What Is A Bond?

The ABCs of Bonds

What Are Bonds?
Imagine that you are in the ice cream store with a friend on a Thursday evening and want to get a hot fudge sundae, but you realize you don't have any cash. You know you'll be getting your paycheck the next day, so you ask your friend to lend you a few dollars so you can have the sundae now. In return for the loan, you agree to pay your friend back tomorrow and buy lunch on Saturday as well. Your friend, finding these terms to his liking, lends you the money, and you enjoy a delicious sundae.

Governments and corporations often find themselves short of cash, just as you were on Thursday. One way to generate these needed resources is to issue bonds. A bond is similar to an I.O.U. When you purchase a bond, you are lending money to a government, a corporation or some other entity, known as the bond issuer. In exchange for this loan, the issuer promises to pay you a specified rate of interest during the life of the bond and to repay the original loan (referred to as the face value or par value of the bond) when it comes due at its maturity date.

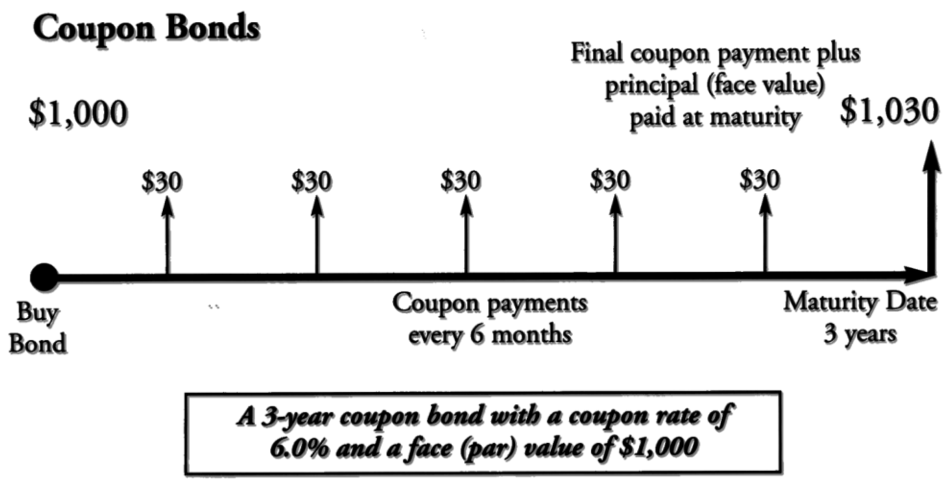
U.S. Government Bonds
When the U. S. government spends more than it collects in taxes, it borrows money by issuing bonds to cover the difference. The bonds issued by the U. S. government are called Treasury bonds. A special type of Treasury bond is a U.S. savings bond. U.S. savings bonds are issued in smaller amounts than other Treasury bonds. They are issued at half the face value and mature at face value at a date determined by the interest rate. Treasury bonds and U.S. savings bonds are widely regarded as the safest bond investments because they are backed by "the full faith and credit" of the U.S. government; an investor is therefore nearly certain to get paid back. In addition, the interest paid on U.S. government bonds cannot be taxed by state or local governments.

Municipal Bonds
Municipal bonds are issued by states, counties, cities, towns, villages and other units of local government. These bonds are considered fairly safe but are riskier than U.S. government bonds. The risk level for a municipal bond depends on the financial condition of the state or local government that issued it. The interest paid on most municipal bonds is not taxed by the federal government.

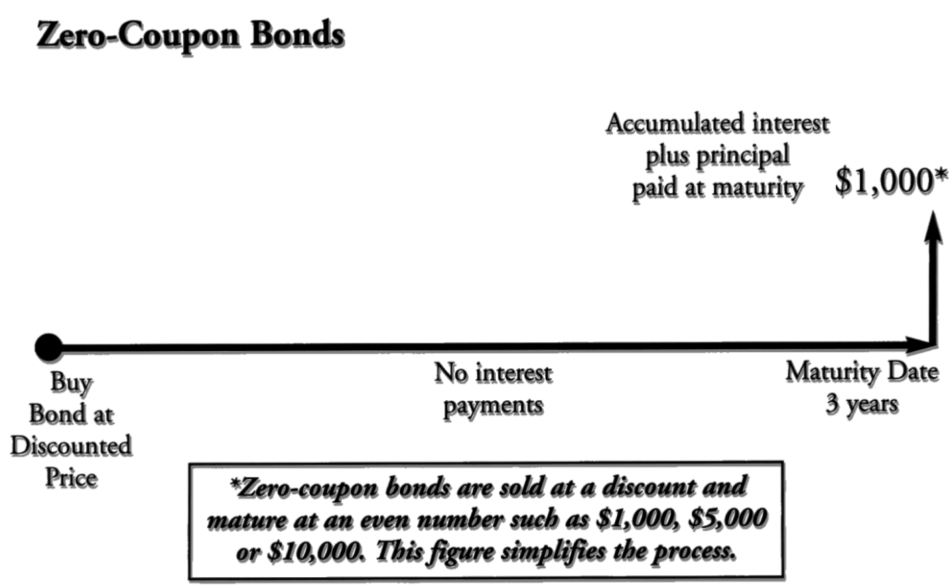
Corporate Bonds
As corporations grow, they often don't generate enough money to pay for the supplies necessary to keep growing. Many corporations issue bonds to pay for new capital equipment or to cover operating expenses. When a company issues bonds, it borrows money from investors in exchange for agreeing to pay them interest on their money at a set date in the future. Corporate bonds are generally riskier than government bonds because even large, stable companies are much more likely to go out of business than the U.S. government. Corporate bonds can also be the most lucrative bonds to invest in, as the investor is generally rewarded for the extra risk undertaken.

What Is A Bond?

How Bonds Work
The most basic bond is called a ***coupon bond***. Coupon bonds payout an interest payment (called the coupon) to the investor every six months. The principal (also called the face value or par value of the bond) is paid to the investor at a specified maturity date, which can range from a few months to 30 years. These bonds are said to be fixed-income securities because the amount the investor receives is set, or fixed, by the coupon rate. Figure 1 presents a timetable graph showing how coupon payments work.



The other common bond is called a ***zero-coupon bond***. Unlike coupon bonds, zero-coupon bonds do not make periodic interest payments to the investor. Rather, investors buy the bond at a reduced face value; then, at the maturity date, investors receive one payment. The payment is equal to the principal of the bond plus the interest that has accumulated during the time the bond has been held by the investor. A U.S. savings bond is an example of a zero-coupon bond. Figure 2 presents a timetable graph showing how zero-coupon bonds work.



What Is A Bond?

Why Buy a Bond?

Over the last 100 years, the stock market has provided the greatest return to investors. So why not just invest in stocks? Although they do not provide the same return as stocks in the long run, bonds have several characteristics that investors value.

First, many bonds provide investors with relatively safe investments. Treasury bondholders can be almost certain that they will receive the amount they originally invested, plus interest, and corporate bondholders can have nearly the same certainty. By contrast, investors can lose their entire investment in individual stocks; in fact, that outcome occurs frequently - as it did for some investors in the most recent recession.

Second, bonds pay interest to investors at set intervals, and this arrangement can provide valuable income for those who need a regular cash flow - retirees, for example. If someone owned $100,000 worth of coupon bonds that paid 8 per cent interest annually (that would be $8,000 per year), one-half of that interest would be sent to the bondholder every six months, providing income or money to invest elsewhere.

Some people buy bonds to earn capital gains. Bond prices tend to change with interest rates. When interest rates fall, bond prices rise. When interest rates rise, existing bond prices fall. Some people buy bonds to make capital gains when interest rates fall. To do this, you must sell a bond before the maturity date.

Finally, bonds can also provide a tax advantage. When a government issues bonds to raise money to build bridges or roads, the interest investors earn can be tax-exempt. U.S. Treasury bonds are exempt from state and local taxes. Municipal bonds are exempt from federal taxes. Tax exemption can be an important factor for those who are eager to reduce the amount they pay in taxes.

A Review of Bond Terminology

Bond	Bonds are similar to an LO.U. When you buy a bond, you make a loan to a government or a corporation in return for promised repayment at a specified rate of interest.
Coupon bond	A bond that pays out interest at fixed intervals (usually six months) over the time the bond is held by the investor.
Coupon	The interest payment on a coupon bond.
Face value	The price an investor pays for a bond (also called par value or principal).
Fixed-income security	An investment in which the amount of income an investor receives is set, or fixed, by the issuer.
Issuer	The entity (government or corporation) that writes the bond purchased by investors.
Maturity date	The date at which the bond matures and the final payment is made to the investor.
Municipal bond	A bond issued by state or local governments.
Par value	The price an investor pays for a bond (also called face value or principal).
Principal	The initial cost of the bond (also known as the par value or face value of the bond).
Zero-coupon bond	A bond whose purchase price is below face value. One payment is made at maturity that includes the principal plus accumulated interest.

What Is A Bond?

BOND QUIZ

____ 1. What is a bond's coupon?
   a. The value of a bond at its issue date
   b. The value of a bond at its maturity date
   c. The rate of interest to be paid by the bond issuer
   d. The purchase price of a bond

____ 2. A bond's face value may also be called the
   a. par value.
   b. coupon.
   c. maturity.
   d. final payment.

____ 3. Which of the following is the least risky investment?
   a. Corporate bonds
   b. Stocks
   c. U.S. Treasury bonds
   d. Mutual funds

____ 4. A bond's interest rate is called its
   a. par value.
   b. coupon rate.
   c. face value.
   d. principal.

____ 5. A zero-coupon bond pays interest
   a. periodically.
   b. at the maturity date.
   c. at the time of purchase.
   d. never.

Bond Ratings Activity

Bonds are generally less risky than stocks. U.S. Treasury bonds carry very little risk for the investor because the U.S. government is unlikely to go bankrupt and default on its bonds. Defaulting means the issuer is unable to make further interest and principal payments to the bond holder. Because corporations can and sometimes do go into bankruptcy, the default risk for corporate bonds is higher than the risk for government bonds.

In order to help individual investors make better decisions about their investments, many corporate bonds are rated by a third-party source such as Moody's Investor Service to help describe the creditworthiness of the issuer. The higher the rating, the less the likely the corporation will go into default. Moody's ratings for bonds are as follows:

Moody's Investor Service Bond-Rating Codes

Aaa	Highest quality
Aa	High quality
A	Upper-medium quality
Baa	Medium grade
Ba	Somewhat speculative
B	Low grade, speculative
Caa	Low grade, default possible
Ca	Low grade, partial recovery possible
C	Default, recovery unlikely

A strong relationship exists between the credit rating of a corporate bond and its coupon rate. This relationship can be determined by examining a few sample cases. The following table reports the coupon rate for three corporate bonds in several of Moody's rating codes. Each of these bonds has a one-year maturity date.

Calculate the average coupon rate for each Moody's category.
Enter the average in the third column.

Moody's Bond Rating (1)	Coupon Rate (2)	Average (3)	
Aaa	Bond 1: 4.125		
Aaa	Bond 2: 5.125		Average coupon for Aaa rated bonds
Aaa	Bond 3: 4.250		
Aa	Bond 1: 6.625		
Aa	Bond 2: 6.250		Average coupon for Aa rated bonds
Aa	Bond 3: 6.923		
Baa	Bond 1: 8.250		
Baa	Bond 2: 8.875		Average coupon for Baa rated bonds
Baa	Bond 3: 8.125		
Caa	Bond 1: 10.125		
Caa	Bond 2: 9.750		Average coupon for Caa rated bonds
Caa	Bond 3: 9.500		
C	Bond 1: 11.500		
C	Bond 2: 12.875		Average coupon for C rated bonds
C	Bond 3: 11.875		

Source: Bond coupon rates for coupon bonds with one-year maturity dates issued by corporations; obtained using a search at http://www.bondpage.com/.

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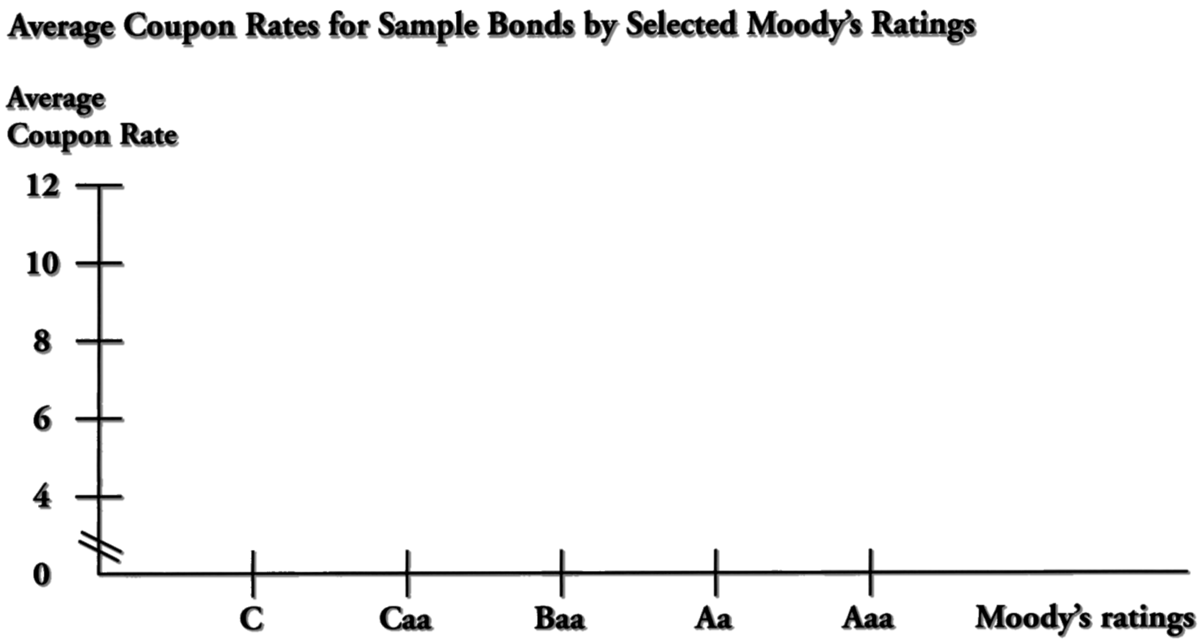
Bond Ratings Activity

Now, plot your results from the table on the diagram below.



Questions for Discussion

1. What is the relationship between bond rating and coupon rate?

2. Why do corporations with lower credit ratings offer higher coupons or interest rates on their bonds?

3. Why would investors buy a bond rated Caa or C?