Does the Fed Drive Interest Rates?

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Interest rates exert tremendous influences on our daily lives--some obvious and some obscure. Helping students to understand interest rates and the Federal Reserve's connection to those rates is a challenge. That challenge is made harder by some erroneous notions' namely, that the Fed controls most interest rates and has wide latitude in setting those rates. In fact, the Fed has little or no control over most of the economy's many interest rates. And the job of controlling inflation leaves the Fed relatively little latitude over its interest rate policy.

An interest rate is the price that one person or firm pays another to borrow money for a period of time. Our economy has a multitude of rates--home mortgage rates, credit card rates, car loan rates, Treasury bond rates, savings account rates, and so on. Loans that must be paid within a year, such as credit card loans, are called "short-term," and their lenders charge short-term interest rates. Loans of longer than a year, such as car loans and home mortgages, are called "medium- or long-term" loans, and they carry medium- or long-term interest rates.

High long-term rates slow the economy by discouraging companies and individuals from investing in new factories and houses and other productive endeavors (because some investors will ask, "Why build a factory when I can earn more by leaving my money in the bank?"). Simply stated, the Fed cannot control medium- and long-term rates. Like the prices of apples and Mickey Mantle baseball cards, supply and demand determine long-term rates.

Short-term interest rates also affect the spending decisions of people and firms. Short-term rates strongly affect inflation, and that is where the Fed comes into the picture. As a general rule, reducing short-term interest rates increases inflation, and raising short-term rates reduces inflation. This powerful relationship forms the core of the Federal Reserves monetary policy. The Fed directly controls one short-term rate (the discount rate) and indirectly controls another (the Fed Funds rate). Its control over these two rates strongly influences (but does not control) other short-term rates, and the Fed uses this influence as its primary lever for controlling inflation.

A key point that emerges from this relationship is that the Fed cannot target interest rates and the inflation rate separately. If the Fed wishes to maintain a certain inflation rate, then it must keep short-term interest rates just high enough--not higher and not lower--to yield that target inflation rate. Alternatively, if policymakers decide to maintain short-term interest rates at a certain level, then they have to accept whatever inflation rate results.

One way to explain the relationship between interest rates and the inflation rate to students is by way of analogy. We can say that interest rates are to the inflation rate what an accelerator pedal is to the speed of a car. A driver has the power to determine how far from the floor his accelerator pedal will be. If he decides that the pedal should be down on the floor, his car will attain high speeds (and he may ram the car in front). If he decides that the pedal should be, say, four inches from the floor, then his car will move very slowly (and the cars behind may honk their horns).

Similarly, the Fed may decide to press its accelerator pedal down to the floor (by pushing down short-term interest rates). Then, inflation will go to high speed and the economy will suffer. Or, the Fed may lift its accelerator pedal four inches off the floor (by raising short-term interest rates), thus slowing the economy's engine and inflation.

If a driver is surrounded by cars moving at exactly 55 miles per hour on a flat roadway, then he must keep his accelerator, say, two inches above the floor--no more and no less. In a physical sense, the driver controls the pedals distance from the floor. But in another sense, the cars surrounding him determine where his pedal will be, and the driver's foot simply follows orders. Equivalently, if the Fed seeks a 3 percent inflation rate, it controls the mechanisms that determine short-term interest rates; but it is the inflation target of 3 percent, and not mere whim, that tells the Fed where short-term rates must be.

As we know, the rules of the road are not this simple for the car or for the Fed. A newspaper might describe the following chronology:

1. Inflation remained steady at 3 percent between January and June;
2. The Fed raised short-term interest rates on July 1; and
3. Inflation again remained steady at 3 percent from July to December. The reader might ask whether it was no longer true that higher interest rates slow down inflation.

For a possible answer to this conundrum, let's return to the automobile analogy. Suppose an auto is driving on a level plateau at exactly 55 miles per hour, during which time the accelerator pedal is exactly two inches from the floor. Now, suppose the road suddenly begins to descend toward the ocean. The driver eases off the accelerator pedal until it is three inches above the floor, and the car continues at exactly 55 miles per hour; the road's downward slope exactly offsets the reduced engine power. It is still true that letting up on the accelerator slows the car, but the relationship between speed and the position of the pedal is more complicated on hilly terrain.

The economy has its hills and mountains, too. And the Fed must take into account the shape of the economic "terrain" as it influences short-term interest rates. The previous newspaper account might be explained in the following fashion: the real economy (employment, production, etc.) was steady from January to June. In late June, however, Fed economists saw signs that the economy was overheating and estimated that if short-term interest rates were left unchanged, inflation would rise to 3.5 percent. Instead, the Fed eased up on its accelerator (by raising short-term interest rates), thus stopping the incipient rise in inflation. So the impact of short-term rates on inflation has not changed. Only the economys terrain has. Estimating the shape of this economic terrain is, in fact, an important part of the job of Fed economists.

Perhaps this analogy will help the economics teacher get a bit of mileage out of the students' drivers ed class. And maybe the econ teacher can be a positive influence on the students' driving habits. Who knows?