

### Financial Markets Homework 3

**Due Date: 2024-12-23 23:59**

Q1. Compute the price of a share of stock that pays a \$1 per year dividend and that you expect to be able to sell in one year for \$20, assuming you require a 15% return.

Q2. After careful analysis, you have determined that a firm's dividends should grow at 7%, on average, in the foreseeable future. The firm's last dividend was \$3. Compute the current price of this stock, assuming the required return is 18%.

Q3. Wealthy people often worry that others will seek to marry them only for their money. Is this a problem of adverse selection? If not, which term is more suitable to describe this problem?

Q4. You wish to hire Ron to manage your Dallas operations. The profits from the operations depend partially on how hard Ron works, as follows:

	profit probabilities	
	Profit = \$ 10,000	Profit = \$ 50,000
Lazy	60%	40%
Hard worker	20%	80%

If Ron is lazy, he will surf the internet all day, and he views this as a zero cost opportunity. However, Ron views working hard as a "personal cost" valued at \$1,000. What fixed percentage of the profits should you offer Ron? Assume Ron cares only about his expected payment minus any "personal cost".

Q5. The bank you own has the following balance sheet:

Assets	Unit(\$ million)	LIABILITIES	Unit(\$ million)
Reserves	75	Deposits	500
Loans	525	Bank capital	100

If the bank suffers a deposit outflow of \$50 million with a required reserve ratio on deposits of 10%, what actions should you take?

Q6. What are the benefits and costs for a bank when it decides to increase the amount of its bank capital?

Q7. Why is it a good idea for macro-prudential policies to require countercyclical capital requirements?