



**Working Paper No. 431**

---

**Monetary Policy Strategies of the European Central Bank and  
the Federal Reserve Bank of the U.S.**

by

C. Sardoni  
University of Rome “La Sapienza”

and

L. Randall Wray  
The Levy Economics Institute and  
University of Missouri, Kansas City

November 2005

---

The Levy Economics Institute Working Paper Collection presents research in progress by Levy Institute scholars and conference participants. The purpose of the series is to disseminate ideas to and elicit comments from academics and professionals.

The Levy Economics Institute of Bard College, founded in 1986, is a nonprofit, nonpartisan, independently funded research organization devoted to public service. Through scholarship and economic research it generates viable, effective public policy responses to important economic problems that profoundly affect the quality of life in the United States and abroad.

The Levy Economics Institute  
P.O. Box 5000  
Annandale-on-Hudson, NY 12504-5000  
<http://www.levy.org>

Copyright © The Levy Economics Institute 2005 All rights reserved.

## **ABSTRACT**

In the debate on monetary policy strategies on both sides of the Atlantic, it is now almost a commonplace to contrast the Fed and the ECB by pointing out the former's flexibility and capacity to adjust rigidity, and the latter's extreme caution, and obsession with low inflation. In looking at the foundations of the two banks' strategies, however, we do not find differences that can provide a simple explanation for their divergent behavior, nor for the very different economic performance in the U.S. and Euroland in recent years. Not surprisingly, both central banks share the same conviction that money is neutral in the long period, and even their short-term policies are based on similar fundamental principles. The two policy approaches really differ only in terms of implementation, timing, competence, etc., but not in terms of the underlying theoretical orientation. We then draw the conclusion that monetary policy cannot represent a significant variable in the explanation of the different economic performances of Euroland and U.S. The two economic areas' differences must be explained by considering other factors among which the most important is fiscal policy.

---

JEL: E12, E42, E58, E62

Keywords: monetary policy, federal reserve, European central bank, fiscal policy, aggregate demand, growth

## THE NEW MONETARY CONSENSUS

Orthodox economists have embraced a “new monetary consensus” (NMC) to monetary theory and policy formation. In this section we very briefly set out the key characteristics of this consensus. In later sections, we will show how the European Central Bank (ECB) and the Fed have adapted the NMC to develop their own approaches to policy formation.

The NMC is based on an adaptation of the Taylor Rule, easily summarized in simple three equation models. There are several versions, but perhaps the best-known has an equation for output gap (the percentage point gap between actual and potential output), a dynamic version of a Philips curve relating inflation to the output gap, and a monetary policy (Taylor-like) rule. These can be set out as

$$Y_t^* = aY_{t-1}^* + bE_t(Y_{t+1}^*) - c[R_t - E_t(p_{t+1})] + \varepsilon_t \quad (\text{a})$$

$$p_t = d(Y_t^*) + \alpha_1 p_{t-1} + \alpha_2 E_t(p_{t+1}) + \xi_t \quad (\text{b})$$
$$(\alpha_1 + \alpha_2 = 1)$$

$$R_t = r^* + E_t(p_{t+1}) + fY_{t-1}^* + g(p_{t-1} - p^*) \quad (\text{c})$$

where  $Y^*$  is the output gap,  $R$  is the nominal interest rate target,  $r^*$  is the “natural” or equilibrium real interest rate,  $p$  is inflation,  $\alpha$  represents weights (backward and forward looking inflation formation), and  $p^*$  is the inflation target ( $\varepsilon$  and  $\xi$  are stochastic shocks) (Meyer 2001). Note that the nominal interest rate target is set taking into account the output gap and the difference between actual and desired inflation. This then feeds into the IS-like demand gap equation based on the presumption that the nominal rate less expected inflation influences demand.

Very briefly, there is a general consensus among respectable economists that, in the long run, only the supply side matters. In the short run, both supply side and demand side variables matter. Unlike the 1960s version of Keynesian economics, fiscal policy is given a small role to play on the demand side (although government can influence the supply side, for example through its tax policy). Hence, monetary policy is given the larger role to play in impacting demand and growth. In the long run, money is neutral, but a variety of transmission avenues have been posited to allow money to influence demand in the short run. The new consensus rejects a simple monetarist transmission mechanism (from monetary aggregates to spending). Rather, it is recognized that central banks operate mostly with interest rate targets, but these are supposed to

affect demand directly (interest elasticity of spending) and indirectly (portfolio effects). Thus, there is substantial consensus that the central bank has a strong, albeit short run, impact on demand. When the economy grows too fast, threatening to set off inflation, the central bank is to dampen demand by raising interest rates; when it grows too slowly (causing unemployment and raising the specter of deflation), the central bank lowers rates to stimulate demand.

## **THE FED: APPLICATION OF THE NEW MONETARY CONSENSUS**

In this section, we examine the theory that currently guides monetary policy making in the U.S. Here we focus on the Fed's actual policies and statements, as well as upon transcripts of its secret discussions at FOMC meetings. We will make the case that the Fed has formulated a particular procedure that is loosely based on the new monetary consensus, and that it began implementing this procedure in the early 1990s. Policy formation today is based on five key principles:

- 1 transparency
- 2 gradualism
- 3 activism
- 4 inflation as the only official goal
- 5 neutral rate as the policy instrument to achieve these goals

Before proceeding we provide a summary. Over the past decade the Fed has increased *transparency*, both by telegraphing its planned moves well in advance of policy changes and also by announcing interest rate targets. It has also followed a course of *gradualism*, taking the form of very small adjustments of interest rates (usually 25 to 50 basis points) spread out over periods as long as two or even three years to achieve its ultimate interest rate targets. Ironically, the combination of openness and gradualism can force the central bank to make policy moves at the wrong time in order to fulfill market expectations that it has created.

These developments have occurred during a long-term trend toward increased monetary *policy activism*, which contrasts markedly with Milton Friedman's famous call for rules rather than discretion. The policy instrument used by the Fed is something called a *neutral rate* that varies across countries and through time. This neutral rate cannot be recognized until it is achieved, so it cannot be announced in advance—which is somewhat in conflict with the Fed's adoption of increased transparency. As Friedman long ago warned, an activist policy has just as much chance

of destabilizing the economy as it does to stabilize the economy—matters are made even worse when activist policy is guided by invisible neutral rates and fickle market expectations that are largely fueled by the Fed’s own public musings. Finally, we challenge the Fed’s frequent claim that its only concern is inflation. Actually the Fed does target asset prices and income shares, and it shows a strong bias against labor and wages even as its attitude toward profits inflation is benign.

### **The Quest for the Elusive “Neutral Rate”**

Most explications of the NMC include an “equilibrium” or “neutral” real interest rate, that is the rate that is consistent with elimination of the output gap in the set of equations above. After the monetarist policy experiment of the early 1980s in the U.S., U.K., and elsewhere, during which money growth targets were supposed to bring down inflation, central bankers struggled to find an acceptable alternative. For a time in the U.S., after completely abandoning any sort of reserve or money target, the Fed toyed with a variety of indicators or targets for monetary policy formation.<sup>1</sup> By the mid 1990s, various Fed officials agreed with Governor Lindsey when he said: “we look at a whole raft of variables—we ignore nothing and we focus on nothing;” or with Governor LaWare who said simply “I get a feel for what I think is going on” (Papadimitriou and Wray 1994). The general tone of policy formation was likened to “reading tea leaves,” or aptly characterized by Keith Bradsher (1994) when he wrote that “policy formation has become more intuitive.”

However, as the transcripts of Fed deliberations make clear, behind closed doors the Fed began discussing a “neutral interest rate” as a possible target in 1994. At the March 22, 1994 meeting, many argued that while there still was no evidence of rising inflation, short term interest rates were overly accommodative and well below a “neutral” rate. President Jordan admitted that “I don’t know where neutral is” but “I feel very strongly that we are nowhere near a neutral stance and that we ought to be aggressive in moving toward it.” (FOMC 1994b, p. 49). Since the latest rate hike, the Fed has again been trumpeting the neutral rate as an indicator for policy formation. However, while economists outside the Fed are willing to put a number on the neutral rate (rates anywhere from 3.5 to 5 are quoted in the press), the Fed prefers to remain circumspect, simply saying that it is the interest rate that neither provokes inflation nor slows down the economy. According to Chairman Greenspan, “You can tell whether you’re below or above, but until you’re

---

<sup>1</sup> “Real interest rate,” price indices, “P-star,” surveys of expected inflation, gold prices, and Taylor rules.

there, you're not quite sure you are there. And we know at this stage, at one and a quarter percent federal funds rate, that we are below neutral. When we arrive at neutral, we will know it.” (Andrews 2004).

In reality, a neutral rate cannot be temporally or spatially fixed. For four years the U.S. had an overnight rate at one percent, without sustaining robust growth or setting off significant inflation. In 2004 the Fed began raising rates even with no labor market pressure, on the argument that the neutral rate was far above the then current rate—indicating the neutral rate had somehow shifted upward. Japan has had a near-zero overnight rate target for a decade without inducing recovery—meaning that its neutral rate must be far into negative territory. If the neutral rate varies through time and across nations, presumably with the state of the economy, and if policymakers cannot know what it is ahead of time—recognizing it only once it is achieved—it cannot provide useful guidance. Rather, the Fed must focus on current and projected economic growth and inflation data.

### **Transparency, Gradualism, and Policy Activism**

*Transparency.* Just as we can trace the Fed's adoption of a “neutral” rate to the early 1990s, the other components of the Fed's version of the NMC can also be found in deliberations around its rate hike of 1994. Recall that FOMC deliberations at that time were highly secretive and that rate hikes were disguised in coded releases that referred to decisions to “increase slightly the degree of pressure on reserve positions.” It was left to markets to try to figure out the rate target. Led by Representative Gonzalez, Chairman of the House Banking Committee, there was pressure on the Fed for greater transparency (FOMC 1993, Appendix). This came to a head as Greenspan made less than forthright statements about the existence of detailed records of transcripts of FOMC meetings. As it happened, written records of all FOMC deliberations had been kept, and pressure was applied for their release. This led to an interesting debate within the Fed about the political and economic consequences of greater transparency, eventually leading to the agreement to release transcripts and other materials associated with FOMC meetings after a five year lag. And, of course, the Fed now not only warns that rates “must rise at some point” in advance of its decisions, but it also announces precisely what its target Fed funds rate is. Hence, transparency has increased greatly over the past decade and has become an obvious feature of the Fed's policy. Indeed, the

Fed is seen as much more transparent than its counterpart, the ECB (see, e.g., Blinder (2004, pp. 5-33)).

*Activism.* Why was it so critical to take action to raise the rate target in early February 1994? We now know that the Clinton expansion really would not get underway for another two years, and that it continued for another six years with no pick-up of inflation and with unemployment rates eventually dropping far below any NAIRU estimates. Indeed, at the later May 17, 1994 meeting, Governor Jordan argued that “where we are is not that we are entering the fourth year of the expansion, but rather that we are someplace in the first year of a classic expansion” (FOMC 1994c, p. 23)—in other words, the FOMC knew it had raised rates at the very beginning of expansion! Why, then, raise rates in February, and continue to raise them over the next year by a total of 300 basis points? The answer was articulated by a number of FOMC participants: to enhance the Fed’s credibility as an inflation-fighter.<sup>2</sup> The earlier the Fed moves to “preempt” inflation, the greater its inflation-fighting credibility! An *active* Fed is a credible Fed.

*Gradualism.* After the February rate increase, financial markets stumbled. Chairman Greenspan noted that the Committee had held “expectations that we would prick the bubble in the equity markets” with the February hike and while he favored getting “policy to neutrality as fast as we can,” he didn’t believe “the financial system can take a very large increase without a break in its tensile strength—which we strained significantly the last time but did not break” (FOMC 1994b, p. 43). Hence, he favored a gradual series of small rate hikes, to get the Fed funds rate to the 4 – 4 ½ % range. If the market came to expect 25 basis point hikes at each subsequent FOMC meeting until “neutrality” was achieved, this would “break the bubble” in equity markets while still “restoring confidence in the System.” (FOMC 1994b, p. 44) We see the justification for *gradualism* in the fear that large rate hikes have too big of an impact on financial markets. The combination of gradualism and transparency would help to prepare financial markets to avoid the

---

<sup>2</sup> Governor Broadus: “I really think the System’s anti-inflationary stance has done a great deal to increase our credibility in recent years” (FOMC 1994a, p. 23); Vice Chairman McDonough: “A 25 basis point move...would send the right signal in the sense that the Federal Reserve, the central bank, is being watchful, as it should be. And we would be moving earlier in the economic cycle than the Fed has done historically and, therefore, we are doing our job even better than in the past.” (FOMC 1994a, p. 46); Governor Forrestal: “I think we will gain credibility by moving now even though there might be some marginal risk that we might have to reverse course.” (FOMC 1994a, p. 49).

types of crashes the Fed had produced in the stock market decline of 1987 and the bond market collapse of 1994. However, it is notable that the Fed's attempt to "prick the bubble" back in 1994, as well as Greenspan's statements two years later about "irrational exuberance" only caused temporary setbacks for the developing euphoria that would play out over the rest of the decade, and then come to a crashing end when the Fed raised interest rates just as the economy headed into recession at the end of the decade. Further, the most recent rate hikes have not succeeded in cooling the real estate bubble in the U.S.—indeed, after mortgage rates temporarily rose, they actually have dropped back near to the lows they had reached before the Fed began raising rates.

### **Dirty Little Distributional Secrets At The Fed?**

The Fed would like to be perceived to be "above the fray," making policy decisions free from political decisions in a dispassionate quest to wring inflation from the economy. To that end, the Fed would like to stay out of debates about employment as well as income distribution and, more specifically, about differential impacts of rate changes on different groups. Chairman Greenspan and other Fed officials have argued that it is nigh well impossible to determine whether a housing market bubble currently exists, and are loathe to be seen as attempting to burst real estate markets through the recent rate hikes. Thus, the Fed continually denies it targets asset prices.

However, we know from the transcripts that the Fed was, indeed, consciously trying to "prick" what it perceived to be an equity price bubble as early as 1994. Many believe that the rate hikes that began in 2004 were designed to slow real estate speculation, in spite of the Fed's frequent claims that bubbles are impossible to identify. Finally, it is abundantly clear that the Fed continually guards against wage-driven inflation, raising rates even before labor markets tighten, but it openly accepts profits-driven inflation. Indeed, during early 2004 the Fed refused to raise rates even as profits boomed, arguing profits inflation would be self-limiting—while it implicitly adopts the position that wages inflation is not. This represents a clear bias against labor in favor of entrepreneurs (Wray 2004).

### **Consensus**

The term "consensus" is important to NMC in two different ways. First, NMC represents a theoretical "consensus" accepted by most mainstream academic and policy-making economists about the way in which monetary policy affects the economy. In addition, application of the NMC



to policy-making also relies on the development of a “consensus” of expectations. It is believed that while monetary policy is neutral in the long run, in the short run it can have large, uncertain, and potentially destabilizing effects. For this reason, the central bank needs to work with the private sector to clearly communicate its policies and ultimate goals—hence, the need for transparency and for gradualism. Effectively, the Fed develops consistent expectations that it will always be on guard against inflation, that it will prepare markets well in advance of any policy moves, that any rate changes will be small and gradually implemented, and that it will “stay the course” once it embarks on a policy—unless economic conditions change considerably. In this way, even if money and interest rates have uncertain effects (perhaps because of long and variable lags), the monetary policy consensus helps markets to behave as if the economy were not uncertain.

### **Critique of Fed Policy**

The Fed cannot help but notice that interest rate changes do have distributional impacts. Rate changes, and anticipations of rate changes, can have large and disruptive impacts on financial markets. As we have seen, part of the justification for gradualism and telegraphic statements of intentions is the necessity to “prepare” financial markets. In addition, rate hikes mostly work on the “real economy” through different interest rate elasticities and spending propensities. There is little evidence that business investment (or most other private sector spending) is highly interest-sensitive, as rate changes are easily swamped by other effects, such as profitability considerations. In the consumer sector, households are net interest recipients, so if spending propensities were homogenous, permanent rate hikes should stimulate consumption spending by raising interest income—and this could potentially offset the negative interest elasticities. However, interest income is very unequally distributed, and it is likely that spending propensities of interest recipients are different from those who do not receive net interest income—although there is little work that would enable us to say with confidence what that variance is. Further, and this is important, the federal government is a very large net payer of interest to the private sector, so rate hikes increase budget deficits and hence stimulate private spending—again, to a degree that has not yet been reliably estimated.

From this, we can conclude that if interest rates matter, they work largely through distributional channels, but these are complex and little studied. Almost all empirical work focuses

on interest rate elasticities of private sector spending (and, notably, no reputable study has ever found much elasticity there), ignoring distributional effects. It is conceivable that distributional effects all “wash out” so that interest rate policy has the conventional signs—rate increases lower spending—but we really do not know. In any case, the dirty little secret cannot be denied that there are distributional effects, and that the Fed does consider these in its meetings (Wray 2004). And as discussed, there does seem to be something of an asymmetric bias toward profit income and against wage income, and toward net interest recipients and against net debtors, because the Fed raises interest rates at the first hint that labor markets are recovering, and at a pace that financial markets can “handle” so that net creditors will receive the interest due.

“Keynesian” economics has always been skeptical of the central bank’s ability to “fine-tune” the economy, in spite of the long-running Monetarist claims about the efficacy of monetary policy (even if orthodox wisdom following Friedmanian dictates used to disdain discretion). The canonization of Chairman Greenspan over the past decade and a half has eliminated most orthodox squeamishness about a discretionary Fed, while currently fashionable theory based on the “new monetary consensus” has pushed monetary policy front and center. As John Kenneth Galbraith recently argued, lack of empirical support for such beliefs has not dampened enthusiasm. Like Galbraith, the followers of Keynes have always insisted that “[b]usiness firms borrow when they can make money and not because interest rates are low” (Galbraith 2004, p. 45).

Finally, the Fed appears to be aware that its adoption of transparency and gradualism means that it surrenders a degree of discretion to market expectations. Policy makers must continually gauge the pulse of the market to ensure that these expectations are not disappointed. As the Minutes of the 30 June 2004 meeting make clear, the FOMC’s decision to raise rates was based largely on the market’s expectation that rates would be raised. The minutes comment that the May decision to leave rates unchanged was “fully anticipated” by markets, but that after May, markets expected a rate hike, an expectation the Fed felt compelled to oblige. In his testimony of September 8, 2004 before the Committee on the Budget, U.S. House of Representatives, the Chairman admitted that “inflation and inflation expectations have eased in recent months” as the economy “hit a soft patch” and “employment gains moderated notably.” Still, the Chairman and the Fed raised rates a third time on September 21 to keep pace with the expectations of rate hikes the FOMC had succeeded in generating through its public pronouncements of the “inevitability” of rate hikes. The rate hikes continued through 2005, even after Katrina. Like a cat chasing its tail,

the Fed will continue to follow expectations upward as it pushes rates to the four or four-and-a-half percent range the market has come to expect as “inevitable,” and that the Fed believes to represent a “neutral rate.”

Because these rate hikes are fully incorporated within expectations, they have almost no discernible impact on market behavior. This is the problem with the creation of a consensus of expectations: small rate hikes have almost no impact, but large rate changes are ruled out of bounds by consensus policy formation. As Wojnilower recently put it, the Fed always seems to be

apologizing for previous actions that had upset the financial markets, and promising the markets not to repeat them. But by tying their own hands this way, the authorities also deprived monetary policy of its effectiveness—until, inevitably, the time recurred when, with no other way to gain the market’s attention and modify its behavior, officials had to resort to different surprising and disturbing measures. (Wojnilower 2005)

Wojnilower is justly famous for arguing that “[t]he impact of changes in long-term rates of interest, while greater than of short-term rates, is limited,” hence “non-interest limits to credit growth are normally necessary to abort (or prevent) runaway expansions” (Wojnilower 2005); see also Fazzari, Hubbard and Petersen (1988). Because NMC policy formation as practiced in the U.S. shuns large rate changes and because there is no role for direct credit controls, monetary policy is impotent. As Wojnilower concludes, “[a]ll the Fed is accomplishing by its routine short-rate increases is to habituate the market and the public to ignore its actions.... Credit must be widely unavailable at any price for monetary policy to bite.... The main question as regards the next Fed chairperson is not his insight into current economic statistics, or whether he is a ‘hawk’ or ‘dove’ on inflation. Rather it is whether he recognizes that the principal *raison d’etre* of central banks...is to safeguard the monetary and financial system” (Wojnilower 2005).

## **THE EUROPEAN CENTRAL BANK**

The ECB is a much younger institution than the Federal Reserve; it was established in June 1998 and took full responsibility for the conduct of monetary policy only in January 1999. The creation of the ECB, and especially the adoption of the euro, was an important step in the attempt to promote economic and monetary integration among European countries. The ECB’s monetary

policy strategy has some features that seem to be inspired by the NMC, but it also presents some peculiarities as it maintains a rather strong link with monetary targeting. We first outline the bank's strategy and leave critical considerations to a following section. Unfortunately, we are not able to provide as much detail on the inner-workings of the ECB as its deliberations are not as transparent as those of the Fed.

### **The Foundations of the ECB's Monetary Policy Strategy**

The fundamental principle that guides the ECB's strategy has not changed to any significant extent since its birth in 1998-99. It hinges on the basic conviction that *money is neutral in the long run*, a key component of the NMC. When all adjustments in the economy have occurred, changes in the quantity of money only determine the general price level. In this context, the fundamental task of the ECB is to guarantee price stability, even though it should also take account of the broader goals of the European Community (output, employment, etc.), provided that they are compatible with price stability: "given that monetary policy can affect real activity in the shorter term, the ECB typically should avoid generating excessive fluctuations in output and employment if this is in line with the pursuit of its primary objective." (ECB 2004, p. 44).

In the long run, money can only influence the general price level, but this does not mean that inflation (or deflation) is seen as "neutral" by the ECB. Inflation is harmful to the economy, whereas price stability is beneficial in several respects. The ECB maintains the following:

1. If the general price level is stable, agents find it easier to distinguish changes in the general price level from changes in relative prices and thus can behave "more rationally."
2. Stable prices reduce, or eliminate altogether, the risk premium that lenders attach to their lending.
3. Stable prices do not induce agents to divert resources from productive uses to hedge against inflation.
4. Taxes and the welfare system can distort economic behavior; inflation can exacerbate such distortions.
5. Inflation is a tax on cash holdings; therefore when inflation is high households reduce their demand for cash and transaction costs rise.
6. Price stability prevents arbitrary wealth and income redistribution.

Thus, rather than taking direct responsibility for elimination of any output gap, the ECB purports to provide an environment in which the economy can "naturally" close the gap—and that

is done mostly through maintaining inflation near to 2% annually. The transmission mechanism from policy to prices requires a considerable span of time to play out. Moreover, the process is highly uncertain, because of shocks from many different sources. As a consequence, “Monetary policy (...) needs not only to monitor the transmission of monetary policy changes but also to take into account all other developments relevant for future inflation in order to avoid these having any impact on longer-term inflation trends and expectations in a way that is inconsistent with price stability” (ECB 2004, p. 47).

From all this, the crucial importance of expectations follows. According to the ECB, its policy is more effective if inflation expectations are “firmly” anchored. In this framework, the first element of the bank’s strategy is a quantitative definition of price stability. Since 2003, the ECB adopts the following definition of price stability: inflation is “below but close to 2% over the medium term” (ECB 2004, p. 51).<sup>3</sup> The reasons for defining a precise inflation target and making it public are: it makes the policy easy to understand; it is a clear benchmark against which the ECB’s policy can be evaluated by the economy; and it provides a reliable guide to the formation of consistent expectations. Thus, adoption of a target helps to build a consensus of expectations.

The ECB’s operations for achieving price stability are based on the so-called “two pillars”:

- 1) “assessing the short to medium-term determinants of price developments, with a focus on real activity and financial conditions in the economy” (*economic analysis*);
- 2) focusing “on a longer-term horizon, exploiting the long-run link between money and prices” (*monetary analysis*) (ECB 2004, p. 55).

The ECB’s document (ECB 2004, p. 56) points out that a policy that targets money aggregates relies on the idea that there is a stable relationship between the quantity of money and the price level in the medium term and on the conviction that the central bank can control the money supply over short periods of time. The ECB does not criticize such hypotheses and argues that it did not adopt the monetary growth rule because it thinks that there is also information other than money that is relevant for policy decisions. Similarly, the ECB decided not to adopt strict price targets because, in its view, this is too mechanical and, like the monetary rule, does not take into consideration other relevant variables. More precisely, a certain forecast inflation rate “does

---

<sup>3</sup> Initially, the ECB defined price stability as a yearly increase in the harmonized index of consumer prices (HICP) below 2%. It is evident that such a definition is largely unsatisfactory: “below 2%” can mean anything, even a negative rate of inflation. Galí and others (2004) see this change of definition possibly as a “preparatory move before an eventual increase in the target inflation rate.”

not provide an encompassing and reliable framework for identifying the nature of threats to price stability. The appropriate monetary policy response generally depends on the sources of these risks to price stability.” Finally, the ECB document regards the “exchange rate targeting” strategy as inappropriate for Euroland, a large and relatively closed economy.

### **The Conduct of Monetary Policy: 1999-2005**

Policy measures taken by the ECB have been dominated by its preoccupation with inflation. Even in the most recent years, when the bank lowered its key interest rates to help Euroland out of stagnation, caution has been dominant. The ECB takes pride in the fact that inflation was kept at low levels and, therefore, considers its first five years of activity a success. In its view, despite several shocks that hit Euroland during this period, it realized the medium-term target of price stability. In fact, from January 1999 to December 2004, the inflation rate has remained substantially near to the 2% target, remaining most of the time below 2.5%, with a rise during the period April-June 2001 when inflation reached 3.1%.

The ECB’s conduct of monetary policy can be divided into three phases: between the beginning of 1999 to November of the same year; November 1999 to May 2001; and May 2001 to the present. At the beginning of 1999, the bank saw “increased downward risks to price stability” in Euroland, so that, in April, it reduced the fixed rate on main refinancing to 2.5%.<sup>4</sup> However, in the summer of the same year, it perceived growing inflationary pressures. Thus, in November the rate on main refinancing returned to 3% (its initial value in January 1999). This was the beginning of a rather long period of increasing interest rates. The rate of main refinancing was progressively raised, up to its peak of 4.75% from October 2000 to May 10 2001.<sup>5</sup> On May 11, for the first time the rate was reduced by 25 basis points. After that, there were further reductions and the rate reached a minimum of 2% in June 2003. The rate is still at 2% in September 2005.

---

<sup>4</sup> Main refinancing operations are open market interventions in which the ECB lends in the form of reverse transactions, i.e. the bank buys assets under a repurchase agreement or it lends against a collateral (ECB 2004, p. 74). Main refinancing operations can take place through fixed or variable rate tenders. From 1999 to June 2000, the ECB implemented its tenders at a fixed rate; from June 27, 2000 onward, the bank implements its tenders at a variable rate. This change was aimed to avoid cases of overbidding; but the variable rate tenders have given rise to cases of underbidding. As a consequence, in 2003-04, the ECB has introduced some further changes to its operational framework. For more details on the ECB’s operational framework see ECB (2004, pp. 71-90; 2005).

<sup>5</sup> Over the period, the rate on main refinancing experienced an increase of 225 basis points.

From January to November 1999, the inflation rate had averaged 1.1%; after the ECB's intervention following its concern about inflationary pressures, the inflation rate was not only higher but kept rising to reach its peak in May 2001 (3.1%). During the whole period of increasing interest rates, the inflation rate averaged 2.1%. In the following phase of declining interest rates, the average inflation rate has been 2.2% (see table below).

### **Critiques of the ECB's Monetary Policy Strategy**

Like many critics, Bibow (2005) questions the ECB's ability to guarantee low inflation and, at the same time, he points out that the bank's strategy may have favored slow growth in Euroland. Some similar critiques can be found in Wyplosz (2000), who sees the ECB's anti-inflationary policy as successful but also points out that at such low inflation rates negative effects on the level of employment may prevail. Fontana, Sawyer, and Arestis have also criticized the ECB along similar lines.

The most crucial problem with the ECB's strategy is represented by its choice to ground it on the two pillars. In evaluating and comparing its strategy with other approaches, the ECB acknowledges similarities and points of contact both with "monetary targeting" and "inflation targeting," but these two different strategies are incompatible with one another and, we argue, are not achievable, anyway. The basic principle on which the ECB's monetary analysis is grounded is a rather crude form of the quantity theory applied to the medium-long run (ECB 2004, boxes 3.6-3.7, pp. 63-4). At the same time, despite the attempts to differentiate from it, fixing an inflation target close to 2% is very similar to "inflation targeting" strategies. In fact, the ECB's criticisms of inflation targeting do not appear too convincing.<sup>6</sup> While one may agree with the observation that a single inflation forecast does not provide a sound framework for policy formation, it is not clear why the ECB's target of "inflation close to 2%" is a better tool.<sup>7</sup> Secondly, as argued by Mishkin (2004, pp.122-3), direct inflation targeting need not be based on a fixed, and more or less arbitrary,

---

<sup>6</sup> The bank criticizes inflation targeting for being too mechanical (ECB 2004: 56). In the ECB's view, the sources of inflationary pressures can be varied and they can be understood only through a deeper analysis of the economy than that associated with an inflation forecast alone. Another criticism is that the single inflation target cannot embody other information contained in monetary aggregates. Finally, for the ECB, to rely on a single forecast is said to be "unwise" in the context of Euroland, which is characterized by a differentiated economic structure.

<sup>7</sup> Moreover, it is peculiar that the ECB's justifications for adopting the "2% target" are very similar to those given in favor of direct inflation targeting; see, e.g., Mishkin (2004, pp. 120-1).

time horizon. The ECB's criticism of inflation targeting that it cannot embody all the information contained in monetary aggregates, is evidently related to its ambiguity concerning the control of money supply. The European central bank still believes that, at least in the medium-long term, monetary policy can be conducted by controlling M3.<sup>8</sup>

It is not surprising that some prominent exponents of the NMC have criticized the ECB's strategy. According to the NMC, monetary policy works through real interest rates and expectations, not through money aggregates. Galí and others (2004) examine the ECB's justifications for taking account of monetary growth and conclude that monetary analysis plays too prominent a role in the bank's strategy.<sup>9</sup> In truth, a central bank has no direct control over monetary aggregates, and all modern central banks actually operate with overnight interest rate targets. But also the ability of central banks to affect output inflation through manipulation of the interest rate target is highly doubtful. As discussed above, interest rates must operate through spending elasticities and distribution—and these may move in opposite directions—at least some of the time. In any case, the evidence is at best mixed.

In the next section we compare U.S. and Euroland economic performance and ask whether Fed and ECB policies have been sufficiently divergent to explain the differences in performance. We will conclude that the fiscal policy constraints in Euroland play a much more significant role in explaining the differential performance.

## **EUROPEAN AND THE U.S. ECONOMIC PERFORMANCES: 1999-2004**

If monetary policy is indeed the driving factor behind economic performance, and if U.S. and Euroland economic performance is substantially different, then we should be able to observe substantially different monetary policy. The basic indicators of economic performance in the table below leave little doubt about relatively poorer economic performance in Euroland.

---

<sup>8</sup> Much more cogent criticisms of inflation targeting and good reasons why the Fed should not follow such strategy have been provided by Benjamin Friedman. In particular, Friedman holds that focusing on an inflation target would imply a further atrophying of the central banks' concern for other objectives than price stability (Friedman 2004, pp. 135-6). The tendency to "atrophy" pointed out by Friedman, however, is coherent with the hypothesis of money neutrality.

<sup>9</sup> Even though they acknowledge that the strategy underwent an evolution that led to downplaying the importance of monetary policy. Initially, monetary analysis was the first pillar; it became the second in 2003.

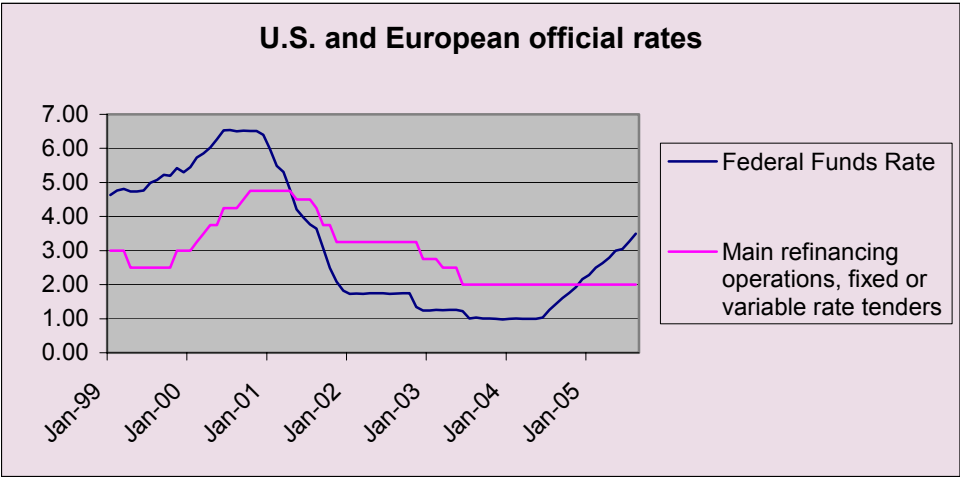


**The economic performance of the U.S. and Euroland, 1999-2004**

	Gross domestic product, constant prices, annual percent change		Inflation, annual percent change		Unemployment rate	
	USA	Euroland	USA	Euroland	USA	Euroland
<b>1999</b>	4.4	2.7	2.2	1.1	4.2	9.2
<b>2000</b>	3.7	3.8	3.4	2.1	4	8.2
<b>2001</b>	0.8	1.7	2.8	2.3	4.8	7.9
<b>2002</b>	1.6	0.9	1.6	2.3	5.8	8.3
<b>2003</b>	2.7	0.7	2.3	2.1	6	8.7
<b>2004</b>	4.2	2	2.7	2.1	5.5	8.9

Source: IMF

After the relatively high rates of growth of 1999-2000, Euroland GDP grew at very low rates while the rate of unemployment remained always close to 8.5-9%. Inflation in the U.S. was somewhat higher than in Europe, but GDP grew much faster and unemployment was at record low levels—averaging little more than half of Euroland levels. Can the different conduct of monetary policy in the two areas provide an explanation of such differences? Our answer is “obviously not,” as the comparison of official interest rates below shows that the rate differences between USA and Euroland are too small to explain these differences.



Over the period January 1999 to August 2005, the U.S. nominal rates were, on average, higher than in Europe and with a much larger variability. Still, U.S. growth was higher, inflation was only slightly higher, and unemployment was significantly lower—none of which is strictly

consistent with NMC wisdom. If it is real rates, rather than nominal rates, that matter, we are still unable to give a satisfactory account of the differences. Between 1999 and 2004, the U.S. average real rate was lower than the European by only 40 basis points, whereas the difference between their GDP growth rates was almost 100 basis points. Further, it is hard to explain why greater variance of nominal interest rates should lead to better economic performance. Low variance of rates and a firmer commitment to a firmer inflation goal in Euroland should have led to better economic performance. Finally, the differential between U.S. and Euroland interest rates—whether measured in nominal or inflation-adjusted terms—are far too small to explain relative demand gaps (if unemployment rates are indicative of such gaps).

Even if monetary policy does not diverge that much between the U.S. and Euroland, fiscal policy is quite different. In the U.S., federal government spending averages near 20% of GDP, with spending net of taxes swinging by nearly 7% of GDP from the Clinton-era peak budget surplus to the Bush recession peak deficit. In Euroland, the equivalent to federal government spending by the European Parliament amounts to about 1% of Euroland GDP. Most government spending in Euroland is decentralized to member states and their subordinate governments. It is true that these are large relative to their national output and that some of them run deficits above 3% of GDP whereas no U.S. state budget is so large relative to state output, and no U.S. state has issued debt nearly so large relative to state GDP as that of the typical Euroland member state. However, all U.S. states can rely on huge fiscal transfers from Washington if necessary, as the recent experience with hurricane Katrina has shown. Early estimates are that the federal government will spend an amount equal to one or two percent of national GDP this year and next in New Orleans; it is hard to imagine that Euroland would be able to achieve such a feat to rescue a member state.

There is an additional consideration that follows on from the construction of the EU. Because fiscal policy is constrained, unlike the U.S., the EU relies on foreign demand as an engine of economic growth. While the U.S. current account deficit has risen fairly steadily and now approaches 6.5% of GDP, total Euroland net exports as a percent of Euroland GDP averaged 1.65% between 1999-2004. This creates a circularity because each member state tries to increase net exports—both with other EU nations and with the rest of the world—in part by trying to become a low-cost producer. As exchange rates are fixed with the rest of the EU and in any case are outside the control of any member nation, the only alternative is to maintain or reduce wages

and prices within the member state. This adds more pressure for fiscal austerity and slow growth. Budget deficits are largely “endogenously” determined by economic performance, hence, the large deficits in some member states were not discretionarily chosen but rather resulted from the high unemployment that has hit nations like Germany, Italy, and France.

Many point to the Stability and Growth Pact as the constraint on member state budget deficits. Although the larger nations have ignored it when the constraints did not suit them, the constraints do seem to have been selectively imposed on smaller nations. In addition, there can be little doubt that new and prospective members have imposed fiscal restraint on their economies as a condition of joining the EU, and it is highly probable that many member state policymakers have become more “fiscally responsible” because of perceived budget constraints. However, markets can also impose constraints on member state budget deficits. In the U.S., debt ratings fall and interest costs rise quickly whenever bond raters downgrade a state or local government’s debt because it exceeds what is deemed to be fiscally prudent spending levels. But this is quite in contrast to the market’s treatment of sovereign (national) debt. While it is true that markets have at times downgraded sovereign debt (as in Japan in recent years), the rating agencies make it clear that they recognize there is no solvency problem entailed in sovereign budget deficits. Hence, the downgrading is attributed to “country risk,” which is basically determined by the markets’ perception of a country’s situation—but this has little impact on sovereign interest rates.

Government debt issued by Euro nations is already perceived to be heterogeneous by markets; as Kelton (2003) has shown, interest rates have actually diverged since monetary union, rather than converging as was expected by orthodox economists. Markets seem to have recognized that Euronations have relinquished some of their sovereignty—and become more like U.S. states. Markets must increasingly weigh the risk of default by individual member states, as well as the probability of a bail-out by the EU. However, unlike the case in the U.S. the procedure to be used to bailout a member state is not well-defined. The ECB is practically prohibited from bailing out member states, and although it is impossible to say what it might do in a crisis there is enough uncertainty about this to create the possibility of a run out of a member’s debt. Further, as already discussed, there is no central fiscal authority with anything like the responsibility of the U.S. Treasury. Charles Goodhart has summarized the problem as follows:

The federal institutions in the EU have neither the ability, nor the wish, to guarantee the deficits of the subsidiary state governments. The ECB is admonished not to support failing State governments, and there is no fiscal competence at the federal level either to make inter-regional transfers in response to asymmetric shocks or to support the ECB in meeting the burden of bailing out a State government. So the federal government in the EU neither can, nor wants to, carry out its part in the kind of implicit bargains observed in other federal systems. (Goodhart 2005, pp. 21-2)

Even if it is nearly impossible to imagine the failure of Germany occasioned by a market run out of its IOUs, one cannot be sure of a concerted EU attempt to resolve a financial crisis in one of the smaller or newer Euro nations. It is conceivable that the problem could begin with private financial institutions and spread to a member state's government liabilities; if the ECB refused to intervene as lender of last resort, the panic could spread to other member states.

As Goodhart has suggested, it really is this fiscal angle that poses the real problem for the sustainability of the unification of Europe. To be sure, monetary policy might have been managed better and consistently lower interest rates might have encouraged more growth. On the other hand, it is hard to see why the Fed's policy over the past decade should be considered to have been substantially superior to that of the ECB, or in any case to have been the primary cause of the better economic performance in the U.S. We believe that fiscal policy constraints in Euroland have already led to unacceptably lower growth and higher unemployment, and the current fiscal arrangements carry the possibility of a catastrophic financial crisis. Although there is no way to know, it is possible that more expansionary fiscal policy might have led to faster economic growth and lower unemployment, but without larger fiscal deficits. Hence, the Euroland experience seems to diverge from U.S. experience because of differences in fiscal policy—which also implies that the NMC rejection of the efficacy of fiscal policy is in error. While it is beyond the scope of this article, we would suggest that reform would include creation of a mechanism for lender of last resort activity by the ECB (as Wojnilower's comment suggests) as well as for large and perhaps automatic countercyclical fiscal transfers from a central fiscal authority to member states.<sup>10</sup> These reforms would be a step in the right direction.

---

<sup>10</sup> Kregel (1999) has proposed an employer of last resort program for Euroland, financed from the center, as a means to reduce employment and at the same time provide an automatic stabilizing fiscal transfer.

## REFERENCES

- Andrews, E. L. 2004. "Greenspan Says Rates Could Rise Quickly." *New York Times*. July 21.
- Bibow, J. 2005. "Refocusing the ECB on Output Stabilization and Growth through Inflation Targeting?" Working Paper 425. Annandale-on-Hudson, N.Y.: The Levy Economics Institute.
- Blinder, A. S. 2004. *The Quiet Revolution. Central Banking Goes Modern*. The Arthur M. Okun Memorial Lectures Series. New Haven & London: Yale University Press.
- Bradsher, K. 1994. "Bigger Role for Intuition Seen at Fed." *New York Times*. February 28.
- ECB. 2004. *The Monetary Policy of the ECB*. Frankfurt: European Central Bank.
- . 2005. *The Implementation of Monetary Policy in the Euro Area*. General Documentation on Eurosystem Monetary Policy Instruments and Procedures. Frankfurt am Main: European Central Bank.
- Fazzari, S. M., Hubbard, G. R., and Petersen, B. C. 1988. "Financing Constraints and Corporate Investment." *Brookings Papers on Economic Activity* 1: 141-95.
- FOMC. 1993. "Transcripts of Telephone Conference Call of October 5." Washington, D.C.: Federal Reserve Board.
- . 1994a. "Transcripts of the Meeting of February 3-4." Washington, D.C.: Federal Reserve Board.
- . 1994b. "Transcripts of the Meeting of March 22." Washington, D.C.: Federal Reserve Board.
- . 1994c. "Transcripts of the Meeting of May 17." Washington, D.C.: Federal Reserve Board.
- Friedman, B. 2004. "Why the Federal Reserve Should Not Adopt Inflation Targeting." *International Finance* 7 (1): 129-136.
- Galbraith, John Kenneth. 2004. *The Economics of Innocent Fraud: Truth for Our Time*. Boston, Mass.: Houghton Mifflin.
- Galí, J., Gerlach, S., Rotemberg, J., Uhlig, H., and Woodford, M. 2004. *The Monetary Policy Strategy of the ECB Reconsidered: Monitoring the European Central Bank* 5. London: Centre for Economic Policy Research.
- Goodhart, C. A. E. 2005. "How to Repair the Euro." London School of Economics.

- Kelton (Bell), S. 2003. "Convergence Going in, Divergence Coming Out: Default Risk Premiums and the Prospects for Stabilization in the Eurozone." Working Papers, 24. Kansas City, MO: Center for Full Employment and Price Stability.
- Kregel, J. A. 1999. "Price Stability and Full Employment as Complements in a New Europe: A Market-Based Price Stabilization Policy for the New ECB." In Davidson, P. and Kregel, J. A. eds. *Full Employment and Price Stability in a Global Economy*. Cheltenham: Edward Elgar: 178-94.
- Meyer, L. H. 2001. "Does Money Matter?" The Homer Jones Memorial Lecture, Washington University. St. Louis, MO: Federal Reserve Bank of St. Louis.
- Mishkin, F. S. 2004. "Why the Federal Reserve Should Adopt Inflation Targeting." *International Finance* 7 (1): 117-127.
- Papadimitriou, D. B. and Wray, L. R. 1994. "Monetary Policy Uncovered. Flying Blind: The Federal Reserve's Experiment with Unobservables." Public Policy Brief 15. Annandale-on-Hudson, N.Y.: The Levy Economics Institute.
- Wojnilower, A. M. 2005. "Why Monetary Policy?" Manuscript prepared for the Hyman Minsky Conference at The Levy Economics Institute of Bard College, April 21. Annandale-on-Hudson, N.Y.: The Levy Economics Institute.
- Wray, L. R. 2004. "The Case for Rate Hikes: Did the Fed Prematurely Raise Rates?" Public Policy Brief 79. Annandale-on-Hudson, N.Y.: The Levy Economics Institute.
- Wyplosz. 2000. "Do We Know How Low Should Inflation Be?" *Why Price Stability? First ECB Central Banking Conference*. Frankfurt am Main: European Central Bank.