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Statement by

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Subcommittee on Domestic Monetary Policy

of the

Committee on Banking, Finance and Urban Affairs

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Mr. Chairman:

I am Robert Parry, President of the Federal Reserve Bank of San Francisco, a position I have held since early 1986. I am pleased to speak on House Joint Resolution 409. Overall, I strongly endorse the Resolution -- the Federal Reserve should gear monetary policy toward gradually eliminating inflation and maintaining price stability thereafter.

Since inflation is a monetary phenomenon, the central bank is uniquely suited to control inflation in the long run. Monetary policy also can have significant transitory effects on the production of goods and services. As a result, I believe there is a role for counter-cyclical monetary policies, although the difficulty of forecasting future economic developments limits the extent to which the Fed can effectively engage in such policies. Importantly, monetary policy cannot have any direct control over real variables in the long run. Thus, although the Federal Reserve must consider the transitory effects of its actions on the business cycle, it should orient its efforts mainly around the single variable it can control in the long run -- the rate of inflation.

Federal Reserve officials have made it clear that achieving price stability is the long-term goal of the System. Resolution 409 would assist us in pursuing a credible and consistent anti-inflation policy by providing a statement from the legislature that we should focus primarily on achieving that one attainable goal within a specified period of time. Without this support, there is

the danger that the pursuit of the long-term inflation goal could be unduly delayed because of pressure to respond to short-run, business-cycle considerations.¹

Eliminating inflation would help to promote the highest possible standards of living for U.S. residents and greater prosperity around the world. The magnitude of the costs of inflation, in terms of lost output and employment, are notoriously difficult to estimate.² However, these costs almost surely are large.

The most worrisome of these costs stem from uncertainty about future prices, which undermines the ability of our market system to function efficiently. Price stability would reduce the risk and uncertainty that have hampered long-term planning and contracting by business and labor, and that have reduced capital formation by raising the risk premia in long-term interest rates. Moreover, it would avoid the many arbitrary transfers of wealth and income that occur when the general price level changes unexpectedly, and thus would reduce wasteful hedging activity designed to protect against these transfers. Eliminating inflation also would avoid confusion between absolute price changes and movements in relative prices, which can lead to inefficient economic decisions by businesses and households.³

The foregoing comments make it clear that I strongly support the message of House Resolution 409. I also have the following comments on its more specific features.

Length of Transition Period

Few would disagree that the elimination of inflation is a desirable goal for the Federal Reserve. The issues center on the costs of achieving the goal, and how large these costs are relative to the benefits. As I mentioned earlier, it is difficult to produce reliable estimates of the gains in output and employment that would accrue from price stability, although my judgment is that they most likely would be large. Unfortunately, calculations of the costs of eliminating inflation also are problematic.

An upper limit to these costs can be obtained from the so-called Phillips curve, which relates inflation to the actual unemployment rate, an estimate of the unemployment rate consistent with the economy operating at full capacity, and an estimate of expected inflation. The latter estimate generally is based upon an assumption that the public's expectations adjust gradually to past observations of inflation.

The Phillips curve suggests that the short-run costs of reducing inflation are relatively high, largely because it assumes that inflation expectations are slow to adjust to the introduction of an anti-inflation regime. For example, work at our Bank on this relationship suggests that a recession is not necessary in order to reduce inflation from approximately 4-1/2 percent now to zero percent in 1994. The unemployment rate would need to rise by a maximum of about 1-3/4 percentage points above an estimated 5 to 6 percent "full-employment" rate.⁴ At the same time, real GNP

growth would need to slow by from 1 to 2 percent per year below what it would otherwise have been during the five-year transition period.

Two points about these estimates are worth emphasizing. First, the costs would be transitory only. In the long-run, there is no trade off between inflation and unemployment. Thus, once inflation were eliminated, real GNP could go back to its long-run potential path, and the unemployment rate to its "full-employment" level. The benefits of price stability, however, would continue indefinitely. Second, the figures represent average historical relationships over the past 25 years, and should be taken only as very rough guidelines for the costs of implementing the Resolution if inflation expectations were to adjust only very gradually.

It seems highly likely, however, that the costs would be smaller than this. Rather than adapting solely to declines in observed inflation, as assumed in the Phillips curve analysis, the public's expectations of inflation probably would adjust directly in response to the implementation of the new anti-inflation regime itself. This direct response might become quite strong over perhaps two to three years, as it became apparent that the Federal Reserve, with legislative support, indeed was acting to eliminate inflation.

Unfortunately, there appears to be little historical evidence available that would provide a reliable estimate of how strong the direct response might be. There is evidence that sweeping institutional changes put in place to limit hyperinflations have

had dramatically beneficial effects, but the relevance of these experiences to moderate inflation is remote.⁵ In fact, there is evidence that expectations did not respond directly to the October 1979 change in Federal Reserve monetary policy procedures.⁶ However, I seriously doubt that this experience is particularly relevant to the question at hand. The announcement of a policy change by the central bank itself will not carry as much credibility as the same announcement initiated and supported by a Resolution of the legislative body. Moreover, the Federal Reserve has much more credibility as an inflation fighter today than it did in the period of double-digit inflation at the beginning of this decade.⁷ Finally, as noted by others, I also believe that the attainment of price stability would be expedited if such a monetary policy were supported by other policy actions, such as a credible elimination of the federal deficit.

There is general agreement within the economics profession that the costs of reducing inflation are closely tied to the degree to which the public believes the central bank's anti-inflation policy to be credible.⁸ I believe that the Resolution as proposed would help in this regard, but I also recognize the possibility that achieving zero inflation in five years might involve high transitional costs. We will only know for sure as such a policy is being carried out. However, I do not favor lengthening the transition period because the Resolution's credibility, and thus its impact, would be diluted if the time limit were too far in the future.

Price Stability or Inflation Stability

There appears to be some ambiguity in the wording of the Resolution concerning what the Federal Reserve would be required to do once zero inflation is achieved: should it aim at a constant price level over time (price level stability), or at zero inflation over time (inflation stability)? This distinction would become important following an unanticipated price level change. A stable price level objective would require that a period of deflation (inflation) follow a positive (negative) price level shock. As a consequence, this approach might imply a high level of volatility in short- to intermediate-run inflation.

Alternatively, a zero inflation objective would allow the price level to be permanently affected by a price level shock, while monetary policy would be geared toward permitting no further change in prices: that is, zero future inflation. This approach, by accommodating past price level movements, would involve less short-term volatility in inflation, but would permit more long-run inflation or deflation, if shocks or policy errors tended to be one-sided.

I personally prefer a policy of price level stability. First, in my view, the costs of inflation that I discussed earlier relate more closely to uncertainty about the long-run price level than to short-run inflation volatility.⁹ Moreover, the credibility of a zero inflation goal probably would be less than that of a price level goal. Permitting the price level to drift (upward) under a

zero inflation goal inevitably would raise questions in the minds of the public as to whether the Federal Reserve was serious about controlling inflation, or instead was losing control of long-run inflation through a series of "one-time" price level adjustments.

Finally, there is nothing to be gained, and a lot to be lost, by permitting the price level to drift over the long run. Permitting this drift in response to the influences of fiscal and monetary policies obviously would defeat the purpose of the Resolution. In my view the appropriate response to a supply shock, such as the oil embargo of the mid 1970s, also is to maintain price stability in the long run. Following such a shock, real GNP inevitably must fall to reflect the decline in long-run potential output. This decline in output will occur no matter where the price level eventually ends up, and thus there is nothing to gain by allowing prices to rise in the long run.

There are, however, short-run problems to consider. For example, a recession could result from attempts by the Federal Reserve to hold the price level constant immediately following a large oil price shock. This example shows why it is important for the Federal Reserve to have some flexibility in implementing the requirements of the Resolution. "Draconian" effects on economic activity could be avoided by permitting some inflation for a time in the wake of the oil shock. The potential damage done by price-level uncertainty simultaneously could be avoided by monetary policies designed to produce a subsequent period of gradual deflation until the price level returned to its original level.

Such an approach, once it became credible with the public, would remove the long-run uncertainty about the price level that damages the performance of the economy.

Definition of Price Stability

For the reasons just given, there may be some flexibility needed in the implementation of policies designed to achieve price stability. Thus, I support the concept of a functional definition instead of a specific numerical target. It might be argued that a numerical target would enhance the credibility of the objective, since the public then could measure Federal Reserve performance against a published standard. However, it would be difficult to define, in advance, a specific numerical target that reasonably could be adhered to over a long period of time into the future.

First, there would be a great deal of debate over which particular price index to target, and all indexes most likely will not exhibit zero rates of change when "price stability" is achieved. Second, there may be upward biases in the price indexes because they may not adequately adjust for improvements in the quality of goods and services. This difficult-to-estimate bias should be reflected in a change in the price index that is greater than zero, but it would be difficult to estimate the appropriate size of the adjustment.¹⁰ Third, a specific numerical target would reduce Federal Reserve flexibility in responding to relative-price shocks. I already have discussed how an inflexible approach in

such circumstances could lead to undesirable effects on economic activity.

Of course, relying on a functional definition of price stability inevitably will lead to some debate over how the Federal Reserve's performance stacks up against its objective. This judgment will depend upon the evaluation of a large number of different price indexes. Other considerations also could play a role. Does a recent supply shock justify the inflation observed in a given year? Have there been significant biases in price indexes because of mis-measurement of quality change? These issues can be discussed and evaluated in the context of the Federal Reserve's semiannual policy report to the Congress, as specified in Resolution 409.

Although this process may not alleviate everyone's concerns, I would like to point out that specifying a numerical target that later had to be modified in view of unforeseen events might damage credibility more than acknowledging the need to retain some flexibility and judgment. Moreover, I am confident that credibility will develop as the evidence emerges that Federal Reserve policy actions actually are being guided by the Resolution, and as the economy moves toward price stability.

Conclusion

To sum up, I enthusiastically support House Joint Resolution 409. Eliminating inflation would be the most significant contribution that the Federal Reserve could make to the attainment

of the highest possible standards of living in the United States and around the world. Resolution 409 can assist the Federal Reserve in attaining this goal by stating that we should design policies to eliminate inflation within a prescribed deadline. Once this goal is achieved, I believe that monetary policy should be geared toward maintaining a stable price level, so that businesses and individuals do not need to be concerned about long-run inflation in making their economic decisions.

NOTES

1. For a discussion of the role of a monetary policy rule in combatting inflation, see Robert J. Barro, "Recent Developments in the Theory of Rules Versus Discretion", The Economic Journal, 1986, Supplement, pp. 23-37.
2. For more formal discussions of the costs of inflation see Stanley Fischer, "Towards an Understanding of the Costs of Inflation: II", Carneigie-Rochester Conference on Public Policy 15 (1981), pp. 5-42; and Michelle R. Garfinkel, "What is an 'Acceptable' Rate of Inflation? -- A Review of the Issues", Federal Reserve Bank of St. Louis Review, July/August 1989, pp. 3-15.
3. For example, an individual firm may speed up its production schedule because it finds that it can command a higher price for its product, only to subsequently find out that the prices of its materials and other inputs also have risen (along with the aggregate price level.) By mistaking inflation for a rise in the demand for its product, the firm makes an inefficient production decision.
4. For a discussion of how estimates of this type are made, see Laurence H. Meyer and Robert H. Rasche, "On the Costs and Benefits of Anti-Inflation Policies", Federal Reserve Bank of St. Louis Review, February 1980, pp. 3-14.
5. Thomas J. Sargent, "The Ends of Four Big Inflations", National Bureau of Economic Research, Working Paper, 1981.
6. Benjamin M. Friedman, "Lessons of Monetary Policy from the 1980s", Journal of Economic Perspectives, 2 (3), Summer 1988, pp. 51-72.
7. In recent years, long-term interest rates have not risen very much when tighter monetary policies have led to higher short-term interest rates. This development suggests that financial market participants believed that recent periods of tighter monetary policy would be successful in controlling inflation. See Frederick T. Furlong, "The Yield Curve and Recessions", Federal Reserve Bank of San Francisco Weekly Letter, March 10, 1989.
8. For discussion of the conceptual basis for this view Keith Blackburn and Michael Christensen, "Monetary Policy and Policy Credibility: Theories and Evidence", Journal of Economic Literature, March 1989, pp. 1-45; Alex Cukierman, "Central Bank Behavior and Credibility: Some Recent Theoretical Developments", Federal Reserve Bank of St. Louis Review, August 1988, pp. 5-17.
9. The one exception may be the problem of confusing price level and relative price movements in making economic decisions. This cost of inflation may be exacerbated more by a price level target

than by an inflation target because the former would involve greater volatility in short-run inflation. However, this cost of inflation may be among the least onerous on my list, since information is readily available to businesses and individuals on the general price level each month.

10. Paul A. Armknecht, "Quality Adjustment in the CPI and Methods to Improve It", American Statistical Association (Business and Economic Statistics Section), Proceedings, 1984, pp. 57-63; Martin Neil Baily and Robert J. Gordon, "The Productivity Slowdown, Measurement Issues, and the Explosion of Computer Power", Brookings Papers on Economic Activity, 1988:2, pp. 347-431; and Robert J. Gordon, The Measurement of Durable Goods Prices (University of Chicago Press for National Bureau of Economic Research, forthcoming.)