I. Good afternoon. Today I want talk about the problems of conducting monetary policy in the 1990s—now that the monetary aggregates have proved unreliable.

A. The source of the problem is the irresistible tide of financial deregulation and innovation that began 20 years ago.

1. As the tide swelled, it swept through the financial markets and shook the stability of the monetary aggregates.

2. As a result, the aggregates were no longer reliable indicators of monetary policy.

3. Moreover, they were confusing to the public who may watch them to help figure out the stance of monetary policy.

   a. M1, which used to be our main indicator, has been soaring for three years.

   b. But M2, which replaced M1 as our prime indicator, has been feeble.

   c. And contrary to either indicator, we’ve had moderate growth and well-behaved inflation.

B. So my focus today will be

1. on how we’ve been handling policy without reliable aggregates,

2. and on a couple of options under discussion.

II. To set the stage, let me touch on the current economic situation.

A. I think this year we’re likely to see moderate economic growth—around 3 percent, compared with the 2½ percent we’ve averaged so far in this expansion.

B. Why has growth since 1991 been so gradual? Why haven’t we had the boom we usually get after a recession?
C. Basically because the U.S., and many of our major trading partners, are in a stage of transition—a stage marked by disinflation and fiscal restraint.

1. For example, the anti-inflation stance of Canada, Japan, Germany, and indeed, most of Western Europe, has led to slow growth in the U.S. and abroad, and in some cases, to outright recession.

2. The defense cut-backs and other deficit-reducing measures here in the U.S. also are an important factor.

D. The Fed’s role in this recovery has been to lower interest rates.

1. As you know, short-term rates are now about a third what they were in 1990.

2. But we’ve lowered them cautiously because of our concerns about inflation.
   a. Like many of the other central banks, we want to bring inflation down and keep it to levels where it won’t distort economic activity.

E. Although a policy of lowering inflation has its costs in the short run, it is worth it, because, in the long run, inflation reduces economic well-being.

1. For one thing, inflation often is associated with uncertainty about future inflation, which fosters higher long-term real interest rates.

2. Uncertainty also complicates the planning and contracting businesses do that’s so essential to capital formation and drives people to wasteful hedging activities.

3. Finally, inflation heightens the distortionary effects of our tax system.

III. Now comes the problem of implementing a low-inflation policy without relying on the monetary aggregates.

A. The beauty of the aggregates was that they helped us solve the "lag problem"—that is, the classic "long and variable lag" between policy actions and inflation -- probably 1 ½ to 2 years.

1. The aggregates were
a. easily measured,

b. we could control them reasonably well in the short run,

c. and they had a fairly stable relationship to long-run inflation.

B. What happened to them?

1. Well, to summarize almost 20 years in a single phrase, a tide of deregulation and innovation swept through financial markets.

a. Interest rate ceilings on deposits were eliminated,

b. new substitutes for deposits in M1 and M2 cropped up,

c. and it got a lot cheaper to shift funds from one instrument to another.

2. Of course, this tide of innovation and deregulation has been great for the overall economy:

a. It’s brought us more choices than ever to manage our financial affairs,

b. and it’s made financial markets far more dynamic and efficient.

C. But for us monetary policymakers, the tide swept away the old aggregate landmarks we relied on.

1. Growth rates of M1 and M2 no longer give us dependable information about future inflation--

a. they often just reflect portfolio substitutions.

2. Let me give you an example.

a. Over the past two years, M2 growth has slowed dramatically—to an average of only 1 1/2 percent.

b. If M2 were a reliable indicator of future inflation, it would imply outright deflation in 1994.
(1) With inflation currently a little below 3 percent, that's clearly wide of the mark.

c. Why did M2 growth slow so dramatically?

d. One important reason is the steep yield curve of the last few years.

(1) Households simply switched out of short-term, low-yielding M2 holdings and into long-term, higher-yielding stock and bond mutual funds.

D. Now, I don't mean to imply that because we've lost the aggregates as reliable indicators, we're helpless.

1. We've always looked at a number of real and financial variables.

2. And our decisions have been based on a good deal of intuition and judgment.

3. And I think we've done fairly well.

a. Real GDP growth has been respectable,

b. and inflation has come down.

(1) The core inflation rate is now below 3 percent--far better than the 4 to 4½ percent rates we saw around the turn of the decade.

E. Still--although I think we're in a good position to make further gradual progress on inflation, I'd certainly be more comfortable about it if I could look at a reliable leading indicator of inflation.

1. Several indicators or targets have been suggested in recent years. I'd like to focus on two.

IV. The first is the real interest rate.

A. It's appealing because it has a direct effect on business and household spending decisions.

B. But it also has problems.

1. Real interest rates are hard to measure because they depend on expectations of future inflation.
2. And the Fed can’t target real interest rates beyond the short run because they’re determined by market forces.

3. Finally, real interest rates are meaningful indicators only compared with a benchmark—an equilibrium real rate—that would be consistent with full employment.
   a. That equilibrium rate isn’t directly observable, and it’s difficult to estimate, because it’s affected by things like productivity, government spending, and income tax rates.

C. So I don’t think real interest rates are a good candidate for the Fed’s main inflation indicator.

D. That doesn’t mean real interest rates are never useful.
   1. If real rates stay very high or very low, that can be a warning sign.
      a. Look at the 1970s, for instance.
      b. Real rates were persistently negative, and that meant a lot of inflationary pressures were building up.

2. More recently, in the past year or so, short-term real rates have been close to zero.
   a. Is this an early warning?
   b. Well, let’s say this situation does bear watching.

V. The second approach uses targets for aggregate demand, or nominal GDP.

A. Nominal GDP is appealing because
   1. its long-run relationship with inflation is relatively stable.

   2. Furthermore, it will remain stable unless there’s a sudden dramatic change in the trend growth of real GDP.

   3. So it’s clearly immune to the effects of financial change that have undermined the monetary aggregates.
B. The problem with nominal GDP is that it doesn’t respond to policy actions as quickly as money did,

1. though the lag is shorter than the inflation lag.

C. Some recent research [by Bennett McCallum at Carnegie-Mellon and John Taylor at Stanford] on "feedback rules" suggests a way around this lag problem.

1. The rule provides "recommendations" for policy in the short run that are designed to control nominal GDP—and therefore inflation—in the long run.

2. The policymaker sets a target for nominal GDP that’s consistent with the inflation goal.

3. Then, if the latest quarter’s actual data are outside the target, the formula indicates by how much the funds rate should be raised or lowered.

D. Let me give you an example based on one version of the rule the staff at the San Francisco Fed has explored.

1. Suppose the inflation target is 1 percent.
   a. To allow for trend growth in real GDP of about 3 percent, a nominal GDP growth target would be set at 4 percent.

2. Now suppose actual nominal GDP growth in one quarter comes in at 5 percent.
   a. That feedback rule would call for raising the funds rate by 20 basis points.

3. And if the nominal GDP came in at, say, 3 percent in the following quarter, the rule would call for dropping the funds rate by 20 basis points.

E. So with this approach, policymakers would have a guide for responding to actual recent data on aggregate demand and have more confidence that they’d hit their inflation target in the long run.

F. Of course, this approach is still in the research stage.

1. And, I personally wouldn’t be comfortable with strictly following any formula.

2. But I think this approach merits consideration.
a. The policy recommendations it generates might be a useful input that gives us a benchmark in making judgmental moves.

VI. My aim today was to bring you a little closer to some of the issues involved in conducting monetary policy in the 1990s—a time of worldwide disinflation, fiscal restraint, and continuing dynamism in financial markets.

A. As I hope I’ve convinced you, replacing the aggregates as indicators for policy isn’t going to be easy.

1. They not only served as a guide for monetary policymakers,

2. but they also gave useful signals to everyone else about the future effects of policy.

B. Even without useful guidance from the aggregates, though, we’ve managed to lower inflation.

1. So let me conclude by assuring you that the erosion of the aggregates as reliable inflation indicators hasn’t eroded our commitment to moving gradually toward zero inflation,

2. which I believe is the best way the Fed can help the U.S. economy achieve its maximum growth potential.