

impacts on first-period consumption. Hence, the increase in the interest rate could either lower or raise first-period consumption.

Eco 214

CASE STUDY

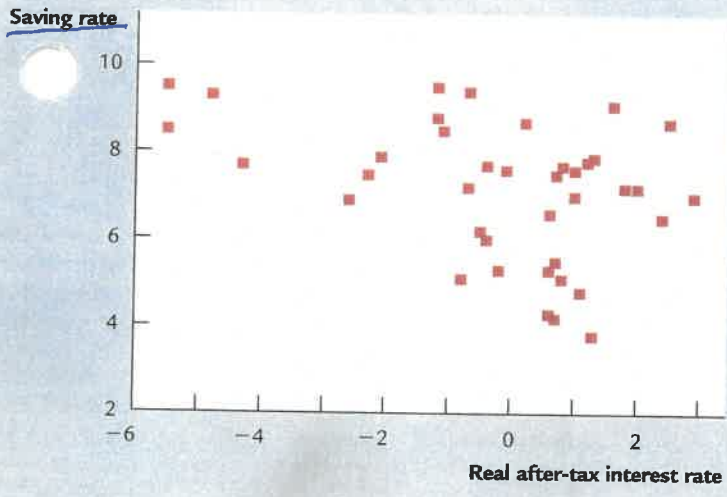
Consumption and the Real Interest Rate

Irving Fisher's model shows that, depending on the consumer's preferences, changes in the real interest rate could either raise or lower consumption. In other words, economic theory alone cannot predict how the interest rate influences consumption. Therefore, economists have devoted much energy to examining empirically how the interest rate affects consumption and saving.

Figure 16-8 presents a scatterplot of the personal saving rate and the real interest rate. This figure shows that there is no apparent relationship between the two variables. Some economists interpret these data as showing that saving does not depend on the interest rate. They explain this result by claiming that the income and substitution effects of higher interest rates approximately cancel each other.

This sort of evidence, however, is not completely persuasive. The task of estimating the sensitivity of saving to the interest rate is complicated by the identification problem discussed in Chapter 3. That is, when variables are related in more than one way, as these two variables are, it is tricky to separate one relationship from another. Nonetheless, more sophisticated examinations of the data usually find that the real interest rate has little effect on consumption. Econometrics: Regression analysis.

figure 16-8



A Scatterplot of Saving and the Interest Rate This figure uses annual data from 1959 to 1997 to examine whether there is any relationship between the personal saving rate and the real interest rate. No relationship is evident.

Note: The personal saving rate is personal saving as a share of personal disposable income. The real interest rate is the after-tax interest rate on six-month Treasury bills minus inflation rate; this was calculated assuming a tax rate of 30 percent.

Source: U.S. Department of Commerce, U.S. Department of the Treasury, and author's calculations.