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Loanable Funds Framework

Throughout this book we use diagrams like Figure 1 in Chapter 5 and analyze interest rate behavior in terms of the supply and demand for bonds. However, the analysis of the bond market that we have developed here has another interpretation with a different terminology. Here we discuss this other terminology, which is couched in terms of the supply and demand for loanable funds used by some economists. We include this discussion in case you come across this other terminology, but you will not need to make use of it to understand how interest rates are determined.

One disadvantage of the supply and demand framework for bonds using the diagram in Figure 1 in Chapter 5 is that the bond price is on the vertical axis and the interest rate is determined only indirectly from the equilibrium price of bonds (as the equilibrium price goes up the interest rate goes down). Because economists are typically more concerned with the value of interest rates than with the price of bonds, it would be nice to have a diagram in which the interest rates are on the vertical axis. Figure 1 is such a diagram, in which points A through I match the corresponding points in Figure 1 in Chapter 5.

However, putting interest rates on the vertical axis presents us with a problem. Our demand curve for bonds, points A through E, now looks peculiar because it has an upward slope. This upward slope is, however, completely consistent with our usual demand analysis, which produces a negative relationship between price and quantity. The inverse relationship between bond prices and interest rates means that in moving from point A to point B to point C, bond prices are falling and, consistent with usual demand analysis, the quantity demanded is rising. Similarly, our supply curve for bonds, points F through I, has an unusual-looking downward slope but is completely consistent with the usual view that price and the quantity supplied are positively related.

One way to give the demand curve the usual downward slope and the supply curve the usual upward slope is to rename the horizontal axis and the demand and supply curves. Because a firm supplying bonds is, in fact, taking out a loan from a person buying a bond, “supplying a bond” is equivalent to “demanding a loan.” Thus the supply curve for bonds can be reinterpreted as indicating the *quantity of loans demanded* for each value of the interest rate. If we rename the horizontal axis **loanable funds**, defined as the quantity of loans, the supply of bonds can be reinterpreted as the *demand for loanable funds*. Similarly, the demand curve for bonds can be reidentified as the *supply of loanable funds* because buying (demanding) a bond is equivalent to supplying a loan. Figure 1 relabels the curves and the horizontal axis using the loanable funds terminology in parentheses, and now the renamed loanable funds demand curve has the usual downward slope and the renamed loanable funds supply curve the usual upward slope.

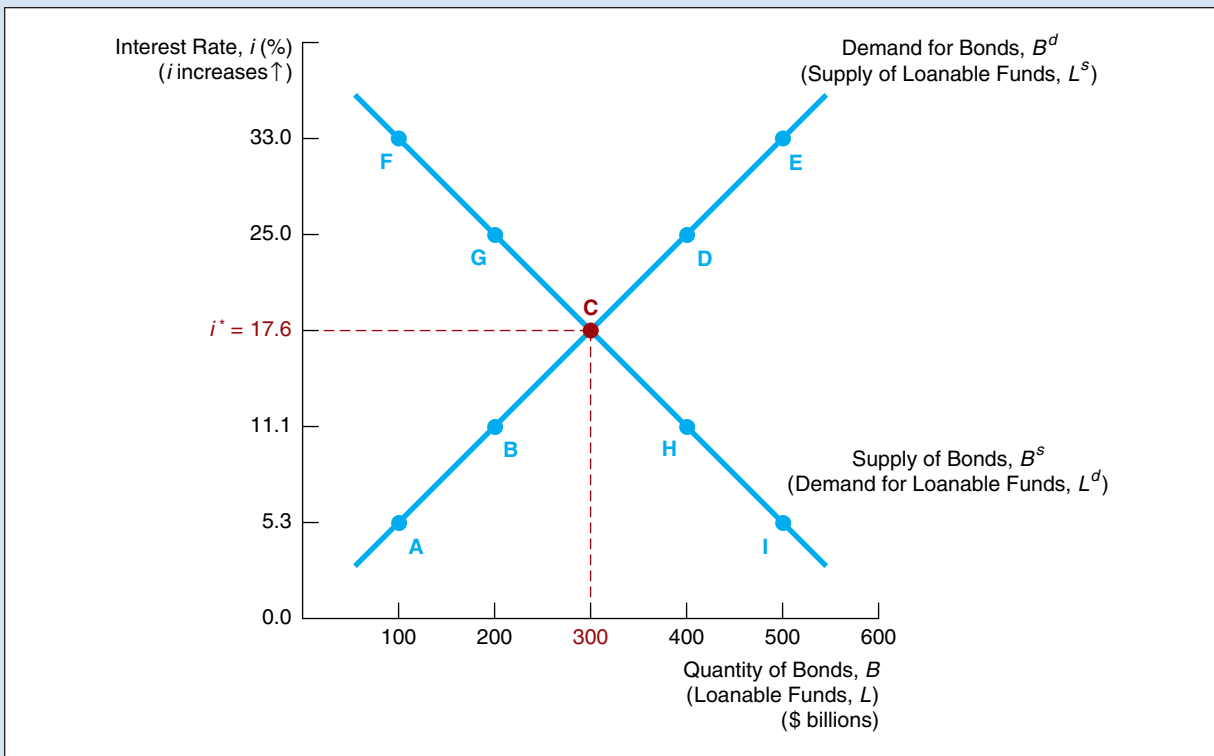


FIGURE 1 A Comparison of Terminology: Loanable Funds and Supply and Demand for Bonds
 The demand for bonds is equivalent to the supply of loanable funds, and the supply of bonds is equivalent to the demand for loanable funds. (Note: i increases as we go up the vertical axis, in contrast to Figure 1 in the text, in which the opposite occurs.)

Because supply and demand diagrams that explain how interest rates are determined in the bond market often use the loanable funds terminology, this analysis is frequently referred to as the **loanable funds framework**. However, because in later chapters describing the conduct of monetary policy we focus on how the demand for and supply of bonds are affected, in the text we will continue to conduct supply and demand analysis in terms of bonds, rather than loanable funds. Whether the analysis is done in terms of loanable funds or in terms of the demand for and supply of bonds, the results are the same: The two ways of analyzing the determination of interest rates are equivalent.

An important feature of the loanable funds analysis here is that supply and demand are always in terms of *stocks* (amounts at a given point in time) of assets, not in terms of *flows*. This approach is somewhat different from certain loanable funds analyses, which are conducted in terms of flows (loans per year).