## Chapter 17

[1](http://openstax.org/books/principles-microeconomics-3e/pages/17-self-check-questions#ch17mod01_sques01).

1. The management of small companies might rather do an IPO right away, but until they get the company up and running, most people would not pay very much for the stock because of the risks involved.
2. A small company may be earning few or zero profits, and its owners want to reinvest their earnings in the future growth of the company. If this company issues bonds or borrows money, it is obligated to make interest payments, which can eat up the company’s cash. If the company issues stock, it is not obligated to make payments to anyone (although it may choose to pay dividends).
3. Venture capitalists are private investors who can keep close tabs on the management and strategy of the company—and thus reduce the problems of imperfect information about whether the firm is being well run. Venture capitalists often own a substantial portion of the firm and have much better information than a typical shareholder would.

[2](http://openstax.org/books/principles-microeconomics-3e/pages/17-self-check-questions#ch17mod01_sques02).

From a firm’s point of view, a bond is very similar to a bank loan. Both are ways of borrowing money. Both require paying interest. The major difference is who must be persuaded to lend money: a bank loan requires persuading the bank, while issuing bonds requires persuading a number of separate bondholders. Since a bank often knows a great deal about a firm (especially if the firm has its accounts with that bank), bank loans are more common where imperfect information would otherwise be a problem.

[3](http://openstax.org/books/principles-microeconomics-3e/pages/17-self-check-questions#ch17mod02_sques01).

1. Remember, equity is the market value of the house minus what is still owed to the bank. Thus: the value of the house is $200,000, Fred owes $180,000 to the bank, and his equity is $20,000.
2. The value of Freda’s house is $250,000. It does not matter what price she bought it for. She owes zero to the bank, so her equity is the whole $250,000.
3. The value of Frank’s house is $160,000. He owes $60,000 to the bank (the original $80,000 minus the $20,000 he has paid off the loan). His equity is $100,000.

[4](http://openstax.org/books/principles-microeconomics-3e/pages/17-self-check-questions#ch17mod02_sques02).

Over a sustained period of time, stocks have an average return higher than bonds, and bonds have an average return higher than a savings account. This is because in any given year the value of a savings account changes very little. In contrast, stock values can grow or decline by a very large amount (for example, the S&P 500 increased 26% in 2009 after declining 37% in 2008. The value of a bond, which depends largely on interest rate fluctuations, varies far less than a stock, but more than a savings account.

[5](http://openstax.org/books/principles-microeconomics-3e/pages/17-self-check-questions#ch17mod02_sques03).

When people believe that a high-risk investment must have a low return, they are getting confused between what risk and return mean. Yes, a high-risk investment might have a low return, but it might also have a high return. Risk refers to the fact that a wide range of outcomes is possible. However, a high-risk investment must, on average, expect a relatively high return or else no one would be willing to take the risk. Thus, it is quite possible—even likely—for an investment to have high risk and high return. Indeed, the reason that an investment has a high expected return is that it also has a high risk.

[6](http://openstax.org/books/principles-microeconomics-3e/pages/17-self-check-questions#ch17mod03_sques01).

Principal + (principal × rate × time)

$5,000 + ($5,000 × 0.06 × 3) = $5,900

[7](http://openstax.org/books/principles-microeconomics-3e/pages/17-self-check-questions#ch17mod03_sques02).

Principal + (principal × rate × time); Interest = Principal × rate × time; $500 = $10,000 × rate × 5 years; $500 = $50,000 × rate; $500/$50,000 = rate; Rate = 1%

[8](http://openstax.org/books/principles-microeconomics-3e/pages/17-self-check-questions#ch17mod03_sques03).

Principal(1 + interest rate)time = $1,000(1+0.02)5 =$1,104.08