PERSPECTIVE ON MONETARY POLICY
Remarks by Robert P. Forrestal, President
Federal Reserve Bank of Atlanta
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I. Introduction: I've been asked to talk about the Federal Reserve System and monetary policy.

A. Feel it would be worthwhile to provide some context by looking first very briefly at the range of functions our central bank performs.

B. Then I'll talk about the mechanics of policy formation and execution.

C. Finally I'll discuss recent monetary policy actions and the economic factors that will shape monetary policy in the year ahead.

II. A Federal Reserve Bank like the one in Atlanta is involved in three main businesses (Chart 1). Monetary policy is clearly the most visible, but it is also perhaps the most difficult for the public to grasp.

A. The Fed's other businesses are:

1. providing financial services for depository institutions and the federal government and

2. supervision and regulation of the activities of bank holding companies and certain commercial banks.

B. In its financial services businesses, the Fed is involved in and oversees a large portion of the payments system.

1. This functon is designed to foster an efficient payment system nationally. It involves facilitating the movement of money in our financial system. It includes:

   a. clearing checks,

   b. supplying and processing cash,

   c. and transferring funds and securities electronically.

2. We are not the only provider of certain payments services, but we play a leading role. Private clearing systems do net settlements at the Fed.

3. The Fed also holds part of depository institutions' reserves and makes loans to them in certain circumstances; thus, we act as a bank for banks and other financial institutions.

4. The Fed also serves as fiscal agent for the U.S. Treasury.

   a. Maintains the Treasury's "checking account" and clears checks drawn on that account.

   b. Issues and redeems government securities.

C. Through its Supervision and Regulation function, the Fed fosters a safe and sound banking system in a variety of ways.

1. We share the oversight of commercial banks with the Comptroller of the Currency, which examines nationally chartered banks, and the FDIC, which examines state banks that are not members of the Federal Reserve System.

2. The Fed supervises and regulates:

   a. state-chartered Federal Reserve member banks and all bank holding companies and

   b. U.S. activities of foreign banks as well as foreign activities of U.S. banks.

3. The body of regulations under which banks operate has been evolved by the Fed based on Congressional legislation.

   a. After Congress passes a law regarding a specific area of bank activity, the Board of Governor's staff develops regulations that can be put into practice.

   b. The Governors approve the proposed regulations after the public and the Reserve Banks have been given an opportunity to comment and make suggestions for changes.

4. Examiners from our Bank and the other 11 District Banks visit

commercial banks in our district and examine their compliance with regulations.

a. Our staff also studies the operations of those banks and rates them on their capital adequacy, management, earnings, and liquidity.

b. Should their rating fall below acceptable standards, we work with bank management to help improve their operations.

5. The Fed can also mandate capital requirements, and we must approve or reject proposed bank mergers and acquisitions.

6. Finally, Governors are asked to testify before Congress on bank regulatory matters that legislators are considering.

a. Thus, they can influence the laws underlying the regulations.

b. I'm afraid that lately our viewpoint has not always been heeded, though.

7. It is important to note, however, that the Fed in its regulatory role can't prevent individual banks from failing--we have no intention of removing one of the ultimate sanctions of the marketplace.

a. Our concern is the industry as a whole rather than single institutions--except, of course, when these might pose some risk to the entire system.

b. Lately the number of bank failures has risen, and in 1989, 207 banks were liquidated or merged into other companies--only a slight decline from the post-Depression record of 212 in 1988.

c. These failures occurred in particular among agricultural banks and banks with energy-related assets.

d. The Fed's role here has been to ensure orderly termination or transfer and to maintain local banking service.

D. The third business of the Fed is monetary policy. Because of the necessarily confidential atmosphere in which monetary policy is decided upon and because the process is complex, many people have little idea of the nature of this activity.

1. It is a process that engages the energies of a goodly number of system employees who process a great amount of information--both statistically and analytically.

2. And not even economic experts agree on how it should be conducted or what elements should be taken into consideration in deciding upon a course of action.

3. It is only one tool of macroeconomic policy and yet people expect us to achieve multiple targets--fast growth, low inflation, low unemployment, and a stable dollar in the foreign exchange markets.

4. For this reason, the Fed tends to be controversial, and it is surrounded by critics ranging from some members of Congress to economists and journalists.

5. At present, for example, two pieces of proposed legislation in Congress aim to modify the way in which monetary policy is conducted. Though they differ in specifics, both seek to increase the Fed's formal accountability to Congress and the public.

   a. Congressman Neal of North Carolina would like to establish control of inflation as the Fed's primary objective and, indeed, virtually to eliminate inflation within a specified period--perhaps five years.

   b. Another bill sponsored by Representatives Hamilton of Indiana and Dorgan of North Dakota calls for immediate release of FOMC minutes and regular meetings between the administration and the central bank.

   c. Meanwhile, Chairman Gonzalez of the House Banking Committee is looking into the way District lines are constructed and Bank Presidents are chosen--he favors having the U.S. President appoint people to positions like mine.

III. Brief overview of System

A. As you've probably discussed in your classes on money and banking, the Federal

Reserve System is best understood as having a dual nature that makes it at once public and private in its operations (Chart 2: Organization of the System).

1. This dual nature is partially reflected in the differences between the Board of Governors in Washington and the District Banks like ours in Atlanta.

2. The Board members are appointed by the President with the advice and consent of Congress; hence, the System has a public service component.

3. The District Banks are organized along the lines of private corporations.

4. They are governed by their own boards of directors and sell services to banks through our financial services business.

B. Though the more private of the Fed's operations take place at the District level, the public service activities--supervision and regulation of banks and monetary policy formulation are jointly carried out by the Board and the District Banks.

IV. Monetary Policy Formation and Implementation

A. Through monetary policy, the Fed seeks to influence anticipated economic activity by affecting the demand for and supply of money and credit.

1. Monetary policy decisions are made as to how much, if at all, pressure on bank reserve positions should be increased or decreased.

2. The Fed has three tools for implementing its strategy, all of which have their first impact on banks by affecting the cost or the quantity of reserves in the market.

   a. Banks must hold reserves as a percentage of their deposit liabilities.

   b. Clearly if reserves are made more available, banks will be encouraged to lend out more funds, thus expanding the supply of money and credit in the economy, and vice versa.

3. One tool is the power to change the reserve requirements.

   a. By forcing banks to hold a larger percentage of their deposits on reserve, the Fed would clearly restrict banks' capacity to lend money and extend credit.

   b. However, this is a rather blunt or extreme tool and is rarely used as a short-term measure.

4. The best-known tool we use is the discount rate, which is the rate of interest charged to banks who need to borrow from the Fed to make short-term adjustments to their reserve positions.

   a. Generally the higher the rate is, the more costly it is for banks to borrow reserves to meet reserve requirements.

b. A rise in the discount rate, then, encourages tighter (closer) reserve management and leads to a slower rate of bank loan expansion.

c. On the other hand, when the Fed lowers the discount rate, commercial banks can have more funds available to lend.

d. This tool is the one over which directors of the District Banks have the most influence because they can propose changes in the discount rate at any time to the Board of Governors.

e. The press pays special attention to the discount rate because increases or decreases have a direct and immediate effect on the cost of bank reserves.

B. On a day-to-day basis, open market operations is the most significant of the three policy tools.

1. These operations consist of buying and/or selling large quantities of government securities--either on an outright basis or for short periods of time.

a. When the Fed adds to its holdings of securities, it pays for them by crediting banks with reserves.

b. Similarly, a sale of securities drains reserves.

2. You need to keep in mind that some--in fact most--of our open market activity is seasonal.

3. We generally provide more reserves at Christmas time, for example, because merchants and shoppers demand more money at that time.

4. But a component of open market operations is policy-oriented and seeks to affect pressures on bank reserve positions.

   a. When we provide banks with more reserves than they need, we are easing policy.

   b. As in the cases of the reserve requirement and the discount rate, when pressure of banks reserve positions is eased they become more willing to supply credit and interest rates fall.

   c. Conversely when we provide fewer reserves, we push them toward borrowing at the discount window.

   d. In time, this affects economic activity.

C. But Fed policy is not the only factor influencing the economy at any given time.

   1. The government's fiscal policy--budget and taxation--carries its own consequences.

2. In our global economy, the policies of foreign governments have an impact on the U.S. economy.

3. And other factors whose effect is very difficult to foresee, such as oil supply shocks and demographic shifts, also add to the mix.

D. Thus two major points about the process of devising this strategy bear emphasizing at the outset.

1. The environment of the policymaker is dominated by uncertainty.

    a. From the standpoint of economic research, one can project ideal conditions and devise models to deal with them;

    b. But in the real world of markets, no model can cover all the myriad possibilities that might occur.

2. Successful policy reflects dealing with uncertainty in the short run in a way that makes sense in the long run.

    a. In other words, we maintain a vision of the economy in terms of optimal performance under the conditions we project 6 months to 18 months down the road;

    b. Then enact day-to-day decisions with that vision in mind.

3. Thus I'll try to give you a sense of how our daily, weekly, and monthly decisions fit together--even though on the surface they may appear to conflict.

E. Long-term objectives represent desired values for real income--usually expressed in terms of real gross national product (GNP)--and for employment and prices.

1. In general, we want GNP to grow as much as possible without bringing on inflation; and we want unemployment to be as low as possible.

2. These are objectives that few could disagree with--rather like motherhood.

3. And in general, we work on the assumption that the more ease there is in the amount of available money and credit, the more stimulus is provided for GNP growth; growth in turn reduces unemployment.

4. However, excess ease in money tends to be associated with inflation.

   a. If the economy is overstimulated, excess demand drives up prices.

   b. So the Fed's policymakers must walk a very thin line in striking a balance among these objectives.

5. Thus making monetary policy is rather like flying an airplane in the fog--you have a good idea where you want to go and you have instruments to

help you get there, but you can't see your objective clearly or anticipate hidden obstacles that might suddenly force you to correct your course.

6. Some have also compared it to an aircraft carrier; it takes a long time to turn the ship so charting a change in course requires a long-term vision.

F. The "instruments" that allow us to plan long-term strategy are barometers of the relative ease or tightness of money in the economy.

1. These barometers provide information on how the economy is doing before data on ultimate objectives--GNP, etc.--are available.

2. Policymakers assume that the relationship between these barometers and ultimate policy objectives are stable and adjust policy instruments in a way that generates desired behavior in the barometers.

3. During the late seventies, one group of barometers--the monetary aggregates, M1, M2, and M3--became institutionalized as intermediate targets for monetary policy (Chart 3: Description of the Monetary Aggregates).

a. The Humphrey-Hawkins legislation of 1978 requires the Fed Chairman to report target ranges for growth of the three Ms in his semiannual testimony to Congress.

b. Economists of the monetarist persuasion believe that monetary policy can be linked to the monetary aggregates, especially M1, in a fairly mechanical way, and for a while Fed policy was structured somewhat along that line of reasoning.

4. Because of deregulation and financial innovation, these measures no longer provide reliable guidance.

5. Following the growth of interest-bearing transactions accounts like NOW and money-market accounts in the mid-eighties, M1--which had been the most important of these targets--stopped behaving in the way it previously had and lost much of its value as a barometer.

6. For this reason, in 1986 we stopped setting targets for M1.

7. We still watch M1, of course, and still set targets for M2 and 3.

8. And the monetary aggregates still provide a valuable vehicle for communicating our objectives to Congress and the nation.

9. They cannot be used as the predominant intermediate target by which to put long-term goals into practice, however.

G. Instead, policy is determined through an extensive examination of current and projected economic conditions--including the monetary aggregates and interest rates along with other indicators.

V. The group that examines information about the economy and sets policy is the Federal Open Market Committee (FOMC).

A. FOMC members are the Board of Governors and the presidents of the District Banks.

1. Along with the Board, the president of the New York Fed, where policy is effected, and 4 of the remaining 11 Fed presidents vote on a rotating basis on policy decisions.

2. I was a voting member in 1988 and will be again in 1991.

3. All presidents participate in policy discussions, however, and provide the regional input that makes the System representative of the nation as a whole.

B. At its meetings, the FOMC assesses an elaborate forecast of the economy prepared by the Board's staff.

1. It is based on a large-scale model of the economy--but we also need to consider other possible factors--exogenous ones--that are not predictable.

a. We must ask what Congress might do, for example,

b. and will OPEC be able to establish effective production quotas?

2. A full-scale simulation is done about 4 times a year and the estimates are updated prior to each FOMC meeting in response to new data.

a. The simulations project for a period of 4 to 8 quarters.

b. They usually assume an unchanged monetary policy during the forecast period, although the impacts of alternative scenarios is readily predictable.

3. The forecast indicates the income, employment, and inflation that are expected to be consistent with a particular policy and assumptions about exogenous factors.

C. As I mentioned, all Reserve Bank presidents participate--along with their research directors--whether or not it is their turn to vote.

1. District Bank research staffs conduct their own discussions of the economy prior to the FOMC meeting.

a. We debate the exogenous variables and ask a lot of "what if" questions.

b. We also have a small mathematical forecasting model that projects GNP, employment, and prices.

c. And we get ideas from our directors, who report monthly on very recent developments in their industries and localities, developments often not yet reflected in formal statistics.

d. We conclude with a go-round at which each economist expresses his thoughts about what policy option should be exercised.

e. My research director and I carry this input with us to Washington as we evolve our position.

2. At FOMC meetings there is an extensive discussion of the District Banks' forecasts along with discussion of the Board's forecast.

3. The discussion opens with "what if" questions similar to those we asked ourselves in Atlanta.

D. At each meeting, the FOMC typically reaffirms the objectives for the monetary aggregates.

1. These ranges reflect the leverage the FOMC wants to exert on the economy in the long run.

a. For several years--starting in the late 1970s up until 2 years ago the FOMC steadily reduced the ranges for the aggregates to signal its desire to reduce inflation.

b. However, since inflationary pressures develop or abate slowly, the committee was not necessarily indicating that it expected to achieve lower inflation in the months ahead.

2. As I mentioned a moment ago, in recent years the relationship between

the aggregates and the economy has changed.

3. It does appear, however, that money demand, for example, is more sensitive to interest rates than it was prior to deregulation.

4. Since there are so little data available for the post-deregulation period, our estimates of money demand are still tenuous.

   a. Consequently, we did not specify a range for M1 in 1989.

   b. Since July of 1988, ranges for M2 and M3 have been 3 to 7 percent and 3.5 to 7.5 percent respectively (Chart 4: M2 Ranges, 1985-1989). This is a little lower than 4 to 8 percent range in effect for both aggregates the preceding year.

5. This past year M2 ended up just below the midpoint of its specified range, while M3 was slightly below its range.

6. Ranges for 1989 were announced yesterday by Chairman Greenspan. They are 3 to 7 percent for M2 and 2.5 to 6.5 percent for M3.

E. Because of uncertainties about the behavior of money and because it is an intermediate as opposed to a final objective, the FOMC does not aim to achieve the growth within the specified ranges irrespective of what is happening in the economy.

1. At times, the FOMC has indicated that it is willing to accept growth that

is above or below the ranges because actions to achieve growth within the range would run counter to the short-term thrust of monetary policy.

2. In the fall of 1982, for example, we purposely did not respond to above-range money growth.

   a. The country was in the deepest recession of the post-World War II era and actions to restrain money growth would have meant greater pressure on bank reserve position and rising interest rates.

   b. I'm sure you'll agree that was the right decision.

3. In 1985, when depository institutions were permitted to introduce checkable accounts that paid interest, we experienced abnormal patterns of M1 behavior that caused us to put less weight on M1 and eventually to move to M2 as a more reliable indicator of money growth.

F. Thus, in the short run, we feel reasonably comfortable in taking action that--as I noted--may, on the surface, seem to conflict with long-range objectives.

VI. How an FOMC meeting works.

A. Having discussed the mechanics of monetary policy in this rather abstract sense, I'll now try to provide a picture of how committee meetings work in a more concrete, human sense.

B. Open Market Committee meetings have been held in some form since the

1920s, but the FOMC as we know it today was established by the Banking Act of 1935.

C. Meetings are held eight times a year--the next meeting will be held Tuesday and Wednesday of next week.

   1. Members of the Committee gather around a large table in the Board's office building on Constitution Avenue in Washington with Board staff aides. A limited number of advisers are also present.

   2. The Chairman of the Board of Governors--Alan Greenspan at present--enters at 9:30 and convenes the meeting.

   3. Chairman asks to hear from the Foreign Desk.

   4. Manager for Foreign Operations from the New York Fed describes developments in foreign exchange operations.

      a. These are undertaken in concert with the Treasury and often other central banks as well.

      b. Any exchange-market intervention is initially sterilized through offsetting purchases or sales of government securities, though the behavior of the dollar may, as I noted, elicit a policy response.

   5. There is usually discussion and, afterward, the manager's operations are typically approved.

6. Chairman turns to the New York Fed's Manager for Domestic Operations who discusses open market operations and financial market developments since the previous meeting.

7. There is again a question-and-answer time and approval of operations.

8. Board staff director of research summarizes the staff outlook for the U.S. economy and highlights risks and uncertainty.

9. The presentation would seem deceptively simple to someone who is not aware of the thousands of man-hours necessary to prepare it.

   a. While the staff starts with a large structural model of the economy, estimates are adjusted on the basis of information that cannot be incorporated mechanically.

   b. For example, even after the dollar had fallen significantly, exporters to the U.S. were willing to reduce margins to maintain market share.

   c. Thus estimates of how the dollar was affecting import prices, domestic prices, and imports were likely to be off.

   d. It is difficult to model this.

   e. The staff forecast is written up in what is called the "Green Book," which we receive in Atlanta the Thursday prior to the meeting.

10. As his presentation comes to an end, several members nod unobtrusively to the secretary, who notes for the Chairman's reference that they wish to speak.

    a. A lengthy period of questioning and debate follows.

    b. A District president may mention observations from his own District that contradict the staff's presentation.

    c. He may also refer to his own staff's forecast and what differences it has.

        (1) In Atlanta, for example, we look at both a judgmental GNP forecast and one generated by a Bayesian vector autoregressive model.

        (2) My own staff prepares a "Gold Book" for me describing their outlook and policy recommendations.

    d. Someone else may point out historical cases that have similar outlines or cases that have different ones for that matter.

    e. Others may refer to conversations with business leaders indicating their outlook and plans for their companies.

11. The meeting usually breaks around 11:00, and individual conversations continue over coffee.

12. When the group convenes again, the Director for Monetary Policy presents the FOMC with three policy alternatives.

13. These have been written up in a "Blue Book" that I receive the Saturday or Sunday before the meeting.

14. Then it is time to settle on the monetary policy course of action for the next six weeks.

    a. Each of the 19 people at the table has the opportunity to comment on the information presented that morning and on the viewpoint to which his own preparation has brought him.

    b. Presidents and Governors may suggest changes to the policy alternatives.

    c. There is no particular order to the comments; discussion can be quickly concluded, or other times takes several hours, depending on how much agreement there is.

    d. The Chairman seeks to derive a consensus about policy from the views that are expressed.

    e. There can be a number of informal tallies--sort of asking voting members if they can "live with" a particular policy as opposed to being strongly in favor or opposed.

15. Governors and voting members cast votes according to roll call.

16. Dissenting votes carry an explanation that is recorded in the minutes and are released later.

17. Meeting adjourns.

D. Each voting president in turn is charged with monitoring the Fed's open market operations.

1. Assisted by his staff, he will participate each day in a conference call with the Director for Monetary Policy and the Open Market Account Manager in New York and any Governors that may want to sit in.

2. The manager typically discusses current financial market conditions and his proposed action for the day.

3. This experience adds a great deal to the perspective of each participant.

VII. At this point I would like to look in more detail at the way the FOMC develops a short-term response function to guide the manager of the System Open Market Account in New York and the methods the manager uses to execute that policy.

A. The manager of the Open Market Account, who is an official at the New York

Fed, reports directly to the FOMC.

1. He and his staff--about 60 people all told--are responsible for executing policy decisions.

2. As was the case in 1982, we may be willing, in the short run, to tolerate more rapid or slower growth in monetary aggregates than we have specified.

3. But that is only a portion of the short-run response--since there are an infinite number of ways to reach long-run goals.

B. For example, if we expect income growth to accelerate to an unsustainable pace, we might want to make policy more restrictive to prevent a build up in inflation.

1. Still, we have various ways of doing this.

   a. Could move to restrain bank reserve growth now;

   b. We could restrain growth a little bit now, raising the possibility that more might need to be done later.

2. Staff shows these alternatives to the FOMC, and members are thus permitted to incorporate their own judgments of the economy into their decision:

a. Those who are fairly certain the economy is accelerating would choose more restraint now.

b. Those less certain about the degree of acceleration could opt for gradual change.

c. Those who disagree with the forecast could favor no change or even an easing.

3. Each alternative contains short-run specifications for the manager of the System Open Market Account at the New York Fed.

a. These specify a reaction function for the Desk--one that is related to the policy thrust the committee has chosen.

b. They also condition the response to incoming information--this is basically like letting a pilot alter the course as his indicators give new information.

4. These specifications define the conditions under which the System will supply reserves.

a. For example, the Committee may choose a no-change policy--but be somewhat more willing to tighten than to ease.

b. Thus they would want the manager to react to any signs that economic growth or price pressures were accelerating but to make no change unless signs of unexpected weakness were widespread.

c. In regard to price pressures they might be especially concerned about pressures on the dollar in the foreign exchange markets and use that as a conditioning factor for the manager's response.

5. Suppose the Committee selects a modest firming of policy--to be extended under the conditions noted above.

   a. The manager would undertake to increase the pressure on bank reserve conditions.

   b. He would seek to supply reserves at a pace that was slower than the expansion in the demand for reserves.

   c. Some banks would need to meet these reserve needs at the discount window, but ordinarily banks must use the discount window only for temporary adjustments--they can't keep coming back.

   d. So in fairly short order, they begin to bid more aggressively for reserves in the overnight Federal funds market--driving the funds rate up.

   e. Ordinarily, the FOMC will indicate how much leeway the manager has in increasing pressure on bank reserve positions, and it also specifies a range of allowable variation in the Federal funds rate.

f. A firming of pressures on reserve positions will spill over to other interest rates, thereby affecting the demand for money and credit--and the economy.

6. The impact of such actions is greatest on short term rates of interest.

a. If, for example, market participants thought that we were being "too tight" and that the economy would weaken significantly, then long-term interest rates might decline relative to short term ones and the yield curve would flatten (Chart 5: Yield Curves [comparing present flat curve with the steeper curve of Oct. 16, 1987, just prior to stock market crash]).

b. If they thought we were "too easy" the yield curve would get steeper, reflecting expectations that interest rates would need to rise by more later on.

C. Procedures also allow for flexibility.

1. Clearly, after the decline of the stock market in October of 1987, the manager was able to quickly shift direction and provide for increased demands for liquidity.

2. Each FOMC directive contains provisions for the FOMC to be consulted by the manager if important or unexpected developments arise in the period between meetings.

VIII. Now that we've seen how monetary policy formation works in theory, let's take a look at how the process was applied in 1988.

A. The results of an FOMC meeting are released shortly after the following meeting.

B. The reason for the lag is to provide the System with flexibility to alter its course of direction if needed.

1. For example, after the 1987 stock market crash, we did have some concern about financial market stability.

2. Announcing our deliberations on this as they progressed would not have been helpful in my view.

C. Reading the records of policy actions taken as printed in the <u>Federal Reserve Bulletin</u> can give you a picture of what data FOMC members considered to be the most relevant economic data during a given period.

D. The most recent meeting that is a matter of public record was the December 19, 1989 meeting.

1. At that time, the Committee said that economic activity was expanding slowly in the fourth quarter of 1989, and members emphasized that the economy was likely to remain sluggish at least over the near term.

2. Some members were particularly concerned over weaknesses in the

automobile industry and in commercial and residential real estate that might lead to wider softening in the economy; others, however, saw more favorable prospects for some strengthening of the expansion later in the spring once current difficulties were worked through.

3. At the same time, it appeared that inflation had risen more slowly than earlier in the year with few indications of increased price pressures in the offing.

4. Thus, the members focused on the possible need to provide greater assurance that weaknesses in demand would not persist or deepen, and a majority indicated that they viewed this risk as sufficiently high to justify an immediate move to slightly easier reserve conditions.

5. Two members--Governor Angell and President Melzer of the St. Louis Fed--dissented, saying they would prefer policy to remain unchanged.

IX. To round out my presentation--and set the tone for monetary policy in the year to come--I'll conclude with my outlook for the economy in the year ahead.

A. In the year just ended, real GNP grew 2.9 percent on a year-over-year average basis.

1. The unemployment rate continued to decline on an annual average basis, falling to 5.3 percent last year Chart 6: Quarterly GNP growth, 1983-1989).

2. At year's end, prices as measured by the consumer price index were 4.8 percent higher than in 1988.

B. I believe that growth in this country will slow in 1990; real GNP should decelerate to 2 percent or just over that figure for the year.

1. With slower growth than in 1989, the jobless rate could edge up slightly to 5 1/2 percent.

2. But slower growth should also keep price pressures in check, holding inflation to around 4 1/2 percent after a spurt early in the year.

C. Unlike recent years, when consumption or export-driven manufacturing has been a clear leader in pushing growth, I do not expect one particular sector to set the pace in 1990.

1. Indeed, the kind of growth I anticipate should be largely a result of momentum from past expansion that is rather evenly distributed among the various parts of the economy.

2. Among these, personal consumption, spurred by continued growth in employment and personal income, should be one force helping the economy along.

3. A second, though more moderate, positive input is likely to come from business fixed investment, especially for computers, aircraft, and

industrial equipment--as opposed to investment in new factories and the like.

4. Real net exports, too, will contribute by improving modestly in 1990 because the dollar is still about 30 percent below its high-water mark of 1985 and the economies in the industrialized countries are much stronger than when the dollar was previously at this level.

5. Finally, I look for a good year in agriculture in most of the country, assuming the weather cooperates.

6. On the other hand, auto sales, residential construction, and government purchases are the weaknesses I see in next year's economic picture.

   a. It seems people may be holding onto their cars longer, perhaps because of improved quality or the growing use of five-year financing.

   b. Demographic factors should hold housing demand in check as well. In the generation following the so-called baby boom fewer families are being formed each year compared with the situation in the last decade.

   c. Government spending is also slowing--though not quickly enough to suit me. Still, fiscal stimulus will probably diminish.

7. Aside from these soft spots, the dark cloud on an otherwise bright

horizon is still inflation (Chart 7: Total CPI with Energy and Non-energy Components, 1984-1989).

a. In addition to temporary weather-induced pressures, we will continue to experience growing labor shortages due to demographic shifts.

b. These fundamentals suggest that no significant letup in price pressures is likely in the early years of this decade unless we are willing to tolerate slow growth for a sustained period.

X. I've tried to give a fairly thorough assessment of the monetary policy function at the Fed from defining its place among the three businesses of a Federal Reserve Bank through the mechanics of decision-making to a look at the factors that will influence monetary policy in the year ahead. At this point, then, I'd like to get some input from you and spend the remainder of our time together clarifying issues about which you may have questions or exploring in more detail areas that you would like me to develop for you.