Madison, Wisconsin - August 30, 1968

Mr. Francis' 15-minute presentation

Fractional Reserves, Monetary Policy Tools and the Role of Money.

A. Fundamentals of a Fractional Reserve Banking System

1. In the United States, commercial banks operate on a fractional reserve ~~system~~ basis. National and other Federal Reserve member banks are required by law to hold a certain percentage of their deposits as vault cash or deposits at the Fed.

2. Under this system, the volume of loans and investments that commercial banks can ~~extend~~ hold is determined by the availability of cash resources to provide the required reserves against the deposits that result from such loans and investments.

B. The "Tools" of Monetary Policy.

1. The Federal Reserve System has three principal "tools" at its disposal to influence both the reserve base of the banking structure and the volume of bank credit and deposits:

a) Reserve Requirements
The establishment of a relation between amount of deposits and legal reserves, e.g., now from 7 to 22 per cent on demand deposits, 3 to 10 per cent on time.

b) ~~Control of the amount of reserves, chiefly by means of determining the amount of Treasury securities held by the Fed., e.g., about 51 billion.~~
Two chief ways Fed influence - holding of gvmt securities and loans to banks

Stet

(1) ~~c)~~ Holdings of Treasury obligations can be changed

~~G. Heimstetz~~

B. 1. ~~g~~) cont'd.

from day-to-day and provide great flexibility. When the Federal Reserve ~~wants~~ finds it advisable to ~~expand the money supply~~ operate expansively, it provides additional reserves to the banking system by buying U. S. Government securities in the open market. When this occurs, the Federal Reserve pays for the securities with a check drawn on itself that is given to the seller of the securities. The check finds its way to a commercial bank and then comes to the Reserve Bank as a credit to the reserve account of a member bank. Since no other member bank's reserve account is reduced with the process, there is an increase in both total bank reserves and the capacity of the banking system to expand loans and investments and thereby deposits. The money supply is increased and, ~~presumably~~, the volume of money influences total spending, production and prices.

[illegible]

(2) ~~a)~~ ~~[illegible]~~ ~~[illegible]~~ Fed. [illegible] operations

C. The Relationship Between the Supply of Money and Total Spending.

1. In general, most bankers and businessmen would readily agree that monetary policy does have an effect on total spending. Overall, increases in the amount of money and credit are associated with increased total spending. Conversely, restrictions on money operating with a lag

C. 1. (cont'd)

are generally thought to be a restraining influence~~s~~ on consumption, and investment.

2. We should be somewhat more analytical in our appraisal of the relationship between money and spending. There are three questions that seem appropriate in making our appraisal:

   a) What is money?

   b) How should the supply of money or changes in the money supply influence economic activity?

   c) What evidence do we have to support these claims of such a relationship?

3. Money is a common word in everyday usage. Yet there is some controversy over which assets are, and, which are not, money.

   a) Ordinarily, money is defined as those financial assets that serve as a medium of exchange;

      - M_1 vs. M_2
      - Credit vs. Money
      - Interest rates

   b) In the U. S. the money supply is normally defined ~~taken~~ to include demand deposits at commercial banks and currency and coin;

      - Amount ~~190~~ 198 billion (~~42~~ 45 billion currency)
      - M_2 ~~380~~ 395 billion (~~148~~ 196 billion time deposits)

C. 3. cont'd.

c) There are some economists who would include all very liquid assets - those that are convertible on an immediate basis into demand deposits or cash - such as savings - deposit type balances at ~~commercial banks~~ or thrift institutions;

d) On balance, there is still lack of uniformity regarding the definition of money.

4. One of the central unresolved questions in monetary economics centers on the transmission path over which the growth of money has its effect on the ultimate economic policy goals of full employment, maximum production, stable prices, sustainable growth and equilibrium in international transactions.

5. To put the discussion in perspective, we recall that:

a) Federal Reserve monetary actions have their primary effect on the reserves of the commercial banks ($~~26~~ 27 billion).

b) ~~That~~ the volume of commercial bank credit (loans and investments) and the principle component of the money supply - demand deposits - are largely determined by the volume of <u>commercial</u> <u>bank</u> <u>reserves</u>.

C. cont'd.

6. As a first approximation, therefore, it seems reasonable to assume that the initial impact of monetary policy changes are felt by the member commercial banks; first in the amount of their reserves and then on their loans, investments and deposits.

7. Many analysts ~~economists~~ assume that aggregate income is the preferred ultimate target on which monetary policy has its effect since income influences consumption and business investment to a considerable degree and these in turn have an impact on employment, production, prices and so on.

8. A most debated question is whether total spending is most influenced through bank credit or through the quantity of money.

   a) Some economists argue that there is a direct relationship between bank reserves, money holdings, spending and income;

   b) Others argue that the principal path is: Changes in the quantity of money lead to changes in interest rates or the "cost of capital," which is one determinant of business investment - the unstable component of income.

   c) Still others argue that changes in quantity of money lead to changes in interest rates and asset prices and all other prices, which have an impact on both consumption and investment and, ultimately, on income.

C. cont'd.

9. The lack of a uniform view extends inside of the Federal Reserve System also. Some of us hold ~~strongly~~ to the view that the System's role is to bring about changes in the money supply and that free market forces will lead to the proper change in total spending (income). Others argue that monetary policy formulation should encompass changes in a range of interest rates and asset prices to influence spending (income).

10. Most of the empirical research bearing upon the problem indicates that there is a consistent relationship between changes in the money supply and changes in spending (income), but that increases and decreases in money are not, in a statistical sense, the strongest factor influencing similar movements in spending (income). Further, many economists and financial analysts claim to have proof of a six month (average) lag between changes in policy and the effect on spending (income).

11. There are many who argue that lack of really substantive evidence related to the theoretical concepts of the monetary policy mechanism and empirical support for the idea of a fixed lagged relationship between monetary policy actions and changes in (income) means that the judgment of policy makers is still superior to the concept of mone-

C. 11. cont'd.

tary policy as setting and seeking measurable monetary objectives. This analysis seems to conclude that the System's primary focus should be on attempting to create appropriate conditions in money and capital markets as each developing situation unfolds. We certainly learned during 1966 that, in a restrictive situation, monetary policy can cause a "Credit crunch" in the money and capital markets and have a restraining impact on spending in a number of sectors of the economy. Of course, the reaction time of each sector varies in time and magnitude - but this is due, in some measure, to structural arrangements in the economy.