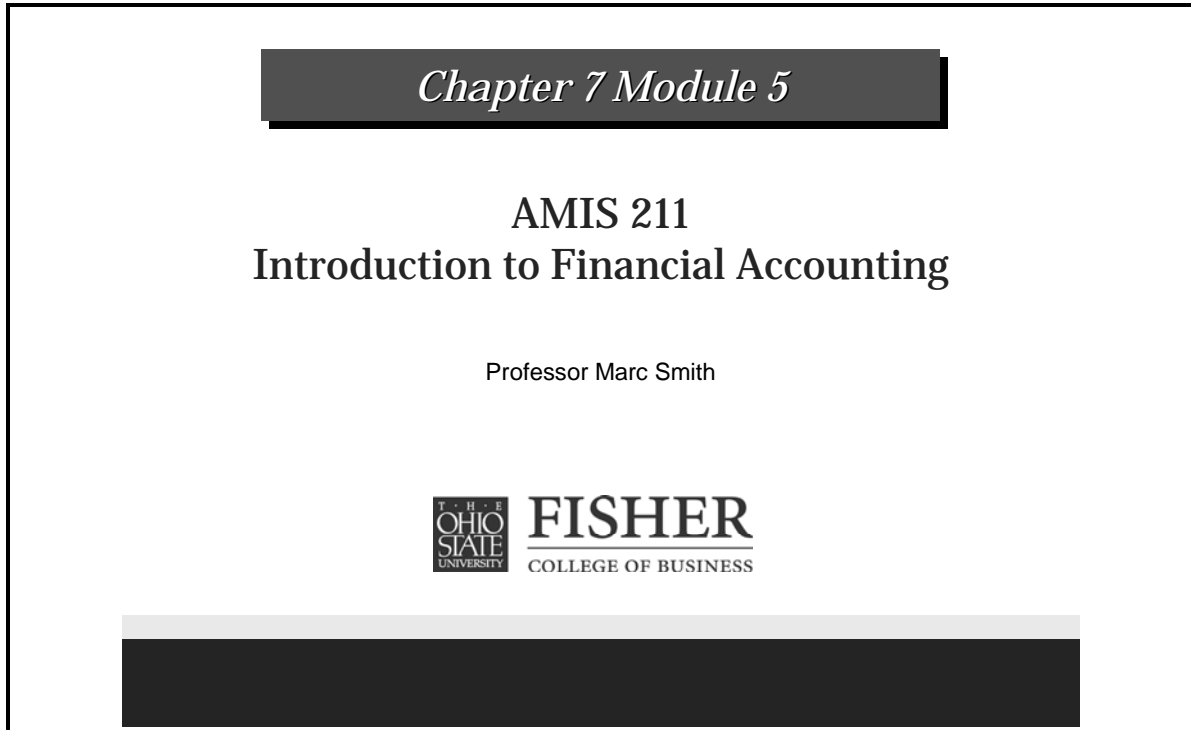


Chapter 7, Module 5

Slide 1

A rectangular box with a black border containing the slide content. At the top is a dark grey horizontal bar with the text "Chapter 7 Module 5" in white italicized font. Below this is the text "AMIS 211" and "Introduction to Financial Accounting" in a serif font. Underneath is "Professor Marc Smith". At the bottom center is the logo for Fisher College of Business at Ohio State University, featuring a small square logo with "T H E OHIO STATE UNIVERSITY" and the word "FISHER" in a large serif font above "COLLEGE OF BUSINESS". At the very bottom of the box is a dark grey horizontal bar.

Hi everyone. Welcome back.

Just as a refresher before we jump into the key point of this Module.

Because I know that this is tough—this is not an easy topic. This tends to be one of the more challenging topics that we cover.

You really want to keep in mind that your Allowance for Doubtful Accounts is keeping track of two (2) specific items: 1) On the increase—or credit side—it is keeping track of your bad debt expense estimates that you have made. 2) On the decrease—or debit side—it is keeping track of the actual write-offs that you have had.

So, at any point in time, you can look at that account. If the balance is on the credit side, we have written off less than we had thought. If the balance is on the debit side, we have written off more than we had estimated that we would write-off.

So, that is very crucial.

If you need to go back and review those last couple of slides and that little bit of discussion in the previous Module, but you will want to make sure that you are comfortable with that.

That said; let's move to the next slide and let's begin what we need to deal with in this Module.

Slide 2

Chapter 7 Module 5: Bad Debt Expense

Remember – we estimate the amount of bad debt expense in order to adhere to the matching concept

- **Companies use one of two methods in estimating bad debt expense:**

1 Percentage of sales (Net credit sales method)

2 Percentage of receivables (Aging method)

- **Both bases are GAAP; the choice is a management decision.**

Reminder: Bad debt expense is an estimate.

We must estimate the amount of the expense in order to conform to Matching.

So, the last crucial question that we have to answer is:

How do they do it? How do companies come up with the estimate of bad debt expense?

And, there are actually two (2) different methods that they can use to estimate the bad debt expense. They can use the 1) Percentage of Sales Method—typically referred to as the Net Credit Sales Method—or they can use the 2) Percentage of Receivables Method—what we call the Aging Method.

Note: Both of these methods are acceptable. Both methods are fine under GAAP. The choice of methods is simply a management issue.

“Which method do we want to use for our company to estimate bad debt expense?”

Now, let’s move to the next slide.

Slide 3

Chapter 7 Module 5: Net Credit Sales Method

- **Bad debt expense is based on a % of current credit sales estimated to be uncollectible where the % is based on past experience/historical pattern**
- **Bad debt expense =
Net credit sales x % expected uncollectible**
- **Any existing balance in the allowance for doubtful accounts is not considered in calculating the bad debt expense estimate**
- **If the company estimates that 1% of its credit sales for the year will be uncollectible and net credit sales for the year are \$800,000, the estimated bad debt expense is \$8,000 (1% X \$800,000).**

And, let’s talk about these different methods.

Let’s start with the easier one: the Net Credit Sales Method.

Here, under the Net Credit Sales Method: Bad debt expense is estimated as a percentage of the current year’s Net Credit Sales.

This percentage of Net Credit Sales—that is developed based on past experience or items that have occurred in the past—allow us to come up with a reasonable estimate of what will be uncollectible in the current year.

So, under the Net Credit Sales Method: Bad debt expense is simply based on a percentage (%) of our credit sales we think will be uncollectible. That percentage (%) is developed based on past experience.

To calculate the bad debt expense estimate under the Net Credit Sales Method is very straightforward.

Simply take the Net Credit Sales for the year and multiply (x) that by the percentage (%) we expect to be uncollectible.

Note that: the Net Credit Sales Method does not make use of any existing balance in the Allowance for Doubtful Accounts in the estimate of bad debt expense for the current year.

So, it completely ignores any existing balance in the Allowance for Doubtful Accounts when coming up with the estimate of bad debt expense for the current year.

So, for example:

If I tell you that: “We estimate that 1% of our credit sales will be uncollectible.” And, we had credit sales for the year of \$800,000.

The bad debt expense is very easy to develop—it is simply estimated as \$8,000.00. That is: credit sales times (x) the percentage; any existing balance in the Allowance for Doubtful Accounts DOES NOT factor into the estimate, using this method.

The Net Credit Sales Method: it is really rather straightforward.

Go to the next slide.

Slide 4

Chapter 7 Module 5: Aging Method

- The aging method requires an analysis of accounts receivable balances by the length of time they have been unpaid. The idea is that the longer a debt is outstanding the less likely it is to be paid.
- Put the accounts receivable into categories by age, and assign a % expected to be uncollectible to each category (this is called an aging schedule)

<u>Age</u>	<u>Balance</u>	<u>Percentage Estimated to be Uncollectible</u>
Current.	\$10,000	1.5%
1-30 days.	4,000	4.0
31-90 days.	2,100	20.0
Over 90 days.	<u>1,000</u>	40.0
	\$17,100	

And, let's talk about the second method which is not quite as straightforward: the Aging Method.

The Aging Method—as opposed to the Net Credit Sales Method—requires a detailed analysis of our Accounts Receivable by length of time that they have been outstanding.

The idea here is that: the older the Account Receivable is, the greater the chance is that it will not be collected.

So, what we are going to do is: we are going to create a schedule that shows all of our Accounts Receivable for age categories. And, for each age category, we will assign a percentage (%) that we expect to be uncollectible for that category.

This schedule that we are putting together is referred to as: the Aging Schedule. And, the Aging Schedule would look like what you see there on the slide (Slide 4).

We have different categories of Accounts Receivable by age: those that are current—not past due; those that are 1 to 30 days past due; those that are 31 to 90 days past due; and those that are over 90 days past due.

For each age category, you assign a percentage (%) expected to be uncollectible.

Note the idea here: the older the Account Receivable, the greater the likelihood we will not collect it. Hence, the percentage (%) increases as the Accounts Receivable get older and older.

Now, please go to the next slide.

Slide 5

Chapter 7 Module 5: Aging Method

- Put the accounts receivable into categories by age, and assign a % expected to be uncollectible to each category (this is called an aging schedule)
- Σ (Amount of receivables x %)

<u>Age</u>	<u>Balance</u>	<u>Percentage Estimated to be Uncollectible</u>	<u>Amount</u>
Current.	\$10,000	1.5%	\$ 150
1-30 days.	4,000	4.0	160
31-90 days.	2,100	20.0	420
Over 90 days.	<u>1,000</u>	40.0	<u>400</u>
	\$17,100		\$1,130

Remember what the Aging Schedule is:

You put your Accounts Receivable into categories by age. For each category, you assign a percentage expected to be uncollectible.

Now, what we are going to do with this Aging Method is: we are going to follow a basic formula.

You take the amount of the Receivables in each category, multiply (x) it by the percentage (%) for that category, and then sum (+) the product for each category. That is what that little sigma sign means: to do a summation.

So, for example:

There is our Aging Schedule again. For each category, you take the amount of the Receivables times (x) the percentage.

It is \$10,000 times (x) 1.5%. That is: 150 bucks (\$150.00). \$4,000 times 4.0% is 160 bucks (\$160.00). And, so on and so forth.

Once you have done that multiplication, you simply add (+) the different products.

So, you take \$150.00 plus (+) \$160.00 plus (+) \$420.00 plus (+) \$400.00.

You add them together. You get (=) \$1,130.00.

Now, if you would please go to the next slide...

Slide 6

Chapter 7 Module 5: Aging Method

- $\Sigma (\text{Amount of receivables} \times \%) = \$1,130$

KEY POINT:

This number from the aging schedule (\$1,130) does not represent the bad debt expense estimate!!!

Rather, this number (\$1,130) represents the required ending credit balance in the allowance for doubtful accounts.

We will need to 'force out' the bad debt expense estimate using a t-account for the allowance for doubtful accounts.

Let's see what to do with that number.

So, when you take the sum of those different products, you get \$1,130.00.

This is a key point and this is what makes the Aging Method a little more challenging.

That \$1,130.00--that number from the Aging Schedule—IS NOT your bad debt expense estimate. That DOES NOT represent the estimate of bad debt expense.

Rather: this \$1,130.00—this number from the Aging Schedule—represents the required Ending Credit Balance in the Allowance for Doubtful Accounts.

The number you get from the Aging Schedule—the number you get from following that little equation where you do a multiplication (x) and then sum (+) the product from each category—that amount represents what needs to be the required Ending Credit Balance in the Allowance for Doubtful Accounts.

To estimate your bad debt expense, we are going to need to quote/unquote “force it out.”

We are going to need to draw a T-Account for the Allowance and “force out” the bad debt estimate.

Please go to the next slide.

Slide 7

Chapter 7 Module 5: Aging Method

<i>Allowance for Doubtful Accounts</i>	
<i>Beginning</i>	<i>Balance</i>
<i>Write-offs</i>	<i>Recoveries</i>
	<i>Bad debt expense (make X)</i>
	<i>Ending Balance (from aging schedule)</i>

- **To ‘force out’ the bad debt expense estimate, make it equal to X and set-up an algebra equation.**
- **Thus, unlike the net credit sales method, an existing balance in the allowance for doubtful accounts will effect the current years bad debt expense estimate.**

And, let’s just sort-of go through how that would be done.

There is our T-Account: the Allowance for Doubtful Accounts.

Let’s put in what we know.

We know there is a Beginning balance. That can be on either side: debit or credit. The problem will always tell you: Beginning debit or Beginning credit side.

We know that we have write-offs. Write-offs are the decrease (-) to this account. They go on the debit side.

We know that we have recoveries. They increase (+) the Allowance.

And, we know from the Aging Schedule what the Ending Credit Balance needs to be. That is that \$1,130 that we calculated a couple of slides ago.

So, what we DO NOT know—what we are going to make our “x”—is: the bad debt expense estimate. That is our unknown.

And, what we are going to do is: we are going to force out the bad debt expense by using a little bit of Algebra.

Take the Beginning Balance; subtract (-) all decreases (the write-offs); add all increases (recoveries and the bad debt expense); and that all equals (=) Ending Balance, which comes from the Aging Schedule.

Now, note:

Unlike the Net Credit Sales Method, the Aging Method does incorporate any existing balance in the Allowance in the current year's estimate.

So, any balance in the Allowance for Doubtful Accounts is going to impact the estimate of bad debt expense for the current year.

That is a distinction between the Aging Method and the Net Credit Sales Method, which DOES NOT incorporate any existing balance.