The Financing Mix Question

- In deciding to raise financing for a business, is there an optimal mix of debt and equity?
  - If yes, what is the trade off that lets us determine this optimal mix?
    - What are the benefits of using debt instead of equity?
    - What are the costs of using debt instead of equity?
  - If not, why not?

The Illusory Benefits of Debt

- At first sight, the benefit of debt seems obvious. The cost of debt is lower than the cost of equity.
- That benefit is an illusion, though, because debt is cheaper than equity for a simple reason. The lender gets both first claim on the cash flows and a contractually pre-set cash flow. The equity investor is last in line and has to demand a higher rate of return than the lender does.
- By borrowing money at a lower rate, you are not making a business more valuable, but just moving the risk around.

Costs and Benefits of Debt

- Benefits of Debt
  - *Tax Benefits*: The tax code is tilted in favor of debt, with interest payments being tax deductible in most parts of the world, while cash flows to equity are not.
  - *Adds discipline to management*: When managers are sloppy in their project choices, borrowing money may make them less so.
- Costs of Debt
  - *Bankruptcy Costs*: Borrowing money will increase your expected probability and cost of bankruptcy.
  - *Agency Costs*: What's good for stockholders is not always what's good for lenders and that creates friction and costs.
  - *Loss of Future Flexibility*: Using up debt capacity today will mean that you will not be able to draw on it in the future.

Tax Benefits of Debt

- When you borrow money, you are allowed to deduct interest expenses from your income to arrive at taxable income. This reduces your taxes. When you use equity, you are not allowed to deduct payments to equity (such as dividends) to arrive at taxable income.
- The dollar tax benefit from the interest payment in any year is a function of your tax rate and the interest payment:
  - Tax benefit each year = Tax Rate * Interest Payment

  The caveat is that you need to have the income to cover interest payments to get this tax benefit.
- *Proposition 1: Other things being equal, the higher the marginal tax rate of a business, the more debt it will have in its capital structure.*

The Effects of Taxes

- You are comparing the debt ratios of real estate corporations, which pay the corporate tax rate, and real estate investment trusts, which are not taxed, but are required to pay 95% of their earnings as dividends to their stockholders. Which of these two groups would you expect to have the higher debt ratios?

a. The real estate corporations
b. The real estate investment trusts
c. Cannot tell, without more information