A Critique of Proposals to Raise the Fed's Inflation Target

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During the last seven years, the unemployment rate fell from 10 percent to less than 5 percent, but policymakers say that there is still an underutilization of labor resources. Why? Because inflation is below the Federal Reserve's 2 percent target and GDP is below official estimates of potential GDP. Normally, in this situation the Federal Open Market Committee (FOMC) would lower short-term interest rates in order to stimulate aggregate spending. However, short-term interest rates are near zero—as low as they can go when people have the alternative of holding cash. Those who want to use lower interest rates to stimulate the economy also want a higher inflation target so that when the economy is at full employment nominal interest rates will be higher, and when something bad happens, policymakers will have more flexibility to lower interest rates before hitting the zero lower bound.

In a *Financial Times* interview on April 20, 2015, Federal Reserve Bank of Boston President Eric Rosengren called on his fellow policymakers at the Fed and around the world to consider raising their inflation targets: "As we learn more about the real interest rate potentially being lower, we may at least want to have a broader debate about whether we have set the inflation targets too low" (Fleming 2015).

Cato Journal, Vol. 36, No. 3 (Fall 2016).

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The rationale for a higher inflation target does not depend on there being a long-run tradeoff between inflation and unemployment. It is about countercyclical policy, the desire to have plenty of flexibility for the Fed to lower interest rates when there is a string of bad news. Others, who do believe that there is a long-run tradeoff between inflation and unemployment, also call for *permanently* higher inflation. They think that inflation aids labor market adjustments when the demand for labor falls both for an individual firm and for the economy overall.

This article explains why a higher inflation rate is not a good idea. As a cyclical policy, it would do more harm than good and, as a permanent policy, would not take us to a better economy. I begin by reviewing the calls for more inflation, explaining the rationale that is put forward for each case. Next, I lay out the reasons why raising the inflation target would be a bad idea. In particular, raising the inflation target damages the value of inflation targeting as a nominal anchor. Moreover, I summarize what we have learned about the costs of inflation, both anticipated and unanticipated. Finally, I explain why the perceived benefits suggested by advocates of higher inflation are ephemeral and not likely to be achieved in practice.

Calls for Higher Inflation

Some economists have recommended that the Federal Reserve raise its long-run inflation target from 2 percent to 4 percent—not because they think this would be useful in the near term, but rather because they think a 4 percent inflation economy would perform better than a 2 percent inflation economy. To the best of my knowledge, this argument was first made by Summers (1991) at a conference on the optimal inflation target sponsored by the Federal Reserve Bank of Cleveland and the *Journal of Money, Credit, and Banking* in October 1990. He specifically commented on proposed legislation, House Joint Resolution 409, which would have mandated a zero inflation target for the Federal Reserve. More recently, Ball (2014) and Blanchard, Dell'Ariccia, and Mauro (2010) have argued that 2 percent steady state inflation is too low and causes market interest rates to hit zero too often, frustrating Fed attempts to promote full employment.

The reasoning is simple and rather mechanical, involving two ideas. The first is simply that the market interest rate is the sum of

the real return and the expected inflation rate that should be equal to the inflation target. A higher inflation target during normal times means higher inflation expectations and a higher market interest rate, giving the Fed more room to lower the policy rate when a recession begins. The second idea, open to debate, is that lower interest rates will lead to more aggregate demand and more output. Ball calculates that "if interest rates had been two points lower during 2009, output in 2010 would have been 2 percent higher." Moreover, he argues that "the output gain for 2013 would be 5.9 percent, and the cumulative gain over 2010–13 would be 16.4 percent of annual output" (Ball 2014; 4–5). Similar calculations can be found in Blanchard, Dell'Ariccio, and Mouro (2010).

Well before the 2008–09 financial crisis, Akerlof, Dickens, and Perry (1996 and 2000) argued in favor of higher inflation targets. They want a higher inflation target in order to "grease" the labor market. They assume that workers are ignorant about the effects of inflation on the market for their labor services. These workers would rather have the purchasing power of their paycheck cut by inflation than take a direct cut in their nominal take-home pay. They argue that workers fail to understand that inflation increases wages elsewhere in the economy, so that other wages will be rising while theirs are held constant. Their relative wage will fall just as it does in the case where they get an explicit wage cut. They calculate that "the difference in the sustainable rate of unemployment between operating with a steady 3 percent inflation rate and a steady zero percent inflation rate is estimated as 1 to 2 percentage points" (Akerlof, Dickens, and Perry 1996: 51). Essentially, these authors are arguing that higher inflation will reduce conflict in labor markets and lead to higher aggregate output. Ironically, they are arguing that, by confusing individuals about the relative price of labor, the higher inflation will improve economic efficiency.

There were also calls for a *temporary* increase in the inflation target made early in the financial crisis. The sharp decline in housing and other asset prices in 2008 and 2009 left many highly leveraged homeowners and investors underwater with debt levels that were thought to be a drag on economic recovery. Kenneth Rogoff recommended that the Fed pursue 6 percent inflation for a couple years to help such debtors (see Evans-Pritchard 2009). In 2011, during an NPR interview, he recommended that the Fed print money until the inflation rate reached 5 percent (National Public Radio 2011).

Since most debt is fixed in nominal terms, the policy would intentionally shift wealth from creditors to debtors. Rogoff (2014) clearly intended this to be a temporary policy as he argues against Ball's permanent 4 percent inflation target.

The Inflation Target as a Nominal Anchor

The adoption of inflation targets to stabilize the purchasing power of paper money evolved gradually, after almost two decades of failing attempts to implement money supply targets. The need for a nominal anchor became apparent in the late 1960s and early 1970s as the modified dollar/gold standard adopted at Bretton Woods began to come apart. The U.S. dollar lost its (admittedly weak) anchor to gold and the result was high and uncertain inflation.[1] Initially, the government used wage and price controls to try to control inflation. But the economic distortions were obvious. There were many shortages and nonprice rationing schemes such as lines at gasoline stations. The price controls were abandoned and economists debated about how to repair the damage and implement a new anchor for the dollar. Monetarists, led by Milton Friedman, advocated a fixed growth rate for the money supply. In 1976, Congress passed a resolution requiring the Fed to announce targets for the money supply. Congressman Ron Paul (R-TX) and Lewis Lehrman (1982) called for a return to the gold standard. Others recommended adoption of targets for nominal GDP growth. By targeting nominal GDP at the estimated growth rate of real GDP, the cost of living would rise or fall with fluctuations in productivity.[2] There was little support for inflation targeting because, as Milton Friedman said in his 1967 presidential address to the American Economic Association, the control mechanism linking monetary policy actions to the price level was thought to be too uncertain. He argued there were long and variable lags between monetary policy actions and their effect on inflation. Thus, attempts to target inflation would destabilize the economy and the price level. He admitted that "Perhaps, as our understanding of monetary phenomena

[1]By the late 1970s, high inflation was considered the number one policy problem in the United States. See Gallup Poll results reported in Hibbs (1982).

[2]Looking back to a pre-Keynesian era, Selgin (1990) revisits the classical rationale for a "productivity standard" that looks much like a form of nominal GDP targeting. He also provides a survey of the debate about nominal GDP targeting.

advances, the situation will change. But at the present stage of our understanding, the long way around [money supply targeting] seems the surer way to our objective [price stability]" (Friedman 1968: 15).

Following Friedman's advice, on October 6, 1979, Fed Chairman Paul Volcker announced that the Fed would stop the daily targeting of interest rates and begin targeting bank reserves directly in an attempt to achieve targets for the money supply. Although money supply growth actually rose and became more volatile, attempting to achieve money supply targets drove money market interest rates to almost 20 percent. Interest rates remained high as unemployment rose to 10.4 percent and inflation in the Consumer Price Index (CPI) fell from double-digit levels to 2.5 percent (year over year) in January 1983. Other nations followed the United States in raising interest rates and lowering inflation, some more successfully than others. However, New Zealand and Canada continued to have high inflation, which led their politicians and central banks to adopt inflation targets despite the advice of Milton Friedman and with little support from macroeconomists. There was a big surprise when inflation came down quickly and stabilized around the targets in both countries.

As Friedman was making the case for money supply targeting based on long and variable lags, our knowledge was advancing in the form of the "rational expectations revolution." Friedman advocated for money supply targets because he imagined the central bank could control money in both the short and long run. He was worried about long and variable lags in the control mechanism. In contrast, the theory of rational expectations predicts that people will forecast inflation using all the information they have about monetary policy.[3] The Fed uses the basic premise of rational expectations in its public policy statements that are explicitly aimed at influencing people's expectations about future policy.

Because of inflation targeting's almost immediate success, by the mid-1990s economists scrambled to show how and why inflation targeting worked. It worked indirectly by coordinating the public's inflation expectations around a common number. By deciding on and

[3]A useful case study can be found in Sargent and Zeira (2011). They document the case of an Israeli government promise, in October 1983, to bail out bank stockholders, with the payout to be made four or five years into the future. Inflation began to rise rapidly on the announcement because people believed the promise was credible.

announcing an inflation target, the central bank gave the public the information needed to make good decisions about wages, prices, and long-term financial plans. Contrary to Friedman's concern, inflation targeting did not destabilize the price level or the economy. Rather, it led people to make contracts, follow pricing policies, and make financial plans that incorporated the central bank's objective. Inflation targeting worked with standard interest rate operating procedures because the interest rate includes a premium for inflation expectations. It turns out that stabilizing the policy interest rate around an appropriate level stabilizes the inflation rate. Influencing expectations of future policy has given central banks indirect, but substantial, control over the trend rate of inflation. It is not, however, direct control that can be used to manipulate the inflation rate within a business cycle frequency as advocated by Rogoff.

As more central banks adopted inflation targeting during the 1990s, they converged around a 2 percent target. Why 2 percent? Some believed Summers's (1991) argument about business cycle stabilization and the zero lower bound. Others thought the inflation target could be insurance against the sort of deflation that was associated with the Great Depression. In the United States, Fed Chairman Alan Greenspan argued that the appropriate target would be zero inflation, "properly measured" (FOMC 1996: 51). He cited the Boskin Commission's (1996) finding that the CPI was biased upward, maybe as much as 1 to 2 percent. Because of the perceived bias in the CPI, Greenspan thought that 2 percent inflation target would be closer to 0 percent in a true cost-of-living index. Finally, and perhaps most importantly, by choosing 2 percent the Fed was following the lead of central banks that had already adopted explicit inflation targets.

In practice, central banks around the world have implemented inflation targeting by choosing the same target year in and year out. This process has led the public to believe that inflation-targeting central banks have a long-term inflation objective. So, inflation targeting has been successful because the central bank decides on and announces an inflation objective, not because of a change in its day-to-day behavior in money markets, or in the way it reacts to news about unemployment or real GDP at policy meetings.

The Fed did not announce an explicit numerical objective for inflation until January 25, 2012. Although the Fed did not publicly announce any inflation target before 2012, there is evidence from

16 years earlier that the FOMC had reached a consensus that 2 percent was the appropriate objective (Heller 2015, FOMC 1996). Throughout much of this period, speeches of policymakers and Fed watchers noted that the Fed had a "comfort zone" for inflation that was close to 2 percent. From 1996 through 2014, the average inflation rate in the CPI was just a bit over 2 percent, and the long-run forecasts of business economists have been centered on 2 percent. It appears that the 2 percent inflation objective is working to anchor the U.S. dollar.

Raising the inflation target now would be a setback for the progress that has been made over the past three decades—allowing the anchor to drift would disrupt expectations and risk a return to the high and uncertain inflation of the 1970s. By deciding on and announcing a numerical objective for inflation, the central bank is providing an anchor for the dollar—an anchor based on a price path for an evolving basket of consumer goods. The anchor encourages people to form expectations around a common trend. The central bank does not control the price level directly, but indirectly by creating information that makes it more likely that people will price things in a way that incorporates the central bank's inflation objective.

The Costs of Inflation

The costs of inflation are associated with both anticipated and unanticipated inflation.[4]

Anticipated Inflation

Since currency pays no interest, anticipated inflation acts as a tax on cash balances and causes people to spend resources economizing on cash balances. However, this resource cost is considered to be small in most studies.[5] The most important, yet difficult to quantify, cost of inflation is the damage it does to the monetary standard that we use to measure economic value. Anything that adds uncertainty to

[4]See Kessel and Alchian (1962) for an early and prescient exposition of these ideas. Marty and Thornton (1995) summarize the objections to the moderate inflation rate recommended by Summers (1991).

[5]Fischer (1981) and Dowd (1994) summarize the costs of inflation, including quantitative estimates of the cost of inflation associated with the inflation tax on cash balances.

the unit of account makes the price system less effective and causes the economy to operate less efficiently. Consider an analogy with the distance standard used to measure a unit of length. Suppose that the unit of length were to grow 2 percent a year so that all construction tools, blueprints, and the size of building materials had to be continuously adjusted for the changing unit of length. The example is ridiculous because the costs would be outrageous. But inflation creates the need for accountants to develop systems that can cope with a continuously adjusting unit of account. Avoiding such costs is the reason why the government adopts standards, including a standard for money. Ongoing inflation, even if fully anticipated, degrades the operation of the price-clearing mechanism and makes comparisons among economic values across time and markets less reliable.

The most obvious and quantifiable costs of anticipated inflation come from the interaction of inflation with the tax code. A well-known distortion is the tax deductibility of the interest component in the home mortgage payment. Higher inflation raises mortgage rates and, thus, raises the value of this deduction. This tax subsidy reduces the real cost of home ownership and likely contributes to overinvestment in housing.

Early research by Martin Feldstein analyzes the interaction of inflation with the tax code in the era before the Economic Recovery and Tax Act of 1981 (ERTA)—before the partial indexation of the tax code. Even then, the highest costs of the interaction of the tax code with inflation occurred with taxes on interest and capital income. Since the code continues to tax nominal interest and capital gains, much of the analysis still applies today. Feldstein (1976) explains how inflation interacts with the tax code to raise the cost of capital while lowering the return to household savings; Feldstein (1980) shows how expected inflation interacts with the tax code to reduce the share price per dollar of pretax earnings; and Feldstein (1982) demonstrates that inflation–tax code interaction distorts the measurement of profits, interest payments, and capital gains. Although this early work did not consider the effects of the Reagan tax reform, more recent work does. Feldstein (1997) and Abel (1997) provide further support for the idea that relatively moderate changes in the inflation target can have relatively large effects on welfare through the interaction of inflation with the tax code.

Altig and Carlstrom (1991) show that the imperfect indexation of personal income tax brackets in ERTA 1981 still left measurable

welfare losses associated with high inflation. In a comprehensive analysis of the U.S. tax code, Bullard and Russell (2004) estimate that the welfare costs of moving from a 2 percent to a 4 percent inflation trend would be expected to cause welfare losses equal to about 2 percent of one year's output. They attribute "the lion's share of the welfare cost of higher inflation . . . to its tendency to produce a downward shift in the entire structure of real interest rates, both before and after taxes" (Bullard and Russell 2004: 62).

Bullard and Russell (2004) do not include the capital gains tax. Gavin, Pakko, and Kydland (2007) analyze a tax on realized capital gains that interacts with high inflation. They show that it can account for a substantial share of the cyclical output and employment losses that occurred in the 1973–75 recession. They calculate that an increase in the inflation target from 2 to 4 percent would be expected to lead in the short run to as much as a 2 or 3 percent decline in output while reducing welfare in the long run by a smaller amount (equal to the value of 0.3 percent of a year's output).

Unanticipated Inflation

The discussion to this point has been about the effects of an inflation that is fully anticipated. However, any change in the inflation target necessarily includes an element that is not anticipated. Many plans and contracts that were made in the expectation of a 2 percent inflation economy will turn out badly for some if the Fed were to adopt a 4 percent inflation target. This will be especially true for institutions like life insurance companies, pension funds, and foreign central banks where the portfolio share of long-term U.S. Treasury securities is large. Of course, the large stock of outstanding long-term debt that was issued at low interest rates creates an incentive for the government to adopt a higher inflation objective to inflate away the real burden of the debt on taxpayers. Raising the inflation target would reinforce fears that the government would use higher inflation to effectively default on its debt.

Initially, raising the inflation objective from 2 to 4 percent would arbitrarily redistribute wealth away from savers and toward debtors. But these are distributional effects—some people would be made better off at the expense of others. Higher inflation is associated with more uncertainty about inflation and that hurts everyone. Unanticipated inflation distorts relative price signals, creating confusion about whether any given price change is due to real factors

affecting supply and demand or whether the price change is just part of the absolute change in the average price level. People must tax their memories and powers of calculation to compare the value of goods at different periods of time. Difficulties with accurate price comparisons lead to economic inefficiencies that reduce economic output or, at least, the social value of output.

When inflation becomes less predictable, people shy away from the use of fixed long-term supply contracts, whether they are for labor or other factors. People devote resources to activities that protect them from a future of uncertain inflation. Financial advisors specialize in giving advice about how to protect investments from inflation risk. CEOs are more likely to be chosen from a pool of those with expertise in finance and accounting rather than from a pool of those whose expertise is in the production and distribution of a firm's output and in the particular market for its product. During the 1970s, we saw the creation of a CPI futures market to sell and price inflation risk. When inflation came down this market closed, and the resources that were used to support it were reallocated to more productive activity. During the 1970s, additional accountants and economists were hired to solve problems of measurement and forecasting. The expenses that are incurred to avoid the costs of inflation uncertainty are included in the GDP accounts and cause reported GDP to be higher, even though social welfare may be lower. It is analogous to the surge in aggregate demand that follows a severe hurricane or earthquake. Billions of dollars may be spent to rebuild homes and businesses, but in the end, the total level of capital (and social welfare) is no higher than it was before the natural disaster.

The Flawed Policy Framework

The rationale behind the calls for a higher inflation rate are based on an incorrect reading of why the policy interest rate went to zero in December 2008 and flawed economic ideas about how lower interest rates affect the economy.

Interest Rates Went to Zero Because the Fed Flooded the Market with Bank Reserves

The rate has stayed at zero because the Fed has continued to keep the market flooded with bank reserves. A higher inflation target

would not have made any difference. The interest rate did not hit zero because the Fed was trying to stabilize the business cycle. It went to zero in the fourth quarter of 2008, because the Fed dumped $600 billion in excess reserves into the banking system as it rescued large banks. The $600 billion was injected mainly by purchasing short-term securities or lending funds with a maturity under 180 days. If the Fed had allowed this paper to run off as it matured, the balance sheet would have shrunk back to normal and the policy interest rate would have been back closer to normal as early as the middle of 2009 when the recession ended. But instead, in a series of announcements beginning on November 25, 2008, the FOMC promised to purchase over $1 trillion in agency debt and mortgage-backed securities (MBS) as well as long-term Treasury debt in order to keep the interest rate at zero well past the middle of 2009.[6] Even if the inflation target had been 4 percent, the Fed would have kept interest rates at zero in this circumstance.

The Fed Has Become Overly Aggressive in Lowering Rates and Overly Cautious in Raising Them

The past two decades have seen a dramatic increase in the responsiveness of the Fed to economic weakness. Williams (2009) looks back at earlier recessions and suggests that the Fed could and should have done more because he observes that the rate did not go to zero in any of these earlier recessions. Greenspan (2004) presents an overview of a risk management approach to monetary policy. The idea is that policymakers anticipate events (probabilistically) that will lead to bad outcomes for inflation or output. Policymakers should also estimate the harm done by the possible bad outcomes. They weigh the probability of the event occurring by the estimated damage done if it occurs. A low probability event (such as a depression) can have such large costs that the Fed will act quickly to avoid such a catastrophe. The intended consequence of this policy is that the Fed will lower interest rates more quickly following bad news.

[6]Agency debt refers to the debt of government-sponsored enterprises (GSEs) that support homeownership by issuing debt to buy mortgages, securitizing mortgages and selling them to get funds to buy more mortgages, and holding some mortgages. The GSEs include Fannie Mae, Freddie Mac, Ginnie Mae, and the Federal Home Loan Banks. For a detailed description of these asset purchases by the Fed, see Fawley and Neely (2013: 60).

The unintended consequence is that policy now is more likely to be at the zero lower bound for any given inflation target.

Lower Interest Rates Do Not Cause More Real Growth

The Fed's policy briefings show that lower interest rates will raise inflation and economic growth and lower the unemployment rate. But these predictions are not founded on reliable economic theory. They ignore the effect that lower interest rates have on people's willingness to work, save, and invest for the future. When setting interest rates monetary policymakers typically ignore how low interest rates drive investors to seek higher returns in riskier investments. The financial crisis occurred partly because the Fed ignored how its low interest policy encouraged "innovation" in finance that subsequently led to excessive leverage—namely, the use of new financial derivatives to make ever more risky investments. Advocates of low interest rate policies who are calling for a 4 percent inflation target understand this, but they believe that monetary policy should focus on the task of stabilizing inflation and the real economy while systemic risk can be managed by regulators and government supervisors, despite a long history of such supervisory failure, especially in recent years.

Lower Interest Rates Do Not Cause Higher Inflation

In the Fed's policy framework, lower interest rates lead to higher demand for goods which leads to higher inflation. The correlation between inflation and output changes over time with the nature of shocks hitting the economy and the inflation regime maintained by the central bank. The myth is that this correlation can be treated as a stable economic structure and used by policymakers as a logical framework with which to stabilize the business cycle and drive the economy to full employment. A look at the path of interest rates and inflation over the past 30 years shows that a downward trend in the Fed's policy interest rate has been associated with an ever lower inflation trend.

The data are largely silent on whether a stable relationship between inflation and output exists. If you start by assuming the relationship is stable and truly structural, there is not enough information in the data to reject this assumption. If you start by assuming that the relationship is unstable and not structural, there is also not enough information in the data to reject this assumption. Policymakers and

policy advisors want a theory in which the Fed can stabilize output, so they start with the assumption that this relationship is stable and can be exploited to control the real economy. If this assumption is wrong, then the rationale for raising the long-run inflation target to 4 percent evaporates.

In the conventional policy view, monetary policy can raise employment and output in the short run, but not in the long run. Akerlof, Dickens, and Perry (1996, 2000) disagree. They think that higher inflation makes labor markets work better because society can avoid some of the conflict associated with cutting wages when a firm faces negative demand shocks. Even if this were true, using inflation to cut real wages is a bad idea. Negative shocks affect some firms more than others. These shocks are often indicators of fundamental forces affecting costs and consumer demand. When a product falls out of fashion due to changing tastes or the development of new products, the old product is going to gradually disappear. The better information firms and workers get from price signals, the more quickly they can adjust to the structural changes that are needed in a dynamic market economy. Recent examples of products that appear to be in decline include desktop computers, pocket cameras, wrist watches, bookstores, newspapers, and LP records. Firms in these industries either reinvent themselves to produce new products or go out of business. Anyone working in these industries should be aware that their livelihood may be at risk. Disrupting price signals also hurts society overall because when economic adjustments are delayed resources are wasted and the economy operates below its potential. Generally, the recent experience of developed economies does not support the idea that the trend in unemployment will be higher when the inflation trend is lower. Indeed, in the United States both inflation and the unemployment rate have been unexpectedly low during the past few years, lower than forecasts by the Fed or the private sector.

Conclusion

The recommendation to increase the Fed's inflation target from 2 to 4 percent should be ignored for at least three reasons. First, raising the inflation target can damage the Fed's credibility and the nominal anchor for our fiat money standard. Second, there is published evidence that a 2 percentage point increase in the inflation target would cause important welfare losses. Third, the idea that lower

interest rates lead to higher inflation and more real growth is not supported by sound theory or U.S. data following the Volcker monetary policy reforms in 1979. That idea was discarded during the high inflation and high unemployment of the 1970s, but reemerged after monetary policy became credible in the 1980s. Yet, its reemergence has led to an environment during the 2000s in which interest rates have been kept too low for too long, spawning continued speculative behavior in housing and derivative markets.

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