

INFLATION TARGETING FOR THE UNITED STATES?

Bennett T. McCallum

Is inflation targeting suitable for the United States? I am inclined to say “Yes,” but there are some issues and qualifications that need to be discussed. First, what *is* inflation targeting? Second, are there political problems that are likely to arise? Third, what about the arguments suggesting that inflation targeting has not provided benefits to those nations that have adopted it? Fourth, what about the analytical components of models typically used to analyze inflation targeting? These topics will be taken up in the sections that follow.

What Is Inflation Targeting?

When the term “inflation targeting” first began to be used frequently, around 1990, it was understood to mean a monetary policy strategy that made the achievement of a designated low rate of inflation the *sole* objective of monetary policy. Low inflation had, after all, been one of the main stated objectives of the Federal Reserve (the Fed) and other central banks for a long time (although it was not an explicit objective under the gold standard and the date at which maintenance of the gold standard ended is certainly open to dispute¹). The concept of inflation targeting (henceforth, IT) gained prominence, I believe, from the policy regimes adopted by the Bank of Canada and the Reserve Bank of New Zealand—especially the latter, because of its spectacular provision concerning possible discharge of the governor if inflation was not contained each year within

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¹My own suggested date is not 1931, or 1944, or 1971, but instead 1961, when the United States urged the creation of the Gold Pool. This act indicated that the United States was not willing to conduct its monetary policy so as to keep the market price of gold at \$35 per ounce, as its role in the Bretton Woods regime required.

a target range of 0 to 2 percent. A major objective of these developments in Canada and New Zealand was, as I understood it, to get away from the then-standard view that monetary policy needed to strike an appropriate balance between goals pertaining to inflation and real output (or employment) stabilization. Thus early writings on IT emphasized the idea that, from a long-run perspective, central banks could have virtually no influence on output while being almost totally responsible for the behavior of inflation.² In order to put this idea into practice, it was deemed desirable to stress the primacy of inflation control to the point that a formal representation of a central bank objective function would, logically, include inflation (measured relative to target) as its only argument. During the later 1990s, however, this concept was replaced in academic—and probably central-bank—work with one that included both inflation and aggregate output (or employment) goals in the central bank's objective function. Writings by Svensson (1997, 1999) were particularly influential in this respect.

What, then, was the justification for a terminology in which policy regimes of this type would be called inflation targeting? The evolution in terminology went, I believe, something like the following. In the early 1990s, both the United Kingdom and Sweden were forced by market and political pressures to give up their fixed exchange rate regimes. They needed some nominal anchor, and wished to avoid any suggestion of “monetary targeting” as the latter would seem too much like a “monetarist” policy, which had been discredited in the eyes of the public and was never embraced by central banks other than the Swiss National Bank and (to some extent) the Bundesbank. Also, they wished to give more weight to inflation prevention than had been the case earlier in the 1980s and believed that the New Zealand-Canada idea of an explicit numerical inflation target was promising. So, the Bank of England and the Sveriges Riksbank chose “inflation targeting” as the label for their new (and not yet fully developed) monetary policy regimes. Writers on the subject who wanted to promote policies that stressed inflation control combined with output stabilization and more explicitness (or “transparency”) therefore adopted the IT label. And since these writers were more numerous than ones who favored a sole operational objective—believing that this approach would result in excellent output/employment performance—they were able to capture the IT designation and to use it to refer to both

²See, for example, Crow (1988) and Reserve Bank of New Zealand (1993: 21).

types of regimes (i.e., with only inflation or with both inflation and output in the objective function).

Gradually, any inclination to make inflation the only variable in a central bank's objective function moved ever farther into the background. This occurred partly because of accumulating experience in Canada and New Zealand and also because of academic or partly academic writings. Particularly influential examples would include Clarida, Galí, and Gertler (1999) and Bernanke et. al. (1999). The definition given in the latter is that an IT regime is "characterized by the public announcement of official quantitative targets (or target ranges) for the inflation rate over one or more time horizons, and by explicit acknowledgment that low, stable inflation is monetary policy's primary long-run goal" (Bernanke et. al. 1999: 4). From this statement it seems to be the announcements, rather than the behavior, of the central bank that are crucial in determining whether a regime is an IT regime.

Meanwhile, most formal analytical studies of IT conducted today by academics, or by central bank economists, use formal frameworks (models) in which both inflation and output objectives appear in the central bank's objective function—which is often taken to mimic the objective function of private households—with no explicit requirements concerning specification of the relative weights attached to these variables. Furthermore, in many cases the model is taken to represent an economy in which there are no monetary frictions (so the model's money is not a medium of exchange). Consequently, the only recognized cost of inflation stems from sectoral misallocation of resources, with no account at all being taken of the shoe-leather costs (i.e., transaction costs that are lightheartedly referred to as "trips to the bank" that wear out one's shoes) upon which Friedman (1969) based his analysis of the optimal long-run average inflation rate. The models in question are ones in which the only function of money is to provide a unit of account, with a highly stylized mechanism for the exogenous determination of price adjustment behavior. In almost all cases, moreover, the central bank's policy rule is expressed as a formula for period-by-period adjustment of a short-term nominal interest rate (such as the federal funds rate). It is of course the case that this is how most actual central banks in the OECD nations think of their policy behavior. Nevertheless, it is far from clear that designing policy entirely around manipulation of an overnight interbank rate, with no attention paid to monetary aggregates and very little to other interest rates, is desirable. I will return to this topic below.

Political Problems

From the foregoing it seems that the adoption of an explicit numerical target for a nation's inflation rate, over some specified averaging period and based on some specific broad-based price index, is a crucial aspect of a regime that could reasonably be termed IT. Also necessary, however, is some designation of the primacy of the inflation objective if it is not to be made the sole criterion of monetary policy behavior. In this regard, I have heard (more than once) a highly respected member of the Washington press corps state an opinion to the effect that the U.S. Congress would never approve any legislation or expression of Fed goals that would elevate inflation prevention over the Fed's other currently legislated goal of maximizing employment. One person's opinion does not constitute a fact, of course, but to me this seems like a rather plausible conjecture. If one were to accept it as a probable constraint, what would remain as a feasible possibility for IT-oriented movements in the United States? In a position paper I presented at the Shadow Open Market Committee meeting in 2003, I suggested that

an attractive approach would be for the Fed to begin, unilaterally but unobtrusively, publication of a quarterly report somewhat like the Bank of England's *Inflation Report*. . . . It could be used to develop, over time, an understanding of the proposition that monetary policy can be most constructive in terms of real economic growth and stability by maintaining a stable, low-inflation environment in which private enterprise can flourish. Gradually, additional steps could probably be taken if policy continued to be satisfactory or if the need for a stronger stance against inflation again appeared [McCallum 2003: 8].

But what about the announcement of a specific quantitative target for the inflation rate? In that regard, I once suggested that the Greenspan (1990, p. 6) definition of "price stability"—as an inflation rate close enough to zero that it does not enter into the decision-making processes of households or firms—is perhaps not as bad as many economists seem to presume. Its weakness is in terms of verifiability, but that could probably be managed by long-term inflation expectations (measured in part by yields on indexed bonds). Using it, the Fed could have an explicit but not quantitative inflation target, and perhaps avoid Congressional intervention in that way.

Disadvantages of Inflation Targeting?

There are three types of argument against the adoption of IT that should be briefly discussed. First, a few years back one heard

arguments to the effect that that observed “sacrifice ratios” have been no better in countries with IT than in others. Observed sacrifice ratios are, however, ratios of output-gap changes to inflation rate changes over disinflationary experiences or over longer sample periods. But suppose that because of its IT regime, a central bank has a great deal of credibility so that the public is confident that it will keep inflation close to its target value. Then any demand shock that affects output will have a smaller effect on inflationary expectations and thus on observed inflation than would be the case in the absence of IT. But that means, as a matter of arithmetic, that the measured ratio will tend to be larger (interpreted as more undesirable) than if the IT policy regime were not in effect, despite the assumed fact that it is performing exactly as intended. So this approach to evaluation of IT seems seriously misleading.

Second, Ball and Sheridan (2005) have argued that in a cross section of OECD countries observed over 1960–2001 there was no superiority in performance for the IT countries relative to the others, in terms of low inflation, or rapid real growth, or other measures. Their statistical procedures are designed to surmount endogeneity problems such as the greater motivation to adopt IT in nations with a history of high inflation. In his published discussion of this paper, however, Gertler (2005) argues that Ball and Sheridan’s classification of countries into IT and non-IT regimes is highly questionable. How, for example, do you treat a nation in which the central bank behaves like an IT policy would call for but the government has not officially adopted IT? Given this weakness, the study should be viewed as providing very little if any relevant evidence.

Third, there is a pragmatic line of argument expressed by Donald Kohn (2005), currently a Fed governor and for years the main policy adviser to Alan Greenspan, which appears as a comment on Goodfriend (2005a) in an NBER conference volume.³ Much of Kohn’s paper is taken up with the question of whether Goodfriend is correct in his claim that during the Greenspan years the Fed has in fact practiced *implicit* inflation targeting. Kohn disagrees with that claim, the point most relevant for present concerns being his argument that the performance of monetary policy during these years would have been less desirable under an explicit IT regime. The principal reason given by Kohn is that actual Fed practice since 1987 has been marked by a degree of *flexibility* that would have been precluded by an IT regime.

³The following discussion is summarized from McCallum (2003).

Is it true that an IT regime would have entailed less flexibility and yielded less desirable outcomes than actual Greenspan-era policy? In developing his argument, Kohn admits that since the mid-1990s inflation has been low and stable, as Goodfriend emphasizes. Kohn states, however, that “the level and stability of core PCE inflation since 1997 is as much a consequence of unexpected developments as of deliberate policy choices.”⁴ Kohn goes on to argue that in every year during 1997–2001 the Fed was projecting inflation for the year ahead to exceed 2 percent and yet “the FOMC took no action to bring inflation down; tightening from mid-1999 through mid-2000 was seen as necessary to forestall a sustained acceleration in prices [i.e., increased inflation]. It was not until July 2002 that the FOMC projected inflation to remain within the [1–2 percent] range Marvin [Goodfriend] takes to be its implicit target.” Therefore, Kohn’s argument goes, it was unexpected good luck that kept a 1–2 percent inflation target from interfering with the Fed’s actual policy over the years 1997–2001. If it had not been for unexpected favorable developments, he suggests, Fed policy would have permitted more inflation than actually occurred over these years.

Kohn goes on to argue that “in addition, at a few key junctures in the past five years, the Federal Reserve exercised a more flexible monetary policy than inflation targeting probably would have suggested or allowed.” The episodes mentioned include the Russian debt default during the late summer of 1998 and the sharp easing of policy throughout 2001, “even before September 11.”

With respect to this issue, the extent to which IT regimes reduce central bank flexibility is a matter of professional dispute. Goodfriend (2005a) and Bernanke (2003) contend that extra credibility is provided that enables central banks to move *more* aggressively, at times at which policy easing is desired to prevent output reductions, without igniting fears of renewed inflation. There is probably no way that this disagreement can be settled in the present state of economic knowledge but, in any case, the main implication of Kohn’s argument, that it was unexpected developments rather than policy that held U.S. inflation down to the levels experienced over 1997–2001, seems to me to be quite different than that intended. For if such was the case, then

⁴Thus “the speedup in productivity growth . . . seemed to have greater disinflationary force than anticipated; the broad-based strength of the dollar and the weakness in global commodity prices that accompanied the East Asian crisis that began in 1997 put substantial downward pressure on prices in the United States; and, more recently, the recession and resulting output gap have provided another unexpected source of ‘disinflation’” (Kohn 2005).

the regime that was in place during those years was much less desirable than suggested by Goodfriend. That might negate the positive part of Goodfriend's argument, that the Fed's regime amounted to implicit IT, but it adds support to the normative thrust of his argument—i.e., that adoption of an explicit IT regime would be desirable. If the excellent inflation performance of recent years was accidental, then an explicit inflation targeting regime would seem even more attractive than under Goodfriend's assumption.

Role of the Phillips Curve in Policy Analysis

In almost all formal analyses of IT, the component of macroeconomic models often called the "Phillips curve" plays a crucial role. Indeed, in the large recent literature on "optimal monetary policy rules," the principal focus of attention is on an optimization problem that entirely disappears unless there is a Phillips curve (PC) relationship that includes a stochastic shock term. At the same time, there are critics of mainstream monetary policy analysis who argue strongly that monetary policy design should not involve Phillips curve specifications in any way. In my opinion there is some confusion relating to the Phillips curve relationship, which needs to be addressed.

First, let us consider a position that has been put forth on the editorial page of the *Wall Street Journal* (WSJ) on several occasions—enough occasions that I will refer to it as the WSJ position.⁵ This position seems to be that monetary policy analysis should not involve a Phillips curve relationship in any way. This would imply, evidently, that the macroeconomic model used for policy analysis should include no relationship of the PC type. To me this position seems to be completely untenable, for the PC is a specification of the way in which the average price level adjusts when it differs from its *flexible-price* value, i.e., the value that would prevail if product prices in the economy were perfectly flexible. Now, one possible specification is that prices never differ from their flexible-price values, i.e., that full price adjustment to shocks or other changes in conditions occurs immediately. This is a logically coherent position that is, in fact, adopted in a small but significant portion of the academic literature. It says that the output gap is always zero, that employment is always equal to its natural-rate value. The WSJ unintentionally reveals that it does not actually believe this position itself, however, when it suggests

⁵See, for example, the lead editorial of August 9, 2006 (*Wall Street Journal* 2006) and an op-ed piece that appeared the next day (Darda 2006).

that tight monetary policy might create a recession or choke off a recovery. If there is no sluggishness to price adjustments, then monetary policy can have almost no effect on aggregate employment or output; it affects only nominal prices on a short-run as well as long-run basis.

Most models used for monetary policy analysis, by academics as well as central banks, do include a relation (or, in larger models, a sector) that represents some specification of a Phillips curve with gradual price adjustment. Typically, these specify that inflation depends in part on expected future inflation and in part on current and/or recent levels of employment, or the output gap, or average real marginal cost. I have suggested that the PC relation or sector is probably the most poorly understood portion of the typical model, but that does not mean that one can do without it. If it were eliminated from the model, the latter would not have enough equations to determine all of its endogenous variables.

It should be said, in this regard, that professional economists, including some excellent academic economists, have contributed to the terminological confusion regarding Phillips curves by discussing their performance, be it good or bad, as a model for forecasting inflation.⁶ But in a sensibly specified PC relationship, there are two endogenous variables, the current inflation rate and also the current measure of the output gap—or whatever alternative measure of real economic activity is utilized in the example at hand. Thus the PC is not itself a complete model of inflation; it is only one of the relationships in a coherent model. It can be used as the only relation involved in forecasting only by treating as exogenous (or predetermined) some variable or variables that should be treated as currently endogenous. For a more extensive discussion of this particular confusion, and others involving monetary policy, I would highly recommend a recent article by Edward Nelson (2003).

Operating Procedures

As mentioned above, the acceptance of the idea that policy be implemented entirely by means of week-to-week manipulation of an interest rate instrument has become so automatic that some analysts may now take it to be itself an essential ingredient of the description of an IT regime. Perhaps this is not the case but, in any event, I would argue that it should not be part of the definition of IT. It makes good

⁶A well-known and skillful example is provided by Stock and Watson (1999).

sense to use the words to distinguish between objectives that are focused on inflation as opposed to monetary aggregates, but to insist that use of an interest rate instrument is necessary to the IT concept seems illogical and also rather removed from the spirit of the IT pioneers.

In any event, some recent research suggests that there are substantial dangers implied by the neglect of aggregates and other interest rates in a central bank's operating procedures. An ambitious analysis focusing on this point is that of Goodfriend (2005b), who develops a model that incorporates a banking sector while simultaneously recognizing the importance of a medium of exchange (i.e., money), a combination that is surprisingly rare in the literature. His analysis leads to the conclusion that "broad liquidity considerations must be taken into account in the pursuit of interest rate policy [because] (1) they influence the link between the interbank rate and market rates through their effect on the external finance premium, and (2) they affect the behavior of market interest rates that the central bank must target in order to maintain macroeconomic stability" (2005b: 301). Recent work by Goodfriend and McCallum (2007), based on a dynamic simulations with a quantitatively specified version of Goodfriend's model, indicates that concerns of this type may well be quantitatively important.

Conclusion

Rather than attempting to summarize the preceding sections, which are themselves in the nature of summaries, I will conclude with a trio of points regarding monetary policy that are relevant to the discussion at hand. First, it seems to me that the huge improvement in monetary policy throughout the world that took place around 1990 was due essentially to a change in attitude among central bankers, a change (i) that recognized that inflation is primarily dependent upon monetary policy and (ii) that made the prevention of inflation the overriding objective of monetary policy. Second, transparency is desirable in central banking, but the example of the Deutsche Bundesbank suggests that transparency may not be as important as steadfast implementation of a policy stance that is designed to keep inflation low. Third, if a central bank decides that it must include some response to output (or employment) fluctuations in its policy rule, it should do so by responding to changes in output or output gaps, avoiding any reference to levels of output gaps, which are notoriously difficult to measure or even justify conceptually. In this regard, I still believe that the nominal GDP growth target that I argued for in the

decade from 1985 to 1995 would be quite effective, and it seems clear that the “natural growth targeting” rule of Orphanides (2003) amounts to much the same thing.

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