How Much Power Does the Fed Have to Lower Inflation?

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A common view held a few months ago by policy makers, including the Fed and officials in the Biden administration, was that the recent increase in inflation is transitory. It was argued that inflation would mostly subside by itself because much of the increase is due to supply bottlenecks and shifts away from services to goods, which will go away as the pandemic subsides. This view has changed somewhat as inflation has persisted, where it is now believed by many that the Fed may have to act to stem inflation.

If the Fed does have to act, the question is how tight will the Fed have to be? At the time of this writing the Fed's view, backed by financial markets, suggest not much—at most an increase in the federal funds rate of about 2 percentage points over the next year. Behind this view appears to be general agreement on the following: 1) inflation is strongly influenced by inflation expectations, 2) inflation expectations are largely determined by the Fed through its monetary policy (federal funds rate and quantitative easing or tightening) and its announced future plans, and 3) modest increases in the federal funds rate are sufficient to lower inflation, in large part because of the Fed's strong influence on inflation expectations.

There is, however, little evidence that 2) and 3) are true. Surveys of firms suggest that firms have little knowledge of Fed policies and announcements and

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that their inflation expectations mostly depend on current and past inflation. If this is true, then the main channel through which the Fed influences inflation is by tightening monetary policy and contracting the economy. It is the action of the Fed via its effect on the real economy that influences expectations, not its speeches and announcements.

There is also evidence that the Fed's ability to lower aggregate demand by increasing interest rates is modest. Fairly large increases in interest rates are needed to decrease aggregate demand enough to substantially lower inflation. There are also lags, and it can take a number of quarters for the full effects of an increase in interest rates to be realized.

I have used an econometric model of the U.S. economy to estimate the size of these effects. The results show that a sustained 1.0 percentage point increase in the short term interest rate results in a decrease in inflation of 0.43 percentage points after five quarters. The unemployment rate is 0.17 percentage points higher. This means that if the Fed needs to lower inflation by about 2 percentage points, this will take an increase in the short term interest rate of between 4 and 5 percentage points, with the full effects taking about five quarters. If inflation gets really bad and the Fed has to lower it by 4 percentage points, the needed increase in the short term interest rate would be doubled.

The message is thus pessimistic. If it is the case that inflation by itself will not go back to 2 percent, which many are now coming around to believe, the Fed will need to act. However, the Fed's powers are less than is generally realized. There is no evidence that the Fed has much control over firms' inflation expectations, and its ability to influence aggregate demand, and thus inflation, is modest and takes time.