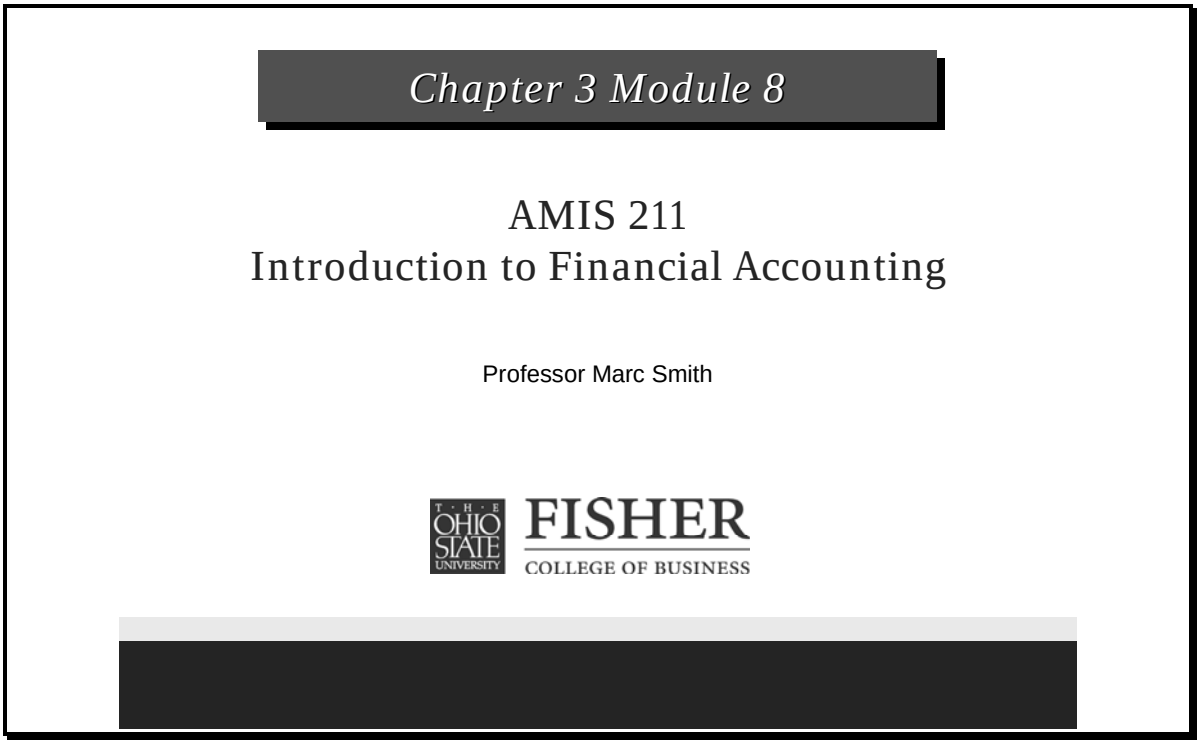
Chapter 3, Module 8

Slide 1



Hi everyone. Welcome back.

Now that we know all about financial statements and recording transactions and how those transactions impact the financial statements, I would like to spend a little bit of time and let's talk about analyzing them.

Let's talk about how we determine: is the company doing well and is it something we would like to invest in or maybe we would not want to invest, or lend money, to them?

So, let's go ahead to the next slide and let's jump right into it.

Slide 2

Chapter 3 Module 8: F/S Analysis

Financial Statement Analysis

Involves the examination of both the relationships among financial statement numbers and the trends in those numbers over time

Purposes of financial statement analysis:

1. **Use the past performance of a company to predict how it will do in the future**

2. **Evaluate the performance of a company with an eye toward identifying problem areas**

This is called Financial Statement Analysis.

Financial Statement Analysis involves examining the relationships between financial statement numbers as well as the trends in those numbers over time to try to determine is this a good company to invest in or lend money to?

Now, within this Financial Statement Analysis, you can really think of two (2) main purposes—two (2) main purposes of doing this Financial Statement Analysis.

One of them is 1) using the past information of a company to try to predict how it will do in the future.

For example: if you are an Investor. And, you say, "I might be interested in investing in Company A. Let me look at its Income Statement for the past couple of years, see how profitable it was, and then, try to predict the profitability of Company A into the future." Will it be a good investment or not?

So, one key purpose is: using these past numbers to try to make helpful, meaningful predictions about the future.

The other main purpose of Financial Statement Analysis is: 2) evaluating the problems, or performance, of the company with an eye toward identifying problem areas. We can look at the relationships between the financial statement numbers and try to pick out where problem areas lie so we can focus our attention to trying to fix those.

The (2) two main purposes of doing these Financial Statement Analyses is 1) to try to make meaningful predictions about future performance and 2) to try to identify areas that may need our eye or our attention to try to fix those problems.

Let's go ahead to the next slide.

Slide 3

Chapter 3 Module 8: Financial Ratios

Financial ratios are relationships between financial statement amounts.

Ratios are used by investors and creditors to help them make decisions. Specifically, these ratios aid users in deciding whether to invest in, or loan money to, a company.

Note – A single ratio by itself is not very meaningful. The ratios provide meaningful information to users only when they can be compared with some benchmark (i.e., there needs to be a point of comparison for the ratios to be useful).

The way in which we do the Analysis is through what is called a Financial Statement Ratio.

Financial Ratios are relationships between financial statement amounts.

These Ratios are used by our financial statement Users, Investors, and Creditors.

And, they use the Ratios to make decisions such as: “Yes or No: should I invest in this company?” or “Yes or No: should I lend money to this company?” “If the answer is ‘yes,’ what interest rate should I charge them?” “What sort of risk do I run that I may not be able to be repaid?”

So, these Ratios allow Investors and Creditors to make meaningful decisions.

Something that is very important about these Ratios, however:

The Ratios by themselves are not particularly meaningful. A single Ratio and that amount that is calculated really is not very meaningful all.

The meaning comes when we are able to compare that Ratio to some type of benchmark.

We are able to say: “Hey, look! Here is a benchmark. Here is what the Ratio should be. Here is where we are at. We are either above or below the benchmark or the norm.”

So, make sure—that is really important. You want to make sure you understand that.

We are going to calculate the Ratios but those numbers that we come up with really do not give us a lot of meaning. The value is added when we are able to take the Ratios we calculate and compare it against some benchmark.

Now, if you would go to the next slide with me…

Slide 4

Chapter 3 Module 8: Financial Ratios

Typical Benchmarks or Comparison Points:

1. **Other companies that operate in the same industry (i.e., competitors)**
2. **Industry averages**
3. **Past years (trend analysis)**

The benchmarks that are typically used in comparing Ratios include:

1) Other companies.

We may want to compare the Ratios of Coca-Cola versus (vs.) Pepsi-Cola. How does one competitor measure up against another?

Perhaps the most commonly used benchmark is what we call: 2) industry averages.

"We operate in the textiles industry and for those companies of about our size the average Ratio is "this" and we are able to compare our individual Ratio to that industry average. Are we: at average, above average, or below average against the companies that are similar to us?"

That is one that you may want to circle because as you move throughout your business classes, you will do certain projects that deal with these Financial Ratios. And you will want to be able get your hands on these industry averages. You would find those in the library, so that you can compare the Ratios of your company versus (vs.) their industry.

One other commonly used benchmark is 3) past performance.

"Here is the Ratio of the Current Year. How did that Ratio look last year versus (vs.) the year before?" So, we can compare in a historical trend in the performance of one particular company.

All three (3) of those are commonly used benchmarks.

The Ratios themselves are not meaningful until you have these benchmarks to compare them against.

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

Slide 5

Chapter 3 Module 8: Financial Ratios

2 Ratios to be discussed in this module:

1. **Working Capital**
2. **Current Ratio**

Both of these ratios are referred to as liquidity ratios.

In this particular module—in this introductory module dealing with Financial Statement Ratios—the two (2) Ratios that we will talk about is what is called 1) Working Capital and 2) the Current Ratio.

Now, both Working Capital and the Current Ratio are referred to as: Liquidity Ratios.

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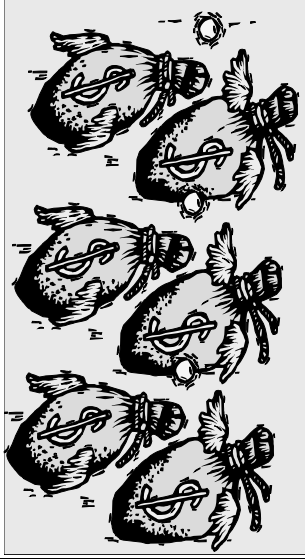
Slide 6

Chapter 3 Module 8: Liquidity Ratios



Liquidity Ratios

Measure the short-term ability of the company to pay its debts as they come due.

WHO CARES?

Short-term creditors such as bankers and suppliers

Liquidity Ratios measure the ability of the company to pay its debts as they come due. They give us some feel for the company's ability to make its debt payments on time.

I have a question for you:

Who cares about this? Who would be interested in the Liquidity Ratios?

Short-term Creditors and Suppliers are really interested, right? They want to make sure that they can get paid back before making the loan. If the Banker looks at your Financial Ratios and says: "Oh boy! I am not sure that they will be able to repay the debt as it comes due." They may not want to make the loan to us. Or, they may want to make the loan but charge us a higher interest rate because we carry a higher risk.

So, your Short-Term Lenders and your Suppliers and anybody that is lending money to the company are very interested in these Liquidity Ratios.

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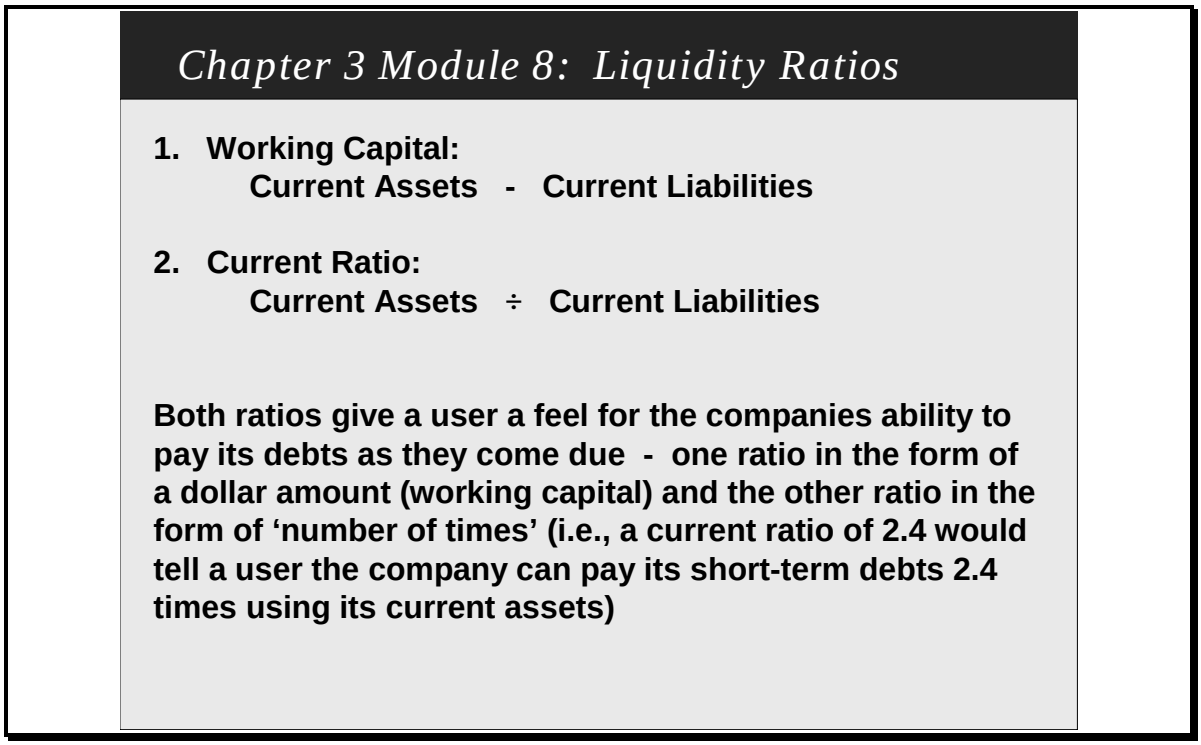
Slide 7



You can see how to calculate both Working Capital and the Current Ratio.

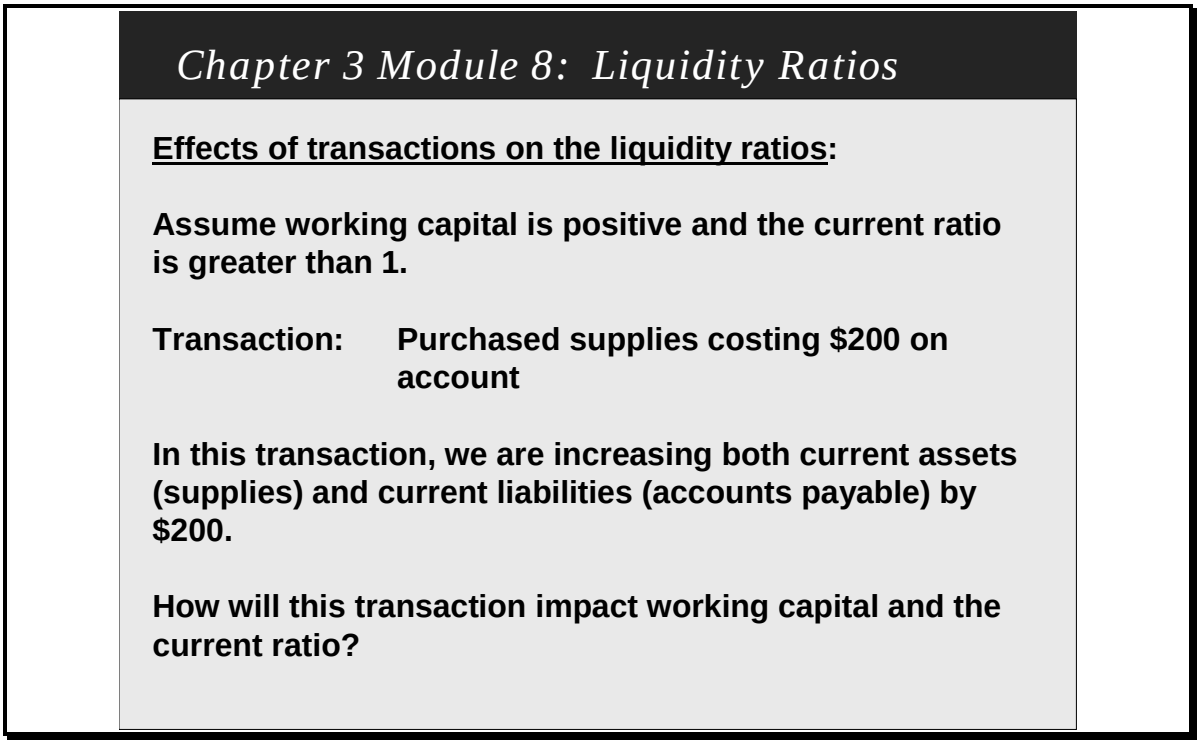
And you can see that 1) Working Capital is Current Assets minus (-) Current Liabilities. 2) Current Ratio is Current Assets divided by (/) Current Liabilities.

So, both of these use the same components in the formula. But, the Working Capital gives you a dollar amount—simply the excess of Current Assets over Current Liabilities. The Current Ratio gives you a number in a true ratio form—we will do a division.

Both give us the same meaning. Both of these give us a feel for the company's ability to pay its debts as they come due. One is in the form of dollar amount (Working Capital) and one in the form of a ratio (the Current Ratio).

For example—and you can see here on the slide (Slide 7)—if you have a Current Ratio of 2.4, what that means is that: the company would be able to pay its debts 2.4 times out of its Current Assets. So, we would actually be able to pay our debts 2.4 times if necessary. We have a good bit of coverage, or excess I should say, of Current Assets over Current Liabilities.

Slide 8



One of the things that we are going to be very interested in being able to do is to be able to determine the effects of transactions on those Ratios—on the Working Capital and on the Current Ratio.

Now, to do that, we are going to need to make an assumption. And, as we work through an example here, let's make this assumption.

Let's assume that the Working Capital is positive and the Current Ratio is greater than 1.0.

Now, what these assumptions tell us is that the Current Assets are larger than the Current Liabilities.

Working Capital being positive means the Current Assets are larger than the Current Liabilities.

And, the Current Ratio greater than 1.0—the numerator is larger than the denominator—it is the same story.

So, we are going to assume that Current Assets are larger than Current Liabilities.

And, now, let's take a look at this transaction.

Let's say that: we purchase supplies costing $200.00 on account.

How is this transaction going to affect the two Ratios?

Buying supplies on account should tell us: we are increasing both Current Assets—Supplies—and Current Liabilities—Accounts Payable—by $200.00.

So, both Current Assets and Current Liabilities are going up.

The big question is:

How will this transaction affect Working Capital and the Current Ratio?

Let's go to the next slide and let's work through this.

Slide 9

Chapter 3 Module 8: Liquidity Ratios

Working capital:

Assume: current assets = $1,000
current liabilities = $500

Thus, working capital = 1,000 - 500 = $500

After the transaction, working capital would be:

1,200 - 700 = $500

Thus, the transaction had no effect on working capital.

Remember: with the Working Capital, we know Current Assets minus (-) Current Liabilities. And, we have assumed the Working Capital is positive.

So, here on the slide (Slide 9) you can see—let's just make up any numbers—any numbers you want—you are allowed to use as long as the numbers you make up have the Working Capital being positive.

So, I have said: "Let's assume Current Assets are $1,000 and Current Liabilities are $500.00." Before the transaction, the Working Capital was $500.00.

Now, we purchased the supplies on account.

Now, we have increased the Current Assets by $200.00 to $1,200. We have increased the Current Liabilities by $200.00 to $700.00.

The Working Capital is still $500.00.

In this example, because we increased both Current Assets and Current Liabilities; the difference—called Working Capital—is unaffected.

Let's see if that will hold true for the Current Ratio as well.

Go to the next slide with me.

Slide 10

Chapter 3 Module 8: Liquidity Ratios

Current ratio:

Assume: current assets = $1,000
current liabilities = $500

Thus, the current ratio = 1,000 ÷ 500 = 2

After the transaction, the current ratio would be:

1,200 ÷ 700 = 1.71

Thus, the transaction resulted in a decrease in the current ratio.

And, remember: we have assumed the Current Ratio is greater than 1.0.

So, again, I will assume Current Assets of $1,000 and Current Liabilities of $500.00, giving me a Current Ratio of 2.0, which is, of course, greater than 1.0.

How will this Ratio be affected by our transaction?

Remember: purchasing supplies on account, we increased both the Current Assets and the Current Liabilities by $200.00.

So, after the transaction, we take Current Assets of $1,200 and divide by (/) Current Liabilities of $700.00.

That gives us a Current Ratio of 1.71.

Hence, the Current Ratio was decreased by this transaction.

The reason is: we are doing a division.

And, when we increase the numerator and then denominator—even though it was by the same amount—the denominator because it was smaller to begin with increased by a larger percentage.

Hence, the Ratio went down.

Now, when you are analyzing the effects of transactions on these Ratios, the best thing that you can do—the advice I would give you—is: to make up the numbers—make up numbers to start. They are always going to tell you if Working Capital is positive or negative or if Current Ratio is greater than or less than 1.0. So, make up numbers to fit that assumption and then incorporate the effects of the transaction into the formula and see what happens.