

The consequences of optimism and pessimism for inflation dynamics and monetary policy

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Why did inflation rise gradually after the COVID-19 pandemic, and why did central banks initially respond so cautiously? We argue that uncertainty about the persistence of economic conditions provides an important part of the answer. In a New Keynesian model with Bayesian learning, households, firms, and policymakers observe current developments but do not know whether they are temporary or persistent. As they learn over time, waves of optimism and pessimism emerge, causing inflation, output, and interest rates to deviate from fundamentals. The mechanism helps explain both the gradual rise in inflation after COVID and the delayed monetary policy response.

Inflation and uncertainty after COVID

The post-COVID inflation surge posed a difficult challenge for central banks. Inflation increased rapidly across advanced economies, but policymakers were uncertain whether these pressures reflected temporary disruptions or a more persistent shift in economic conditions. This uncertainty was at the heart of the debate between “team transitory” and “team persistent”. While some viewed inflation as a temporary consequence of supply bottlenecks and reopening effects, others warned that inflation would remain elevated and require a stronger policy response. Understanding how such uncertainty affects expectations is crucial because monetary policy depends not only on current inflation but also on beliefs about the future.

Learning about persistence

Standard macroeconomic models typically assume that economic agents know whether shocks are temporary or persistent. In reality, they do not. We incorporate this idea into a New Keynesian model in which agents observe whether economic conditions are strong or weak but must learn whether these developments are temporary or persistent. They update their beliefs using Bayesian learning as new information arrives. This learning process creates systematic deviations between perceptions and fundamentals. Expectations therefore adjust gradually rather than immediately, affecting inflation, output, and monetary policy.

Waves of optimism and pessimism

The model generates waves of optimism and pessimism that depend on the underlying economic environment. When the economy enters a persistent expansion, agents initially assign too much probability to the possibility that the improvement is temporary. They are therefore too pessimistic. Inflation, output, and interest rates rise more slowly than fundamentals would suggest. The opposite occurs during persistent downturns. Agents underestimate the persistence of weakness and are therefore too optimistic. As a result, inflation and output initially decline less than they would if the true state of the economy were known. These belief dynamics create an endogenous source of persistence. Inflation adjusts gradually because agents learn about the economy over time rather than because of additional frictions built into the model.

A new perspective on the post-COVID inflation surge

The model provides an explanation for the gradual rise in inflation after COVID and the delayed monetary policy response. Before the recovery began, households, firms, and policymakers had experienced both the global financial crisis and the COVID-19 recession. These episodes shaped beliefs. As a result, agents entered the recovery with a relatively pessimistic outlook and were more inclined to interpret improving economic conditions as temporary. Consequently, inflationary pressures were initially perceived as transitory. Only after several quarters of strong economic performance did agents become convinced that the recovery was persistent. Inflation expectations, inflation itself, and interest rates therefore increased only gradually. The mechanism closely mirrors the observed policy debate and helps explain why monetary tightening occurred later than fundamentals alone would have implied.

Policy implications

Three lessons emerge

First, uncertainty about persistence can itself become an important source of macroeconomic fluctuations. Policymakers should therefore pay close attention not only to economic conditions but also to uncertainty surrounding them.

Second, history matters. Following major downturns, policymakers and private agents may become more inclined to interpret inflationary pressures as temporary, increasing the risk of delayed policy responses. Our model shows that such a 'looking-through' approach can amplify output and inflation if these pressures ultimately prove persistent. The findings therefore highlight the value of early and reliable indicators that help distinguish between transitory and persistent inflationary developments.

Third, a stronger monetary policy response can improve outcomes when uncertainty is high. In our model, a more hawkish policy stance reduces welfare losses and macroeconomic uncertainty by anchoring inflation expectations more effectively. Importantly, this does not necessarily require larger movements in nominal interest rates. Credibility itself helps stabilize the economy.

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