

THE ECONOMIC OUTLOOK AND MONETARY POLICY

HEARING

before the

**JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES**

ONE HUNDRED SIXTH CONGRESS

FIRST SESSION

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THE ECONOMIC OUTLOOK AND MONETARY POLICY

Thursday, June 17, 1999

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
WASHINGTON, D.C.

The Committee met pursuant to notice, at 10 a.m., in Room 311, Cannon House Office Building, the Honorable Jim Saxton, Vice Chairman of the Committee, presiding.

Present: Representatives Saxton, Sanford, Campbell, Ryan, Ewing, Stark, Maloney, and Hinchey; Senator Sarbanes.

Staff Present: Chris Frenze, Robert Keleher, Colleen J. Healy, Darryl Evans, Howard Rosen, and Daphne Clones.

OPENING STATEMENT OF REPRESENTATIVE JIM SAXTON, VICE CHAIRMAN

Representative Saxton. Good morning. I am pleased to welcome Federal Reserve Board Chairman Alan Greenspan before the Joint Economic Committee (JEC) once again. This hearing is one in a series of periodic hearings on monetary policy and the economic outlook.

The performance of the economy in recent years has been very strong, and monetary policy has played an important role in fostering and sustaining the current economic expansion. During this expansion, the Federal Reserve's policy of gradually moving to price stability has resulted in declines in inflation, interest rates and unemployment, all at the same time. This is a remarkable achievement and Chairman Greenspan deserves much of the credit for his leadership in monetary policy.

The healthy economic performance has also generated higher than expected revenues for the Federal Government that has replaced the deficit and pushed the budget into surplus. State and local governments have also enjoyed the fiscal bonus from the combination of positive economic changes.

The benefits of the U.S. economic growth also were seen outside our country. The health of the U.S. economy has helped to offset the effects of the financial and economic problems in emerging market economies around the world. The positive impact of the U.S. economic expansion on the international economy was complemented by a series of well-timed

reductions in interest rates by the Federal Reserve last fall to stem the deflation fears and stabilize the international financial markets.

All of this, including the role of Chairman Greenspan, is well-recognized by the American people. What is less known is the specific policy framework the Federal Reserve has used to achieve the positive results in the domestic economy, a policy framework known as inflation targeting.

As the Chairman and I have discussed at previous JEC hearings, the Federal Reserve has essentially adopted an informal policy of inflation targeting and used it to gradually reduce inflation and unemployment, both at the same time.

A serious discussion of this policy is useful to explain what the Fed has done and how it has fostered the extraordinary economic expansion we enjoy today. Personal judgment and wisdom have played an important role, but the framework for policymaking is also critically important.

The success of the Federal Reserve policy is a combination of several factors, but more understanding is needed about the basis for the policy framework itself.

Inflation targets are a narrow range of permissible increases in the broad index expressed as annual percentage increases. For example, an inflation target could be defined as an increase in a retail price index of between zero and, say, 2 percent. Explicit official inflation targeting can be established, as is the case in many countries, or implicit informal targeting can be used, as in other countries such as the United States. Inflation targeting as an approach to achieving price stability has proven particularly effective.

Price stability improves the operation of government of the economy and promotes economic efficiency and growth. Inflation targeting is an approach used to achieve price stability through gradual reductions in inflation that minimize economic disruptions in the short term. As noted previously, during this expansion inflation has been reduced, but unemployment has fallen as well. Only a few years ago many economists would have regarded this outcome as quite improbable and perhaps impossible. Nonetheless, the Fed's approach to inflation targeting shows that gradual reductions in inflation can be associated with strong economic and employment growth leading to lower unemployment rates.

In addition to its successful monetary policy, recently the Federal Reserve has also made further strides towards increasing transparency.

The Fed has improved transparency in recent years by announcing interest rate changes as they occur and also notifying the public about changes in the bias of the policy directive even when rate changes are not made.

The Fed is to be commended for these steps toward greater transparency in monetary policy. Greater transparency improves the quality of information available to market participants and thus limits the potential for unexpected surprises to unsettle financial markets. Explicit inflation targeting would be a further move toward transparency that would also foster increased accountability.

Chairman Greenspan, your testimony this morning is especially welcome at this critical juncture in monetary policy. We look forward to hearing it. However, before we get to your testimony, Mr. Chairman, I would like to recognize the ranking member on the minority side.

[The prepared statement of Representative Saxton appears in the Submissions for the Record.]

OPENING STATEMENT OF REPRESENTATIVE PETE STARK, RANKING MINORITY MEMBER

Representative Stark. Thank you, Mr. Chairman. I want to thank you for having this hearing and for resisting the attempt earlier this week to turn the Joint Economic Committee into the Republican equivalent of the Lincoln bedroom. I appreciate the seriousness of this hearing and your dedication to the task before this Committee. I also want to welcome Chairman Greenspan to the Committee.

I would like to yield to the distinguished Senator from Maryland for his opening statement.

[The prepared statement of Representative Stark appears in the Submissions for the Record.]

OPENING STATEMENT OF SENATOR PAUL S. SARBANES

Senator Sarbanes. Thank you very much. I want to join with Congressman Stark in thanking Chairman Saxton for convening this hearing and also thanking him for the very serious and concentrated focus he has brought over a sustained period of time to this issue of monetary policy. I appreciate it very much, Mr. Chairman.

I join with my colleagues in welcoming Chairman Greenspan before the Committee this morning. To put it mildly, there has been intense speculation that the Federal Reserve Open Market Committee (FOMC) will raise interest rates when it meets at the end of the month on the 29th

and 30th of June. In part, I think this speculation was triggered by the announcement after the last meeting of the FOMC that, quote, "The committee was concerned about the potential for a build-up of inflationary imbalances that could undermine the favorable performance of the economy and, therefore, adopted a directive that is tilted toward the possibility of affirming the stance of monetary policy."

Even though this may contribute to the speculation, Mr. Chairman, I commend you and your colleagues for the increased transparency that flows from indicating such policy orientations or, you know, which way the Fed is leaning. Although, I must say, you know, this absolute fascination on the part of so many with the Fed, I heard on the radio this morning that, you know, they had people now who are counting the number of times you use the word "inflation" in the course of giving a speech as to be some kind of straw in the wind or signal that they could focus upon.

The announcement of the Committee went on to state, "The Open Market Committee, trend increases in cost, in core prices, have generally remained quite subdued but domestic financial markets have recovered, and foreign economic prospects have improved since the easing of monetary policy last fall." Against the background of an already tight domestic labor markets and ongoing strength in demand and excess of productivity gains, the committee, meaning the Open Market Committee recognizes the need to be alert to developments over the coming months that might indicate the financial conditions may no longer be consistent with containing inflation.

Now, although the announcement did not refer to it, in the view of many observers, a precipitating event for the FOMC's shift from a neutral position to a position inclined toward a rate increase was the unexpectedly sharp increase of seven-tenths of a percent in the Consumer Price Index (CPI) in April. That was the largest monthly increase in nearly nine years. The so-called core Consumer Price Index, which excludes volatile energy and food prices, rose four-tenths of a percent, significantly above the one-tenth of a percent increase in each of the first three months of the year.

Although it was commonly understood that the monthly price data might be aberrational because of large jumps in prices for a few specific items such as gasoline, tobacco and clothing, the increase still triggered some concern that we had seen a turning point in the inflation performance of the U.S. economy. Well, of course, this led to everyone focusing on

yesterday's Consumer Price Index for May figure which, of course, showed no increase in the CPI. Core prices rose only one-tenth of a percent.

It appears then that the increase in the CPI in April was not reflective of deeper inflationary pressures developing in the economy. I am very careful about this because there is a great danger in reading too much into monthly figures. I think it was done in April; I don't want to overread in May. On the other hand, the May figures are consistent with what happened over the first three months of the year. So if you look at the year thus far in 1999, the aberrational figure would seem to be the April figure.

In fact, core inflation has fallen over the past five years. In 1994, when unemployment was last at 6 percent, core CPI rose 2.6 percent. It rose only 2 percent over the last 12 months. For the first five months of this year, core CPI is up at a 1.8 percent annual rate, with unemployment now down in the low 4 percent figures.

Now, there is a chart here, I think, Mr. Chairman, that indicates these movements on the CPI, excluding food and energy, 12-month percent change, and of course, as we can see, this is a very nice performance; and I join with others in commending our policymakers who, I think, have contributed to it. But it is still moving down over there. I mean, I am trying to find what indicators you are looking at, what the FOMC is looking at, if they are going to start moving rates up again, which, as I will indicate in my conclusion, I don't think should be done.

The FOMC referred to the background of already tight domestic labor markets, but it is worth noting that low unemployment has not been creating noticeable labor cost pressures. As a most recent issue of *BusinessWeek* pointed out, any inflation fears based on wage pressures are more illusory than genuine. In the last year, growth rates for both wages and benefits have declined, even as productivity has accelerated.

The employment cost index has risen 3.3 percent in the last year, compared to the 3.7 percent increase registered the year before. Average hourly earnings give the same picture; they are up 3.6 percent in the last 12 months, significantly below the 4.3 percent increase in the previous 12 months. And let me just illustrate that again by a couple of charts.

Here is the employment cost index, private industry, 12-month percent change. The solid line are wages and salaries. The dotted line is benefits, but again, in the sense of concern about an inflation problem, we have had a very, very good performance, and the total compensation –

employment cost index, total compensation – again shows a very good performance and is now noticeably moving downwards.

Rising productivity gains mean that cost pressure from the labor side has been easing even more than the wage data suggests. Productive in the nonfinancial corporate sector, a measure that the Chairman Greenspan often refers to, is up 3.7 percent in the last year, the highest in more than a decade, and I know, Mr. Chairman, you testified earlier in the week your concern about how long the productivity gains could continue, and I appreciate that focus.

Labor costs and productivity, taken together, give – unit labor costs have risen only six-tenths of a percent in the last year. Actually, they served as a downward pressure on inflation.

Another indicator of inflation has been capacity utilization. High rates of capacity utilization have been correlated with rising inflation, and lower utilization rates correlate with falling inflation. Now, this expansion we are experiencing has been marked by a strong increase in manufacturing capacity. For the last several years, manufacturing capacity has been rising faster than 5 percent per year for the first time since the 1960s.

With manufacturing output growing somewhat slower than 5 percent, capacity utilization has been declining for the last several years. The Fed reported yesterday that the manufacturing sector was using only 79.7 percent of its capacity in May. That is not only less than the average capacity utilization of 81.1 percent for the last 31 years, but today's level has been associated with falling inflation in the past; and let me just show one final chart on that point.

This is the capacity utilization and the change in the rate of inflation. The solid line is capacity utilization. The dotted line is change in the rate of inflation of consumer prices, less food and energy. So this is getting at the core figure, and again, we see there tends to be a correlation, and we see the capacity utilization moving down over on the far right, which is of course the current – of the current year, and we see that generally the changes in the rate of inflation have – and the capacity utilization have sort of correlated, one with the other.

This expansion has been marked by a – let me just finally conclude with this observation. A few years ago some economists warned that inflation would rise if the Fed allowed the economy to grow fast enough for unemployment to go below 6 percent. There were figures within the

Federal Reserve System who argued strenuously that if the unemployment rate went down below 6 percent the inflation rate would go up. Fortunately, the chairman and others didn't adopt that concept.

We now have had unemployment below 6 percent for five years. The most recent issue of *Business Week* points out that in the absence of strong evidence of inflation, a policy of raising rates preemptively can do enormous damage. If rates had been raised enough to keep unemployment at 6 percent, *BusinessWeek* estimates that the U.S. would have lost about 1 trillion worth of gross domestic product, and two and one half million fewer people would not have jobs today, many of them the poorest members of society.

Unemployment has now been below 5 percent for almost two years, and for more than a year it has gone no higher than 4.5 percent. After two decades of slipping behind, those at the lower end of the economic ladder are finally finding jobs, getting promotions, receiving training and enjoying real wage increases. The Labor Department says that last month unemployment amongst African Americans fell to 7.5 percent, the lowest rate – the lowest rate since separate statistics were first collected in 1973. Teenage unemployment fell to 12 percent. The unemployment rate for adult women fell to 3.6 percent, both the lowest in 30 years.

Now, Mr. Chairman, I know you are sensitive to this aspect of the benefits of sustained economic growth, and I hope the FOMC will keep it in mind as it formulates monetary policy over the coming months. I agree that the FOMC needs to be alert to developments that might indicate that financial conditions may no longer be consistent with containing inflation, but I would suggest that as you look at these figures, a labor cost, the price indices, the capacity utilization, that all of these current conditions are consistent with containing inflation and, therefore, do not provide a basis for an interest rate increase at this time; and I very much hope that the FOMC won't sort of adopt the so-called preemptive strategy which, without finding any basis or foundation in any of the economic trends, proceeds to kind of move interest rates up. I mean, I understand the problem and I keep searching out these factors.

That is why I have taken – the Chairman's been generous – more than a reasonable amount of time to try to develop these points on these various indices, all of which, it seems to me, do not provide any basis for taking the interest rates up at this time.

Thank you, Mr. Chairman.

Representative Saxton. Mr. Chairman, thank you for being with us this morning. We appreciate your spending this time with us very much.

I would just like to remind everyone of the importance of today's hearing. The world is literally waiting to hear your testimony, Mr. Chairman. Since 1987 you have been with us. You were part of the economic expansion that took part in the 1980s, a 92-month expansion, interrupted only by a mild nine-month recession, whereupon we entered into the current 98-month expansion. We appreciate very much the leadership that you have played as Chairman, and we look forward to hearing your remarks this morning as to where you think we are and where we may be headed.

**STATEMENT OF THE HONORABLE ALAN GREENSPAN,
CHAIRMAN, BOARD OF GOVERNORS
OF THE FEDERAL RESERVE SYSTEM**

Mr. Greenspan. Thank you very much, Mr. Chairman.

Mr. Chairman and Members of the Committee, as emphasized by the important hearings this Committee has held in the past few days, an impressive proliferation of new technologies is inducing major shifts in the underlying structure of the American economy. These fundamental changes appear to be far from complete. The way America does business, including the interaction among the various economic players in our economy, is in the midst of a significant transformation, though the pace of change is unclear.

As a consequence, many of the empirical regularities depicting the complex of economic relationships on which policymakers rely have been markedly altered. The Federal Reserve has thus been pressed to continuously update our understanding of how the newer forces are developing in order for us to address appropriately our underlying monetary policy objective: maximum sustainable economic growth.

The failure of economic models based on history to anticipate the acceleration in productivity contributed to the recent persistent underprediction of economic growth and overprediction of inflation. Guiding policy by those models doubtless would have unduly inhibited what has been a remarkable run of economic prosperity.

And yet, while we have been adjusting the implicit models of the underlying economic forces on which we base our decisions, certain verities do remain.

Importantly, the evidence has become increasingly persuasive that relatively stable prices, neither persistently rising nor falling, are more predictable and hence result in a lower risk premium for investment. Because the nation's level of investment to a large extent determines our prosperity over time, stability in the general level of prices of goods and services is clearly a necessary condition for maximum sustainable growth.

However, product price stability does not guarantee either the maintenance of financial market stability or maximum sustainable growth.

As recent experience attests, a prolonged per to foster economic prosperity. But as we also observed over recent years as have others in times past, such a benign economic environment can induce investors to take on more risk and drive asset prices to unsustainable levels. This can occur when investors implicitly project rising prosperity further into the future than can reasonably be supported. By 1997, for example, measures of risk had fallen to historic lows as business people, having experienced years of continuous good times, assumed, not unreasonably, that the most likely forecast was more of the same.

The Asian crisis, and especially the Russian devaluation and debt moratorium of August 1998, brought the inevitable rude awakening. In the ensuing weeks, financial markets in the United States virtually seized up, risk premiums soared, and for a period sellers of even investment grade bonds had difficulty finding buyers. The Federal Reserve responded with a three-step reduction in the federal funds rate totaling 75 basis points.

Market strains receded, whether as a consequence of our actions or of other forces, and yield spreads have since fallen but not all the way back to their unduly thin levels of last summer.

The American economy has retained its momentum, and emerging economies in Asia and Latin America are clearly on firmer footing, though in some cases their turnarounds appear fragile. The recovery of financial markets, viewed in isolation, would have suggested that at least part of the emergency injection of liquidity and the associated 75 basis point decline in the funds rate ceased to be necessary, but with wage growth and price inflation declining by a number of measures earlier this year, and productivity evidently still accelerating, thereby keeping inflation in check, we chose to maintain the lower level of the funds rate.

While this stellar noninflationary economic expansion still appears remarkably stress free on the surface, there are developing imbalances that

give us pause and raise the question: Do these imbalances place our economic expansion at risk?

For the period immediately ahead, inflationary pressures still seem well contained. To be sure, oil prices have nearly doubled and some other commodity prices have firmed, but large productivity gains have held unit cost increases to negligible levels. Pricing power is still generally reported to be virtually nonexistent. Moreover, the reemergence of rising profit margins after severe problems last fall, indicates cost pressures on prices remain small.

Nonetheless, the persistence of certain imbalances pose a risk to the longer-run outlook. Strong demand for labor has continued to reduce the pool of available workers. Data showing the percent of the relevant population who are not at work, but would like a job, are around the low for this series, which started in 1970.

Despite its extraordinary acceleration, labor productivity has not grown fast enough to accommodate the increased demand for labor induced by the exceptional strength in demand for goods and services.

Overall economic growth during the past three years has averaged four percent annually, of which roughly two percentage points reflected increased productivity and about one point, the growth in our working age population. The remainder was drawn from the ever decreasing pool of available job seekers without work.

This last development represents an unsustainable trend that has been produced by an inclination of households and firms to increase their spending on goods and services beyond the gains in their income from production. That propensity to spend, in turn, has been spurred by the rise in equity and home prices, which our analysis suggests can account for at least one percentage point of gross domestic product growth over the past three years.

Even if this period of rapid expansion of capital gains comes to an end shortly, there remains a substantial amount in the pipeline to support outsized increases in consumption for many months into the future. Of course, a dramatic contraction in equity market prices would greatly reduce this backlog of extra spending.

To be sure, labor market tightness has not, as yet, put the current expansion at risk. Despite the ever shrinking pool of available labor, recent readings on year-over-year increases in labor compensation have held steady or, by some measures, even eased. This seems to have

resulted, in part, from falling inflation, which has implied that relatively modest nominal wage gains have provided healthy increases in purchasing power. Also, a residual fear of job skill obsolescence, which has induced a preference for job security over wage gains, probably is still holding down wage levels.

But should labor markets continue to tighten, significant increases in wages in excess of productivity growth will inevitably emerge, absent the unlikely repeal of the law of supply and demand. Because monetary policy operates with a significant lag, we have to make judgments, not only about the current degree of balance in the economy, but about how the economy is likely to fare a year or more in the future under the current policy stance.

The return of financial markets to greater stability and our growing concerns about emerging imbalances led the Federal Open Market Committee to adopt a policy position at our May meeting that contemplated a possible need for an upward adjustment of the federal funds rate in the months ahead. The issue is what policy setting has the capacity to sustain our remarkable economic expansion, now in its ninth year. This is a question the Federal Open Market Committee will be addressing at its meeting at the end of this month.

One of the important issues for the FOMC as it has made such judgments in recent years has been the weight to place on asset prices. As I have already noted, history suggests that owing to the growing optimism that may develop with extended periods of economic expansion, asset price values can climb to unsustainable levels even if product prices are relatively stable.

The 1990s have witnessed one of the great bull stock markets in American history. Whether that means an unstable bubble has developed in its wake is difficult to assess. A large number of analysts have judged the level of equity prices to be excessive, even taking into account the rise in so-called "fair value" resulting from the acceleration of productivity and the associated long-term corporate earnings outlook.

But bubbles generally are perceptible only after the fact. To spot a bubble in advance requires a judgment that hundreds of thousands of informed investors have it all wrong. Betting against markets is usually precarious at best.

While bubbles that burst are scarcely benign, the consequences need not be catastrophic for the economy.

The bursting of the Japanese bubble a decade ago did not lead immediately to sharp contractions in output or a significant rise in unemployment. Arguably, it was the subsequent failure to address the damage to the financial system in a timely manner that caused Japan's current economic problems. Likewise, while the stock market crash of 1929 was destabilizing, most analysts attribute the Great Depression to ensuing failures of policy. And certainly the crash of October 1987 left little lasting imprint on the American economy.

This all leads to the conclusion that monetary policy is best primarily focused on stability of the general level of prices of goods and services as the most credible means to achieve sustainable economic growth. Should volatile asset prices cause problems, policy is probably best positioned to address the consequences when the economy is working from a base of stable product prices.

For monetary policy to foster maximum sustainable economic growth, it is useful to preempt forces of imbalance before they threaten economic stability. But this may not always be possible. The future at times can be too opaque to penetrate. When we can be preemptive we should be, because modest preemptive actions can obviate the need for more drastic actions at a later date and that could destabilize the economy.

The economic expansion has generated many benefits. It has been a major factor in rebalancing our federal budget, but more important, a broad majority of our people have moved to a higher standard of living, and we have managed to bring into the productive work force those who have too long been at its periphery. This has enabled large segments of our society to gain skills on the job and the self-esteem associated with work. Our responsibility, at the Federal Reserve and in the Congress, is to create the conditions most likely to preserve and extend the expansion.

Should the economic expansion continue to grow into February of next year, it will have become the longest in America's economic annals. Someday, of course, the expansion will end; human nature has exhibited a tendency to excess through the generations with the inevitable economic hangover. There is nothing in our economic data series to suggest that this propensity has in any way changed. It is the job of economic policymakers to mitigate the fallout when it occurs and hopefully ease the transition to the next expansion.

Thank you very much, Mr. Chairman. I look forward to your questions.

[The prepared statement of Chairman Greenspan appears in the Submissions for the Record.]

Representative Saxton. Thank you, Mr. Chairman. Obviously, from what you have said, you have chosen to pursue policies that have a lot to do with price stability, and your contention is that in promoting policies to that end promotes economic growth and is apparently in some large part responsible for the great period of expansion that you just described.

The top of page six of your testimony states the conclusion that monetary policy is best when it is primarily focused on stability of the general level of prices of goods and services as the most credible means to achieve sustainable economic growth. I would like to pursue this as I think, as apparently you do as well, that this is a critical point.

As a matter of fact, Mr. Chairman, in several JEC hearings over the last several years we have discussed price stability and inflation targeting and monetary policy and, in fact, on several occasions when I asked you whether the Federal Reserve has implemented a policy consistent with what I guess we could refer to as informal inflation targeting during the last decade or so, you have agreed that this has, in fact, been the case.

However, it has been some time, perhaps almost a year, since we last discussed this issue. So let me just ask, has Federal Reserve policy continued to approximate an informal inflation targeting procedure?

Mr. Greenspan. It is certainly safe to say, Mr. Chairman, that – as I indicated in my prepared remarks – we are increasingly persuaded that price stability as a more general concept is and should be the primary focus. I emphasize long-term price stability because it is in the nature of monetary policy that there are a whole series of lags in various different types of markets depending on what it is we do; and so our focus has got to be over the longer run because ultimately our goal, as I stipulated earlier, is indeed maximum sustainable long-term growth.

All those words are relevant; that is, if it cannot be sustained, it implies a degree of instability which is clearly, so far as history is concerned, counter to continuing gains in standards of living and the policy has got to be longer term because the economy of the United States is so sophisticated that to try to in any way create policy which focuses only on the short run and doesn't take into context the broader ranges of the forces that govern us would be very clearly a suboptimal policy.

Representative Saxton. Mr. Chairman, the inflation targeting approach that has produced such positive results in the United States and elsewhere, is fairly straightforward, I believe. A narrow band of permissible increases in a broad price index measure would be chosen and disclosed by the central bank, as is already the case in a number of other countries. The definition of price stability, in terms of inflation targets, is a balanced approach that establishes a firm constraint on inflation, but permits a good deal of flexibility at the same time.

As you have noted in several previous appearances before this Committee, this approximates what the Federal Reserve is already doing and is consistent with recent Fed policy.

Generally speaking, what are the advantages of inflation targeting in your view?

Mr. Greenspan. Mr. Chairman, first of all, let me just say that a price stability goal is not exactly the same as inflation targeting, if there are numbers on those goals. The reason I say that is that even though there have been a number of countries who have embarked upon specific limits and indeed have managed to keep the inflation rate within those limits, there are also a substantial number of other countries who have not embarked on such inflation targeting, and their inflation pattern has been pretty much the same as those who have had specific targeting. So, as a technical matter, we have not yet really had a test as to whether specific target ranges actually work in the way that a number of the programs which these countries have embarked upon are suggested to do.

I am not saying that in the end they will not appear to have worked in that regard. I am merely saying that we are going to need the type of change in the overall world economy in which there will be pressure to move some countries toward a higher inflation rate and others to a lower one; and if we then find out that the lower ones are predominantly those who embarked upon inflation targeting, that would be pretty conclusive evidence.

Nonetheless, to respond to your question more directly, at the moment and as far into the future as I can perceive, the central bank of this country is going to be focused on price stability, if for no other reason than the evidence is that it contributes to a strong economy, prosperity, low unemployment, stable economic growth, and growth in productivity. There is no doubt that price stability has very major, important, positive elements to it, and you listed a number of them in the preamble to your bill, and we

have discussed them at great length. I would say I find very few negatives with endeavoring to sustain that.

My only question with respect to a specific statute is I am not yet convinced, nor are my colleagues, that specific numbers add very much. They may. We don't really know yet. We really can't advise you that it is our firm conviction that is the case. We would need some more evidence.

But there is no doubt that we truly support your goal of price stability and that so long as it is designated as longer-term price stability, meaning maintaining a long-term focus, we are fully supportive of that type of goal.

Representative Saxton. Mr. Chairman, in 1997 we had a hearing quite similar to this one. I asked you this question when you mentioned that we perhaps have not formally put on inflation targets, but certainly, informally. The thrust of the Fed over the last decade has been to do just that, perhaps in an informal way. I asked, you then if you agree with that, and you answered—

Mr. Greenspan. That is certainly the case. We don't have specific numbers, and one of the reasons, incidentally, is that you have to put the limits on a specific price index.

As I have testified many times in the past, I have serious questions about whether the Consumer Price Index is the ideal index by which to target monetary policy. There is no question it has many flaws, and I have always argued that the personal consumption price deflator is a far superior measure of true underlying inflation from a technician's point of view. Because that index is periodically revised, it muddies the waters in a certain sense as to what we are looking at.

So I don't deny that we do have rough approximations of what the limits would be. It is just that I would be very hesitant to apply very specific limits to the Consumer Price Index, which itself sometimes distorts the outlook. I suspect, were we required to adhere to it even when it is giving off wrong signals, we would end up with a policy which would be less than we would like.

Representative Saxton. Thank you, Mr. Chairman. Let me just move on here.

Recently, we have witnessed the simultaneous occurrence of several interesting factors: one, the lowest unemployment rate in 28 years; two, an economic recovery into its ninth year; three, persistent real GDP

growth; and four, trend core inflation rates that have generally remained subdued.

The simultaneous occurrence of lower unemployment, healthy economic growth and subdued inflation has puzzled some. Part of this phenomenon, however, can be explained by the Federal Reserve's lower inflation policy, which has worked to promote economic growth; and let me check off some of the results of that.

Lower inflation leads to lower interest rates, I think we can all agree on that. Lower inflation helps to reduce uncertainty in risk premiums, in interest rates and to stabilize financial markets. Lower inflation also enables the price system to work better, and therefore, the economy to operate more efficiently. In certain respects, lower inflation is analogous, as a matter of fact, to a tax cut. As a result of these factors, lower inflation is good for growth. Do you agree with the general thrust of that analysis?

Mr. Greenspan. I certainly do. Let me just add one additional element. Because productivity growth – in fact, productivity growth acceleration – has been so instrumental in the most recent pattern of economic expansion, it is important to recognize that price stability, by creating an environment of stability in the financial markets, has fostered the types of investment which have enabled the new technologies to be embodied in our capital stock and effectively to increase labor productivity, which of course is the ultimate source of the rise in wealth.

Representative Saxton. Thank you. Let me just pursue two other questions at this time.

Isn't it true that many central banks in other countries have successfully adopted inflation targets, and in the past, we have, in fact, discussed the idea of institutionalizing the approach of inflation targeting through legislation which, as you know, I have introduced. In previous hearings, you have been supportive of this general approach and said that the direction of legislation pursuing this goal would be sensible from your point of view.

Understanding that there are technical issues and a need for flexibility, do you continue to see merit in the view that inflation targets should be formalized in some appropriate way?

Mr. Greenspan. I am still of the view that some form of directive to the central bank to focus on long-term price stability is crucial. If the Congress does not effectively instruct us to do that, then we are

interpreting the Humphrey-Hawkins Act to effectively say that, and I think it does.

I have just two concerns that I would want to raise, and I can't say that they are crucial concerns. One is that if such legislation comes forward, it emphasizes long-term price stability and does not focus on the Federal Reserve endeavoring to keep the price level, however measured, in a very narrow range irrespective of whatever the consequences are to the economy as a whole; and secondly, that we have the degree of flexibility when the economy is somewhat slack to recognize that we would not be jeopardizing our long-term goal of price stability by taking actions which may not, in the immediate short run, be fully directed at creating stable prices.

So it is a flexibility issue which I think is crucial largely because the economy is becoming so complex. Something has changed in the last two or three years since we discussed this at length, and that is a general awareness of how crucial is what is unquestionably a major acceleration in technology and changes in the way the business and financial markets function, so that we need a degree of flexibility to address things in a manner which will enable us to do the best job we can.

So I merely request that we be certain in whatever language that you choose that we do have that form of flexibility if it is needed.

Representative Saxton. Thank you. I certainly agree with regard to the long-term issue that you raise, and certainly that is important. And I also agree and have tried to build into the proposed legislation the degree of flexibility that we thought from our point of view was necessary, and certainly we can talk about changes to that language because it is certainly our intent to provide that kind of flexibility and not tie anyone's hands in the future.

Well, I have taken more than my share of time, and let me turn now to Mr. Stark, the gentleman from California.

Representative Stark. Thank you, Mr. Chairman, and thank you, Chairman Greenspan. I would like to at least get some advice.

I hope you heard my colleague, Senator Sarbanes' plea not to raise interest rates. My guess is that rates will change pretty much regardless of what this Committee say or does.

Over the past several days, we all heard about how technology that is changing the way we live – the way we shop, the way we communicate,

basically, the way we do everything. I wonder if, given these changes, we need to reevaluate the way in which we make our economic policies.

In addition, I am concerned about the prospects of those Americans – minority and teenage workers – who have only recently gotten the opportunity to join us at the table of prosperity. These workers typically experience higher unemployment rates, and tend to be the last ones to share in broader prosperity. My guess is that if interest rates increased a quarter of a housing prices might go up, but the real impact would hit those workers at the lowest rung of the ladder. They are typically the first to be laid off. Our seniors, who are also of modest income, receive some protection through inflation adjustments.

Is there anything that you can do – from rate controls and other measures from the old system, to new things on the horizon, short of returning to welfare, which all of us would like to avoid – in order to achieve? Is there anything you can suggest that we should do to shield this group from the consequences of an interest rate increase? If my assumption is correct, wouldn't the impact of a modest rate increase in interest rates fall most heavily on those low skilled workers? What can we do to ease that transition?

Mr. Greenspan. Congressman, I don't agree with that premise. Let me tell you why.

As I tried to emphasize in my prepared remarks, the focus of our monetary policy, to the extent that we can affect the economy, is to find the particular set of policies which has the highest probability of extending this extraordinary expansion. There is no doubt in my mind that the consequences of what has occurred in the last three to five years has done more for those, as I put it earlier, at the periphery of our work force than any other particular program we could reasonably contemplate

Representative Stark. I agree.

Mr. Greenspan. And it is, therefore, important for us to focus on what it is we can do to sustain this.

I would disagree that if it turns out – and obviously, I can't make a judgment because the Federal Open Market Committee is going to be meeting at the end of the month and we will make a decision – but if it were to turn out that in the judgment of the Committee it was desirable to raise rates, we would be doing so because we believe that that would increase the probability of sustaining the expansion, increase the probability that those who are being drawn into the work force will

continue to benefit, and the notion that somehow a rate increase necessarily reduces economic activity or reduces jobs in either the short- or long-term context, I think is misleading of the way our economy works.

We have a very sophisticated economy, and I would tell you that if we did things which effectively implied that we were countenancing a significant change in long-term inflation, the impact would be negative, not positive.

The one thing I am reasonably certain of is that what is not on the table at the end of this month for us is a decline in interest rates. Because I suspect that were we to do that, we could create a degree of instability in the financial markets which would spill over into the economy, which would actually do far more harm to those at the periphery of our work force than most anything I can imagine.

So I want to emphasize that the goals that are implicit in your question, Congressman Stark, and our goals don't differ. The key question basically is, what is the most effective means to reach those goals.

Representative Stark. I would like to follow up on that. Mr. Chairman, my concern is that it took a long time until minority, teenage and low skill workers began to enjoy the economic prosperity which others already been experiencing. Does it not follow that if the economy were to slow, that they would be the first to experience that decline?

Mr. Greenspan. Indeed, it would be.

Representative Stark. And I guess what I am trying to figure out is, can we narrow the amplitude of their swings?

Mr. Greenspan. Congressman, I have been controversial on this particular issue specifically with respect to the minimum wage, and I have a position which is idiosyncratic in a certain sense because my concern is that in raising the minimum wage we essentially reduce the probability that a marginally skilled teenager will be employed.

Representative Stark. You would support a subminimum wage as perhaps as a way to address that problem?

Mr. Greenspan. I would do that. I would go all of the way down that it was politically feasible to do. The reason is essentially the reason you name, namely, in this environment, the minimum wage has almost no impact that I can see on teenage unemployment. If it is going to have an impact, when it will show up is when the economy is easing, and therefore, that is when I would be concerned, and I would urge you in the

deliberations which are now going on to keep that in mind because it runs counterintuitive to most people's views of what appropriate policy is.

Representative Stark. You are quite right, but it's not the answer I wanted. Thank you.

Representative Saxton. If I may make a suggestion to my colleagues, the Chairman is going to be required to leave here sometime around a quarter after 12:00, and we are going to have a series, I am told, of four or five votes sometime shortly before that. So if we can just go to a five minute period of time, then we will do as many rounds as we can under that procedure.

Mr. Sanford.

OPENING STATEMENT OF REPRESENTATIVE MARK SANFORD

Representative Sanford. Hello, Mr. Chairman. I have got four quick questions.

One, you made the comment, it is difficult to assess whether or not we are in an asset bubble, and I want to wholeheartedly concur because when my brothers see me these days, they look at me and they say here comes Warren Buffett, because several times I have tried to bet against this market going up, and I have gotten slaughtered in this process.

So I guess my question would be almost the same question another South Carolinian asked in a different hearing and that was, he asked was this Peyton Place or Watergate, and I guess my question would be, are we going to live happily ever after or are we indeed on the edge of something? In other words, are we, in fact, on a new era or is this an asset bubble?

I mean, did tulips a couple of hundred years ago have more value, or some of these Internet stocks? I think you know what I am getting at.

Mr. Greenspan. Strangely, it is possible for both conditions to exist simultaneously. The one thing I am reasonably certain of is the synergies of technologies that have evolved basically out of the integrated circuits, microprocessors, then the combination of lasers and fiber optics – the whole telecommunications synergy structure. It is interesting that until fiber optics came along, lasers were not perceived to be a particularly crucial issue. They have turned out to be phenomenal.

There is no doubt that this information technology revolution has in a very major way altered the structure of the way the American economy works. It has increased underlying production. It has unquestionably

raised the standard of living, and it unquestionably also, as I believe Lou Gerstner said at his hearing on Monday, still has a considerable way to go.

What we are missing in that evaluation is what the pace is. That it will continue to rise is no question, but will it be at a rapid pace or a slow pace? The implied growth in standards of living and, in a sense, something really fundamentally significant has happened is verifiable very easily. What is not clear is whether the market values that are being placed on particular assets which are involved in this new set of technologies are appropriately priced. That is another question altogether.

In the early stages of some of the Internet stock gyrations I raised the question that many people were investing as though they were in a lottery, and that is actually technically true: that is, the chance of a very large gain, even with a small probability that you will get it, has induced people through all time and all history to be willing to pay a premium for the very low probability of a very substantial gain, and that brings into the markets, certain types of markets, a certain type of froth. Now that means you can have both values which are hard to maintain ultimately. But that doesn't answer the question about the underlying improvements in productivity, profitability, standards of living and the general structure of the economy. Those both can be happening.

Representative Sanford. I will skip – I won't make it to four questions, but my second question would be, my oldest son, Marshall, is six. He asked the other day about Santa Claus existing. I had to break the word.

About half of my entire lifetime basically has been a bull market for all intents and purposes. Do recessions really exist? Do bear markets really exist? Because I have never really seen one in my working lifetime, and tied to this is what Larry Lindsey wrote, I guess it was about a year ago, he wrote an interesting column talking about revenue, the revenue stream to the Federal Government, and how if you broke it out, basically the whole reason the budget has been balanced is not due to constraint on spending, but due to the increase in revenue, and if you broke it out, it was tied to cap gain income and payroll income, and therefore, if the bull market died, if indeed there was a recession or a bear market, all of the sudden the sing talked about in basically out the window.

Would you agree with this finding?

Mr. Greenspan. We have endeavored to try to do exactly those calculations. One of the problems that you have in making the calculations

is it is not altogether easy to strip out the direct effect and the indirect effect of capital gains on federal revenues so that there is a degree of fuzziness involved.

There is no question that a significant part of the surplus is directly and indirectly capital-gains related. It shows up in, obviously, capital gains taxes, but it also shows up in bonuses related to some activities which are related to capital gains on assets. It shows up in stock options and a variety of other things. It is ambiguous how much of the surplus is directly related to it but a significant part is. I am not sure how one reads various different patterns of prices of stocks as they are reflected in revenues in a clear way.

I would be hesitant to agree with my good friend Larry until we match numbers, but the general proposition he is raising obviously is the appropriate direction. It is only a question of degree.

Representative Saxton. Thank you very much.

Mrs. Maloney.

OPENING STATEMENT OF

REPRESENTATIVE CAROLYN B. MALONEY

Representative Maloney. Thank you, Mr. Chairman.

Mr. Greenspan, you testified we are in our ninth year of phenomenal economic expansion, yet you made it very clear that you do not expect this to continue indefinitely. Could you elaborate on what you mean by indefinitely?

Why is it that in the 1950s and 1960s productivity was able to grow between 2 and 3 percent a year, and yet there is doubt now that the current rates of around 2 percent a year can't continue for more than two or three years? And was there anything in particular about the 1950s and 1960s to suggest that we might not be able to return to that period of prolonged prosperity?

You also testified about the terrific impact of new technology on our productivity and economic growth, and isn't that a factor we didn't have working for us in the 1950s and 1960s? What specific economic factors were in place then that are not in the place now, which made that period different and which impacts on your belief that we cannot continue growth at the same rate as we did in the 1950s and 1960s?

Mr. Greenspan. First of all, I have never said that we can't continue the growth in productivity. What I have said is we cannot expect the

acceleration in productivity, meaning the increase in economic growth, to continuously be rising because that is what has been happening. We were at approximately one percent annual rate in the early 1990s, and we are now up to 2.5 or, the figure for the first quarter of 1999, 3.5 percent annual rate. That is not the trend, but it is clearly moving up.

The only issue I was raising is that to project that acceleration indefinitely runs into certain physical laws which is not credible. But the more crucial answer to your question is there was something different in the 1950s and 1960s, and it is called the Great Depression and World War II. During those years, innumerable new technologies evolved which never developed into the types of things which affect the economy in a positive way.

Obviously, in the 1930s, the system had broken down and it was very difficult to get investment in any event. In World War II, we clearly didn't have the resources to do it as we were so fully committed to the military.

It is only as we came out of World War II that a huge backlog of unexploited technologies began to fall into place, and capabilities which, as they emerged through the 1950s and the 1960s, brought us a significant acceleration in productivity which carried really through, I guess 1973 when the oil shock apparently broke the back of that type of expansion.

But the form of the productivity evident today is quite different from that back there in the sense that we don't have a backlog. We are just basically doing it, applying it as the synergies of new, various different technologies bring us new products, new ideas, and I understand it is working.

Representative Maloney. You testified that the central bank will make price stability one of its prime focuses, and how difficult it is to predict it in the future. But how can we tell if we have achieved it? Are we at price level stability now? And how much inflation represents price stability?

Mr. Greenspan. I would say we are very close to price stability at this stage. I would define price stability in a very general way as it affects the economy; namely, it is that set of prices which creates no significant effect on the decisions that businessmen make with respect to their investments. In other words, they consider prices benign and they don't. Whatever number that is at the time is in a certain sense irrelevant, but with the level of prices as they now stand and our known upward biases in

the way we calculate them, we are pretty close to, if not exactly on, the definition of price stability as I stipulated.

Representative Maloney. What could we expect to accomplish with a small increase in interest rates? Wouldn't you have to have a larger increase to have any type of major impact?

Mr. Greenspan. The specific structure of rates that we endeavor to create at each of our meetings is that particular rate at that particular time which we believe is the optimum toward achieving a longer-term goal. It is very tough to forecast what is going to evolve, and fortunately, because monetary policy can be changed within a minute's notice, we don't have to have a whole series of planned changes one way or the other because we always have the capability of moving fairly quickly. There are times when one can suspect, as we did in 1994, that we would be requiring some fairly significant set of increases to stem what was very clearly a liquidity structure at the time which, unless it was stabilized, would derail economic growth.

So I wish I could say that we knew enough to be able to answer your question very explicitly. The truth of the matter is, we don't. What we try to do is make the best judgments we can at the particular time that we meet or, if it is relevant, between meetings, but in fact, I don't recall ever having a sense that we are going to do a series of increases or decreases. I don't think the system works that well, if I may put it that way.

Representative Saxton. The gentlelady's time has expired. We are very happy to have with us today a former member of the Joint Economic Committee coming back and joining with us.

Mr. Ewing.

OPENING STATEMENT OF REPRESENTATIVE THOMAS EWING

Representative Ewing. Thank you, Mr. Chairman, and thank you for allowing me to participate. I have always thought the meetings – the discussions we had with you, Chairman Greenspan, were some of the most enlightening things that this Committee did, and so it was a pleasure to come back, and I also want to thank you for the great leadership you give and stability you give to our country in its economy because people look up to you so very much.

We have things very good in America, it seems, right now, but there is one sector of the economy that isn't doing very well, and that is the

agricultural sector, and I was wondering what your thoughts might be about the impact on the overall economy and where it might lead us and what we maybe should be doing about that.

Mr. Greenspan. Well, you certainly point to the area – virtually the only area of significance – that is not doing terribly well. There are several reasons for this, obviously. One is something which is not terribly well-known, namely, that productivity growth in agriculture is even faster than it is in the nonfarm sector. You are acutely aware of the major increases in crop yields that we have all seen. The technologies that we now take for granted, digital technologies in the nonfarm area, in many respects are being used even more intensively on the farm.

As a consequence of that, with unit costs falling, there is a downward pressure on the general agricultural price level wholly as a consequence of the dramatic acceleration in productivity. But the most recent problems to which you allude are really on the demand side, and these really reflect the extraordinary weakness that occurred in East Asia because a substantial amount of agricultural exports were directed toward East Asia, and because so large a part of farm prosperity rests on exports, the demand domestically doesn't change prices all that much.

The virtual collapse of some of the major markets that we had in a number of our grains and livestock, mainly grains, really fed back into our domestic structure and left us with surpluses which induced some significant weakness in prices. In the last three or four months, we have all seen prices for wheat and beans and corn which look like what I used to look at 30 years ago. So it is a problem which is not easily resolved. The major hope that is involved here is the fact that Asia does seem to be stabilizing. It is not likely that their demand will be as immediately strong as it was for a number of years prior to their running into the crisis, but I do think that the really significant weakness that has occurred is gradually changing.

Aside from that, it is not easy to recommend very many solutions because part of the problem is the extraordinary success that our farmers have had in creating unbelievable quantities of output. I would scarcely want to think of ways to retard that.

Representative Ewing. Thank you.

Thank you, Mr. Chairman

Representative Saxton. Thank you, Mr. Ewing.

We would like to now turn to the gentleman from Binghamton, New York, Mr. Hinchey.

OPENING STATEMENT OF REPRESENTATIVE MAURICE D. HINCHEY

Representative Hinchey. Thank you very much, Mr. Chairman.

Good morning, Mr. Chairman. It is very lovely to see you. I want to, first of all, express my appreciation for the way that the Fed has behaved over the last several years under your leadership. I think it is directly attributable to your leadership, based upon some of the information that we have seen making its way out of the Federal Open Market Committee meetings.

There seems to have been some pressure in those meetings to raise interest rates, which you have resisted. You have been proven to be correct in your decision to hold interest rates steady and, in fact, reduce them three times over the course of the last year or so. Your prudence has allowed the economy to remain very, very strong indeed.

Over the last six years since I have been a Member of the House of Representatives, we have had a number of discussions about the efficacy of such things as the Phillips curve and the NAIRU, the nonaccelerating inflation rate of unemployment. We have argued whether these indicators are outmoded and if, in fact, they are artifacts of an older economy and not valuable in ascertaining the level or likelihood of inflation in this particular economy.

I was startled on Tuesday to find that I am in agreement with an editorial writer of the *Wall Street Journal*. So I am wondering to what extent you agree with me and the editorial page of the *Wall Street Journal* with regard to such things as the Phillips curve and NAIRU as indicators of nascent or incipient inflation in the economy.

Mr. Greenspan. I read that editorial and I certainly agree that inhibiting growth as a goal, which somehow is implicit in some of these particular structures, makes no sense to me at all. Growth that is coming from an increasing population and especially accelerating productivity is not something which I think we should look upon as anything other than a plus. There is no inherent instability that occurs as a consequence of growth that is strictly the combination of normal growth in the work force plus productivity.

There is a question, however, that you can at times create a situation in which you are running a rate of growth which exceeds an implicit underlying rate of growth in productivity, and as a consequence of that, you, of necessity, are bringing on additional people to work, which is all well and good if it is people who are normally entering the work force. But, on occasion, as we have been, we are reducing continuously the number of people who are, one, technically unemployed as defined by the Bureau of Labor Statistics in the unemployment statistics, plus those who are not in the labor force and say they would like a job. The combination of those two statistics, which represents about 10 million Americans, has been falling at a fairly significant rate. And, as I indicated in my prepared remarks, leaving aside the Phillips curve and aspects which I happen to agree have got some significant flaws in them, there is still a limits question. It is not as though there are no limits whatever, and the issue which should be differentiated here is whether one should rely on a very questionable statistic about where the NAIRU is, if such a concept can exist for the national economy.

I think, frankly, it probably does exist for the metropolitan area where workers can move back and forth and there are relationships between wage rates and the degree of unemployment. I am not sure that that readily translates to an overall economy where people in Portland, Oregon, can move to Portland, Maine as readily as they can move across the streets.

We have to distinguish between the question as to whether the NAIRU or the Phillips curve which employs that concept is a functioning model for policy on the one hand or whether there are no limits, whatever, to what expansion can be without creating a destabilization. It is the latter, I think, that is the crucial issue. I certainly agree with you.

Representative Hinchey. It is quite clear that there are limits. There are always limits on everything, but it is interesting for me to hear that you, too, seem to believe that these old units of measurement are no longer as valid as I seem to recollect hearing in the past.

Then I wonder where we should look in this economy for indicators of inflation? I don't seem to find any. There was a spike in oil prices during the last couple of months, as a result of cutbacks by OPEC (Organization of Petroleum Exporting Countries), that drove up the Consumer Price Index very, very slightly. It is back down now. Commodity prices are very, very low. The price of gold is at near-term record lows. That is an indicator of deflation, not inflation, and so I am

mystified when I hear coming the Chairman of the Federal Reserve say that interest rates cannot possibly go any lower and, in fact, they may have to go higher. It is hard to rationalize these facts with that line of reasoning.

Mr. Greenspan. Let me try to address precisely the issue that you raised, because that is the type of thing we are involved in all the time.

As I said in my prepared remarks, at this particular moment, the underlying core cost structure of the economy is behaving, in my judgment, quite benignly. There is no immediate evidence that I can see that what we are dealing with is an incipient acceleration of core inflation.

I might say parenthetically that the Consumer Price Index is an interesting statistic, but really what we focus on to get a judgment as to whether inflation is emerging is the underlying cost structure; and the reason why productivity and the acceleration of productivity has been so critical to our analysis is that it has kept the inflation rate down.

The concerns that one must have with respect to this type of environment, when you are looking at a continuous decline in the pool or reservoir of people who wish to work but don't as yet have a job, is whether or not that is infinitely extendable into the future, and obviously it is not. What it is that we have to make judgments on is at what interest rate setting do you create the degree of liquidity which has the highest probability of sustaining the expansion into the future.

The reason why I say that lower rates are not on the table at this particular point is that we evaluate the degree of liquidity that is being created under current conditions more than adequate or adequate to maintain long-term, sustainable growth. We do not perceive in any of our scenarios that it is inadequate, and it is from that evaluation that we conclude that lowering rates at this point would not contribute to the highest probability of maintaining long-term maximum sustainable growth.

It is an issue which relates to the level of rates, and that is the reason why, when we were confronted with the seizing up of the financial markets late last year, our immediate reaction, as indeed all central banks should react, was to increase the degree of liquidity very significantly, as we did. We did the same thing when the stock market crashed in October 1987, and you may recall that when the crisis was over, the need for that level of liquidity was no longer there, and the appropriate policy was to withdraw some of it, which is what we did.

What is on the table at this particular stage is whether, having injected a significant amount of liquidity as a consequence of the seizing up of markets, do we need all of it still in place?

It is not a judgment about is there at the moment any evidence of accelerating inflation? In my view, you would be hard pressed to find it. There are marginal issues. Some construction material costs are up. Some services are up, but overall, as I indicated in my prepared remarks, it is clearly an environment in which pricing power is generally perceived to be pretty limited.

Representative Hinchey. So there is no indication of inflation anywhere in the economy, what we are interested in now is maintaining the growth that we have seen over the last decade and maintaining it at a fairly even level such as we have been experiencing; is that correct?

Mr. Greenspan. That is what we are trying to do.

Representative Saxton. The gentleman's time has expired.

Representative Hinchey. Just one – 30 seconds more, Mr. Chairman.

I would just point out that it is not just the people on the periphery of the work force who have begun to benefit from this period of growth. It is, in fact, working America as a whole that is now, only within the last three years, experiencing the benefits of this growing economy

Mr. Greenspan. I agree with that.

Representative Hinchey. And to say that we have a situation now where more people are working, we have got to put a stop to that, or to say that – let me just finish, Mr. Chairman, because you will get more time than I will – or to say that now that we have a situation where the bulk of the work force is benefitting finally from this growth in the economy, that we have to put a stop to that. So I know you are shaking your head, and I know that is not what you want to do, but that will be the effect if you give in to this notion that interest rates need to be raised now.

I hope that you will continue to exercise the kind of strong and intelligent leadership within the FOMC that you have in recent years and, at the very least, hold those interest rates steady.

Mr. Greenspan. You leave me speechless.

Representative Saxton. The gentleman's time has expired.

Mr. Ryan.

OPENING STATEMENT OF REPRESENTATIVE PAUL RYAN

Representative Ryan. I hope you are not speechless for the rest of the hearing.

Representative Saxton. I have never seen that occur.

Representative Ryan. It is good to see you again, Mr. Chairman.

Earlier this year OPEC collaborated to increase oil prices by slowing the production. I wanted to just take you through the correlation between the rates and the prices.

Following this increase in prices, the CPI index made an unusual spike, upwards from one-tenth of a percentage to seven-tenths of a percent. Yesterday's CPI figure showed that inflation increasing again by only one-tenth of a percent.

This correlation between oil and rates has held true, I think, over recent history. In 1997, oil averaged \$20.60 per barrel, the Treasury yield coming close to 7 percent last year. Oil dropped 29 percent to a calendar average of 14.40. Right on cue, though, 30-year Treasury bond dropped roughly a third to less than 5 percent.

Today, with oil ranging close to \$18 per barrel, the 25 percent hike over 1998 long bond rates are approaching 6.25 percent, about the same magnitude as the price of oil.

Further, the 1998 experience, in my opinion, seems to be somewhat of a mirror image of the experience we had in the 1970s, when rising oil prices led to stagflation and high interest rates.

What I think would be interesting is to get your take on what you believe is more indicative of the rising prices – the rising rates, the price of oil or America's strong economic growth?

Mr. Greenspan. There is no question that the price of oil has been a crucial factor in the American economy, and it has been an element, obviously, in the general price level since it is such an important product and its price fluctuates so substantially. However, oil has become a decreasing part of the American economy as we have downsized our gross domestic product. As we have moved increasingly towards integrated circuit type of structures, the amount of crude oil required per unit of GDP has been going down quite measurably, and it shows up in our price indexes as well. As a consequence of that, it is no longer the extraordinary or the important issue that it was 20, 30 years ago.

It is still quite important, there is no doubt. The conclusion that you raise that the long-term interest rate is a function of the price of oil works in part largely because they are both related to a third force which is the economy generally and the world economy generally. So I think you will find that if you want to forecast long-term interest rates, you need more than merely a forecast of the price of oil, and I wouldn't suggest it as a particular means of an interest rate forecast model.

Representative Ryan. May I ask you this now? I am personally of the school of thought that prices are the best indicators of inflation, and currently today in the U.S. we have a strong dollar, we have falling precious metals, we have stable commodity prices. A general increase in all prices, not just the increase of oil or wages, is possible only when the money supplied by the Fed is greater than the market's and the economy demand.

The price of gold, the CRB (Commodity Research Bureau), the commodity index, the dollar index, these are the best measures of excess money, in my particular opinion, but right now these price rule signals suggest that money is scarce, not loose. And I would like – under those price rule rationales, how could the Federal Reserve justify an increase in the rates at this time?

Mr. Greenspan. Well, I think that you are raising the right type of questions, namely, that the degree of liquidity in the system is the crucial question because that is in fact what a central bank does.

Representative Ryan. Right.

Mr. Greenspan. I am impressed with the fact that the price of gold has fallen, and I am not impressed with the fact that it's solely the result of the fact that a number of central banks have been selling gold. There is more to it. And I do think that is a reflection of a global reduction in the long-term inflation outlook, which is a very positive force in the world economy.

When you look, however, at the issues of liquidity, you look at various measures of them when you have nothing else. But when you have the direct effects of liquidity, they are far better to look at to determine whether, in fact, you have more or less money than in effect you need.

Those areas of the economy which are exceptionally interest sensitive, which would be the ones you would expect to be impacted by inadequate liquidity – housing, motor vehicles, a number of different types of consumer items – are all booming; they show no evidence of liquidity

deprivation. And while I certainly agree with you that a number of the indicators which you allude to and which we look at and have found in the past to be very useful – and we expect that they will be useful in the future – are not giving the right signals at this particular point.

Representative Ryan. With respect to your usage of these price rule signals in the past, how do these play a role in your decision-making in the future? My question is, do these price rule signals play a larger part in affecting your decision-making in the future or do they play a lesser role in influencing your decision-making in the future?

Mr. Greenspan. You mean the types of actions we are going to take in the future?

Representative Ryan. These price rule signals, the CRB commodity index, the price of gold.

Mr. Greenspan. Let me first say that there are a number of different members on the FOMC, and I don't want to speak for all of them because we all look at things somewhat differently. The only thing we know for sure is how each of us votes at a particular meeting. Sometimes it is not altogether clear all of the full reasons, in great detail, why individuals use things as they do; but most of them look at all of these indicators. What they do and I think it is the right thing to do, is they are giving differing weights at differing times depending on, the type of economy with which we are dealing. The individual commodity prices are crucial at certain times and not at others.

The one thing we do know, of course, is the fact that as you go to an increasingly technologically driven economy that the increasing proportion of products whose prices are generally going down begins to dominate the system. So it really is a very difficult task to ferret out what the true inflationary forces are and how to respond to them.

We work very hard to integrate that type of approach and evaluation with looking at prices of copper and aluminum and zinc and all the other elements which go into these various commodity indexes to get a sense of what is going on; and because of the huge amount of information we have, we bring all of this together and try to make a judgment as to what the final result is, and all I can tell you is, yes, we look at all of these things. Some of them view them differently from others—

Representative Ryan. They are not playing a diminishing role in your decision-making—

Representative Saxton. I am sorry, but the gentleman's time has expired. We are going to have to expedite because of the situation—

Mr. Greenspan. Just quickly, I look at them every day.

Representative Saxton. Mr. Campbell.

OPENING STATEMENT OF

REPRESENTATIVE TOM CAMPBELL

Representative Campbell. Mr. Chairman, out of respect for the Chairman of the Federal Reserve – in fact, I wasn't here for all of his testimony – and courtesy to the Committee, I will waive my questions and hope to see you on another occasion, Mr. Chairman.

Mr. Greenspan. Thank you very much.

Representative Saxton. Thank you very much. Mr. Chairman. Because of the situation, we have four or five votes lined up here, and we know of your time schedule, so we are going to stop at this point.

I would just like to say something again that I said before relative to your comments because of your remarks today. It seems clear that you believe that inflation targeting legislation should be focused on the long term and be flexible, and I just want you to know that we agree with these points, and we are certainly ready to work with you with regard to whatever assurances you need that any legislation that we consider or pass will certainly keep those points in mind and be so written.

Mr. Greenspan. We appreciate that very much, Mr. Chairman.

Representative Saxton. Thank you, and thank you very much for taking time to be with us today. We look forward to seeing you again in the near future, and we also look forward to being here next year, marveling at yet another year of growth. Thank you very much for being with us.

The hearing is adjourned.

[Whereupon, at 12 p.m., the hearing was adjourned.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF REPRESENTATIVE JIM SAXTON, VICE CHAIRMAN

I am pleased to welcome Federal Reserve Board Chairman Alan Greenspan before the Joint Economic Committee (JEC) once again. This hearing is one in a series of periodic hearings on monetary policy and the economic outlook.

The performance of the economy in recent years has been very strong, and monetary policy has played an important role in fostering and sustaining this expansion. During the expansion, the Federal Reserve's policy of gradually moving to price stability has resulted in declines in inflation, interest rates, and unemployment all at the same time. This is a remarkable achievement, and Chairman Greenspan deserves much credit for his leadership in monetary policy.

The healthy economic performance also has generated higher-than-expected revenues to the Federal government that have erased the deficit and pushed the budget into surplus. State and local governments have also enjoyed a fiscal bonus from the combination of positive economic trends.

The benefits of U.S. economic growth also were seen outside our country. The health of the U.S. economy has helped offset the effects of the financial and economic problems in the emerging market economies. The positive impact of the U.S. economic expansion on the international economy was complemented by a series of deft reductions in interest rates by the Federal Reserve last fall to stem deflation fears and stabilize the international financial markets.

All of this, including the role of Chairman Greenspan, is more or less well recognized by most Americans. What is less well known is the specific policy framework the Federal Reserve has used to achieve the positive results in the domestic economy. Chairman Greenspan's exceptional leadership of the Federal Reserve is associated with a framework for policymaking known as inflation targeting. As the Chairman and I have discussed at previous JEC hearings, the Federal Reserve has essentially adopted an informal policy of inflation targeting and used it to gradually reduce inflation and unemployment at the same time.

A serious discussion of this policy is useful to explain what the Fed under Chairman Greenspan has done and how it has fostered the extraordinary economic expansion we enjoy today. Personal judgement and wisdom have played an important role, but the framework for policymaking is also critically important. The success of Federal Reserve policy is a combination of several factors, but more understanding is needed about the basis of the policy framework itself.

Inflation targets are a narrow range of permissible increases in a broad price index expressed as annual percentage increases. For example, an inflation target could be defined as an increase in a retail price index of between zero and, say, 2 percent per year. Explicit official inflation targeting can be established as is the case in many countries, or implicit informal inflation targeting can be used as in other countries such as the United States. Inflation targeting as an approach to achieving price stability has proven particularly effective.

Price stability improves the operation of the price system and promotes economic efficiency and growth. Inflation targeting is an approach to achieving price stability through gradual reductions in inflation that minimize economic disruptions in the short run. As noted previously, during this expansion, inflation has been reduced, but unemployment has fallen as well. Only a few years ago many economists would have regarded this outcome as improbable if not impossible. Nonetheless, the Fed's informal approach to inflation targeting shows that gradual reductions in inflation can be associated with strong economic and employment growth leading to lower unemployment rates.

In addition to its successful monetary policy, recently the Federal Reserve has also made further strides towards increased transparency. The Fed has improved transparency in recent years by announcing interest rate changes as they occur, and also notifying the public about changes in the bias of the policy directive even when rate changes are not made. The Fed is to be commended for these steps towards greater transparency in monetary policy. Greater transparency improves the quality of information available to market participants and thus limits the potential for unexpected surprises to unsettle financial markets. Explicit inflation targeting would be a further move toward transparency that would also foster increased accountability.

Chairman Greenspan, your testimony this morning is especially welcome at this critical juncture in monetary policy. We look forward to your testimony.

**PREPARED STATEMENT OF
REPRESENTATIVE PETE STARK, RANKING MINORITY MEMBER**

I want to thank Vice Chairman Saxton for calling the hearing the morning. I also want to welcome Chairman Greenspan before the Committee for the second time this week. I guess with the economy performing as well as it is, you have more time to spend with us. As always, I look forward to your comments this morning.

Over the past three days, this Committee has heard testimony from Mr. Greenspan, Education Secretary Riles, over two dozen CEO and executives of high tech companies, and numerous other experts. A lot of things were said, but there was unanimous agreement on one thing – there is something new and unique going on in the U.S. economy. It may be a little difficult to describe this revolution in words, but there is wide agreement that as a result of it, the costs of doing business are falling and productivity is rising. Chairman Greenspan seems to agree with this assessment, as he said on Monday that “something special has happened to the American Economy,” producing a “remarkable run of economic growth” and increasing productivity.

Indeed, the current economy looks great – most workers are enjoying rising wages for the first time in the last 20 years, productivity growth, once anemic, has been strong over the last 2 ½ years, and corporate profits have been growing. The recent CPI report for the month of May, suggests that the rise in April was probably due to several anomalies, and that low inflation seems to be back on track. With all this good news, it is hard to understand why someone might be worried.

Most of the factors keeping inflation in check, or even causing it to fall, do not seem to have lost any steam. Commodity prices, especially the price of oil, continue to be low and in some cases even falling. Likewise for health care costs. We heard over and over again during the past three days that a permanent change is taking place in the cost of doing business. In fact, several witnesses suggested that transactions costs may currently be as low as 2 to 3 percent of total business costs, and are expected to continue to fall with further advances in technology. Chairman Greenspan, I hope that you will provide empirical evidence to back up your worries over the possibility of renewed inflation in the economy.

It is not enough to say that something new is happening in the economy. It seems that all this evidence suggests that we need to revisit some of our traditional economic relationships. We must also be willing to

re-evaluate some of our long held economic policy prescriptions in order to fully enjoy the benefits of this new reality. We speak about changes in the way businesses work and the need to change the way we educate our children. We must also be willing to look at how we make economic policies, and ask ourselves if that process remains valid in light of all of these recent changes.

Mr. Greenspan, I am particularly concerned about the impact of Federal Reserve policies on those in the economy who have just recently been asked to join us at the table of prosperity. It has taken years for minority and teenage unemployment rates to begin to fall. Currently, they are reaching historic low levels. We all know unemployment rates for these individuals take longer than for others to respond to good economic news. Unfortunately, minorities and teenagers will likely be the first to experience job losses and cuts in wages if the economy begins to slow. After so many years of missing out on the fruits of the economy, do we want to risk cutting them off now?

Mr. Greenspan, I look forward to your testimony and your answers to the questions outlined above. Thank you for agreeing to testify before us this morning.

PREPARED STATEMENT OF THE HONORABLE ALAN GREENSPAN

As emphasized by the important hearings this committee has held in the past few days, an impressive proliferation of new technologies is inducing major shifts in the underlying structure of the American economy. These fundamental changes appear to be far from complete. The way America does business, including the interaction among the various economic players in our economy, is in the midst of a significant transformation, though the pace of change is unclear.

As a consequence, many of the empirical regularities depicting the complex of economic relationships on which policymakers rely have been markedly altered. The Federal Reserve has thus been pressed to continuously update our understanding of how the newer forces are developing in order for us to address appropriately our underlying monetary policy objective: maximum sustainable economic growth.

The failure of economic models based on history to anticipate the acceleration in productivity contributed to the recent persistent underproduction of economic growth and overproduction of inflation. Guiding policy by those models doubtless would have unduly inhibited what has been a remarkable run of economic prosperity.

And yet, while we have been adjusting the implicit models of the underlying economic forces on which we base our decisions, certain verities remain.

Importantly, the evidence has become increasingly persuasive that relatively stable prices--neither persistently rising nor falling--are more predictable hence result in a lower risk premium for investment. Because the nation's level of investment, to a large extent, determines our prosperity over time, stability in the general level of prices for goods and services is clearly a necessary condition for maximum sustainable growth.

However, product price stability does not guarantee either the maintenance of financial market stability or maximum sustainable growth.

As recent experience attests, a prolonged period of price stability does help to foster economic prosperity. But, as we have also observed over recent years, as have others in times past, such a benign economic environment can induce investors to take on more risk and drive asset prices to unsustainable levels. This can occur when investors implicitly project rising prosperity further into the future than can reasonably be supported. By 1997, for example, measures of risk had fallen to historic lows as businesspeople, having experienced years of continuous good

times, assumed, not unreasonably, that the most likely forecast was more of the same.

The Asian crisis, and especially the Russian devaluation and debt moratorium of August 1998, brought the inevitable rude awakening. In the ensuing weeks, financial markets in the United States virtually seized-up, risk premiums soared, and for a period sellers of even investment grade bonds had difficulty finding buyers. The Federal Reserve responded with a three step reduction in the federal funds rate totaling 75 basis points.

Market strains receded--whether as a consequence of our actions or of other forces--and yield spreads have since fallen but not all the way back to their unduly thin levels of last summer.

The American economy has retained its momentum and emerging economies in Asia and Latin America are clearly on firmer footing, though in some cases their turnarounds appear fragile. The recovery of financial markets, viewed in isolation, would have suggested that at least part of the emergency injection of liquidity, and the associated 75 basis point decline in the funds rate, ceased to be necessary. But, with wage growth and price inflation declining by a number of measures earlier this year, and productivity evidently still accelerating--thereby keeping inflation in check--we chose to maintain the lower level of the funds rate.

While this stellar noninflationary economic expansion still appears remarkably stress free on the surface, there are developing imbalances that give us pause and raise the question: Do these imbalances place our economic expansion at risk?

For the period immediately ahead, inflationary pressures still seem well contained. To be sure, oil prices have nearly doubled and some other commodity prices have firmed, but large productivity gains have held unit cost increases to negligible levels. Pricing power is still generally reported to be virtually nonexistent. Moreover, the re-emergence of rising profit margins, after severe problems last fall, indicates cost pressures on prices remain small.

Nonetheless, the persistence of certain imbalances pose a risk to the longer-run outlook. Strong demand for labor has continued to reduce the pool of available workers. Data showing the percent of the relevant population who are not at work, but would like a job, are around the low for this series, which started in 1970.

Despite its extraordinary acceleration, labor productivity has not grown fast enough to accommodate the increased demand for labor induced by the exceptional strength in demand for goods and services.

Overall economic growth during the past three years has averaged four percent annually, of which roughly two percentage points reflected increased productivity and about one point the growth in our working age population. The remainder was drawn from the ever decreasing pool of available job seekers without work.

That last development represents an unsustainable trend that has been produced by an inclination of households and firms to increase their spending on goods and services beyond the gains in their income from production. That propensity to spend, in turn, has been spurred by the rise in equity and home prices, which our analysis suggests can account for at least one percentage point of GDP growth over the past three years.

Even if this period of rapid expansion of capital gains comes to an end shortly, there remains a substantial amount in the pipeline to support outsized increases in consumption for many months into the future. Of course, a dramatic contraction in equity market prices would greatly reduce this backlog of extra spending.

To be sure, labor market tightness has not, as yet, put the current expansion at risk. Despite the ever shrinking pool of available labor, recent readings on year-over-year increases in labor compensation have held steady or, by some measures, even eased. This seems to have resulted in part from falling inflation, which has implied that relatively modest nominal wage gains have provided healthy increases in purchasing power. Also, a residual fear of job skill obsolescence, which has induced a preference for job security over wage gains, probably is still holding down wage levels.

But should labor markets continue to tighten, significant increases in wages, in excess of productivity growth, will inevitably emerge, absent the unlikely repeal of the law of supply and demand. Because monetary policy operates with a significant lag, we have to make judgments, not only about the current degree of balance in the economy, but about how the economy is likely to fare a year or more in the future under the current policy stance.

The return of financial markets to greater stability and our growing concerns about emerging imbalances led the Federal Open Market Committee to adopt a policy position at our May meeting that contemplated a possible need for an upward adjustment of the federal

funds rate in the months ahead. The issue is what policy setting has the capacity to sustain our remarkable economic expansion, now in its ninth year. This is the question the FOMC will be addressing at its meeting at the end of the month.

One of the important issues for the FOMC as it has made such judgments in recent years has been the weight to place on asset prices. As I have already noted, history suggests that owing to the growing optimism that may develop with extended periods of economic expansion, asset price values can climb to unsustainable levels even if product prices are relatively stable.

The 1990s have witnessed one of the great bull stock markets in American history. Whether that means an unstable bubble has developed in its wake is difficult to assess. A large number of analysts have judged the level of equity prices to be excessive, even taking into account the rise in "fair value" resulting from the acceleration of productivity and the associated long-term corporate earnings outlook.

But bubbles generally are perceptible only after the fact. To spot a bubble in advance requires a judgment that hundreds of thousands of informed investors have it all wrong. Betting against markets is usually precarious at best.

While bubbles that burst are scarcely benign, the consequences need not be catastrophic for the economy.

The bursting of the Japanese bubble a decade ago did not lead immediately to sharp contractions in output or a significant rise in unemployment. Arguably, it was the subsequent failure to address the damage to the financial system in a timely manner that caused Japan's current economic problems. Likewise, while the stock market crash of 1929 was destabilizing, most analysts attribute the Great Depression to ensuing failures of policy. And certainly the crash of October 1987 left little lasting imprint on the American economy.

This all leads to the conclusion that monetary policy is best primarily focused on stability of the general level of prices of goods and services as the most credible means to achieve sustainable economic growth. Should volatile asset prices cause problems, policy is probably best positioned to address the consequences when the economy is working from a base of stable product prices.

For monetary policy to foster maximum sustainable economic growth, it is useful to preempt forces of imbalance before they threaten

economic stability. But this may not always be possible--the future at times can be too opaque to penetrate. When we can be preemptive we should be, because modest preemptive actions can obviate the need of more drastic actions at a later date that could destabilize the economy.

The economic expansion has generated many benefits. It has been a major factor in rebalancing our federal budget. But more important, a broad majority of our people have moved to a higher standard of living, and we have managed to bring into the productive workforce those who have too long been at its periphery. This has enabled large segments of our society to gain skills on the job and the self-esteem associated with work. Our responsibility, at the Federal Reserve and in Congress, is to create the conditions most likely to preserve and extend the expansion.

Should the economic expansion continue into February of next year, it will have become the longest in America's economic annals. Someday, of course, the expansion will end; human nature has exhibited a tendency to excess through the generations with the inevitable economic hangover. There is nothing in our economic data series to suggest that this propensity has changed. It is the job of economic policymakers to mitigate the fallout when it occurs, and, hopefully, ease the transition to the next expansion.