Stock/Bond Capitalization

A business enterprise has three main ways to get funds to start-up, continue or grow its operations. The way a company gets its money to operate is called its means of capitalization. In general most businesses begin life as 'sole proprietorships'. This means the person who starts a company usually puts his or her own money, and only his or her own money, into the company and therefore retains full ownership of the company. This means that the company is initially fully- capitalized by its owner. After the company has been in operation for a period of time the owner decides what to do next. If the owner decides that they do not want to continue the company, say because he or she is losing money, they simply close –down the company. Because the owner has funded the company's operations entirely with their own money there is no debt to pay-off so they can close the company at will.

If on the other hand, the owner decides to continue the company because it is profitable, they have two options for financing which would allow them to keep full control (full ownership) of the company. They can continue to fund the operations only through the profits earned by the company, or, perhaps put some more of their own money into the business. However in some cases the owner may decide that they would like to maintain full ownership of the company but would like to grow the company at a faster rate than the current profit level, or their own money, would allow (the profits of a company are what is left after the company pays all its expenses, including taxes, for a period of time, from the revenue received from selling its product or service for the same period of time). The way a sole proprietor can maintain full ownership of the company but increase its capitalization at the same time is to seek debt financing. Debt financing is the second means of capitalizing a business after the method of the owner fully-funding the business his or herself.

Debt Financing

Debt financing means that a company borrows money from someone else to fund its operations. This borrowing can take two different forms. The most common way a sole proprietorship gets debt financing is to go to a bank to borrow money. In this case the owner would be personally responsible for paying back the loan from the bank. In general under a sole proprietorship when the owner borrows money from a bank, it is the owner, and not the business, which is responsible for paying back the money borrowed. Also in general, the owner of the business (the sole proprietor) needs to pledge collateral in order to get a loan.

Let's give an example of a sole proprietor who seeks debt financing in the form of a loan from a bank. Let's assume that Mr. Smith has a sole proprietorship which manufactures computers in the garage of the house that he owns. Mr. Smith has a mortgage on the house, he has paid back 50% of the mortgage so therefore owns 50% of the house himself. Let's say the house is worth $400,000, which means that Mr. Smith owns $200,000 worth of the house. Let's say that Mr. Smith wants to increase the number of computers he wants to sell, but the garage is too small for him to make more computers. Mr. Smith wants to buy a warehouse to make computers in but he doesn't have the $100,000 it costs to buy a warehouse. Mr. Smith can go to a bank and says that he will sign-over the right to his half-ownership of his house to the bank if the bank will lend him the $100,000 necessary to buy the warehouse (Note that Mr. Smith's share of the house is worth $200,000 but he is only borrowing $100,000 from the bank. In general a bank will require that the collateral pledged be at least as large as the amount borrowed). This way in case Mr. Smith is not able to sell all the new computers he can now make in his new warehouse, and therefore can't pay back the bank, the bank can foreclose on Mr. Smith's share of the house and the bank can get its money back. If the loan deal is accepted by the bank and Mr. Smith borrows the money, this means that Smith Computers is now capitalized both by Mr. Smith's own money and through a loan. Smith Computers now has debt capitalization in addition to capitalization by Mr. Smith's own money.

The second way Mr. Smith can get debt financing is by issuing bonds. Let's say Mr. Smith again wants to raise $100,000 to buy a warehouse. Mr. Smith knows 10 people who are willing to lend him $10,000 each. He can issue 10 bonds for $10,000 each (with a promise to pay interest on the amount borrowed, say 10% per year. The interest on these bonds will tend to be more than the interest he will have to pay for the bank loan, say 7% per year, because he does not pledge his house as collateral). It will be hard for Mr. Smith to sell these bonds to people because his business is still small and has not been operating for a long-time. Mr. Smith will still have to make some type of guarantee to the people that buy his bonds, the type of guarantee he makes to the bond holders will determine the rate of interest he will have to pay on the bonds. Say for example Mr. Smith puts his share of the house into a trust, against which the bonds are pledged, this is one way to lower the interest rate he would have to pay the people who lend him money by buying his bonds. Another way would be to put the warehouse itself into a trust account and if he defaults (misses payments of interest) on the bonds, the warehouse would be sold and the proceeds given to the bond-holders. The less risky the financing to the lender(s) of the money, the lower will be the interest rate. Mr. Smith, when seeking to capitalize his business with debt, will usually seek the type of debt financing which will be least expensive for his growing business. If Smith borrows $100,000 from the bank at 7% per year, he will have to pay $70,000 per year interest, if he issues bonds at 10% he will have to pay $10,000 per year in interest. As long as the business is only funded by the owner of the business and through debt-financing the proprietor of the business still retains full ownership in the business.

Equity Financing

The third type of capitalization is equity financing. Equity means the issuing of stocks, which convey ownership rights to the people that buy the stock. The issuing of stock is only possible under a different type of legal structure other than that of a sole-proprietorship. A sole-proprietorship means that a business in owned by one person. When a company is owned by stockholders it means that ownership is disbursed and is in relation to the amount of stock owned by each person. (That is why a stock certificate is also known as a "share", because it conveys a share of the ownership of a company). Let's say that a company has 10,000 shares of stock that are issued to and owned by the public. If someone owns 1,000 of these shares that means they own 1/10 of the company.

Let's say that Mr. Smith has built his company from the garage to a warehouse and is now selling many computers per year. Mr. Smith has built quite a company and now would like to get some return for his work, in addition to the profits that his company makes. In order to sell stock in his company he will have to "take his company public". This means that he will have to ask the state's permission to sell ownership (either all of it, or a portion of it) to the public. This will require that Mr. Smith file "articles of incorporation" with the government agency that regulates public companies. In the United State a publically-owned company is called a corporation. (In France it is called a Societe Anonyme). If Mr. Smith takes his company public it will be called Smith Computers, Inc. (In France it would be called Smith Computers, S.A.).

Mr. Smith has two options for taking his company public. He can decide to retain control of the company by selling less than 50% of the stock (and this gives him the right to keep deciding how the company is run on a day-to-day basis) or he can relinquish control by selling more than 50% of the ownership of the company. Let's say the company is now worth one million dollars. This means that Mr. Smith thinks he can sell the company for a million dollars. Let's say that Mr. Smith decides to issue a million shares of the company for $1 each. In order to retain ownership control of the company Mr. Smith would have to keep more than 50% of the shares himself. In this scenario it means that Mr. Smith would keep 500,001 shares and sell 499,999 shares. If the public thinks that Smith Computers has a good future and they would like to buy a part of the company then Mr. Smith would work with an investment banker to sell the shares of his company.

The investment banker would release a "tender offer" notifying the public that Smith Computers is going to go public and will give the public the option of buying 499,999 shares of the company. The investment banker would have to notify the public that Mr. Smith intends to keep a majority of the shares himself. Because in this scenario we have learned that Mr. Smith has built up a good company, and is retaining a majority ownership, it might be expected that the public would hope that Mr. Smith would continue to operate the company in a profitable and growth-oriented manner because he will continue to own most of the company. The reason Mr. Smith might want to sell part of the ownership of the company is because he might want to raise almost $500,000 (in fact we do not know how much the shares will be sold for until they actually go on sale, but Mr. Smith has estimated that the shares are worth $1 each) in order to reinvest that amount in the company, or because he retains control of the company, he has a right to do what he wants with the proceeds from the stock sale. This is also a way for Mr. Smith to eventually sell off all the company and do something else later if her would like.

Now let us assume too that Mr. Smith still has the $100,000 in debt financing from the loan he took to finance the warehouse. Now, the equity financing has gone through and Mr. Smith sold $499,999 in stocks. Therefore today Smith Computers, Inc. has both debt and equity capitalization. The debt to equity ratio for Smith Computers, Inc. is $100,000/$499,999 or, approximately 1/5.

Stock/Bond Capitalization and the Financial Industry

We will now expand upon this simplified scenario to evaluate how the concept of debt and equity financing might lead to economic booms and busts. Let's say that instead of a computer company that Smith, Inc. is a finance company which buys and sells financial instruments. When Mr. Smith took his company public he owned more than 50% of the company. Mr. Smith managed this company's operations on a day-to-day basis. In fact this is what helped Mr. Smith sell the shares of the company, because the shareholders knew that Mr. Smith would continue to run the business and do his best to make it profitable in the long-term. But let's assume now that Mr. Smith has sold his 500,001 shares to the general public. Now there is no one single person who controls the company, who is responsible for assuring the profitability and longevity of the business. The corporation has a part-time Board of Directors who all own shares in the company, but again none of the Board members owns a majority share, plus the Board hires managers to run the company so they are not as well aware of its day-to-day operations as Mr. Smith was.

In the finance business one of the ways to make profits is to sell as many financial instruments as possible because the company makes a fee for each sale. The more fees the company makes the more profitable it is. And if you are a manager of the company, the more profit the company makes the more of a bonus you will make for the year. The managers may not be necessarily interested in the long-term growth and longevity of the company (nor are managers necessarily concerned if the company is overly risky because they would not lose as much if the company went bankrupt because they own only a small percentage of the company). However the managers are interested in making as much profit per year as possible because they are paid a bonus on that profit. The shareholder owners vote for the Board of Directors who oversee the managers, however because each of the shareholders owns just a small portion of the company they don't have the incentive to oversee the operations of the company on a day-to-day basis, nor to ensure that the Directors have full oversight of the company. If the company is profitable then the share price will go up, and the shareholders are satisfied that the company is doing well without having to worry about oversight of the company.

Therefore the managers of the company want to buy more financial instruments so that they can sell more of these instruments to other finance companies like themselves, so that both of the finance companies can generate fee income. (Let's assume that the financial instruments are mortgage-backed bonds which are guaranteed by the government because the government is trying to increase home ownership in the country). The best way to raise money to buy more mortgage-backed bonds thus is to issue more debt-financing bonds. Let's say that Smith, Inc increases its debt capitalization to $20 million in order to buy as many financial instruments as possible. The debt to equity ratio is now $20miliion/$1 million or 20/1 (remember under the sole proprietorship it was 1/5). The capitalization of the company is now almost all debt, there is little relative equity so the shareholders have even less incentive to track the operations of the company and to see how well the Board is overseeing the managers.

Smith, Inc. is now trading these government-backed bonds with many different other finance companies, each of whom make a fee-profit when they repackage the bonds and resell them. Again it is assumed that because the initial bonds were guaranteed by the government that all of the repackaged and resold bonds are guaranteed, eventhough they have been repackaged and resold many times over the initial amount of the original government-guaranteed amount. Because the housing market is increasing in value, the value of the bonds the finance companies are selling to each other keeps going up as well. In addition, there are international regulatory standards (the Basel Standards) which tell the companies how much money they have to set aside to cover any potential losses from the repackaged mortgage bonds. No one is concerned that the bonds might have been repackaged too many times because the underlying bonds are guaranteed by the government, housing prices are rising, and the finance companies keep making large fees reselling the new bonds to each other.

But what happens when the housing market bubble bursts and housing prices start to go down? The finance companies don't want to sell the bonds to each other anymore because it means that they would have to take an accounting loss on their books because the asset prices have decreased. In addition, because all the bonds are treated the same way under regulation, the value of all the bonds start to go down together. This means that the stock of the companies start to go down because the value of the company's assets are going down and the companies aren't selling bonds to each other for fees so therefore the profit of the companies are going down as well. This means that the companies, all of them together, suddenly start to go bankrupt. This then creates a financial crisis, caused by an over-capitalization of debt in relation to equity.

See Also: 2007-09 Financial Meltdown, Corporate Finance, Debt, Finance, Financial Markets, Interest Rates, Systemic Financial Crises,

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