


Chapter 5, Module 3

Slide 1

Chapter 5 Module 3

AMIS 211
Introduction to Financial Accounting

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COLLEGE OF BUSINESS

Hi everyone. Welcome back.

Now that we know what the Direct Method and Indirect Method are all about, let's go through each of those and let's do a little example and see how the calculations work.

With this module, let's focus on the Direct Method.

Go to the next slide with me and let's get started.

Slide 2

Chapter 5 Module 3: Direct Method

The direct method lists each individual cash inflow and cash outflow for all items appearing on the income statement.

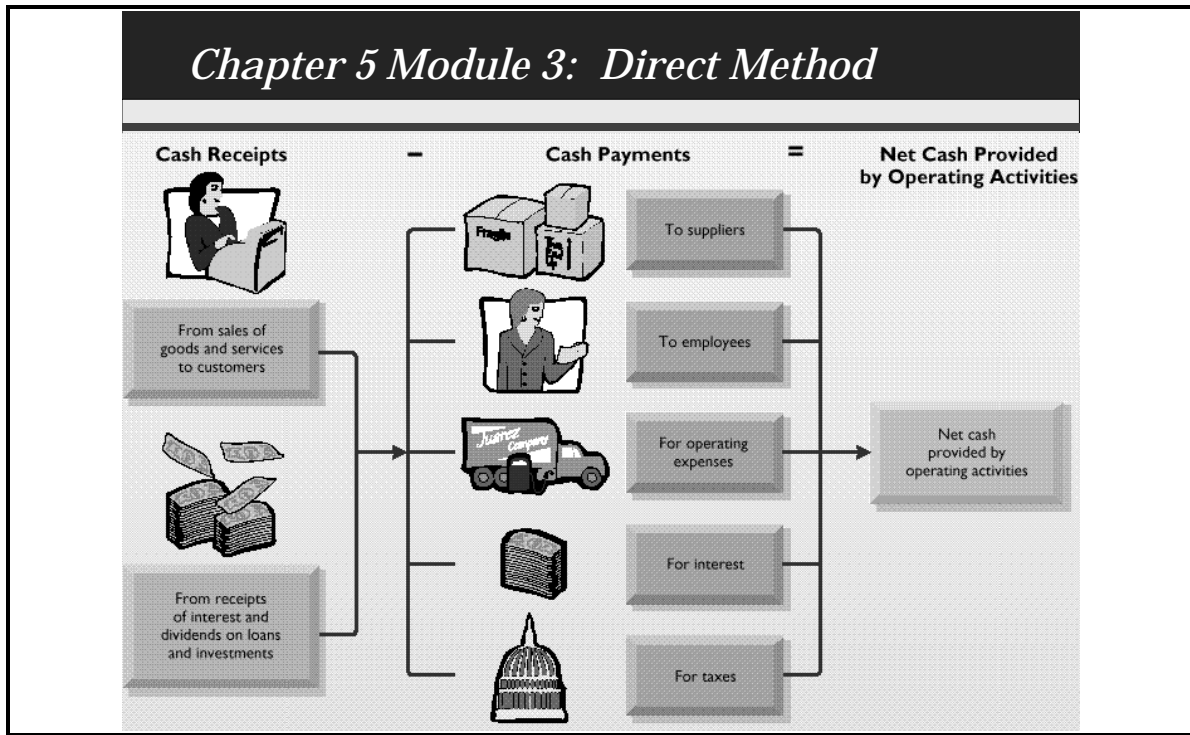
This method will require use to analyze t-accounts to calculate the amount of each individual cash flow.

As a review, the Direct Method will list out each specific individual cash inflow and outflow in the body of the statement.

To do this: we are going to make extensive use of T-Accounts. We are going to have to use T-Accounts to figure out: What was the cash effect of these items that we find on the Income Statement?

Now, if you go to the next slide with me...

Slide 3



I have a diagram here that basically shows what cash flows from operations following a Direct Method are all about.

You have your two (2) most common cash receipts: 1) receipts from our Customers for selling goods or providing services; as well as 2) receipts from things like interest and dividends that we get on either money that we have put into the bank or stock we may own in other organizations.

Those are our cash inflows.

The cash outflows include: cash that we have paid to purchase inventory, cash paid to our employees for salaries, cash paid to the government for taxes, cash paid to our creditors for interest; cash paid for virtually any expense item on the Income Statement.

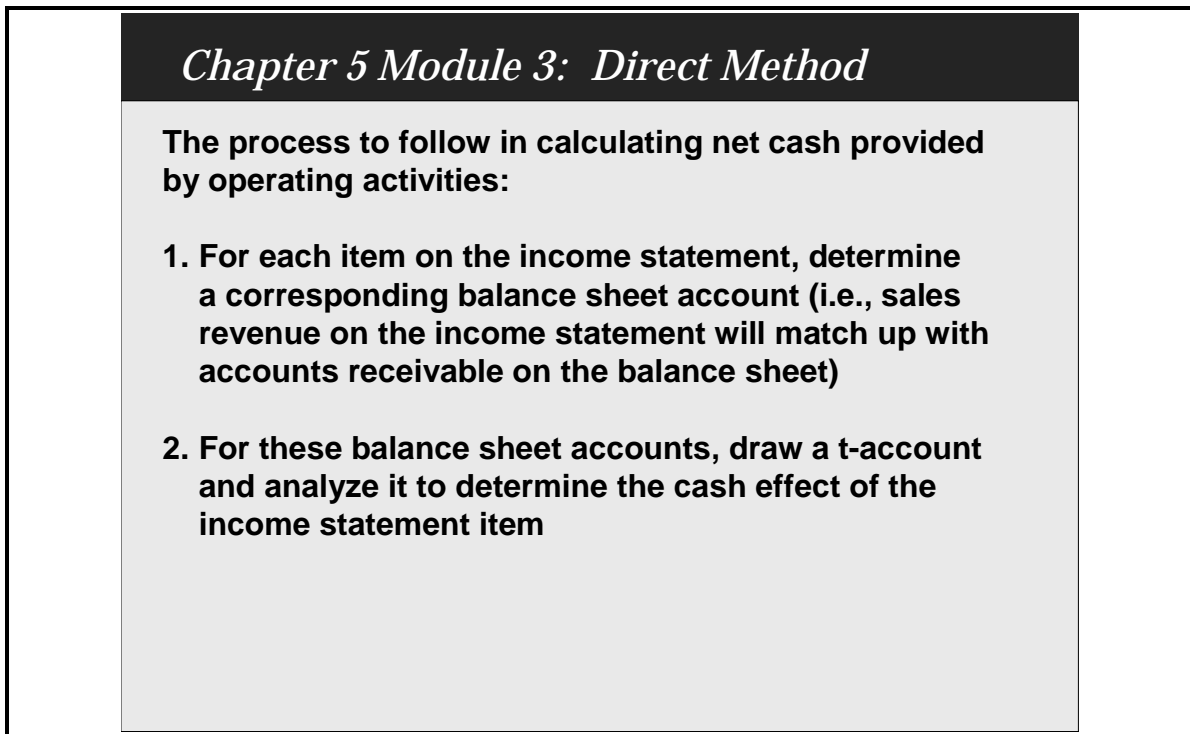
You take the inflows and subtract the outflows and that is your Net Cash Provided by Operations.

So, the Direct Method—the reason I have this here—the Direct Method will list out each one of these items and show the amount related to that specific item.

As we saw in the last module, the Indirect Method will not do that.

Let's go to the next slide.

Slide 4

A rectangular box with a black border containing text about the Direct Method. The title is in a dark grey header, and the main content is in a light grey background.

Chapter 5 Module 3: Direct Method

The process to follow in calculating net cash provided by operating activities:

- 1. For each item on the income statement, determine a corresponding balance sheet account (i.e., sales revenue on the income statement will match up with accounts receivable on the balance sheet)**
- 2. For these balance sheet accounts, draw a t-account and analyze it to determine the cash effect of the income statement item**

And, there is a little bit more about the Direct Method.

The procedure that we are going to follow in doing the Direct Method for Operations: it is kind-of a two-step procedure.

Step 1: For each item on the Income Statement—because remember: the Operating Activities are the cash effects of items on the Income Statement—for each item on the Income Statement, identify a corresponding Balance Sheet account.

For example: Sales Revenue on the Income Statement matches up with or corresponds to the Accounts Receivable on a Balance Sheet. Accounts Receivable come about when we make sales on account.

So, for each item on the Income Statement, we will find a corresponding Balance Sheet account.

And, once we have identified the account on the Balance Sheet, 2) we will draw a T-Account.

We will draw a T-Account for that Balance Sheet account and 3) we are going to need to analyze it to determine: what was the cash impact?

And, we will see how to do that as we go through our example.

Go to the next slide.

Slide 5

<i>Chapter 5 Module 3: Direct Method</i>	
<u>KEY POINT:</u> Not all accounts on the income statement have a cash effect. In other words, we have some revenues and expenses which do not result in an inflow or outflow of cash.	
<u>3 Examples of Non-Cash Revenues and Expenses</u>	
1.	Depreciation Expense
2.	Losses
3.	Gains
NOTE:	These items should be ignored when using the direct method to calculate net cash provided by operating activities!

And, before we can jump to the example, here are a couple of key points:

Operating Activities—the Direct Method—relate to the cash effects of those items on the Income Statement. However, not all items appearing on the Income Statement have a cash effect.

In other words: there are some Revenues and Expenses that are called Non-Cash because we do not either get cash or pay cash for them.

Now, we should know one of those—we should know one example of a Non-Cash Expense because we saw it in a previous module.

That is: Depreciation.

We do not pay cash to depreciate assets. Hence, it is called a Non-Cash Expense.

Two other examples of two other items we have worked with to this point deal with: Gains and Losses. Loss is another Non-Cash Expense. A Gain is a Non-Cash Revenue.

The key point here—the reason we are pointing this out—is when we are doing the Direct Method and we are going down the Income Statement figuring out the cash effect for those items, you can ignore these. These items have no cash effect. That is why we call them Non-Cash.

So, as we go down the Income Statement, just pass them right by. We are not going to make use of them in this Direct Method.

Keep that in mind. That is a very important point.

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Slide 6

<i>Chapter 5 Module 3: Example #1</i>	
Accounts Receivable	
75,000	
Sales Revenue 380,000	Cash Collected From Customers X
73,000	
$75,000 + 380,000 - X = 73,000$ $X = \text{Cash Collections} = \$382,000$	

And, let's take a look at Example #1 from the Web site problems.

So, have that in front of you.

Here is what it says: "Presented below are the Balance Sheets for XYZ Company as of the end of 2003 and the end of 2002. Additionally, we have the 2002 Income Statement for XYZ."

Requirement 1, which is what we will work through in this module: "Prepare the Operating Activity section of the Cash Flow Statement using the Direct Method."

Now, remember what our process is:

For each item on the Income Statement, 1) identify a corresponding Balance Sheet account. 2) Draw a T-Account. And, 3) force out the cash effect.

We start from the Income Statement with our Sales Revenue. It is the first items listed.

We have already said a few moments ago: Sales Revenue matches up with Accounts Receivable.

So, there is our T-Account for Accounts Receivable.

We can enter in the Beginning Balance: that is given to us. At the beginning of 2003 or the very end of 2002: the balance was \$75,000.

We can enter in the Ending Balance. That is also given: \$73,000.

Now, the question is—and this is what is going to be kind-of tough—the question is this:

Why would Accounts Receivable go up? Why would we have more Accounts Receivable?

The reason Receivables increase is we make sales. When we make sales, Customers owe us more money.

So, the Sales Revenue increases Accounts Receivable. And, we know what that amount is; that is coming right off the Income Statement. It is \$380,000.

Now, why does the Accounts Receivable go down?

It decreases—well, why?

You should be able to tell me. Why would we have less in Accounts Receivable?

Because: Customers pay their bills.

When we collect the cash from our Customers, they no longer owe us anymore. And, that reduces our Accounts Receivable.

We do not know what that is; but, we can figure it out by working a T-Account.

Set up the Algebra equation: \$75,000, Beginning Balance plus (+) \$380,000—the increases—the Sales Revenue; minus (-) “x”—the decrease—the cash collections; equals (=) the Ending \$73,000 balance.

Solve for “x”: the cash collected during 2003 from our Customers was \$382,000.

And, this is the process we are going to follow every time.

For each account on the Income Statement: 1) Identify a corresponding Balance Sheet account; 2) Set up the T-Account; and 3) Analyze it to figure out the cash effect.

And, that “analyzing it” part—that is the hard part—you need to know why these accounts go up and go down.

Just look at your Income Statement for a second.

What is the next account that we have?

It is Cost of Goods Sold (CGS).

What Balance Sheet account is it going to match up with?

If you go to the next slide...

Slide 7

<i>Chapter 5 Module 3: Example #1</i>	
Inventory	
70,000	
Purchases X	Cost of Goods Sold 130,000
75,000	
$70,000 + X - 130,000 = 75,000$ $X = \text{Inventory Purchased} = \$135,000$	

It is going to match up with Inventory.

Cost of Goods Sold (CGS) is the cost of the inventory we sell to Customers.

So, we follow the same process.

The Beginning Balance is entered in. The Ending Balance is entered—there it is. These are right from the Balance Sheets.

Why would Inventory go up? What would cause us to have more inventory?

Well, when you would go and buy more.

Purchases of inventory cause an increase in the account—it allows us to have more inventory.

Why would Inventory go down? Why would we have less?

Because: we sell it.

So, the Cost of Goods Sold (CGS) reduces the Inventory account.

And, we know what that is from the Income Statement.

So, once again, we can just set up our Algebra equation and work the T-Account. And, we can figure out that we purchased \$135,000 of inventory.

But, wait a second.

This one is the toughest one that we work with in the Direct Method. Because: we cannot stop here.

Go to the next slide with me.

Slide 8

Chapter 5 Module 3: Example #1

However, this does not tell us how much cash was paid for inventory purchases.

Why not?

Some of the purchases were most likely made on account.

Thus, we must analyze the accounts payable t-account as well

KEY POINT:

To determine the cash paid for inventory purchases you need to analyze both the inventory and accounts payable t-accounts

And, answer this question:

Why doesn't this tell us how much cash was actually paid for inventory purchases?

We know how much we purchased. We just calculated it on the last slide (Slide 7).

Why doesn't that number represent the cash that was spent?

See if you can answer it to yourself for just a second.

Why isn't that the cash spent to buy inventory?

The reason is...

Well, guess what! Just like we can sell on account; we can also purchase on account. And, some of those purchases were very likely made on account; meaning: we bought them now and we would pay for them later.

So, when we are analyzing cash paid for inventory purchases; we need to analyze both the inventory account—which we just did; as well as the Accounts Payable account because it represents the amount of cash that we actually spent on inventory purchases.

This is a key point. Let's hear it again.

To determine cash paid to Suppliers for inventory, we have to go through a 2-step process. We have to analyze both 1) the Inventory account—that comes first; that lets us figure out the amount of inventory we bought; then, we have to analyze the Accounts Payable account to figure out how much cash we spent on inventory purchased.

So, go to the next slide.

Slide 9

<i>Chapter 5 Module 3: Example #1</i>	
Accounts Payable	
Cash paid to suppliers X	35,000 Purchases of inventory 135,000
	28,000
$35,000 + 135,000 - X = 28,000$ $X = \text{Cash Paid for Inventory} = \$142,000$	

And, let's do the Accounts Payable T-Account.

We enter in the Beginning and Ending Balance.

Remember: it is a Liability. The Normal Balance is on the credit side.

Why would Accounts Payable go up? Why would we owe more?

We owe more when we make purchases of inventory. That is the increase.

We just calculated this two slides ago when we analyzed the Inventory account. We calculated that inventory purchases were \$135,000.

Why would Accounts Payable go down?

It goes down when we pay our bills. When we pay our cash to our Suppliers, we reduce our Liability.

Now, we can set up the Algebra equation and work the T-Account.

This is the number on the Cash Flow Statement:

Cash Paid for Inventory Purchases is: \$142,000.

That is a tough one.

That is one that you will want to be comfortable with because you know what? You can rest assured that is one that will be on that Exam.

So, you will want to be able to work through the Cash Paid for Inventory calculations. It is a 2-step process. And, it takes a little practice to get comfortable with that.

Let's go to the next slide.

Slide 10

<i>Chapter 5 Module 3: Example #1</i>	
Prepaid Insurance	
<div style="border-top: 2px solid black; border-bottom: 2px solid black; padding: 5px 0;"> <p>15,000</p> <p>Purchases of Insurance</p> <p>X</p> <p>40,000</p> </div>	<div style="border-top: 2px solid black; border-bottom: 2px solid black; padding: 5px 0;"> <p>Insurance Expense</p> <p>20,000</p> </div>
$15,000 + X - 20,000 = 40,000$ $X = \text{Insurance Purchased} = \$45,000$	

And, let's continue down our Income Statement.

The next item on the Income Statement is Insurance Expense.

Matching it up to the Balance Sheet:

And, I think you will find the matching up to the Balance Sheet accounts is not really too rough.

Insurance Expenses matches up with Prepaid Insurance—insurance paid for in advance.

You enter in the Beginning and Ending balances. It is an Asset. So, balances are on the debit side.

The reason Prepaid Insurance goes up: we buy more. Cash paid for insurance increases this account.

The reason Prepaid Insurance goes down: we use it up. It becomes Insurance Expense when it gets used up. That number is given to us on the Income Statement.

So, just like we are going to be able to do in every situation, we will set up the Algebra equation. We will work the T-Account. We will figure out the Cash Paid for Insurance is: 45,000.

It is going to be the same process over and over and over.

All right, what is the next account on the Income Statement that we have got?

It is: Salaries Expense.

Look at your Balance Sheet.

Don't go to the next slide yet. Look at your Balance Sheet.

What account is it going to match up with?

Salaries Expense will match up with Salaries Payable.

Go ahead to the next slide.

Slide 11

<i>Chapter 5 Module 3: Example #1</i>	
Salaries Payable	
Cash paid for salaries X	5,000 Salaries Expense 45,000
	2,000
$5,000 + 45,000 - X = 2,000$ $X = \text{Cash Paid for Salaries} = \$48,000$	

And let's work the Salaries Payable T-Account.

There is the Beginning Balance. There is the Ending Balance.

Salaries Payable increases when we owe more to our employees. So, our Salaries Expense is the increase to the Liability.

Salaries Payable decreases when we pay it off—when we make a payment to our employees we do not owe it to them anymore.

That is the Cash Number. That is what we are looking to find.

We set up our Algebra equation and BOOM! Cash Paid for Salaries is \$48,000.

What is next?

The next account on the Income Statement is: Depreciation Expense.

What do we know about that?

It is Non-Cash.

Ignore it! It is not going to be part of our calculations. Just go right by it!
Say: “Hey, that’s great.”

Let’s go to the next account.

I have even better news for you.

The next account is Loss on Sale of Investments. That is also Non-Cash.
We are also going to ignore that one as well.

Fantastic!

The next account that is listed on the Income Statement is: Interest Expense.

That one is not Non-Cash. That one we need to go through.

What account on the Balance Sheet is going to match up to this?

It is Interest Payable.

Go to the next slide.

Slide 12

<i>Chapter 5 Module 3: Example #1</i>	
Interest Payable	
Cash paid for interest X	3,000 Interest Expense 12,000
	5,000
$3,000 + 12,000 - X = 5,000$ $X = \text{Cash Paid for Interest} = \$10,000$	

Enter in the Beginning and Ending balances.

Notice it is the same process.

The reason Interest Payable goes up is because we incur more interest or Interest Expense. Interest Payable goes down when we actually pay the cash for interest.

Do the Algebra.

We can solve for the Cash Paid for Interest to be \$10,000.

The last item on the Income Statement is: Income Tax Expense.

Look at your Balance Sheet.

It matches up with what account?

Go to the next slide.

Slide 13

<i>Chapter 5 Module 3: Example #1</i>	
Income Taxes Payable	
Cash paid for taxes	12,000
X	Inc. Tax Expense
	50,000
	9,000
$12,000 + 50,000 - X = 9,000$ $X = \text{Cash Paid for Taxes} = \$53,000$	

It matches up with our Income Tax Payable.

Enter in the Beginning and Ending balances.

The reason that Income Taxes Payable goes up: we incur more taxes or Income Tax Expense. It goes down when we actually pay the cash to the government.

That is our Cash Number. That is what we are looking for.

We set up the Algebra; we solve for “x.”

Cash Paid for Taxes is: \$53,000.

And, we are done!

And, before we move on, I have one question for you.

How did we know we are done?

I am telling you here in this example it is over.

But how do you know that we are done; that there are no more Operating Cash Flows?

There are no more items on the Income Statement.

We have used every item on the Income Statement and determined its cash effect. We let the Depreciation and the Loss—we let those go—we ignored them because there is no cash effect. But, everything else we have already accounted for. There is nothing else to do.

Go to the last slide.

Slide 14

<i>Chapter 5 Module 3: Example #1</i>		
Cash collected from customers (slide 6)		382,000
Cash payments:		
to suppliers for inventory purchases (slide 9)	142,000	
to purchase insurance (slide 10)	45,000	
to employees as salaries (slide 11)	48,000	
to creditors as interest (slide 12)	10,000	
to the government as taxes (slide 13)	53,000	298,000
Net cash provided by operating activities		84,000

And, there is how the Direct Method for Operating Cash Flows will appear.

You start by showing the cash that you got—the cash collected from Customers. And, then you list each specific cash outflow by amount to calculate the Net Cash Provided by Operating Activities to be: \$84,000.