# Module 3 Practice Quiz 1

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Correct

1 / 1 points

1. Suppose a company is trying to decide whether to speed up collection of accounts receivable. The risk is that demand may go down since credit is important to customers. You estimate the following numbers:

* Expected annual sales = 1.5 billion (forever)
* In the existing collection system you receive 90% immediately and 10% after one year
* Firm can move to a new system with 95% immediate collection and 5% after one year
* Firm expects revenue to go down 1% if it moves to the new collection system
* Ignore costs, taxes, etc.

The existing collection system generates the following cash flows:

1. **1.35 billion immediately and 1.5 billion every year starting next year**

**Correct Response**

The current situation is that you receive 90% of 1.5 billion immediately. At the end of the year you collect the receivables generated a year ago (0.15 billion) and generate new sales of 1.5 billion. You collect 90% of the 1.5 billion immediately. Thus, the cash flow at the end of year one is 1.5 billion. This situation repeats itself every year.

1. 1.5 billion every year
2. 1.45 billion immediately and 1.5 billion every year starting next year
3. 1.35 billion every year

Correct

1 / 1 points

2. Suppose a company is trying to decide whether to speed up collection of accounts receivable. The risk is that demand may go down since credit is important to customers. You estimate the following numbers:

* Expected annual sales = 1.5 billion (forever)
* In the existing collection system you receive 90% immediately and 10% after one year
* Firm can move to a new system with 95% immediate collection and 5% after one year
* Firm expects revenue to go down 1% if it moves to the new collection system
* Ignore costs, taxes, etc.

The new collection system generates the following cash flows:

1. **1.411 billion immediately and 1.485 billion every year starting next year**

**Correct Response**

If you move to the new collection system, total revenues go down by 1% to 1.485 billion. You receive 1.41075 today (95%) and 1.485 every year thereafter. The logic is the same as in problem 1.

1. 1.411 billion every year
2. 1.35 billion immediately and 1.5 billion every year starting next year
3. 1.485 billion every year

Correct

1 / 1 points

3. Suppose a company is trying to decide whether to speed up collection of accounts receivable. The risk is that demand may go down since credit is important to customers. You estimate the following numbers:

* Expected annual sales = 1.5 billion (forever)
* In the existing collection system you receive 90% immediately and 10% after one year
* Firm can move to a new system with 95% immediate collection and 5% after one year
* Firm expects revenue to go down 1% if it moves to the new collection system
* Ignore costs, taxes, etc.

The incremental cash flows are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. 1.411 million today and then a loss of 1.485 million every year starting next year
2. **61 million today and then a loss of 15 million every year thereafter**

**Correct Response**

Incremental cash flows are “new minus old”. Therefore, you gain 1.411 – 1.35 billion immediately (61 milion), and you lose 1.5 – 1.485 billion every year starting next year (15 million).

1. 30 million today and then a loss of 10 million every year thereafter
2. you lose 15 million every year

Correct

1 / 1 points

4. What is the present value of a 10 million dollar payment to be received in two years if the discount rate is 5% per year?

1. 9 million dollars
2. 9.12 million dollars
3. **9.07 million dollars**

**Correct Response**

Present value = 10/(1 + 5%)^2 = 9.07

1. 9.5 million dollars

Correct

1 / 1 points

5. Consider the accounts receivable example above (questions 1-3). Assume the discount rate is 12%. The net present value (NPV) of the decision to change the collection system is \_\_\_\_\_\_\_\_\_\_.

1. -125 million
2. 6.4 million
3. **-64 million**

**Correct Response**

You need to discount the incremental cash flows. In question 3 we obtained incremental cash flows of 61 million today and then a loss of 15 million every year thereafter. Thus, the NPV is 61 – 15/12% = 61 – 125 = - 64 million.

1. 46 million

Correct

1 / 1 points

6. Consider again the problem above (questions 1-3, and 5). Which of the following statements is incorrect?

1. You should not change the collection system.
2. If you decide to change the collection system, shareholder wealth will go down by 64 million dollars.
3. If you decide to keep the existing collection system, there will be no change in shareholder wealth.
4. **If you decide to keep the existing collection system. shareholder wealth will increase by 64 million dollars.**

**Correct Response**

Changing the collection system would reduce shareholder wealth by the exact amount of the NPV, and thus, you don ‘t do it. If you keep the existing system, there is no change in cash flows, and thus, there is no change in shareholder wealth. The value of the cash flows is already incorporated in stock prices. Thus, the incorrect option is that "If you decide to keep the existing collection system, shareholder wealth will increase by 64 million dollars."