected by whether expectations of future inflation rise, as they did during the pandemic.

While measures of longer-term inflation expectations are still relatively low and appear well anchored, some expectations from one to five years ahead have moved up since the beginning of 2026, which I find concerning. I will be watching market-based measures carefully to see if this near-term view of inflation begins to move longer-term expectations. At least to date, I don't see any sign of escalating inflation or expectations of inflation in wage increases, which have been averaging below 4 percent a year, consistent with inflation close to 2 percent and productivity growing at near that pace.

And while the stability so far of longer-term inflation expectations is encouraging, I can't be sure it is the end of the story. As we saw in the pandemic, a series of what seem to be transitory shocks can lead to persistent inflation and an unanchoring of inflation expectations. Once again, we have been hit by multiple price shocks, starting with tariffs and followed by the current oil shock. As I argued in a recent speech, while each of these two shocks is arguably transitory, and we should look through them as policymakers, there is the question of whether they interact in such a way that longer-term inflation expectations rise and inflation becomes more persistent.<sup>4</sup>

With regard to this last statement, there is a theoretical puzzle that I have been thinking about. If people know that each shock in a sequence of price shocks is transitory, then why might they expect average inflation to increase in the future when observing this sequence of shocks? Let me give a simple example. If you flipped a coin and won a dollar each time it came up heads and lost a dollar every time it came up tails, your expected winnings from the next flip of the coin would be zero. This would still be true even if the last three coin flips came up heads. But when forming this expectation, it is assumed that the flips are independent and uncorrelated. And we all make this assumption when calculating this expectation. Expectations formed this way are based on classical probability theory—in this case, people are assumed to know the data generating process.

But what if they don't understand it? Then they must make a judgment on a probability that may only be based on limited information.<sup>5</sup> This is where Bayesian updating comes into play. In a nutshell, Bayesian updating adjusts the perceived probability of an event happening based on the history of past shocks. To illustrate how this works, if someone saw three heads come up in a row, they might infer that the coin flips are not independent and are, in fact, positively correlated. The source of the positive correlation is unclear, but it is what they believe. So, based on observing three heads in a row, you

would put more than a 50 percent probability weight on a coin turning up heads on the next flip and your expected winnings would go up, not stay at zero.

This Bayesian view may apply to inflation expectations as well. If people do not know the true inflation generating process and see a sequence of positive price shocks, they may infer that the next price shock is more likely to be positive than negative. This view can lead them to raise their inflation expectations even though they may also believe the recent shocks are transitory. A large body of research shows that Bayesian selection sometimes helps explain human behavior, and it may be relevant in judging the chances of a move upward in inflation expectations.

The lesson for policymakers is that it may be easy to look through a single price shock such as tariffs, but it may be more risky to look through a series of positive price shocks. If people adjust their inflation expectations in a Bayesian way, then a policymaker may have to respond to transitory shocks, which wouldn't make sense if expectations were formed according to classical probability theory. Policymaking isn't so simple, my friends.

At this point, some unpleasant arithmetic that we need to face up to is that the FOMC has been unable to achieve our stated inflation target for more than five years. In 2021, when inflation took off, we made the judgement that this inflation would be transitory based on logic and effectively considering Bayesian updating in our inflation forecast.<sup>6</sup> This may help explain the FOMC's caution in tightening monetary policy after the pandemic. I believe the Committee was heavily influenced by the low inflation data we observed over the previous decade, which suggested that inflation would fall back to 2 percent or below. I would characterize this as saying we may have been too Bayesian in forecasting inflation: Inflation had been low in the recent past and so our probability estimate was for it to remain low despite the high readings we got in the early part of 2021.

Even so, by adopting an aggressive series of rate hikes in 2022, the FOMC did succeed in dramatically reducing inflation and did so without causing a recession. We were within a quarter percentage point of our inflation goal in April 2025, before tariffs moved inflation in the other direction. But the truth that we must own is that inflation has been above 2 percent for a long time, and that fact raises the risk that the recent escalation of inflation that we are experiencing ends up unanchoring expectations of future inflation. While I am not predicting this and I don't believe it is likely, it is a risk I cannot dismiss and one that I must consider in weighing policy decisions.

So, taking into consideration my evaluation of inflation and the labor market as well as the risks to the FOMC's price-stability and employment goals, I do not expect to support a change to the policy rate in the near term. The next move, whether it is a hike or cut, will depend on the data. Removing the language about the extent and timing of additional adjustments would make this point clear.

So what am I anticipating as the path forward for policy? Fortunately, the labor market seems to have stabilized in recent months, and while it could be negatively affected by higher prices, unless it dramatically deteriorates, I do not expect it to be a major factor driving my view of the appropriate stance of monetary policy in the near term.

Inflation, on the other hand, will be the driving force. And I believe that inflation will largely be determined by the length of this conflict. It may end quickly, or it may persist. I am prepared to be patient in holding policy at its current restrictive setting as we watch how the conflict evolves and what impact there is on inflation and inflation expectations. If I believe inflation expectations start to become unanchored, I would not hesitate to support an increase in the target range for the federal funds rate. But at this point that action is premature. It is time to simply sit and watch how the conflict and the data evolve.

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<sup>1</sup> The views expressed here are my own and are not necessarily those of my colleagues on the Federal Reserve Board or the Federal Open Market Committee.

<sup>2</sup> Based on recent estimate from the Quarterly Census of Employment and Wages, Current Employment Statistics employment growth appears to have been overstated by 45,000 per month starting in April 2025. So I anticipate the three-month average of payroll gains will be revised to near zero in the annual revision early next year.

<sup>3</sup> For an estimate of tariff effects on inflation, see Robert Minton, Madeleine Ray, and Mariano Somale (2026), "[Detecting Tariff Effects on Consumer Prices in Real Time – Part II](#)," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, April 8).

<sup>4</sup> See Christopher J. Waller (2026), "[One Transitory Shock After Another](#)," speech delivered at David Kaserman Memorial Lecture, Department of Economics, Auburn University, Auburn, Alabama.

<sup>5</sup> For a more formal presentation of this idea in a learning model, see Carlos Carvalho, Stefano Eusepi, Emanuel Moench and Bruce Preston. (2023) "Anchored Inflation Expectations," *American Economic Journal: Macroeconomics*, vol. 15 (1), pp.1–47.

<sup>6</sup> In May 2021, I laid out the logic for why the shocks we were observing would only lead to a transitory increase in inflation. This was only a month after we received the first monthly spike in inflation. See Christopher J. Waller (2021), "[The Economic Outlook and Monetary Policy](#)," speech delivered at the Global Interdependence Center's 39th Annual Monetary and Trade Conference, The LeBow College of Business, Drexel University, Philadelphia, Pennsylvania (via webcast), May 13.