

Negative Interest Rates

April 20, 2016 (IN10481)

-|

Related Author

- [Marc Labonte](#)

-|

Marc Labonte, Specialist in Macroeconomic Policy (mlabonte@crs.loc.gov, 7-0640)

What Are Negative Interest Rates?

Typically, borrowers need to pay a positive interest rate to entice a saver or investor to lend their funds instead of spending them. Negative rates are the opposite—savers who do not want to spend their funds are willing to pay borrowers to accept them.

In theory, nominal rates should never be negative because investors are better off holding currency, which earns a zero nominal rate, instead. In practice, holding large sums of currency incurs a convenience cost—it is bulky and can be lost or stolen. Buying a safe or renting a security deposit box are examples of costs associated with holding currency. Riskless negative rates can go at least low enough to equal the convenience cost of holding currency.

When inflation was high in the past, it was [not unusual](#) for real (inflation-adjusted) interest rates to be negative ex post. For example, if a nominal interest rate is 3%, but the inflation rate is 5%, then the investment will be worth less in the future in terms of the goods and services it can be used to purchase. In that sense, negative rates are not novel; what is novel is for nominal interest rates to be negative.

Which Rates Are Negative?

In a few foreign economies, including the euro area, Switzerland, and Japan, central banks have purposely set some short-term interest rates used to carry out monetary policy at negative levels. While each country has a slightly different monetary policy framework, the negative rates they set are most analogous in the United States to the [rate](#) that the [Federal Reserve](#) (Fed) pays banks to deposit reserves at the Fed. In countries with negative rates, banks instead pay to deposit reserves at their central bank.

In these economies, negative policy rates have fed through to some market interest rates, such as government bond yields for some maturities. Government bonds are useful to financial actors as collateral and to meet certain regulatory requirements—apparently, useful enough that investors are willing to pay for the right to own them. Even some [mortgages](#) and [corporate bonds](#) reportedly have negative rates, despite the default risk.

Why Are Central Banks Pursuing Negative Interest Rates?

In economies like the [euro area](#) and [Japan](#), central banks have implemented negative interest rates as a way to provide additional monetary stimulus at the "zero lower bound." That is, because economic growth and inflation are lower than desired with interest rates set at zero, these central banks are using negative rates to [attempt to stimulate](#) further economic activity. In that sense, negative rates are another of the unconventional monetary policy tools that central banks around the world have used in the aftermath of the financial crisis. In principle, monetary policy works through the same channels whether rates are positive or negative—reducing rates stimulates interest-sensitive spending by households and businesses, thereby stimulating the economy. The purpose of negative rates is to encourage spending and discourage saving.

The central banks of [Denmark](#), [Sweden](#), and [Switzerland](#), in contrast, have implemented negative rates primarily to reduce upward pressure on their exchange rates. Their economies are closely interconnected with the euro area, and their securities are close substitutes for euro area securities. If their interest rates are higher than in the euro area, it would attract large capital flows into their economies, thus putting upward pressure on the value of their currencies (which, in Denmark's case, could break its peg with the euro). Fearing that a stronger currency would adversely affect their exporters and import-competing firms, these countries have implemented negative interest rates to discourage foreign capital inflows that would boost the currency. Thus, negative rates also stimulate spending by putting downward pressure on exchange rates, although that has [not happened in Japan](#).

What Are Some Potential Unintended Consequences of Negative Rates?

Although the macroeconomic effects of negative rates may not be distinct from positive rates, they raise a number of more narrow issues that could potentially reduce their efficacy.

- Negative rates raise banks' operating costs. If those costs cannot be passed on to customers, they would [reduce bank profitability](#). So far, banks in countries with negative rates have not charged their retail depositors negative rates.
- If negative rates spread to safe, short-term securities, money market funds (MMFs) would be unable to maintain a stable net asset value (i.e., would "break the buck"). Since MMFs are close substitutes to bank deposits, it is unclear whether MMFs would still be attractive to investors in that scenario.
- Negative rates could raise unpredictable [logistical issues](#). For example, existing financial contracts or settlement systems might not envision a scenario where the lender would have to pay the borrower.
- Market participants would have the incentive to take actions just to avoid negative interest rates, such as increasing cash holdings, prepaying bills, or delaying receipt of payments. Those actions would use resources that [represent a deadweight loss](#) to the economy.

Could the United States Have Negative Interest Rates?

Currently, it is not anticipated that the Fed will implement negative interest rates because it recently started raising interest rates and Fed officials expect to raise them further in the future. The Fed is planning to gradually withdraw monetary stimulus from the economy as it approaches full employment, whereas negative rates would add more stimulus. Thus, U.S. economic conditions would presumably have to reverse course and deteriorate before negative rates would be considered.

It is also uncertain whether the Fed has the legal authority to impose negative rates. According to Fed Chair [Janet Yellen](#), "I am not aware of any legal restriction that would mean that we could not establish negative rates, but I will say that we have not looked carefully at the legal side of this" because the Fed has never seriously considered using them.

U.S. market rates have also remained positive, with the exception of a few isolated incidents. Short-term Treasury securities have briefly traded at negative yields on secondary markets a [few times](#) recently due to temporary liquidity shortages.