Challenges to the Natural Rate Framework

By Stuart E. Weiner

By most estimates, the U.S. unemployment rate is currently below its "natural rate." The implication is the economy is operating at an unsustainably high level of resource utilization. Capacity levels are being strained, tending to put upward pressure on wages and prices. In anticipation of these rising inflationary pressures, the Federal Reserve has firmed monetary policy several times over the past year.

In recent research, I have examined the natural rate framework in detail, presenting new estimates of the natural rate of unemployment and discussing monetary policy implications (Weiner 1993, 1994). I believe it is fair to say that a majority of mainstream macroeconomists are comfortable with the natural rate framework, in part because it has tracked inflation successfully over the past 35 years. All four inflationary episodes since the early 1960s have been marked by the actual unemployment rate falling below the natural unemployment rate. Moreover, there have been no false signals. Not once has the actual unemployment rate fallen below the natural rate without inflation eventually accelerating.[1]

Despite its excellent record in tracking inflation turning points, the natural rate framework has not been without critics. In the past year, nonbelievers have advanced a number of arguments for why mounting inflationary pressures should not be a concern at this time. It is useful, therefore, to consider these arguments and offer some counterarguments.

Current inflation is well behaved

The most frequently heard argument is that prospective inflation is not a concern because current inflation is well-behaved. The shortcoming of this argument is that it ignores the inertia in the inflation process. Historically, only once has a sustained increase in inflation begun precisely at the same time that unemployment has fallen below its natural rate.[2] It has been more common for inflation to follow with a lag, sometimes up to several quarters long. Such lags are to be expected, given the amount of inertia in U.S. wages and prices. Thus, the lack of an unambiguous rise in consumer inflation to date does not imply the economy has not yet reached its natural rate.

Claims that the Federal Reserve is fighting a phantom inflation have been fueled not only by the absence of a clear rise in inflation but also by the

Stuart E. Weiner is a vice president and economist at the Federal Reserve Bank of Kansas City. *This article is based on presentations Mr. Weiner made to the National Economists Club and the Congressional Budget Office in Washington, D.C. in February 1995. The author thanks George Kahn for helpful comments. David Hensley, a research associate at the bank, provided research assistance.*

modest deceleration of inflation at the end of last year. But this view also does not stand up to close examination. Several times in the past, inflation initially declined a bit even as the economy passed through its natural rate. This is not surprising. Given the lags, a positive unemployment gap (actual unemployment rate above the natural rate) three or four quarters ago could still be exerting slight downward pressure on inflation today. In the same way, a negative unemployment gap (actual unemployment rate below the natural rate) today can be expected to lead to an increase in inflation tomorrow. In fact, this pattern has occurred several times in the past.

Chart 1 shows the four inflationary episodes of the last 35 years and the current situation. The first quarter shown in each episode is when the unemployment gap first became negative. Thereafter, the unemployment gap and inflation are tracked until inflation stopped rising. In three of the four inflationary episodes, inflation initially declined somewhat after the unemployment gap became negative—specifically, in the 1964-70 episode, the 1972-75 episode, and the 1977-80 episode. The current episode, beginning in mid-1994, is thus not atypical. It is simply too early to expect much of a rise in inflation. Moreover, with first quarter data now available, we know that inflation has turned up since the end of last year.

Heightened globalization

Another frequently heard challenge to the natural rate framework is that heightened globalization—the increased openness of the U.S. economy—has altered historical relationships. According to this view, U.S. capacity constraints are no longer relevant because there are alternative supply sources overseas. U.S. firms, it is said, have much less latitude in raising prices and U.S. workers have much less latitude in demanding higher wages. The end result is that unemployment can go significantly lower before inflation starts to accelerate.

While this argument may initially sound reasonable, it is hard to defend on either conceptual or empirical grounds. Conceptually, while the U.S. economy has become somewhat more open in recent years, it still is a relatively insulated economy. We import only about 14 percent of our GDP. Thus, the overwhelming majority of our goods and services remain subject to domestic supply and demand conditions. And, in the event we were to rely more heavily on imports, the resulting downward pressure on the dollar would likely raise inflationary pressures, not lower them. But a more compelling rebuttal to the open-economy argument is the recent historical record. The U.S. economy was nearly as open in the late 1980s as it is today. Yet, as shown in Chart 1, this openness did not prevent inflation from rising when the unemployment gap became negative. Thus, any change in fundamental relationships has to be very recent indeed, requiring a large leap of faith.[3]

Bargaining position of the labor force

A third argument questioning the inflation threat focuses on the bargaining position of the labor force. The argument has two parts.

The first part asserts that there is a large pool of underemployed workers in the United States who are eager to work more. This pool, which includes temporary, involuntary part-time, and discouraged workers, will tend to keep a lid on wage pressures. Undeniably, a pool of underemployed workers exists—and is regrettably large. But it does not follow that overall wage pressures will remain dormant as labor demand picks up. Workers are not homogeneous—some workers are prized by employers, others are not. Indeed, in my view, U.S. labor markets are increasingly characterized by a mismatch between worker skills and job requirements. The fact that some unskilled workers may be willing to work cheaply will not prevent the wages of highly-sought-after skilled workers from

Chart 1

Inflationary Episodes

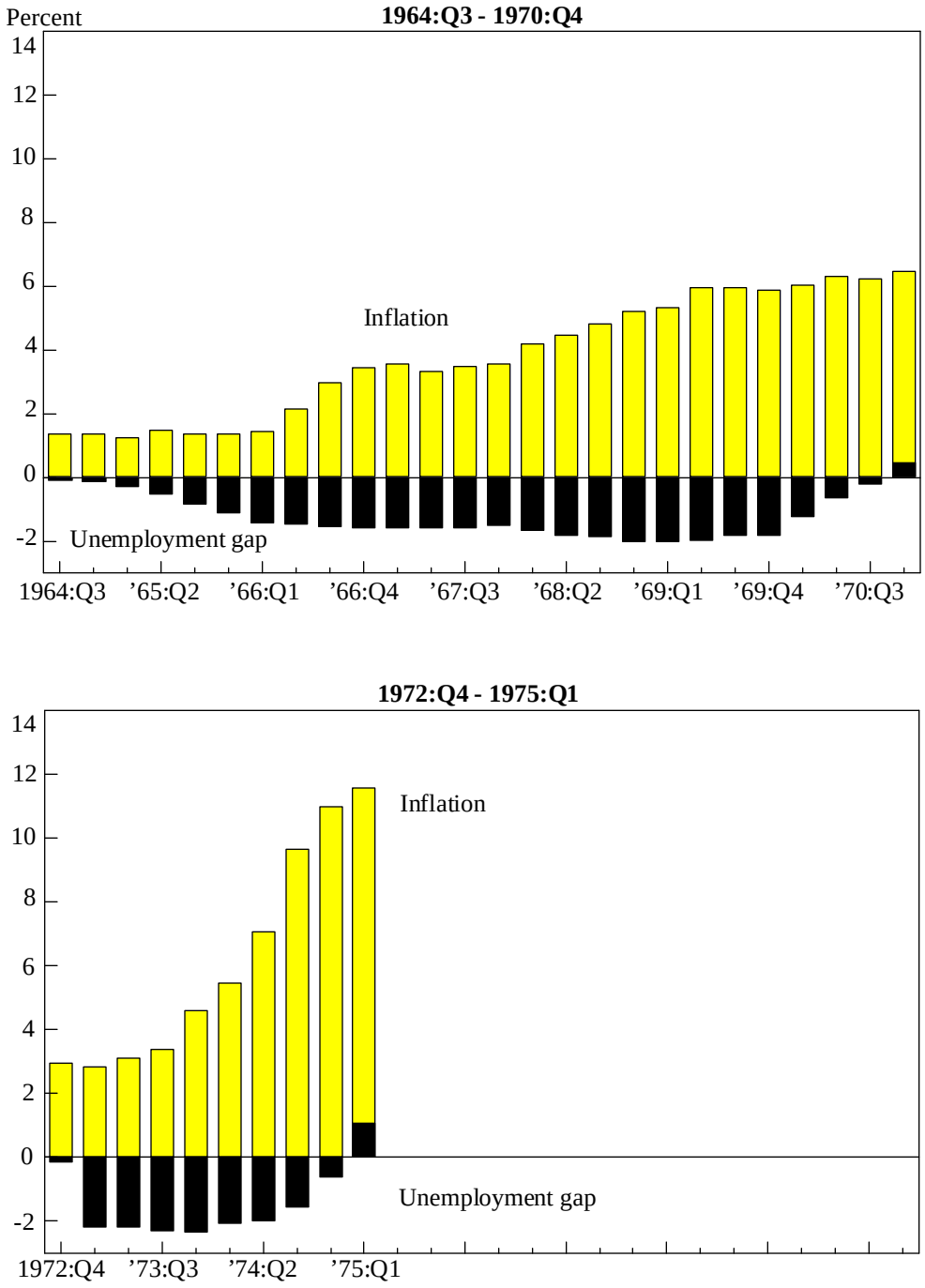
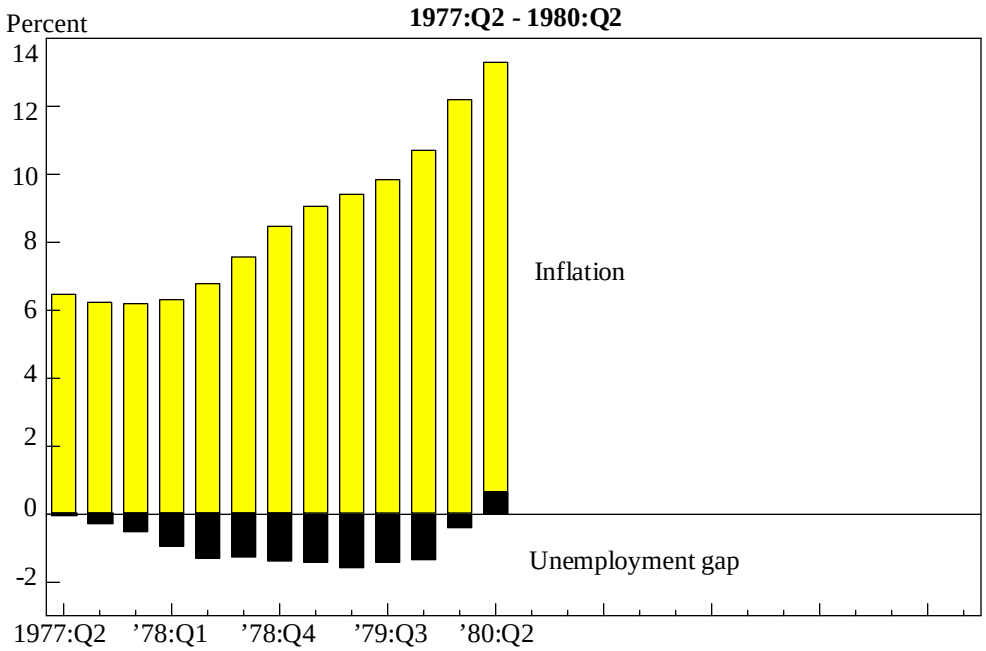


Chart 1 (continued)

Inflationary Episodes



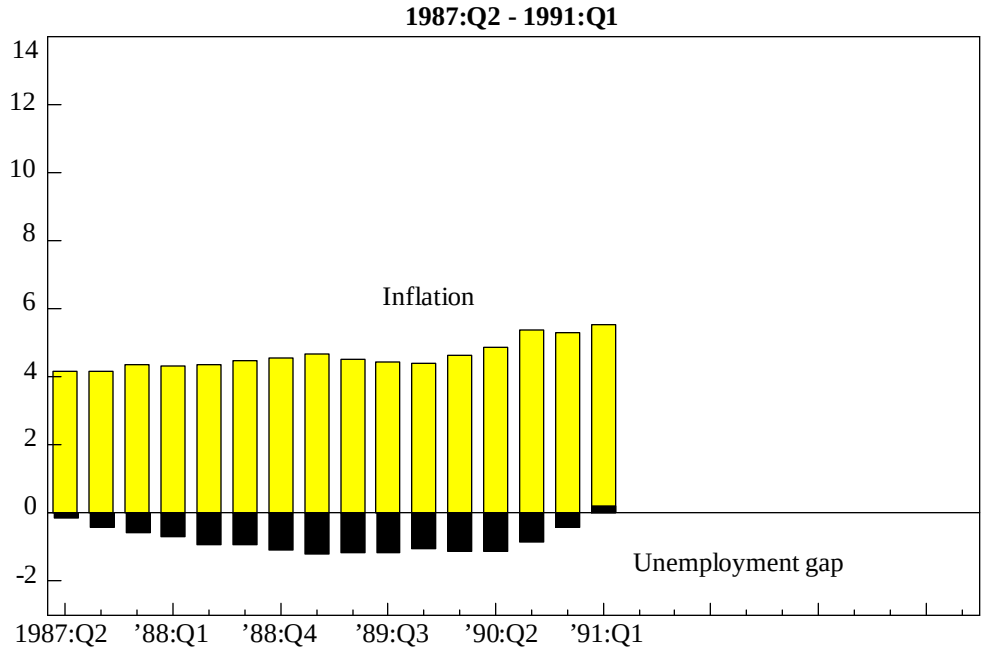
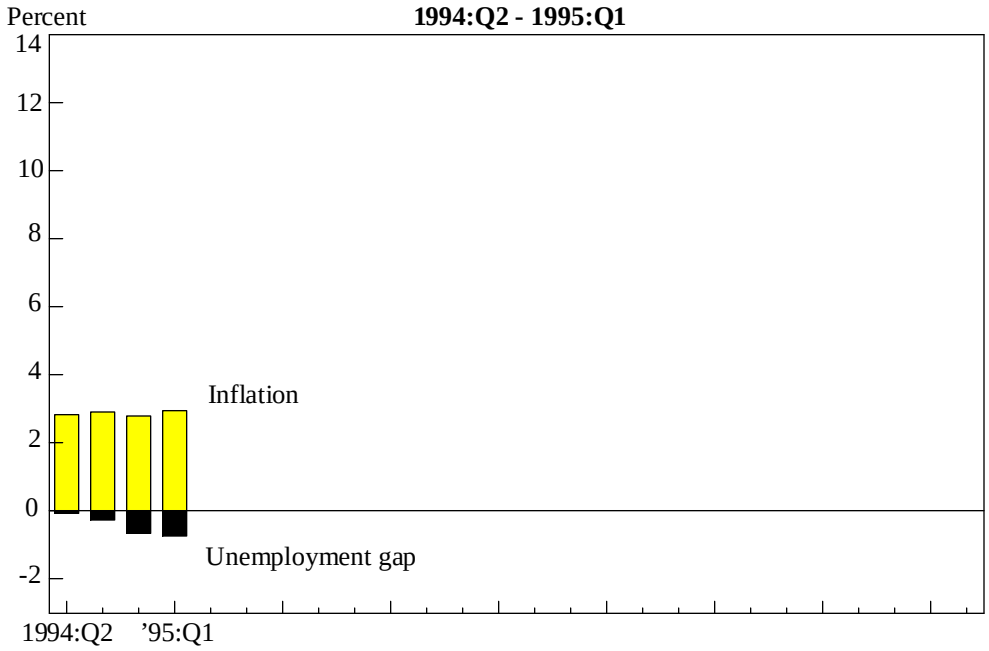


Chart 1 (continued)

Inflationary Episodes



Notes: Inflation is measured by the consumer price index less food and energy and is calculated on a quarter-over-four-quarter-ago basis. The unemployment gap is calculated by subtracting the natural unemployment rate from the actual unemployment rate.

Sources: Actual unemployment rate and inflation: U.S. Department of Labor. Natural unemployment rate: Stuart E. Weiner, "New Estimates of the Natural Rate of Unemployment," Federal Reserve Bank of Kansas City, *Economic Review*, 1993:Q4.

escalating in the presence of excess demand.

The second part of the labor-force argument claims that, despite robust employer demand, workers have been hesitant to push for wage and benefit increases because of heightened worries over job security. It is difficult to find any systematic evidence of such hesitancy or job insecurity. And the lack of a significant upward movement in compensation to date is certainly not unambiguous evidence of worker apprehension. Historically, wage and benefit increases have tended to lag behind price increases.[4] In the 1987-91 inflationary episode, for example, both total compensation and unit labor cost growth declined for several quarters before turning up. Thus, it is simply too early to expect significant increases in wages and benefits.

Productivity gains

A fourth and final challenge to the natural rate framework involves productivity gains. Some critics argue that heightened automation and computerization are boosting productivity across U.S.

industry, making both workers and firms more efficient. These productivity gains, it is believed, are keeping inflationary pressures in check by lowering production costs. A number of interesting issues arise when thinking about productivity. To get a handle on the issues, it is useful to ask a series of questions.

First, is productivity growth in fact increasing? The answer is both yes and no. Since the beginning of the current expansion in 1991, productivity has grown about 2 percent annually, well above the 0.7 percent average rate over the 1973-90 period. But compared with other expansions of comparable length, productivity growth has been typical. Thus, it is too early to tell if a secular increase in productivity is underway, even though such an increase is certainly possible. Indeed, it would be surprising not to see productivity rise in light of so many high-tech advances in recent years.

Second, assuming that productivity is on the rise, does that mean the natural rate of unemployment is significantly lower than conventional estimates? Here, I believe the answer is a qualified no. To the extent productivity growth is rising but workers' real wage demands are not rising in step, the natural rate will be lower. But unless workers remain timid—and I am not at all convinced this is happening—this phenomenon will be only temporary. It is doubtful that workers and firms will continue to refrain from bidding up wages as valuable workers become more and more scarce. Thus, any lasting effect on the natural rate is likely to be limited.[5]

A third question to ask is, should we not expect something good to come from this productivity increase, if it is in fact underway? Here, my answer is a qualified yes. As just noted, a productivity increase will, in all likelihood, have only a limited impact on the natural rate of unemployment. But, everything else equal, rising productivity should boost potential growth, implying that once the economy returns to its natural rate, it will be able to grow faster. Whether everything else will remain equal, however, is debatable. In particular, to the extent the U.S. labor market is increasingly characterized by a mismatch between high-tech job requirements and low-tech worker skills, employment growth in the coming years might be compromised, which would serve to lower potential economic growth. Is potential growth roughly 2 1/2 percent, as commonly assumed? Or is it higher, or lower? The jury is still out on this question. In my view, determining the economy's potential growth rate is a key issue for economists to explore.

Conclusion

In challenging the natural rate framework, skeptics have raised some interesting points. And, as a matter of logic, we cannot rule out that the skeptics are right until we actually see the rise in inflation that the natural rate framework is predicting. But I do not find the skeptics' arguments compelling. If I had to choose just one variable to help me forecast inflation turning points, it would be the unemployment gap. And that gap is signaling that concerns about future inflationary pressures are well founded.

ENDNOTES

[1] For further discussion of the historical record, see Weiner 1994. Throughout this article, statements and calculations are based on the natural rate of unemployment estimates provided in Weiner 1993. The author estimates the natural rate currently to be about 6 1/4 percent. Other estimates range from 5 1/2 to 6 1/2 percent, including, for example, the Congressional Budget Office estimate of 6 percent, the OECD estimate of 6 to 6 1/2 percent, and the Council of Economic Advisers estimate of 5.5 to 5.8 percent.

[2] The episode in question began in 1987:Q2.

[3] Stability tests—specifically, ten-year rolling regressions of the underlying Phillips curve—yield no evidence of a marked decline in the natural rate in recent years (Weiner 1993). See Krugman and Garner for additional studies refuting the open-economy argument.

[4] See, for example, the formal study by Campbell and Rissman.

[5] The magnitude of any permanent reduction in the natural rate will depend on the slope of the labor supply curve (the steeper the curve, the smaller the impact), and on whether any resulting net employment gains are accounted for by previously unemployed individuals or previously out-of-the-labor-force individuals (the latter having the smaller impact on the natural rate).

REFERENCES

Campbell, Jeffrey R., and Ellen R. Rissman. 1994. "Long-Run Labor Market Dynamics and Short-Run Inflation," Federal Reserve Bank of Chicago, *Economic Perspectives*, March/April, pp. 15-27.

Congressional Budget Office. 1994. *The Economic and Budget Outlook: An Update*, Washington, D.C., August, pp. 59-63.

Council of Economic Advisers. 1995. *Economic Report of the President*, Washington, February.

Garner, C. Alan. 1994. "Capacity Utilization and U.S. Inflation," Federal Reserve Bank of Kansas City, *Economic Review*, Fourth Quarter, pp. 5-21.

Krugman, Paul. 1994. "Past and Prospective Causes of High Unemployment," Federal Reserve Bank of Kansas City, *Reducing Unemployment: Current Issues and Policy Options*, pp. 49-80.

OECD, 1994. *OECD Economic Surveys: United States*, Paris, November.

Weiner, Stuart E. 1993. "New Estimates of the Natural Rate of Unemployment," Federal Reserve Bank of Kansas City, *Economic Review*, Fourth Quarter, pp. 53-69.

_____. 1994. "The Natural Rate and Inflationary Pressures," Federal Reserve Bank of Kansas City, *Economic Review*, Third Quarter, pp. 5-9.