BY MATTHEW WELLS

The Origins of the 2 Percent Inflation Target

The Fed established an explicit inflation target in 2012, but the internal debate began decades before

"The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run."

Eight times a year, the Federal Open Market Committee (FOMC) meets to conduct monetary policy, and, regardless of what actions it takes, this seemingly straightforward line has appeared in each of its post-meeting statements since September 2020. By now, many Fed watchers may take it for granted.

But the committee — the Federal Reserve Board's seven governors, the president of the New York Fed, and a rotating set of four presidents from the other Reserve Banks — has not always been so transparent and precise on this subject. For decades, it did not aim for a target inflation number; even when it appeared to settle behind the scenes on a 2 percent target in 1996, it wasn't made public and explicit until 2012 – 16 years later.

The 2012 pronouncement was the result of a decades-long deliberation, as members first raised the issue in the mid-1990s. Policy change moved slowly, however, as committee turnover brought new preferences and ideas into a dynamic economic and political environment. Along the way, the Richmond Fed's leadership played an important role in bringing these changes about, from being among the first to raise the idea of a target to providing the intellectual leadership that shaped discourse about the benefits of a public inflation target for price stability.

RAISING THE ISSUE IN THE 1990s

Price stability has long been a primary focus of the Fed, even before it was officially established as a part of the Fed's mandate in the Federal Reserve Reform Act of 1977. Despite this focus, the Fed was not always successful, and inflation would hover near or above double digits throughout the 1970s. Paul Volcker, the staunch inflation hawk who became chair of the Fed in 1979, largely succeeded in bringing inflation under control; it was down to 3.2 percent by the end of 1983. The sharp increases in interest rates he used to get there were politically unpopular and led to a deep recession, but they showed the Fed could indeed control the trajectory of inflation through monetary policy.

At the time, most policymakers did not see a need for a target inflation rate; they just knew inflation was too high. Many held that view up until the mid-1990s. Al Broaddus was president of the Richmond Fed at the time, and he agreed the rate needed to come down. More importantly, though, he also maintained the Fed's credibility rested not only in managing actual inflation, but also in its ability to shape inflation expectations. It could establish credibility through a policy of "preemption" — increasing interest rates in response to increasing inflation expectations rather than actual inflation. But on its own, such a policy wasn't necessarily sufficient for establishing long-term price stability, according to Broaddus. "Among monetary economists, there was an increasing recognition that something else was needed," he says. "So people started talking about inflation targets."

Inflation was 2.8 percent when the FOMC held its July 1994 meeting. While it had come down from higher levels, Thomas Melzer, then president of the St. Louis Fed, was still concerned that markets were uncertain about the Fed's ultimate aims, prompting him to raise the idea of a target. "If we don't make an explicit statement ... that goes beyond 'we think price stability is good,'" he argued, "and get more specific in terms of a target range, then at the very least I think we have to make it clear that we consider 3 percent inflation to be unacceptable." Broaddus agreed, suggesting the committee should take the "opportunity to make our longer-term goals more explicit with respect to prices and tie ourselves down a bit." Other FOMC members were skeptical, suggesting such an idea would be difficult to put into actual policy.

A formal debate on the topic would take place in the committee the following January. Chair Alan Greenspan took over from Volcker in 1987 and tasked Broaddus with arguing for the pro-targeting position at that month's meeting; Janet Yellen, appointed a governor in August 1994, was tapped to present arguments in opposition. (Yellen became president of the San Francisco Fed in 2004, Fed chair in 2014, and Treasury secretary in 2021.)

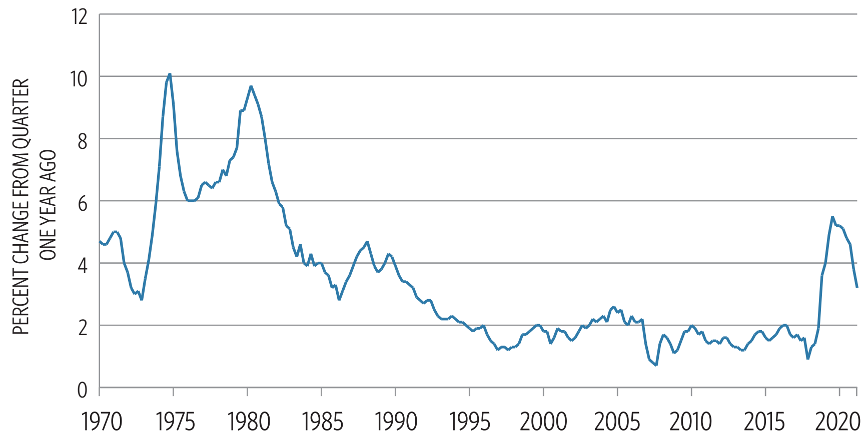
Broaddus urged the committee to move "away from the almost purely discretionary approach to policy we have followed historically ... toward an approach where the central focus would be on precommitment to a permanent low inflation objective." He outlined several advantages to what has come to be known as "flexible inflation targeting," including that it would allow the committee to pursue more activist policy in the short run without losing long-term credibility. For example, the FOMC might find it necessary to temporarily cut interest rates — thereby boosting inflation — to move against short-term dips in economic activity, but the public need not change its expectations if it knew inflation would return to the target in the medium to longer term. Broaddus also noted some other countries were moving in the direction of an inflation target, and the United States should also want to signal its commitment to locking in low inflation. Broaddus didn't name the countries he had in mind, but Canada and New Zealand were two that had adopted an inflation target by this time.

Yellen, who would develop a reputation as perennially the most prepared person in any room, with a thick binder of notes and her own dashboard of economic indicators, made the case that controlling the inflation rate should not be the only objective; she argued that the Fed's other legislatively mandated goal — maximum employment — was also important for a strong and stable economy. Sensing that an inflation target would lead monetary policy to prioritize inflation over employment, she suggested that if the Fed were to adopt any rule, it should pursue a hybrid one similar to those that seemed to be used by other central banks, such as the German Bundesbank, where monetary policy was adjusted on the basis of two targets: inflation and economic output. At the conclusion of the discussion, Greenspan sensed the committee was split, and no action was taken.

Eighteen months later, in July 1996, the FOMC again revisited the issue. Yellen still expressed concern about the potential adverse effects of low inflation on employment, but, in a signal that her thinking had evolved, she spoke in favor of keeping the inflation rate below 3 percent and argued they should work to eventually bring it down to 2 percent, a number that appeared to be supported by a strong majority of the committee, including Broaddus.

Volatility to Moderation

Core PCE Inflation Over Time



SOURCE: U.S. Bureau of Economic Analysis

NOTE: Core PCE (Personal Consumption Index) is a measure of prices paid for goods and services. Core PCE eliminates prices for food and energy, which can have significant and more frequent price fluctuations.

THE ERA OF THE IMPLICIT TARGET?

Because he believed in keeping the committee's monetary policy decisions confidential, market watchers over the course of Greenspan's nearly two decades as chair went so far as to analyze the size of his briefcase on FOMC meeting days for some sort of signal as to whether he would push for an interest rate cut. In keeping with that predisposition toward secrecy, at one point in the July 1996 discussion, after the committee seemed to settle on 2 percent, Greenspan reminded members of their obligation not to disclose any decisions it might reach regarding the inflation target. With an eye on potential political and market blowback, he warned, "I will tell you that if the 2 percent inflation figure gets out of this room, it is going to create more problems for us than I think any of you might anticipate."

Don Kohn, who served as director of the monetary affairs division at the Fed during this period, was in the room. He offers two explanations for Greenspan's reluctance to go public with the target. First, he posits Greenspan simply did not want his discretion constrained in any way when it came to possible actions he might want to take. Second, there was "an unwillingness to create an output gap to get to 2 percent" during the periods when inflation was above that, says Kohn. "If you make 2 percent public, and you're running at 2.5 percent, then the question is, 'why aren't you creating unemployment to get to 2 percent?' That's not a position anyone really wanted to be in." At that time, the FOMC saw itself as being able to bring inflation down successfully without deliberately raising unemployment in what has been described as "opportunistic disinflation;" those are disinflations caused by other forces in the economy but consolidated into place by monetary policy once they occur. After the early and mid-1990s, inflation did fall without a Fed-caused recession or seriously impinging on policy flexibility: Inflation measured by the core personal consumption expenditures (PCE) index went from between 3.5 percent and 5 percent in the late 1980s and early 1990s to largely between 1 percent and 2 percent from the mid-1990s until the late 2010s. (See chart.)

Marvin Goodfriend was Al Broaddus' primary adviser and the Richmond Fed's research director.

Prior to becoming an economist, he had spent a year trying to make it as a rock musician living in a friend's Los Angeles garage, and he had kept that musician's independent spirit, holding fast to the idea the target should be explicit and known by the public at a time when the idea was considered highly unorthodox. He had long argued for transparency regarding the Fed's goals and intentions because without it, its actions to stabilize real economic activity and financial markets were not credible and left open to misinterpretations by market and economic participants.

"Marvin was among the earliest to conclude that an inflation target would help the Fed achieve this credibility," says Broaddus. "His influence on my thinking about a target was decisive and provided the foundation of our advocacy in the FOMC." (Goodfriend later served on the faculty of Carnegie Mellon University; he passed away in 2019.)

In an October 2003 speech Ben Bernanke gave at the St. Louis Fed — he was then a little over a year into his three-year tenure as a member of the Board of Governors — he shared Goodfriend's skepticism that the public and financial markets understood the Fed's implicit inflation objective. Announcing a target, what he called the optimal long-run inflation rate (OLIR), was crucial because it "should help participants in financial markets price long-term bonds and other financial assets more efficiently; help to lower inflation risk in financial markets and in other forms of contracting; and tend to stabilize long-term inflation expectations more broadly, which in turn would make short-run stabilization policy more effective."

Bernanke also took the important step of explaining why the OLIR was 2 percent. His argument centered on the ability of policymakers to boost economic activity through interest rate cuts during periods of low inflation. Cutting rates becomes difficult when interest rates are already near zero, something known as the zero lower bound problem. He cited several studies that found 2 percent was, in his words, "the lowest inflation rate for which the risk of the funds rate hitting the lower bound appears to be 'acceptably small.'" (Prior to the public declaration of the inflation target, the funds rate did hit the zero bound during the financial crisis, and, as discussed below, this further motivated Bernanke's desire to make that formal announcement.)

THE LONG ROAD TO THE CONSENSUS STATEMENT

Bernanke would succeed Greenspan as Fed chair in 2006. He clearly held a different view than his predecessor with respect to the need for the FOMC to be transparent in its approach to inflation, but he could not act on his own. In the March 2007 FOMC meeting, Bernanke took the committee's temperature on several questions that needed to be addressed if it was going to make any changes to existing policy, including whether there should be a target or a range and any time horizon that might be involved. The exchange, however, revealed the committee was still split along these dimensions. For example, Jeffrey Lacker, who had become Richmond Fed president in 2004, favored a 1 percent inflation target with a range of plus or minus 1 percent and a clear time horizon of two years. Yellen, then president of the San Francisco Fed, favored a 1.5 percent target with a range of 1 to 2 percent, but preferred it be a long-run goal and not bound by a fixed time horizon. Still others, like Dallas Fed President Richard Fisher, opposed a target altogether, arguing that there was no evidence countries with a target performed better at managing inflation than those without a target. (Earlier studies comparing economic outcomes between countries with inflation targets — for example, New Zealand, Germany, Canada, and the United Kingdom — and those without did not show clear evidence that such policies improved economic outcomes. Later work would show that inflation targeters better managed price and inflation shocks as well as economic uncertainty.)

Despite these differences, Bernanke hoped they still might find a path forward through the Summary of Economic Projections, a quarterly compilation of each Fed governor's and Reserve Bank president's projections for a series of economic indicators such as GDP, employment, and inflation. By adding another year to participants' inflation forecasts, they might all cluster around a single number, which could serve as a substitute for an announcement of numerical specification. "The hope was, everyone will have the same forecast and then we can go home," says Lacker. "But we were all over the map. So then they added the column for the longer term after all the shocks had died out. That failed, too."

By 2009, the financial crisis had worsened. Bernanke sensed inflation was falling too quickly, which can lead to higher real interest rates. On the other hand, the potential for rising inflation prompted by the quantitative easing needed to fight the crisis worried him as well. Still, action proved elusive, as Congress voiced concerns about the need to also focus on employment, and committee turnover brought in new members who were skeptical of a targeting framework.

The committee did not discuss an inflation target between January 2009 and October 2010, when the concerns over disinflation (that is, declining inflation) evolved into worries about deflation (negative inflation). Those worries prompted Bernanke to revive the idea of a target as a possible way to enhance the forward guidance effects of the 2010 round of quantitative easing known as QE2, meaning that the target would help communicate to the public that the Fed was committed to an inflation rate higher than it was at the time. (See "The Future of Forward Guidance," *Econ Focus*, Fourth Quarter 2022.)

"The next time we do anything ... I think we ought to have a framework that says, 'Here's our objective,'" he told the committee in August. "And then we say that we're trying to achieve an inflation rate ... and that we are going to calibrate our purchases or sales in a way that tries to reach that target." But the committee was still divided, and the announcement of $600 billion in asset purchases after the November 2010 meeting did not include any language along those lines.

Undeterred, supporters on the FOMC still believed it was possible to get broad support for a framework. The November 2011 meeting included an expanded discussion devoted to monetary policy frameworks, and 11 of the 14 participants spoke in favor of adopting some form of a flexible inflation target. Bernanke asked Yellen to head an effort to create a statement of principles that would tackle several potentially controversial issues: identifying a numerical inflation objective, outlining how that number was consistent with the dual mandate, explaining why there would be no employment mandate, and describing how the committee thought about time horizons.

The final product of those efforts — and all those before — was the January 2012 Statement on Longer-Run Goals and Monetary Policy Strategy, which introduced the 2 percent inflation target to the public: "The Committee judges that inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve's statutory mandate."

To get to this point, however, the committee also needed to address the maximum employment mandate to everyone's satisfaction. In a 2020 article, Lacker recalled that the statement had to "delicately finesse the divergent philosophies of participants regarding the meaning of the term 'maximum employment' and its role in monetary policy." To do so, the statement left the term undefined but noted that it is "largely determined by nonmonetary factors that ... may change over time and may not be directly measurable. Consequently, it would not be appropriate to specify a fixed goal for employment." Ultimately, this phrasing, and the entire document, was acceptable to almost all participants, as only Gov. Daniel Tarullo abstained from supporting the document.

The committee opted for the specific 2 percent target, even though many participants over the years had advocated for a range. Lacker has cited two potential explanations for this shift. First, advocates of a single numerical target — often called a "point target" — thought that a range might imply the committee was satisfied with any number within it, even if variations within the range were economically significant. Second, Lacker notes that at that time during the financial crisis, inflation was running below 2 percent. That meant that "a range wasn't as dovish as a point target," he suggests. "If we say 2 percent, that will provide more impetus for expansive policy."

In August 2020, the FOMC released an updated Statement on Longer-Run Goals and Monetary Policy Strategy that maintained the 2 percent target. It made several changes, however. (See "The Fed's New Framework," *Econ Focus*, First Quarter 2021.) Most notably, it acknowledged that inflation since 2012 had frequently been below 2 percent, and so it stated that after such periods, the committee would allow inflation to rise "moderately above 2 percent for some time," bringing the long-term average back to target. It also changed its approach to employment: Where the 2012 statement indicated that the committee would move to reduce employment if it thought it had surpassed what it viewed as "maximum" employment, the new statement indicated that it would only want to reduce employment if it was necessary to keep inflation under control. Finally, it expressed concern that with interest rates near zero at the time, future policy might be constrained by the zero lower bound, increasing downward risks to employment and inflation.

The committee will likely begin another review of its longer-term goals in the coming months. It is currently operating under the 2020 framework but is not constrained by its new features, however, as inflation in recent years approached double digits: more than "moderately" above 2 percent. Instead, it has acted to bring inflation back down to that 2 percent target.

Even during this period, long-run inflation expectations have remained anchored, rising no higher than 2.5 percent, according to the Cleveland Fed. Those expectations have their roots in the FOMC's work as far back as the 1990s, suggests Lacker. That work, bolstered by the launch in 2012 of an explicit inflation target, "was what helped over time cement expectations about inflation." **EF**

READINGS

Bernanke, Ben. "Panel Discussion." Speech at the 28th Annual Policy Conference, "Inflation Targeting: Prospects and Problems," hosted by the Federal Reserve Bank of St. Louis, Oct. 17, 2003.

King, Robert G., and Yang K. Lu. "Credibility and Explicit Inflation Targeting." In Robert G. King and Alexander L. Wolman (eds.), *Essays in Honor of Marvin Goodfriend: Economist and Central Banker*. Federal Reserve Bank of Richmond, 2022.

Lacker, Jeffrey M. "A Look Back at the Consensus Statement." *Cato Journal*, Spring/Summer 2020, vol. 40, no. 2, pp. 285-319.

Shapiro, Adam, and Daniel J. Wilson. "The Evolution of the FOMC's Explicit Inflation Target." *Economic Letter* 2019-12, Federal Reserve Bank of San Francisco, April 15, 2019.