FIN104 Tutorial Questions - Week 11

1. **Sources of Finance. (CH14-Q2) True or false?**

    a. Net stock issues by U.S. nonfinancial corporations are, in most years, small but positive.
    b. Most capital investment by U.S. corporations is funded by retained earnings and reinvested depreciation.
    c. Debt ratios in the United States have generally increased over the past 20 years.

    <u>Answer:</u>

    a. False. Equity issues in each year since 1994 have been negative; firms used some of their cash to buy back stock.
    b. True.
    c. False. Debt ratios in the U.S increased until about 1990, but since then they have generally declined.

2. **Equity Accounts. (CH14-Q5) The authorized share capital of the Alfred Cake Company is 100,000 shares. The equity is currently shown in the company's books as follows:**

Common stock ($1 par value)	$ 60,000
Additional paid-in capital	10,000
Retained earnings	30,000
Common equity	$100,000
Treasury stock (2,000 shares)	5,000
Net common equity	$ 95,000

    a. How many shares are issued?
    b. How many shares are outstanding?

c. How many more shares can be issued without the approval of shareholders?

Answer:

a. Number of shares = par value of issued stock/par value per share

   = $60,000/$1.00 = 60,000 shares

b. Outstanding shares = issued shares – Treasury stock

   = 60,000 – 2,000 = 58,000 shares

c. The firm can issue up to a total of 100,000 shares. Because 60,000 shares have been issued, another 40,000 shares can be issued without approval from shareholders.

3. **Corporate Bonds.(CH14-Q12) Other things equal, will the following provisions increase or decrease the yield to maturity at which a firm can issue a bond?**

a. The borrower has the option to repay the loan before maturity.
b. The bond is convertible into shares.
c. The bond is a private placement.

Answer:

a. A call provision gives the firm a valuable option. The call provision will require the firm to compensate the investor by promising a higher yield to maturity.
b. The option to convert gives bondholders a valuable option. They will therefore be satisfied with a lower promised yield to maturity.

c. Private placements of debt are less liquid (harder to sell) than public bond issues. Therefore, the investors will require a higher yield to maturity for the lower liquidity.

4. **Convertible Bonds.(CH14-Q13) Van Gogh Furniture has issued a zero-coupon 10-year bond that can be converted into 10 Van Gogh shares. Comparable nonconvertible bonds are yielding 8%. Van Gogh stock is priced at $50 a share. If you had to make a now-or-never decision on whether to convert or stay with the bond, which would you do?**

   <u>**Answer:**</u>

   The value of the non-convertible zero-coupon bond is: $\frac{\$1{,}000}{(1.08)^{10}} = \$463.19$, and the value of converting the similar but convertible security to stock would be: $10 \times \$50 = \$500$. Therefore, converting to stock is of higher value.

5. **Venture Capital.(CH15-Q3)True or false?**

   a. Venture capital companies know that managers are more likely to work hard if they can be assured of a good steady salary.
   b. Venture capital companies generally advance the money in stages.
   c. Venture capital companies are generally passive investors and are happy to let the companies in which they are invested get on with the job.
   d. Some young companies grow with the aid of equity investment provided by wealthy individuals known as angel investors.

Answers:

a. False. Venture capitalists believe managers need incentives and that a salary is an insufficient motivation.
b. True. You will only get enough to reach the next key milestone or checkpoint. That gives the venture capitalist the opportunity to evaluate progress and decide whether investing in the next stage is worthwhile.
c. False. While venture capitalists generally do not manage the company, they remain active in monitoring and advising the company.
d. True. Angel investors are highly speculative investors, who specialize in funding companies in the earliest stages of their existence.

6. **IPO Costs.(CH15-Q10) Having heard about IPO underpricing, I put in an order to my broker for 1,000 shares of every IPO he can get for me. After 3 months, my investment record is as follows:**

IPO	Shares Allocated to Me	Price per Share	Initial Return
A	500	$10	7%
B	200	20	12
C	1,000	8	−2
D	0	12	23

   a. What is the average underpricing in dollars of this sample of IPOs?
   b. What is the average initial return on my "portfolio" of shares purchased from the four IPOs that I bid on? When calculating this average initial return, remember to weight by the amount of money invested in each issue.

c. “You have just encountered the problem of the winners’ curse.” True or false?

Answer:

a. Average underpricing can be estimated as the average initial return on the sample of IPOs:

(7% + 12% – 2% + 23%)/4 = 10%

b. The average initial return, weighted by the amount invested in each issue, is calculated as follows:

	Investment (shares × price)	Initial Return	Profit (% return × investment)
A	$ 5,000	7%	$350
B	4,000	12%	480
C	8,000	–2%	–160
D	0	23%	0
Total	$17,000		$670

Average return = $670/$17,000 = 0.0394 = 3.94%

Alternatively, you can calculate average return as:

$$\left(\frac{5{,}000}{17{,}000}\times 7\%\right)+\left(\frac{4{,}000}{17{,}000}\times 12\%\right)+\left(\frac{8{,}000}{17{,}000}\times(-2\%)\right)=3.94\%$$

c. True. The average return is far below the average initial return for the sample of IPOs. This is because I have received smaller allocations of the best performing IPOs and larger allocations of the poorly performing IPOs. I have suffered the winner’s curse: On average, I have been awarded larger allocations of the IPOs that other players in the market knew to stay away from, and my average performance has suffered as a result.

7. **Issue Methods.(CH15-Q17) Each of the terms listed below on the left is associated with one of the events on the right. Match each of the terms with the correct definition:**

a. private placement	A. The underwriter agrees to buy the issue from the company at a fixed price.
b. firm commitment	B. The company offers to sell stock only to existing stockholders.
c. rights issue	C. Sales of securities to a limited number of investors without a public offering.

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