

Q. How Does the Federal Reserve's Lowering Interest Rates Affect the Economy? by Yoshi Fukasawa, Ph.D.

Created by Congress in 1913, the Federal Reserve System is the central bank responsible for general monetary and credit conditions in the United States. It is an independent agency within the U.S. government¹. Although it serves public interest, the Federal Reserve System is owned by member commercial banks and supported only by the income generated from various operations within the system. The Federal Reserve has been given the nickname of the "Fed" by its many watchers.

Among several functions of the Fed, the most important is the formation and implementation of the nation's monetary policy in pursuit of macroeconomic goals of full employment and price stability². Monetary policy is implemented by the 12 voting members of the Open Market Committee: seven members of the Board of Governors; the president of the Federal Reserve Bank of New York, and the presidents of four other Federal Reserve Banks, who serve on an annually rotating basis. The Committee holds its regular meeting in Washington, D.C. approximately every six weeks.

The Fed attempts to achieve its macroeconomic goals by using mainly three tools, called the monetary instruments: the discount rate, the reserve requirement, and the open market operations. The discount rate is an interest rate charged on a loan made by a Federal Reserve Bank to a depository institution. This is the only interest rate officially set by the Fed, but considered by some economists to serve as a signal of a monetary policy to come³.

The reserve requirement represents the obligation of depository institutions such as commercial banks, savings and loan associations, and credit unions, to maintain a certain percentage of their deposit liabilities in reserves. Contrary to general public belief, the main purpose of the reserves is not to safeguard deposits. A change in the reserve requirement is another tool, albeit seldom used, for the Fed to change the supply of money in the economy. Today, the safety of deposits at virtually all commercial banks is insured by the Federal Deposit Insurance Corporation (FDIC).

Open market operations, the most frequently used and most effective tool among the three, are buying and selling of government securities, mainly U.S. Treasury bills and bonds, in an open market to change the amount of excess reserves held by depository institutions. The excess reserves are the actual reserves over the legally required amount. Financial institutions change their loan behavior depending on the excess reserves held: increasing loan activities when more excess reserves become available and reducing loans when excess reserves become exhausted. Financial institutions have an incentive to loan out as much excess reserves as possible to maximize their income, for money left idle in their vault does not generate income.

When faced with a threat of recession as a result of a faltering demand in the economy, the Fed attempts to reinvigorate the economy by prescribing what many economists call an "easy money" policy. An easy money policy is an action by the Fed to make more money and credit available so that the cost of using money, the interest rate, becomes lower. The Fed typically employs an open market operation, buying government securities at the Domestic Trading Desk of the Federal Reserve Bank of New York⁴. The Fed's purchase of government securities immediately raises the total volume of reserves available in the banking system. A rise in reserves lowers the short-term nominal interest rates such as the federal funds rate, the rate charged on overnight inter-bank loans. The Fed is said to set a "target rate" for the federal funds rate to gauge the level of reserves appropriate to a given monetary policy. Because prices are slower to change, a lower short-term nominal interest rate reduces its real interest rate, the interest rate adjusted for inflation.

Lowering of short-term real interest rates, and eventually long-term rates, can have a broad and deep impact throughout the economy. Lower real interest rates stimulate business investment by making more investment projects profitable, allowing for an expansion of capacity and efficiency. With a reduced cost of investment, more machines and equipment will be bought, new factories and warehouses built, and additional stores and apartment buildings opened. Businesses may also increase production because of a lower cost of financing inventories. A fall in interest rates thus peps up investment and production.

Lower interest rates may also affect businesses investment in another way. Because fixed-rate investments such as Certificates of Deposits (CDs) and other saving accounts now earn a lower return, the holders of wealth would switch their portfolios to more of variable-rate investments such as stocks. This increased demand for stocks may cause a stock market to rally. For this reason, investors in the stock market generally embrace the news of a lower interest rate. An increase in the value of stocks, in turn, makes it easier for businesses to issue more stocks or to borrow funds to finance additional investment.

Declining real interest rates also induce consumers to increase their purchase of durable goods by making it cheaper to buy the goods on credit. Consumers typically buy automobiles, appliances, and home furnishings on credit. The impact of a lower interest rate on the economy can be substantial, considering the fact that consumer spending accounts for about two-thirds of the nation's total expenditures.

Lower interest rates, especially long-term rates, can also encourage potential home buyers to purchase or build a new house. Expectations of a future capital gain, a home price being perceived

to rise faster than the inflation rate, can further entice the purchase of a new home. A steep, sustained rise in residential construction in the early 1990s, following a monetary expansion by the Fed, played an important role in the U.S. economic recovery from the 1990-91 recession.

A decline in interest rates also affects government finance. The nation's public debt was over \$6 trillion in 2002⁵. The most significant impact of lower interest rates for federal government is the reduced cost of servicing the debt. Unlike federal government, most states, like Texas, must balance their budget each year. Throughout a given year, though, a state government often borrows to finance numerous projects or just to help synchronize its expenditures with expected revenues. This bond financing, especially for capital expenditures, is dependent on the interest rates. With a lower interest rate, it is easier and less costly for a government to finance building new schools, expanding highways, and constructing new prisons.

Lower interest rates can also affect the nation's exports by reducing the value of our currency. A declining interest rate in the domestic economy dampens demand for U.S. dollars in foreign exchange market, causing a depreciation of our currency. The weak dollars make American-made products more competitive in the world market, promoting U.S. exports.

All the added spending—new investment, additional consumer spending, more government purchases, and increased exports—tend to increase the overall demand for goods and services in the nation's economy. An increase in the total demand stimulates production, creates more jobs, and generates additional income through a multiplier effect. An easy money policy thus helps to prevent our faltering economy from getting worse and to move into a more vigorous, expanding economy.

Although most economists agree on the cause and effect relationship of money policy, some controversy exists involving the effectiveness and desirability of such a policy. The first area of dispute deals with the actual amount of deposits and reserves at depository institutions. The Fed can directly control neither: the amount of deposits is decided by the customers of financial institutions; the actual use of reserves is determined by financial institutions. An easy money policy is less than fully effective if a bank with added reserves declines to make additional loans. Fewer loans imply less borrowing, less money, less spending, and less economic activities.

The second area of controversy involves a time lag associated with monetary policy. Some time usually lapses before monetary policy begins to produce its expected result in our economy. It is estimated that it takes at least 6 months and longer for monetary policy to have an impact on production, employment, income, and

prices.⁶ Worse yet, a time lag is variable and unpredictable. The lag may cause ill timing of monetary policy, producing undesirable effects. For instance, if the economy recovers sooner than expected, an easy money policy may begin to produce its stimulating impact when there is no longer a need for added spending. In fact, this added spending may magnify the cyclical movement of the economy. Because of this uncertainty related to a policy lag, some economists have advocated a constant money growth, arguing for the wisdom of leaving alone the natural fluctuations in the economy.

The third area of debate arises from the use of monetary policy when the economy enters a recession caused by a supply shock, such as natural disasters, agricultural crop failures and oil embargos. Money policy is ineffective in combating a decline in the aggregate supply. An easy money policy may help recover employment and output in the short-run, but may eventually rekindle inflation in our economy.

Notes

1. The single best source of information on the Federal Reserve System is the Board of Governors, Purposes & Functions, 8th ed. (Washington, D.C.: The Federal Reserve System, 1994)
2. Monetary policy is often coordinated with a fiscal policy designed and implemented by the Office of the President and the Congress to achieve the macroeconomic goals.
3. Michael B. McElroy, *The Macroeconomy*. (Upper Saddle River, NJ: Prentice Hall, 1996), p.175.
4. A day-to-day operation of the Trading Desk is described in detail in Ann-Marie Meulendyke, *U.S. Monetary Policy & Financial Markets* (New York: Federal Reserve Bank of New York, 1998), pp.173-185.
5. The Council of Economic Advisors, *Economic Report of the President, 2003* (Washington, D.C.: U.S. Government Printing Office, 2003), p. 424.
6. N. Gregory Mankiw, *Macroeconomics*, 5th ed. (New York: Worth Publishing, 2003), p. 382.

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The views expressed in the Ask the Expert column are not necessarily those of the Labor Market Information Department or the Texas Workforce Commission. Information on various topics is offered here as a service to our readers in the spirit of providing a broader understanding of the important economic issues facing the state.

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