

CASE STUDY: JAPAN'S LOST DECADE

Japan's "Lost Decade" is the term for the economic crisis that hit Japan in the 1990s. During this period, Japan experienced low to negative economic growth and declining prices. In response, the Bank of Japan progressively cut interest rates, and by the late 1990s, the interest rates had dropped to almost zero. Japan was caught in a liquidity trap. Despite its efforts, the Bank of Japan could not stimulate spending. Chronic disinflation (inability of prices to go up as fast as before) and deflation (fall of prices because of decreased spending) were constant problems. In the early 2000s, to spur demand, the Bank of Japan implemented quantitative easing. This policy involved expanding the monetary base and targeting money growth instead of interest rates. The Bank of Japan held the interest rates at zero and raised the money supply through purchasing assets. That strategy worked to stabilize prices, but only temporarily. Deflation kept coming back. Throughout the 2000s, Japan continued to fight against declining prices.

ECONOMIC PRINCIPLE

Monetary Policy by Rule

Monetary policy by rule is a school of macroeconomic thought associated with Milton Friedman and the monetarist tradition. This concept asserts that the Fed should adopt a predetermined set of rules focused on maintaining a steady growth rate of the money supply.

PROGRESS-CHECK QUESTION

How does a liquidity trap scenario limit the Fed's ability to stimulate the economy?

QUANTITY THEORY OF MONEY

When the Fed conducts the monetary policy, it is managing the relationship between money supply and inflation.

QUANTITY THEORY OF MONEY Theory that a relationship exists between money supply and inflation by assuming that velocity is constant.

The quantity theory of money, developed by economist Irving Fisher, explains the correlation between money supply

and price level. This theory comes from the quantity equation:

$$MV = PY$$

Here, M is the nominal money supply. V is the velocity of money or the number of times each dollar is used (or changes hands) in a given period. P is the price level. Y

is the real GDP (gross domestic product). In other words, the quantity equation states that the total amount of money in the economy (M) when multiplied by the number of times it is used in a given period (V) is equal to the market value of final output produced in the economy within that period (P) in current prices or nominal GDP (Y).

VELOCITY Number of times each dollar is used (or changes hands) in a given period.

For example, consider an economy that only produces sweaters. Suppose that 100 sweaters are produced in a year, and each sweater is sold for \$20. Nominal GDP would be 100 sweaters \times \$20, or \$2,000. Suppose, also, that the total amount of money in this economy is \$1,000. Velocity would then be the nominal GDP divided by the money supply (\$2,000 \div \$1,000, or 2). This means that to have a nominal GDP of \$2,000, each dollar must be used twice in an economy with \$1,000. For small percentage changes, the quantity equation can also be written as

$$\begin{aligned} \% \text{ Change in } M + \% \text{ Change in } V \\ = \% \text{ Change in } P + \% \text{ Change in } Y \end{aligned}$$

In percentage-change terms, the quantity equation states that the percentage change in the money supply (M) plus the percentage change in velocity (V) is equal