

## **Testimony of Governor Laurence H. Meyer**

*Conduct of monetary policy*

**Before the Committee on Banking and Financial Services, U.S. House of Representatives**

**July 23, 1997**

I am pleased to have this opportunity to meet with you this morning to discuss my views on the conduct of monetary policy. I am well aware that, despite the recent good performance of the economy, some members of this committee have reservations about the conduct of monetary policy, specifically the decision to raise the federal funds rate 1/4 percentage point on March 25. I am also aware that there has been interest by some members, particularly Congressman Frank, in my views, specifically my views about the relevance of the NAIRU concept to understanding recent economic performance and risks to the outlook. I welcome the chance to discuss these issues with you this morning.

Achieving price stability in the long run and preventing an increase in inflation in the short run are not ends in themselves. They are a means to the end, important because they are the best way that the Federal Reserve can contribute to achieving the highest sustainable level of production and the maximum sustainable rate of growth for the American people. This is a key point. While there may be, from time to time, differences about how to reach these common goals--indeed, it would be amazing if there were not -- there is no disagreement about the goals.

The history of business cycles has repeatedly taught us that the greatest risk to an expansion comes from failing to prevent an overheated economy. The best way to insure the durability of this expansion is, therefore, to be vigilant that we do not allow the economy to overheat and produce the inevitable rise in inflation. Failure to heed this lesson of history would result not only in higher inflation, but also in cyclical instability and higher unemployment rates.

One way of explaining the recent good performance in the economy is that policymakers have created a favorable environment for the private sector and then gotten out of the way, allowing the natural dynamism of our economy to operate to its potential. Monetary policy has laid the groundwork of stable, low inflation--an environment conducive to long-term planning by households and businesses. Fiscal policy has helped lower the deficit and thus has increased national saving and reduced its competition for funds with the private sector. Trade policy has opened markets and increased competition, allowing consumers access to the wider variety of goods and increasing the pressure on producers to raise efficiency and quality. Regulatory policy subjects more and more markets to the discipline of competition. The star of this show is the private sector. Our job is not to mess it up. We can mess it up either by inappropriate action or by the failure to take appropriate action.

### **Challenges in the Good News Economy**

Recent economic performance has been extraordinarily favorable. Growth over the last year

has been among the strongest in the past decade. The unemployment rate has declined to the lowest level in a quarter century. Inflation is the lowest in more than 30 years. Equity prices have soared. Consumer confidence is at record levels. The performance of this "good news" economy is enough to make you want to cheer.

I have noted on several occasions that U.S. policymakers, including the Federal Reserve, would probably be inclined to accept more credit for this performance if they had forecast it or even could explain how it was possible. Herein lie the challenges: *First*, how do we explain such favorable performance, and specifically what accounts for the favorable combination of low inflation and low unemployment? *Second*, what can monetary policy do to help extend the good performance; specifically, how should monetary policy be positioned in light of the uncertainties in the current environment so as to balance what I call regularities and possibilities – *regularities* that suggest there are limits to the economy's productive capacity, at any point in time, and to the growth of capacity over time and *possibilities* that suggest these limits may have become more flexible in recent years.

### **The art and science of forecasting and policymaking**

When I won awards for economic forecasting while in the private sector, I was always asked about my recipe for forecasting. My response was: take one part science and mix it with one part art and one part luck. The science refers to the model that guided the forecast, to the historical regularities that the model uses to help predict future performance. The art refers to the forecaster's judgment. I never made a forecast by standing back and letting the model do all the work. Judgment was equally important to the end product. We constantly had to consider what parts of the model could be trusted better than others and what to do when some parts of the model got off track. That is where a forecaster earns his living and makes his reputation. Finally, I never ignored the contribution of good fortune to my forecasting success.

It is not very different for policymakers. Models and historical regularities are important underpinnings of any preemptive policy. Such a policy depends on forecasts because you are attempting to avoid problems that would occur if you failed to act. But judgment is essential too, and more so when historical regularities are called into question, as is the case today. A policymaker, like a forecaster, has to adjust on the fly, before there is time to even determine, with certainty, why the models are off track and certainly before they can be corrected. Historians may put this all in perspective in *due* time. Perhaps. But policy is made in *real* time.

In recent years monetary policy has not simply been guided by historical regularities about the relationship between inflation and unemployment inherited from the 1980s and early 1990s. Rather, monetary policy has been adaptive, pragmatic and flexible in response to evolving economic circumstances. Such an adaptive approach does not throw out the framework that has successfully guided forecasting and policymaking in the past, but attempts, in real time, to adjust that approach based on the current data.

### **Key Issues in the Economic Outlook**

The economy appears to have slowed to near a trend rate in the second quarter, after surprisingly robust growth in the previous quarter. The underlying fundamentals of the expansion continue to look quite positive. There is solid momentum in employment and income, financial conditions are highly supporting, and consumer confidence has soared to record levels. I do not see any obstacles to the continuation of the expansion, with growth

near trend, through 1998.

There are in my judgment two key issues in the outlook related to monetary policy and these focus on the interaction among growth, utilization rates and inflation. *First*, will growth rebound to an above-trend rate, raising utilization rates still further? *Second*, are prevailing utilization rates already so high that inflation will begin to rise, even if growth remains at trend? These are the same questions I raised in my first speech after coming to the Board, in September 1996. They are the key questions that affected my judgment about the appropriate posture of monetary policy over the last year, and they remain relevant today.

### **Answers to your questions**

Let me briefly now turn to some specific questions that you raised in your letter of invitation or that were the subject of Congressman Frank's comments on my April 24 speech.

#### **What do I think of the NAIRU concept and its usefulness today?**

NAIRU stands for *Non-Accelerating Inflation Rate of Unemployment*. The relationship between inflation and unemployment, based on NAIRU, is called the Phillips Curve.

According to this concept, there is some threshold level of the unemployment rate (NAIRU) at which supply and demand are balanced in the labor market (and perhaps in the product market as well). This balance yields a constant inflation rate. You asked what the relationship was between full employment and inflation. In this model, there is no relationship between full employment and inflation. At full employment, defined as the rate of unemployment equal to NAIRU, inflation is constant, but *any* constant level of inflation is possible at full employment. The rate of inflation in the long run is therefore not determined by the unemployment rate at all. It is determined by the rate of growth of the money supply. This of course gives monetary policy unique responsibility for inflation in the long run.

If the unemployment rate falls below this threshold, inflation rises over time, indefinitely, progressively, and without limit. It is a process that feeds upon itself, because once inflation begins to rise, further price increases feed into wage increases. The basic framework is based on supply and demand. At NAIRU, supply and demand are balanced, so inflation is stable, matched by expected inflation. The trigger for increases in inflation is excess demand for labor and goods. The unemployment rate is a proxy for the balance between supply and demand in the labor market, for the degree of excess demand. Historically the balance between supply and demand in the product market – that is, for final goods and services--has closely paralleled the balance in the labor market, so that the unemployment rate has effectively summarized the relationship between supply and demand in both the product market and the labor market.

It has always been the case that the application of the NAIRU concept has been more difficult in practice than in theory. Sometimes, the Phillips Curve has made large errors; occasionally the equation has over or underpredicted for a considerable period of time. The value of NAIRU has also varied over time, for example, in response to changes in the composition of the labor force. Of course, if NAIRU moves frequently without explanation, the concept would not be very useful, either for forecasting or for policymaking. But the fact is that, relative to other equations used to forecast macroeconomic performance, the Phillips Curve was one of the most reliable, if not the most reliable equation, during the 15 years prior to 1994. During this period NAIRU either appeared to be relatively constant or moved predictably with changing labor force composition. More recently, there has been a run of

over-predictions, beginning in late 1994 for wages and the last year or so for prices. These errors are the very heart of the challenge of explaining the recent surprisingly favorable performance and of the challenge of setting monetary policy today. I will turn to the possible sources of these errors below.

The accompanying table provides some outside estimates of NAIRU. The sources include the Congressional Budget Office (CBO), the President’s Council of Economic Advisers (CEA), which develops, along with OMB and Treasury, the economic assumptions underlying the Administration’s budget projections; two leading model-based forecasting firms – DRI and Macroeconomic Advisors; and estimates from Professor Robert Gordon of Northwestern University, who I consider the leading academic authority on NAIRU. All those represented in the table view NAIRU as a central and important concept for forecasting inflation and identifying long-run values to which the actual unemployment rate will gravitate. The range of estimates is from 5.4% to 5.9%. Professor Gordon’s work suggests that, after falling for a couple of years, NAIRU has stabilized, remaining unchanged over the past year.

Obviously, I am not alone in using this concept in important policy work. For example, in its budget projections, CBO is very disciplined in assuming that the unemployment rate gradually gravitates to NAIRU. If we begin with an unemployment rate below their estimate of NAIRU, CBO assumes a period of below-trend growth to allow the unemployment rate to return to their estimate of NAIRU and to prevent an ongoing increase in the rate of inflation. This is the model and forecast upon which your budget deal is based.

<b>Outside Estimates of the current NAIRU and Trend GDP Growth (percent)</b>		
Organization	NAIRU	Trend GDP Growth
Macro Advisers	5.9	2.2
DRI	5 3/4	2.3
CEA	5.5	2.1
CBO	5.8	2.1
Gordon <sup>1</sup>	5.4-5.5	2.2

In the conduct of monetary policy, the process of analysis is more decentralized. There is no single model or forecast, no single measure of NAIRU (not everyone on the FOMC even believes that the concept is useful), no single measure of trend growth. But each of us is dedicated to making disciplined judgments about the economy.

I have said on several occasions that (1) I continue to believe NAIRU is an important and useful concept; and (2) I believe that NAIRU is lower recently than it had been in the 1980s. I believe NAIRU has declined from about 6% at the end of the 1980s to about 5 1/2% currently. However, as has always been the case and is certainly true today, there is uncertainty about the precise estimate of NAIRU. Clearly, many believe it is higher, as reflected in this table. Some also believe it is lower. I constantly re-evaluate my own estimate of NAIRU in light of the recent data.

**How fast can the economy grow?**

The next question you asked is how fast the economy can grow. Over the short run, that depends on the amount of slack in the economy. Once the economy has moved to capacity,

the maximum sustainable growth rate is limited by the rate at which productive capacity expands over time. This limit is generally referred to as trend growth. Productive capacity expands both because of increases in physical inputs (labor and capital) and because of improvements in technology – more people working with more and better equipment. Once full employment is reached, the labor force expands with increases in the working age population, augmented by any trend in the labor force participation rate. The contribution of growth in capital stock and of technological improvements is summarized in the growth in labor productivity.

The accompanying table also provides outside estimates of trend growth. Note they all fall within a very narrow range, just above 2% per year. There has been very little change in these estimates in recent years. About half of the increase in trend GDP is attributable to the long-term trend in labor force growth and about half to the long-term trend in productivity growth. The narrowness of the range of estimates in this table should not suggest the absence of an important degree of uncertainty about trend growth and I will consider in the next section some reasons why trend growth could turn out to be higher.

If output grows at the trend rate, resource utilization rates will generally be constant. If output grows faster than the trend rate, demand increases relative to supply and resource utilization rates will rise. At some point, above-trend growth will raise utilization rates to a point where excess demand puts upward pressure on inflation.

Note that trend growth does not cause inflation. The higher the trend rate of growth, the better, as Chairman Greenspan noted yesterday in his testimony. And while above-trend growth itself does not raise inflation, it does raise utilization rates which, after some point, will result in higher inflation. I will come back to this thought when I answer your question about the rationale for the March 25 policy action.

### **How do you explain the recent favorable performance of inflation and unemployment?**

The answer here, unfortunately, is not as well as I would like. It is important, as a forecaster and policymaker, to understand how much you know and how little you know. In this spirit, I believe that the recent performance of the economy is to some degree a puzzle. I cannot solve that puzzle completely, but I am quite sure of some of the factors that have been important and I can speculate about some other factors that might be important. In the final analysis, we have to make monetary policy before we have all the answers, though we can and do constantly review our models in light of new data to refine our thinking.

The clearest and perhaps the most important factor is the temporary confluence of favorable supply shocks over the last couple of years; by favorable supply shocks, I refer to developments that have recently lowered the prices or slowed the rate of increase in the prices of specific goods, unrelated to the overall balance between supply and demand in U.S. labor and product markets. The list of favorable shocks is well known and generally widely appreciated. *First*, non-oil import prices have declined, due in large measure to the appreciation of the dollar from mid 1995 through early 1997. This has both lowered the price of imported goods and constrained the pricing power of domestic firms that compete with imports. *Second*, the cost of employee benefits has risen more slowly, especially the cost of employer-provided health care, tempering the rise in compensation per hour. *Third*, most recently, energy prices have declined sharply this year and food prices are increasing less rapidly. *Fourth*, the price of computers is falling even faster, reflecting, in part, the rapid pace of technical change.

Some believe the collection of these temporary factors fully accounts for the recent favorable performance of inflation and such a view is not entirely implausible. But I do not hold this view. I believe that other longer lasting factors may also be contributing. One possibility is an intriguing anomaly of the current expansion. I noted above that the change in utilization rates in the labor and goods markets (the unemployment rate and the capacity utilization rate) usually mirror one another over the cycle. In the current episode, these two measures have diverged to a greater degree than has been typical in the past. This divergence is likely related to another defining feature of this expansion, the investment boom which has raised the level of net investment to the point where the capital stock is expanding rapidly, raising capacity and preventing the increase in demand from overtaking supply. The unemployment rate is signaling that the labor market is tight; but the capacity utilization rate indicates that supply and demand are well balanced, at least in the industrial sector of the economy. As a result, there has been some upward pressure on wages, but no pass-through to higher price inflation. Firms report an absence of pricing leverage because nothing gives a firm pricing power like excess demand and there is no apparent excess demand for U.S. firms, especially in the global market place where there is plenty of slack abroad.

The most intriguing explanations of the recent favorable performance are structural changes which may have expanded the limits to productive capacity and trend growth. These possibilities come in two forms: structural change in the labor market which lowers NAIRU and structural change in the product market, specifically higher productivity growth, which, at least temporarily also lowers the NAIRU, and which pushes out the limit of trend growth.

One explanation for why we can sustain stable inflation with lower unemployment is the worker insecurity hypothesis. According to this theory, corporate restructuring, globalization, and technological change have increased workers' insecurity about their jobs. As a result, workers have been willing to accept some restraint on their real wages in order to increase their prospects of remaining employed, leading to a more moderate rate of increase in wages than would otherwise have occurred at any given rate of unemployment. While this is consistent with a decline in the NAIRU, we cannot very precisely test the worker insecurity hypothesis itself. But it does fit some of the facts of the current labor market experience. My conclusion is that NAIRU has declined, even taking into account the role of temporary factors, though I cannot pin down definitely the source of the decline. I am simply adjusting my estimate to the data. The worker insecurity hypothesis is a possible explanation.

An example of a product market structural change would be an increase in trend productivity growth. This is clearly the most intriguing of all the potential explanations, because it ties together so many puzzles. It can explain why we are in a midst of an investment boom, why the profit share of income has been rising, why inflation is so well contained, and why stock prices have soared. The only problem is the data. It is true that productivity has increased more rapidly recently. This is not clear-cut evidence of a shift in the productivity trend, however, because productivity normally accelerates when output growth rises, as it has over the last year. There is, however, some support for the view that we are experiencing a speed-up in the trend rate of productivity growth. For example, if we measure productivity from the income side rather than the product side of the national accounts, we do observe a sharper acceleration in productivity. This income-side measure of productivity provides at least a tantalizing hint of an increase in trend productivity growth. This would also be consistent with a considerable number of reports by businesses that they are realizing new efficiencies in production, both through corporate reorganization and through the application of new technology.

## What was the rationale for the March 25 tightening?

The discussion of the rationale for the March 25 policy move to follow is my personal view. During the period from June 1996, when I joined the Board, through February 1997, utilization rates had remained in a very narrow range, in the case of the unemployment rate only a shade below my estimate of NAIRU. Recall that the unemployment rate averaged 5.4% in 1996. There was some risk that utilization rates were already so high that inflation might increase over time, but this risk was not clear enough, in my judgment, to justify action. I viewed growth as either close to trend already or about to slow to trend, implying that there was negligible risk that utilization rates would rise further. So, before March 25, the Federal Reserve's posture was one of "watchful waiting," but with an asymmetric directive, based on the judgment that the risks were weighted toward higher inflation.

In March, my view was that there was sufficient momentum in growth to justify a forecast that utilization rates would rise materially further, in the absence of a change in policy. The policy action was clearly a preemptive one, not based on inflation pressures evident at the time, but on inflation pressures likely to emerge in the absence of policy action. As the Chairman has repeatedly emphasized, lags in the response to monetary policy make it imperative that monetary policy be forward looking and anticipatory, not backward looking and reactive.

One of the principles of prudent monetary policy management, in my judgment, is to lean gently against the cyclical winds. This means that when growth is above trend and utilization rates are increasing, it is often prudent to allow short-term rates to rise. Monetary policy should not sit on interest rates and wait until the economy blows by capacity and inflation takes off. To do so would risk a serious boom-bust cycle, and would require abrupt and decisive increases in interest rates later to regain control of inflation. A small, cautious step early is the recipe for avoiding the necessity of a sharper destabilizing move later on.

What does the record show? Growth was much stronger in the first quarter than I had anticipated and appears to have slowed to trend in the second quarter. The legacy of the robust first-quarter growth was a decline in the unemployment rate to below 5% in the second quarter. I call the March 25 move, as a result, "just-in-time" monetary policy. I believe it was prudent. I voted in favor of it because I thought it would help to prolong the expansion and contribute to the goal of maximum sustainable employment and maximum sustainable growth.

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## Footnotes

1 NAIRU using CPI. Current NAIRUs for PCE deflator and GDP deflator are 5.3 and 5.55 percent, respectively.

▲ [Return to top](#)

## [1997 Testimony](#)

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