

## **I. Introduction**

Let me start with a personal note. We have come together today to honour Otmar Issing, an eminent scholar and central banker, who has served chief economist of the European Central Bank since the Bank's foundation and who in this capacity has put his stamp on the Bank's strategy of policy making. He has impressed us with the strength of his convictions as regards the importance of price stability and of the role of money.

As you know, Otmar Issing entered the exciting scene of central banking not in 1998 but much earlier, namely in 1990, when he was appointed board member and chief economist of the Deutsche Bundesbank. Should you ever look up the Bundesbank's Annual Report for the year 1990 you will find that Otmar Issing took up that post in 1990 on October 2 instead of October 1. Now you may wonder what did Otmar do on October 1 – was that day a Sunday or was it one of the too many German holidays? Well, my research shows that October 1 was a Monday. Apparently, Otmar took a “blauer Montag” or a let's say a premature Bank holiday. I assume he needed a little time to prepare for the big step from armchair economics of academia down to the dirty – or should I say artistic – daily work of practical men.

In contrast to eight years later, Otmar was certainly not expected to design a new policy concept for a new institution. Instead, he was confronted with the Bundesbank's established tradition of policy making and was expected to continue along the lines that had been paved by Helmut Schlesinger since the mid-1970s. In 1974, the year I met Otmar to the first time at Karl Brunner's Konstanz Seminar on Monetary Theory and Monetary Policy, the Bundesbank's governing council decided to start the new strategy of announcing annual monetary targets.

Public monetary targeting was used by the Bundesbank as to provide guidance with respect to its intended policy course and this way to influence the public's expectations of inflation. In this brief presentation, I will first recall the background to the introduction of formal targeting which was the need for a nominal anchoring of monetary policy after the break-down of the Bretton-Woods-System of fixed exchange

rates. Next I will review the Bundesbank's track record by examining the largest target misses. And, finally, I will discuss why the Bundesbank has been able to preserve its credibility even though missing the target has not been a rare event.

## **II. The Background**

The background to the adoption of monetary targeting was the systemic need for a reorientation of monetary policy after the break-down of the Bretton-Woods-System.

The move to flexible exchange rates freed monetary policy from having to stabilise the exchange rate vis-à-vis the dollar and provided central banks with the potency of controlling domestic money and credit creation. However, along with this potency goes the burden of responsibility for securing domestic price stability. It is not easy to fulfil this task successfully because the absence of a binding exchange rate constraint implies that monetary policy is not anchored anymore. Since rational private agents understand that the independent central bankers are free to choose any monetary expansion path, excessive inflation expectations may build up if the authorities are not able to provide credible guidance. To put rhetorical emphasis on the objective of price stability is not enough because rational agents will monitor the policy implementation as closely as possible in order to learn about the underlying objective function. If they get the impression that the structure of that function is not conducive to achieving price stability, inflation expectations will not settle at the officially desired level but go beyond, and this, in turn, will force rational authorities to validate the excessive expectations by a sufficiently high level of money growth in order to avoid the generation of a recession. The unfortunate equilibrium outcome of this policy game will be a persistently higher inflation than desired as was proven analytically by Barro and Gordon in 1983.

In the mid-1970s this analysis was not known, of course. Nevertheless, quite a few central bankers in Germany and, by the way, in Switzerland appeared to understand that the regime change from fixed to floating rates required a new policy strategy in order to

be able to check inflation expectations. They concluded that it would be useful, if not necessary, to commit to some type of rule that credibly constrains monetary policy. Though Milton Friedman's famous k-percent rule was dismissed, as it does not allow for any contingencies, it served as an intellectual guide. In fact, the Bundesbank's council had held a confidential debate about its pros and cons as early as 1970. Similarly, German academics and the German Council of Economic Experts, in particular, began discussing monetarist analysis and argued in favour of a steadier, rules-based monetary policy oriented to the medium run.

The historic opportunity to start monetary targeting came in 1974 when, due to the quadrupling of the oil price and a sharp monetary deceleration, the German economy began to cool down. The Bundesbank wanted to switch towards easing without giving labour unions a signal for higher wage demands. Announcing a monetary target appeared to be the solution.

### **III. Reviewing the Targets**

The first annual target was a point target of 8 percent for the year 1975, applied to the central bank money stock. The Bank declared that it intended to finance the growth of the economy at a "declining rate of inflation" and that the success would depend on whether the Bank's projection would be taken into consideration in wage and price decisions. Unfortunately, the target was overshoot by 2 percentage points. In fact, it is easy to miss a point target if some unaccounted shock hits during the last month of the targeting period. Another drawback of a point target is that it does not constrain much the path of money creation during the course of the year.

#### **Average growth targets 1976-78**

This led the Bank to switch to average growth targets; see Figure 1. But again, each of them was overshoot, by 1 percentage point in 1976 and in 1977 and by even 3 percentage

points in 1978. The main reason, it seems, was less a failure of implementation techniques but a deliberate subordination of money supply control to exchange rate policy. A huge wave of inflation in the U.S. – the inflation rate rose from 5 percent in late 1976 to 9 percent two years later – had generated a dramatic loss of confidence in the dollar, driving the effective exchange rate of the dollar down by about 20 percent. All major central banks reacted by intervening heavily in support of the dollar. The net contribution of German intervention to central bank money growth amounted to 21 percent in 1978, at a time when the target aggregate was supposed to grow by no more than 8 percent.

The unfortunate experience of a repeated overshooting of the annual targets led to a heated debate in the Central Bank Council on whether it was time to end the experiment of targeting. And the discussion was echoed in the Swiss National Bank that had not fared better with its approach to monetary targeting. While the Swiss suspended money control for a year, by announcing an exchange rate target for the year 1979, the Bundesbank's council eventually decided to continue the practice. A decisive argument was that monetary targeting might and should be used as a shield against the dominance of exchange rate considerations. This appeared to be the more important as the start of the European Monetary System (EMS) was imminent. Note that the council accepted the new exchange rate system with great reservations because the EMS was understood as a challenge to the Bundesbank's status of independence and to its power of safeguarding the internal value of the mark. An additional argument in favour of continuing the targeting experiment resulted from the historic coincidence that the Bank considered a turn-around of monetary policy to a significantly lower money growth overdue. To give up targeting under those conditions appeared to be the wrong signal.

### **Current growth targets**

Thus it was decided to set a lower target rate for 1979 but to switch from average targets to targets that indicate the desired growth of central bank money for the course of the year. The new target rate was defined as the planned growth rate linking the average

central bank money stock of the fourth quarter of a year with the corresponding fourth-quarter average of the next year. In addition, the Bank announced a target range instead of a single number and explained that “depending on domestic economic developments on the one hand and the movement of exchange rates on the other it would endeavour to aim more at the lower or at the upper limit of the target range” (Report for the Year 1978, p. 29). The new procedure became the Bank’s standard practice.

Figure 1 shows the target ranges and the track record of current growth targeting for the twenty-year period 1979 - 1998. To be sure, at first sight the track record is not impressive at all given the observed high volatility of actual money growth. Moreover, the target ranges were over- or undershot in 9 years out of the 20 between 1979 and 1998. This, it can be argued, should put a question mark on the claim that the Bank’s strategy of monetary targeting was a useful device for controlling inflation.

However, in evaluating the track record two *obvious* considerations have to be taken into account.

*First*, money growth is not an end in itself but is an intermediate variable that affects the rate of inflation and the business cycle among other variables. Even if price stability were the *only* objective of monetary policy, stabilizing the rate of inflation would require moving money growth in order to make up for undesired effects of other shocks. The volatility of money growth would then reflect the responses to those shocks.

*Second*, in accordance with its mandate the Bundesbank considered price stability the overriding medium-run objective. At the same time, the Bank did never completely ignore secondary objectives, such as the stabilization of the business cycle and, probably more so, the stabilization of the mark’s exchange rate vis-à-vis the dollar and EMS-currencies.

It is useful to briefly examine the largest misses. They happened in 1986/87 and in 1992.

**1986/87**

In 1986 and 1987 the targets were overshot by about 2 percentage points. Why did it happen? Recall that due to the rather expansionary fiscal policy of the Reagan-administration the dollar had risen steeply during the early 1980s, reaching the maximum value of 3.47 mark (i.e. 1.77 euro) in early 1985. To fight this overvaluation the G-5 countries concluded the Plaza-agreement and tried to bring the dollar down by concerted intervention. The operation was a success, the dollar fell to 2.50 mark by the end of 1985 and continued to decline throughout 1986 (to 2 mark by yearend). In parallel, the prices of imported raw materials and energy fell by 10 percent in 1985 and by another 20 percent during 1986.

As a result, the German rate of inflation declined through 1986 from 1.5 percent to even *minus 1 percent* by yearend, hence it undercut the Bundesbank's normative rate of inflation of 2 percent. In the cautious language of the Bank that was an "almost spectacular" success (MB March 1986, p. 6). And this experience is at the heart of the explanation of why the Bank decided not to avoid an overshooting of the target range (of 3.5 to 5.5 percent) in 1986. It responded to the unexpectedly strong fall of the inflation rate by a deliberate switch to reflation. Thus the overshoot of 1986 was not an accident.

The reasons for the target miss in 1987 were different. The continued decline of the dollar raised concerns as regards competitiveness in Europe and Japan. Thus, the Bundesbank and other central banks began to buy dollars at larger scale to stop the decline and this was formally endorsed by the Louvre-agreement of February 1987. In addition, the Bundesbank was forced by EMS-rules to conduct supporting operations vis-à-vis EMS-currencies that tended weak together with the dollar. At the end of the day, the accumulated net-purchase of external assets blew up central bank money creation; in fact, it exceeded it by 40 percent. In principle, the Bundesbank could have tried to redress money growth more strongly, but the attempt would probably have

turned out counterproductively as it had required raising interest rates. And that was out of the question, the more so after the stock market crash of October 1987.

While the Central Bank Council acknowledged that the overshooting of the target for 1987 was mainly caused by the subordination of monetary policy to exchange rate aims, it was disappointed and – in parallel to 1978 – the abandonment of monetary targeting was seriously considered. A university professor by the name of Otmar Issing gave his opinion in the *Frankfurter Allgemeine Zeitung* and, thereafter, the council decided to continue monetary targeting – but to replace the central bank money stock by the broadly defined money stock M3 as target aggregate. The argument was that the overshoot to some extent was due to the fact that currency in circulation had grown much faster than (demand and time) deposits and that had mattered because the definition of the central bank money stock gave a five times larger weight to the currency component than it is the case with M3.

## **1992**

The largest target overshoot since the start of targeting occurred in 1992. It amounted to 3.9 percentage points, “an all-time high” as the Bank candidly noted in its annual report. To understand why that happened it is to be recalled that the German unification of late 1990 had unleashed a boom, pushing economic growth in 1990/91 up to about 4 percent and driving up the rate of inflation from 2.7 percent in 1990 to above 4 percent in early 1992. Liquidity was ample because the politically negotiated currency conversion rate was biased towards an overvaluation of the East-German mark. And this had forced the Bundesbank to extend in one stroke the money stock M3 by almost 15 percent, while the gross domestic product of the “New Länder” was less than 10 percent of the West-German product.

In view of the rising inflation, the Bundesbank had started already in 1991 to drive up interest rates, at a time when outside Germany interest rates began to decline.

Unavoidably, the divergent trends in interest rates led to tensions in the EMS and

culminated in the crisis of September 1992. From hindsight, a revaluation of the mark vis-à-vis EMS-currencies might have helped but it was not negotiable at the time. In the attempt to soften, if not to avoid, the EMS-crisis, the Bundesbank intervened during 1992 at unprecedented scale. The net-acquisition of foreign assets reached 69 billion mark, thus exceeded concurrent base money creation by almost 80 percent.

To sum up this brief review of historic cases: the largest misses of monetary targets were caused by the Bundesbank's temporary subordination of monetary policy to exchange rate considerations either with respect to the dollar or/and with respect to EMS-currencies. An exception was 1986 when the Bank went for reflation but avoided a consistent increase of the target range.

#### **IV. Guidance**

When one checks the by international comparison impressive inflation record (see Figure 2), one cannot avoid the conclusion that monetary targeting has served its purpose well. Apparently, the procedure has enabled the Bundesbank to combine the credibility of its commitment to low inflation with the flexibility of occasional deviation from announced promises to achieve other aims – pragmatic monetarism as Bundesbankers used to call it.

But isn't this a puzzle? Why got the Bundesbank away with its practice of deviating time and again from announced targets? Why was it able to keep nevertheless the credibility that it truly cared about price stability?

The answer, I believe, is that the Bundesbank was the first central bank that provided the public with an intelligible numerical framework that facilitated the evaluation of its policy course from the outside (Neumann, 1999; Lohmann, 2003). Naturally, the population at large does not understand much about central banking and hardly knew anything about monetary targeting or its implications for inflation. But there is and was



an elite audience consisting of bankers, economists and financial journalists. By offering public monetary targeting, the Bundesbank invited to be put under closer scrutiny as regards its aims, its model of how the economy works, its implementation procedures, its capability to do a good job. It enabled the elite to differentiate more closely between monetary policy actions that were defensible and those that were not.

Facilitating intellectual control is raising the risk of being punished if one fails. And the elite are able to punish severely by addressing the broader public as well as by using the exit options in financial markets. When the elite favour an uncoupling of inflation expectations from the central bank's desired level, this generates a utility loss for central bankers, part of which is the loss of reputation. The elite monitor and evaluate the central bank's actions and explanations and can make life very difficult for central bankers if they dare to renege on promises.

If this reasoning has empirical content, it implies that the Bundesbank by introducing the more transparent numerical framework of monetary targeting raised the likelihood and the size of potential punishment. While it may sound masochistic, it was not because, *first*, no punishment was to be expected if the Bank was frank about its actions and behaved consistently, and, *second*, monetary policy can be conducted less aggressively when the elite understand the rationale of the policy. Thus, the institution of monetary targeting served to create and maintain trust and credibility and this way the power of the Bank as an independent player in the policy game. At the same time it enabled the Bank to deviate temporarily from targets without punishment, provided it was able to convince the elite that the action was defensible.

To be sure, the institution of targeting as such was not sufficient. The Bundesbank needed to provide detailed reasoning for the numbers it offered and for the final outcomes. And that the Bank did from the outset. Each year the Bank explained in detail what its evaluation was as regards last year's target fulfilment, on which expectations the target range for the following year was based on and on which particular developments it would aim at the upper or the lower region of the range. During the course of the year the Bank reported and commented on ongoing developments and the

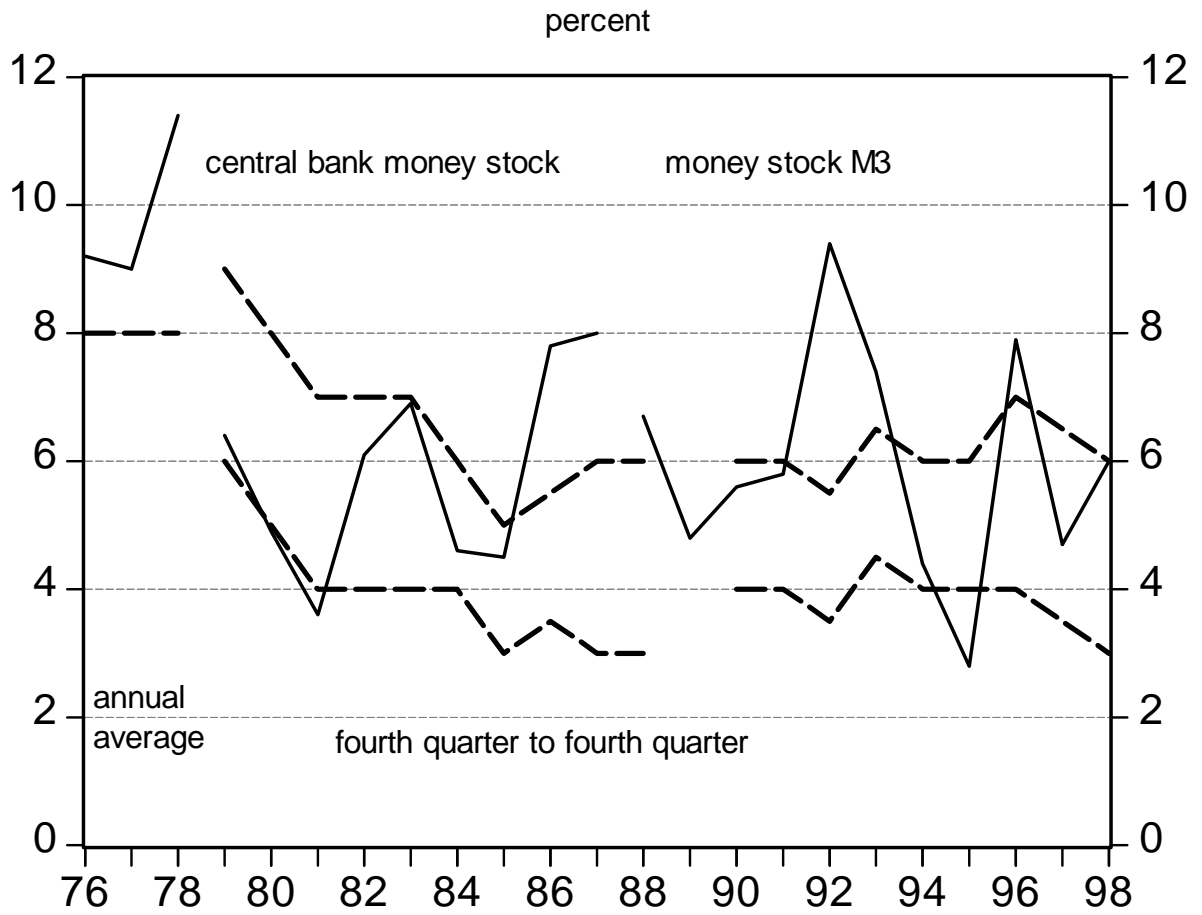
degree of target fulfilment and mid-year the Bank checked officially whether the target was to be kept or revised.

Finally, it may be noted that the Bundesbank, if not all times, for most of the time was quite frank in its explanations. Remember that the Bank had no scruple to point out that the target overshoot of 1992 was an all-time high. It fits that the Bank even admitted lack of knowledge on several occasions.

## **V. Concluding Remarks**

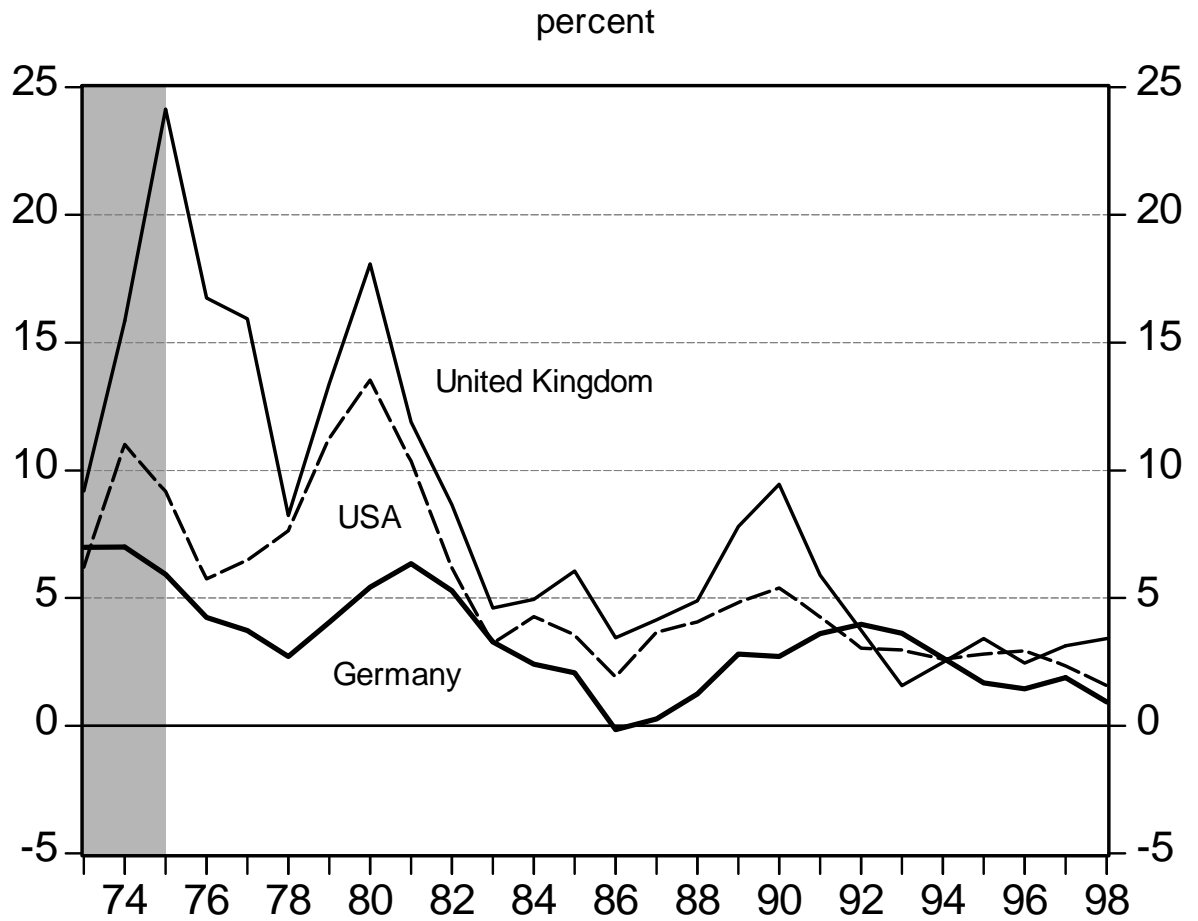
As a final remark, I have tried to show that the Bundesbank's concept or strategy of monetary targeting has served its purpose well as a device for keeping inflation expectations checked. The picture of monetary targeting I have drawn may have come out sharper than the actual practice has been. What counts at the end of day is that the Bundesbank managed to supply an impressively stable currency over decades. And Otmar Issing has not only been part of the enterprise for about 8 years but has contributed decisively to keep the Bundesbank's policy on track. He has served well.

Fig. 1: Monetary targeting 1976 - 1998



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Fig. 2: Inflation record 1974 - 1998



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