Scenic Video Transcript

Revenues

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Transcript

Introduction

Welcome to the Revenue Recognition scenic route video where you're going to learn how to record basic revenue recognition entries and also about situations where revenue recognition can be much more challenging. So let's get started.

We begin with the sales agreement timeline. Now, this is just a representative sales agreement timeline. They can vary depending on the business context but let's look at some of the things that can happen when the sell occurs.

First of all, there can be a customer order and then there can be a production of a good. So, for example, you order a computer from Dell. And then there's delivery, and then you get invoiced that's just like receiving a bill, the customer gets a bill, and then products can be returned. If a customer is not happy, they can return it. And there can be price protection, what a company will say is if you could find a better price somewhere else, well, then we'll match that price even if it happens after the sell but only within the specified period. And at other times in the high-tech industry, for example, companies like Intel will protect their distributors against technology obsolescence in which case the distributor would be left with obsolete inventory and they'll say, "If the price drops, we'll protect you."

And then there's receiving cash from the customer, the customer was billed back here but they pay here. And sometimes you pay a customer rebate out here and there can be warranty coverage. We're going to start out in this module with some really basic revenue recognition issues where we don't have to do at all this at once. But in the subsequent chapter we will be dealing with all these issues.

So what is revenue recognition given that this is the environment in which revenues are recognized? Well, the big issues in revenue recognition are when– when during the life of a sales agreement should revenue be recognized? So, when do events and circumstances lead to recognizing an increase in that asset? How do we get an increase in that asset? Well, assets minus liability equal owners' equity. So how can we get a chance in that asset? Well, an increase in an asset is recognized without an offsetting decrease in another asset or an increase in a liability.

Now, let's think about that. So, an asset goes up over here and there can be a small decrease in another asset or there can be an increase in a liability but these can't offset the increase in the asset. And when that's true, well, there's a net effect over here, that's an increase and that's going to be revenue if it's from ordinary activities and, of course, there's no transactions with owners etc., etc.

And then a decrease in the liability is recognized with an offsetting increase in another liability and/or decrease in an asset. So, for example, a liability decreases – if the liability decreases, that's negative on this side of equation and without an increase in another liability that offsets it there can be one but it can offset or without an offsetting increase in an asset, well then there's a net effect over here of a positive because the liability went down and that's negatively signed the way we write an equation here. And so, owners' equity goes up and that will give you revenue.

The critical thing for you to understand right now is when we're looking at recognizing revenue – we're really thinking about asset recognition, did an asset go up or liability de-recognition, did a liability go down.

So the very first question is when do we do that? I mean, we've got all these events happening. So, if we do it here, when we invoice the customer well that would recognizing revenue earlier than if we wait till we get the cash from the customer, or do we wait till we pay the rebate when we really know exactly how much we're going to make off for this sale.

All of those are big decisions for accountants. And then the second question is how much revenue should be recognized. Now, we'll be looking at several examples that show the issue of when and how much and you're going to internalize this but we're not going to start out with such a complicated picture.

In fact, look at the one we're going to start with. Basic revenue recognition, our first example we will look at and we're going to review these right now is the company receives cash from a customer and then just within a few minutes, it produces the goods, delivers the goods and gets the cash from the customer.

So the customer places an order and then instantly you get back that cash from the customer. Well that happens frequently, right? Every time you go to Starbucks to buy coffee, you make an order, you give them the cash quickly and they produce the coffee and that's exactly the example we're going to be looking at.

Second example will be looking at, again, quite simple, basic revenue recognition but happens frequently. In this case, you produce the good, you receive the customer order and then you deliver the good to the customer and when the customer gets it you invoice or bill them but they don't pay until later. That's a very, very common situation.

And then the third example we're going to look at, well, it looked strange at first. You receive cash from the customer then you get the order from the customer. Now how would that be? Well, we're going to look at what's called a value card for Starbucks where you walk in and you buy this plastic card from Starbucks for $20 or $30 or amount you want. And then when you come back a couple of days later you can use that card to buy coffee so you order your coffee at that time. They produce the coffee, they deliver the coffee but you pay upfront.

Well, that's going to give rise to a whole new set of revenue recognition issues that we're going to examine. So these are our three basic examples and we're going to go through a great deal of detail. So we're going to know every little step and that's going to set you up for bigger revenue recognition problems.

Before we get to revenue recognition though, I want to emphasize that when we recognize revenue, revenue goes on income statement. And of course income statements measure performance. Well, it turns out revenue recognition and sales agreements in general can be viewed as performance obligations on the part of either the buyer or the seller.

For example, here's a buyer's performance obligation: When a customer pays a company, well, that's the buyer performing. And that's the major obligation of a customer they pay for the product. But look at all the obligations for the seller. They can perform by producing goods and, of course, that's performance by delivering goods, by honoring returns from customers, by providing warranty coverage fixing things to come back all of those and by paying rebates.

So these are all performance obligations on the part of the seller. And the significance of that is, remember, when we're deciding whether we recognize revenue, we're deciding whether to put something on an income statement and whether we should pick up a measure of performance. So, it's going to be really important you understand that revenue recognition is tied into performance.

There's one more thing I want to point out right now. Buyer's performance obligations are also called seller's rights and that means, for example, the buyer is obligated to pay but the seller has the right to the money and vice versa on the other side.

Seller's performance obligations are also called buyer's rights. If you pay for a product as a customer, well you have a right to get the product delivered to you. These rights and obligations are fundamentally important and you're going to see they tie right into assets and liability recognition and de-recognition which is fundamental with the revenue recognition.

BASIC REVENUE RECOGNITION

TIED TO ASSET INCREASES

Example 1 – Cash Sale
Our first example for revenue recognition is straightforward. Let's get the assumptions. Starbucks sells coffee to a customer in exchange for $3 cash on October 2nd, 2012. The sales agreement is fully executed at the time of the sell. Starbucks meets all of its performance obligations once the coffee is delivered. The customer meets all of her performance obligations by paying for the coffee.

Now, we're going to ignore the cause associated with this sell. You might recall from the What Do I See section of this chapter, we said there was something called cost of sales and in particular that was tied to the direct cost of selling a product. So there will definitely be direct cost to selling the coffee, the cost of the coffee for example.

But we're going to ignore that for right now and that entry by the way will be recorded at exactly the same time as we record the revenue and we'll learn about that in a subsequent video when we study expense recognition. But for right now, we're focusing just on revenue recognition and accountants tend to think that way, I mean, the two are related but they tend to think of revenue recognition and all the issues that go with recognition largely distinct from the related expense recognition. So, it's very important you understand because students are always saying, "Well, what about the cost?" Well, we're going to do that later.

Now, continuing with example one, we're going to draw a timeline. And timelines are really important, and we're going to go through this so slow to make some very important conceptual links and then we'll speed up when we get to the other examples.

So here's our timeline once again. Starbucks receives a customer order and then within a few minutes, they produce the coffee, deliver the coffee and receive cash from the customer. So this is the simplest timeline we're going to have. And look at the questions we want to ask over here. How is Starbucks' net assets affected by this if we ignore the cost?

First of all, should an asset be recognized? Well, think about it. What happened? And the picture tells us what happened. We got cash from a customer. If we got cash from a customer, well, at least one asset should be recognized and that's going to be cash. And cash is going to go up by how much? $3. So, we're going to put at least $3 over here for one asset.

Should an asset be derecognized? Now that word is kind of ugly, "derecognize," but that's what accountants tend to use. It means, do we remove an asset from the balance sheet. Well, we do with regard to the cost but we're ignoring those right now. So, with regard to the revenue side of the deal, no, we're not going to derecognize an asset.

Should a liability be recognized? This is a critical question when you're doing revenue recognition. Now, the way you think about that is does Starbucks have any remaining obligations to the customer once they've delivered the coffee? And the answer is no, the deal is done. This contract is fully executed over this very, very short time period. So there's no remaining performance obligations on the part of the Starbucks. And therefore no liability is recognized and that's so critical to understand. Should a liability be derecognized? No, we didn't have a liability on our balance sheet with regard to this sell. Starbucks had no obligation to this customer when the customer walks in the door. So nothing is going to get derecognized.

So look at what we've done and notice how we've done it. The way you determine revenue recognition is you go through this series of questions right here and notice what we got. We got an asset, cash, cash went up, no liabilities and if cash went up, no other asset went down and no liability went up. Well then, net assets increase by $3 and that's all we know right now. We're going to break this down, go back to our Owners' Equity Change Map and we're going to work through it, step by step, very slowly. We won't do that forever. But for this one example, we want you to see exactly how everything connects into what we learned in the What Do I See section.

So the next question, were Starbucks' owners involve? Remember what we do with the change map? That we put the $3 in the assets, we got the $3 in owners' equity but now we have to ask, was that a transaction with owners? Well, no, I mean, it's possible one of the owners walked in and bought a cup of coffee but that would be considered a transaction with an owner but not in their role as an owner. So we'll eliminate this right here and the $3 goes over here as other and that's heading in the income.

Now, we move down one step further. Did this event involve a change in accounting policy or restatement of numbers reported in prior financial statements? Well, of course not, you buy a cup of coffee; you're not changing the accounting. And so this is comprehensive income. Is it OCI or is it regular income, net profit (loss)? Does this event pertain to one of the short list of items included on OCI all of which are well beyond the scope of this chapter? I think we're pretty much telling you the answer there.

We're not going over here for several chapters so it goes right here. Now, notice the way we're working down towards revenue and I know you want to just jump down there and get it over with but I want you to see a point we start with the asset and the liability changes. We move over the owners' equity and then we move down.

If you think in this logical way, revenue recognition would be relatively straightforward. Well, we keep going. Is this income? Or is it expense? Well obviously, it's income. And you can check the definition of income, it's an increase in the net assets and that's what we have over here.

Were revenues or gains affected? Which one? Well, it's revenues because Starbucks business is selling coffee. Remember gains tend to come from stuff that is outside of the scope of the ordinary business activities. So, again, notice we've worked that way down, filled out the Owners' Equity Change Map for this one entry.

Now, let's record the entry. You got assets equal liabilities plus owners' equity. Well, what's the assets, go over to our accounts; we've got an asset, current asset, cash, of course. And then on the other side, owners' equity, what do we have? Well, we're not looking at a permanent account, we're looking at a temporary account, we know we're going to record revenue, there it is right there.

Now, what about the sign of the accounts? Remember, that's important. Well cash increases assets, so cash is signed positively, and revenues is a positively signed account because it increases owners' equity.
Now, what about the entry signs? Well, cash went up by $3 and revenues went up by $3. And there's our balance sheet equation mini-matrix for this event.

How would you record the journal entry for the same event given the balance sheet equation mini-matrix? Straightforward. We have to figure out our debits and our credits. And remember the two-step process. First of all, what kind of account is cash? Well, cash is a positively signed account and it's on the left-hand side of the equation so it's a debit account and it increased so it gets debited to $3.

Now revenue we know is going to get credited because debits have to equal credit but let's work through it. Revenue is a positively signed account but it's on the right-hand side of the equation so that's a credit account and it increases so indeed it does get credited. There is our debits, our credits, our balance sheet equation, our first entry for revenue recognition.

What can we take away from this? Well, revenue is realized when cash is collected. That's exactly what it means to be realized. Revenue is said to be earned – earned when the seller has met performance obligations or the cost of the remaining obligations could be reliably estimated and it's relatively small. So, these words "earned" and "realized" will come back to those when we look at revenue recognition criteria later in this module.

The sales agreement is said to be fully executed at the time of the sell. Starbucks meets all its performance obligations. The customer meets all her performance obligations. Net assets and thus revenue increase because an asset, cash, increases without any offsetting decrease in another asset or any increase in liability. This need not happen when there is a cash sell, you can have a cash sell without having an increase in net assets and we'll show that in just a while.

Example 2 – Credit Sale
Our second example for a revenue recognition deals with a credit sale. So let's look at what we have here for our basic assumptions because by now you should be seeing the assumptions are very important to revenue recognition.

On September the 30th, 2011, Starbucks receives $30,000 non-cancellable order from a distributor for package coffee beans that the distributor plans to resell to grocery stores at a future date. So, there is an order that comes in.

On October 2nd, 2011, which is out here, Starbucks delivers the coffee beans and invoices the distributor for the full $30,000. The distributor must pay the $30,000 on or before November 2nd and Starbucks, and this is important, is confident that distributor will fulfill this requirement. So the payment is out here.

So we really have three events: we have the order, the delivery and billing, and the cash collection from the customer. Now, what we're going to do is we're going to look at these series events because in theory, we could recognize revenue at any one of these dates.

So let's figure out just exactly when we should recognize revenue. We begin at the order date. How was Starbucks' net assets affected when the order was received? Should an asset be recognized in the orders received? You're tempted to say yes, the distributor places an order, guaranteed the sales first that made that orders feel pretty good, looks like they have a future benefit, looks like they have an asset. And that asset by the way would be in the form of a receivable. They're expecting a payment way out here from the distributor. However, we're not going to recognize an asset and the reason is Starbucks is not going to get that asset unless they deliver the coffee.

So that's a conditional future benefit. They only get that future benefit if they perform and Starbucks hasn't performed at all. And the customer hasn't performed. Customers are not obligated to pay unless we deliver the coffee, and we're not obligated to deliver the coffee unless we're pretty sure we're going to get paid. This is what's called an executory contract. And what it means is neither party has performed at that date.

Agreements are called executory contracts after they have been entered into but before either party has performed. So, when you get the order, that's called an executory contract. They're called fully executed contracts once both parties have satisfied all the performance obligations. Out here at the end of the contract. And they're partially executed in between.

And here's the important thing you want to walk away from all this. Generally entries are not recorded for executory contracts and they certainly won't be for any of the contracts that we're going to be looking at for several chapters.

So we don't recognize revenue when we receive the order from the customer, we do nothing. No entries are recorded at all by the accountant at that date. What about we deliver the goods to the customer, well, now we performed if we're Starbucks. How is Starbucks' net assets affected when the coffee beans were delivered. Should an asset be recognized? What do you think? The customer's been billed and so yes, an asset should be recognized at that day and the asset is going to be a receivable and it's going to be for $30.

Should an asset be derecognized? Well, again, we're ignoring the cost associated with the sale so the answer is no. I mean, there will be an asset derecognized when the inventory goes out the door to the distributor, that's a different entry.

Should a liability be recognized? Well, let's look at it. Starbucks has delivered the coffee and there is really no performance obligations left for Starbucks to do. They've done their part of the deal and they haven't got their cash yet but they've done their part of the deal.

Now, the reason we recognize a receivable is because Starbucks is confident that distributor will fulfill this requirement, no liability, though. So, once again, no assets go down but an asset goes up, no liability effects so owners' equity goes up and we're on our way to recognizing revenue.

Now, here we how these traces through the Owners' Equity Change Map. Owners' equity goes up by $30, assets went up by $30, liabilities were unaffected, don't have a transaction with owners so we're over here and then comprehensive income, and then we got net profit and then we got the income, oh, indeed, we have revenues because we meet all these definitions all the way through here you see.

So, revenue is going to be recognized at the point where Starbucks makes the delivery to the distributor. It's fundamentally important to realize that we're only recognizing that revenue because Starbucks is confident that they're going to be collecting that receivable in November.

So let's record the entry using the balance sheet equation mini-matrix. So you have assets equal liabilities plus owners' equity and we want to record the entry at the delivery and the billing. Well, there was a bill, so it's a sell on account - it's accounts receivable, it's not cash. They haven't got the cash yet. So we're going to have accounts receivable over here as an asset and on the other side, we're going to have revenue. And accounts receivable is a positively signed account because it increases assets. And revenues is a positively signed account because it increases owners' equity. And accounts receivable increases by $30 and revenues increases by $30. So, we've recognized revenue and that's going go to the income statement. And importantly, when we recognize revenue, the company has performed. It's performed by delivering the coffee and they're pretty sure that the other side, the counter party, the customer, is also going to perform.

So again, we're tying performance into revenue because the income statement is about measuring performance.

But what's the journal entry look like? Debit, credit. We have a debit account over here because we have an asset that's positively signed and it increased. So, accounts receivable is our debit for $30 and our credit again is the revenue. And you can say, "Well, how does that different from our prior example?" Well, the only difference is the asset. The only difference is the asset.

In the prior example, we had a cash sale. What's the difference? Well, there is a difference. And the fundamental difference from an economic perspective is we have to be confident that we're going to collect this receivable in the future in order to recognize the revenue here.

And what happens when we ultimately collect the cash? What happens out here? Well, let's look at our net assets and see what happens. See, students are tempted to want to recognize revenue every time they collect cash. And here's a great example of where that's not true. We've already recognized revenue so let's see what happens. What we got to do is ask our basic questions. Should an asset be recognized? Oh, you bet. Our favorite asset, cash, and cash is going to go up by $30. Should an asset be derecognized, that is taken off the balance sheet. And the answer is yes again. And that was going to be accounts receivable. Accounts receivable is going to go down by $30.

Should a liability be recognized? Oh no, there's no performance obligations left at all for Starbucks at this point. They perform way back here. Should a liability be derecognized? No, we haven't recognized any liability at this point with regard to this sale.

So what's the net effect on the assets? Zero. What's the change in liability? Zero. What's the change in owners' equity? Zero. What flows down to revenue ultimately? Zero. No revenues recognized because we already recognized the revenue back when we billed a customer and delivered the goods. What does the balance sheet equation matrix look like at the collection date?

Well, it's easy. We got assets equal liability plus owners' equity. What accounts are affected? Well, cash and accounts receivable. So, two assets: cash and accounts receivable and we'll put our equal sign right here. Now, what's the sign of those accounts? Well, the sign of the accounts is cash is positive, accounts receivable is positive because they both increase assets.

What happened to the accounts? Cash increase by $30 and accounts receivable decrease by $30 and the, of course, the reason we derecognize accounts receivable is because the distributor is no longer obligated to pay Starbucks – it's met its obligation, it's performed. There is our mini-equation.

What about the journal entry for the cash collection? Well, this is pretty easy, too, right? We got debit, credit. Cash is a debit account because it's positively signed on the left-hand side of the equation and cash went up so our debit is cash. And accounts receivable is a debit account but it decreased so it gets credited. And our debits are equal to our credits. So that's the end of our second example.

TIED TO LIABILITY INCREASES

Example 3 – Defer Revenue at Sale
And now, we come to example three where we're going to defer revenue. All these assumptions are critical to understanding what happened in the business. And when an accountant is trying to decide whether they recognize revenue, they're going to look at their business and try to figure out what happened in the business and that will be what they're going to account for.

On October 1st, 2011, Starbucks sells a stored-value card, that's what they call it, to a customer in exchange for $20 cash. Maybe you've bought one of these in the past. It's a plastic card where you give Starbucks $20 and then in the future, you can come back and swipe the card and buy coffee much more conveniently. The customer can use the card to purchase $20 of Starbucks products at future dates, thus the customer pays $20 in advance. So that's right here at this date.

The customer who purchased the value card on October the 3rd uses it to buy a coffee. So they buy a card here and then on October 3rd, the customer comes back and buys his coffee.

Now, really importantly see we're going to have a fiscal year-end in between. And that means we're going to put out financial statements at that date. And that's going to be critical to you understanding some of the things you're going to see on balance sheets and income statements. Starbucks receives the coffee order and processes the order on October 3rd, takes just a few minutes to deliver that coffee. And we're going to ignore the cost associated with the coffee which will end up in cost of goods sold as indicated earlier. So how was Starbucks net assets affected when the value card was purchased? So we go back at the purchase date, can we recognize revenue? After all the cash came in, should an asset be recognized? Well, yeah, we better because that cash came in, right? $20 worth of cash so you know we got $20 worth of over here for sure.

Should an asset be derecognized, again, ignoring the cost of the sale? No. There's no asset on our book that has to do with this sale other than the inventory we're going to deliver. Should a liability be recognized? Well, remember the critical question. Is there a significant obligation for the seller left in the contract? And the answer is, well yes, the customer hasn't even got the product yet, right? All it is give $20 and so Starbucks is obligated to deliver coffee not just at this date but in future dates until the $20 value has been realized by a customer.

Should a liability be derecognized? Not yet, we just put it on a balance sheet so we have to recognize the liability here for $20. So what's our overall effect on net assets? It's zero. And that's correct. You see the reason it's zero is Starbucks at this point has not substantially performed. They haven't, in the sales agreement, delivered the products at all.

Record the value card sale on October 1st using the accounts on the right side to make a mini-matrix. We know we got an asset, we know we got a liability. So the asset is obvious, that's cash, so we got asset, so we got cash over here and on the other side, we know we got liability but what liability? Well, let's go look for it. So there's not many options here and, by the way, there'll be many more options as we go through the chapter. The only options are, other current liabilities, other non-current and – oh, look at that, deferred revenue.

So we're going to record this into a liability called deferred revenue. Remember liabilities are obligations. And what that liability represents is the obligation to perform for the customer in the future by delivering products. So we'll put DRev over here, deferred revenue. What's the sign of the accounts? Well, that deferred revenue account is positively signed because it increases our liabilities and cash is positively signed.

Now what about the entry sign? Well, the entry sign is going to be positive for both of them so this is going to be plus over here $20 and this is going to be plus $20 over there and there's our mini-matrix.

Now, what's our journal entry? Well, let's get the debit and the credit. Cash is a positively signed account on the left side. It was a debit account and cash is going to get debited for $20 and deferred revenue is going to get credited for $20.

Now the most important thing for you to realize is all this happened before the end of the fiscal year. So that meant that Starbucks will not get to recognize this revenue this year, instead they'll be showing a liability on their balance sheet right there and that's critical because companies want to recognize revenue as soon as possible but they must meet their performance obligations to do so.

Now, we move out to the delivery date. Let's see what happens there. And, again, this is into the next fiscal year so we didn't recognize revenue back here in this fiscal year and instead we recognized a liability, I mean, there's income that was published out to our shareholders and a variety of different media that didn't show up.

Now, what about out here? What's going to happen? Well, we're going to deliver coffee, remember? That's our second assumption down here. We're going to make – sell a cup of coffee for $3. So what happened at that date?

Well, first of all, should an asset be recognized? Let's think about it. If you're Starbucks, did you get an asset from the customer on this date out here? Remember, this is one day. All this happens in a few minutes. And the answer is no. No, you got the asset way back in the prior fiscal year.

Should an asset be derecognized? We're not going to derecognize an asset. You got cash earlier and you're not giving cash out now so no. Should a liability be recognized? Well, we're not going to recognize liability this day because you don't have any future performance obligations because of what we did at this date.

Should a liability be derecognized? And, of course, the answer is yes. Yes, a liability should be derecognized. What does that mean? Well, it means that when we deliver the coffee we've met part of the obligation that we recorded earlier. Remember the obligation was to deliver coffee in the future and we just met that.

So, we had that $20 liability on our balance sheet and now we have performed – we've performed not completely, we still got more performance left in the future with regards to the $20 but we perform. And so the obligation that's outstanding went from $20 to $17. How does that happen? Well, we're going to reduce the liability by $3.

So, we didn't change assets but we reduced our liabilities by $3 but liabilities in the way we're writing the balance sheet equation here, net asset form, where liabilities are negatively signed so a negative and negative, the overall effect on net assets is plus three and so owners' equity goes up by plus three that's going to cascade down through the Owners' Equity Change Map and the revenue going up by three.

Now, we want to record the entry using the balance sheet equation mini-matrix so let's do that. Here's where it looks like in the net asset form of the equation so let's write the equation in our standard form and let's see what the accounts are. Well, assets are unaffected and we know the liability that's affected, it's deferred revenue.

We know that's a positively signed account and over on the owners' equity side, we know we are now going to recognize revenue. And the reason we're going to recognize revenue is that we meet part of our obligation. And what's the entry signs? Well, this is important. The deferred revenue goes down by three and revenue goes up by three so the equation is nicely balanced and there is a mini-equation and we have performed – and notice this time, we didn't perform at the time we got the asset. Remember, performance could be an asset increase or liability decrease. We actually performed by meeting an obligation that we have previously put on our book.

So, again, revenue can be either recognized when an asset goes up either cash or accounts receivable but sometimes you have to wait until you perform later and in that case, when the liability goes down.

And what's a journal entry? Well, debit, credit. What's our debit? Well, we have a liability here and that liability, of course, is on the right-hand side of the balance sheet so it's a credit account but it decreased so it gets debited. So we have deferred revenue gets debited for three and we have revenue gets credited for three because it's on the right-hand side of the equation, it's positively signed, it's a credit account and it increased.

Summary

Now before we're going to look at more challenging situations, we want to summarize what we've learned so far from these basic revenue recognition examples. Well, first of all noticed I've X'd out all the things that we didn't deal with. We didn't deal with rebates, we didn't deal with price protection, product returns, or warranty coverage, future chapters. Instead we just focused on relatively basic rev rec and this is a lot of sales. A lot of sales tie into this very simple model so a good deal revenue recognition is not that complex. Some is, will talk about that later.

Now, you might recall that when you give the general rules for revenue recognition, we said an asset increased without an offsetting, without an offsetting decrease in another asset or liability so we said you could have an asset increasing but you could have a partial decrease in another liability. But for this basic example, we've gone from an offsetting to any offsetting. There was nothing going on the liabilities over here for our basic examples. When we recognize revenue, either cash went up that was the nature of the contract and revenue went up or accounts receivable went up and revenue went up. So all the focus was on an asset increase and that will often happen for revenue recognition.

The second situation we looked at was the value card and in that case, a liability decrease without any offsetting increase in another liability or any offsetting decrease in an asset and so that's our second situation. Didn't have any change in the assets.

Now, these are pure situations because they're all focused on increase in asset or decrease in liability but this is not unusual. This is not unusual at all, so nice summary of the basic concepts for revenue recognition here.

CHALLENGING REVENUE RECOGNITION

Challenges

Now, we want to consider situations where revenue recognition is challenging and we begin with what are the challenges and they all talk about some of the ways in which they're dealt with. Well, first of all, there can be uncertainty regarding future collections and here our focus is on uncertainty regarding the buyer's performance obligations. Remember the buyer really has one big performance obligation. They have to pay for the product and when they do that, they meet that obligation. But there can be a good deal of uncertainty about that. Suppose we invoiced the customer right here so we deliver our products and we invoice them and they're going to pay us out here in the future. Well, how certain are we they're going to pay?

Well, in some business context, there can be a good deal of uncertainty regarding that future payment depending on the business contexts, experts, estimates of the future collections can be tightly dispersed like this or they can be a little wider or they can be really wide.

Now, when experts all agree that you're going to make the collection well that means it's reliably measurable and we're going to feel comfortable recognizing revenue at this point. As we get out here where it's very difficult to draw definitive conclusion that we're going to collect the cash, well then, the reliable measure - it's not there and we don't recognize the revenue. And between these two extremes, well, that's where the tough judgments have to be made.

So, there are business contexts, certainly not buying coffee from Starbucks, where sales are made, especially in very tough economies, where there can be a significant uncertainty about future collection. In that case, we don't recognize revenue. We also don't recognize a receivable because it's not reliably measurable. So no entry is recorded.

Now, we move to additional challenges but these challenges are on meeting seller's performance obligations as oppose to the buyers. Remember that the buyer's obligation is to pay but the seller has plenty of obligations depending on the business context. So determining whether revenue should be recognized at delivery and how much should we recognize is challenging to the extent objective experts estimates of the net revenues that will ultimately be realized after taking the account product returns and other remaining performance obligations are widely dispersed.

So, company produces something, delivers it, invoices the customer, maybe they're confident that customers are going to pay in this case but there's still lots of things to do. The customer might return the product. Now, if you recognize the revenue now and then they return the product, well, you could be exaggerating your ultimate revenue.

What about if you offer price protection, what about you sell something for $10 but you say, "Look, if you could buy a better price somewhere else, well, we'll match it." But what if there's lot of uncertainty about that and maybe somebody else could sell for $8 or $7 or $6 and you recognize $10 of the revenue and you don't find out whether you have to offer the price protection till next year. Well then you've exaggerated your revenue.

What about a variety of other obligations that you have? Maybe your warranty cost because you make such a faulty product well they're going to exceed any revenue you might make and then you have to take that into account and whether you recognize the revenue. So the point is, it could be very difficult to figure out what your net revenues are going to be if there's a great deal of uncertainty about the cost of meeting all your future performance obligations. And that we've just captured here in our dispersion curves.

We can have a good deal of confidence about estimating, say, product returns or price protection and all the way down to not much confidence at all. That makes a big difference when we get to a later chapter as to whether we recognize revenue or don't recognize revenue at this point.

We can recognize revenue here if we can reliably estimate all these things in the future and we deliver the product and so we essentially met our performance obligations or can reliably estimate the remaining performance obligations.

Now, here's another situation that shows up off and especially as you read revenue recognition footnotes and has to do with something called a multiple element arrangement. Now, we're going to give you a nice example here involving Apple computer but for right now, what this pertains to is when a company sells a bundle of products, more than one product that are delivered at an alternative dates so they're delivered in at least two dates but they charge one price for it upfront.

So let's look at in the example. Under U.S. GAAP that was in effect prior to October 7th, 2009, we're going to see this changed, Apple could not – could not recognize all the revenue associated with selling iPhones at the time they were sold. So here, Apple sells an iPhone and there was a second part of that sale. So when they sold the iPhone, the customer walked out the door with the iPhone but there were free software upgrades that were going to delivered over the next 24 months. So, you buy the phone today and you're entitled to essentially additional products in the future. Whenever Apple upgrades the software, well, you get the upgrade. So there were multiple elements to this sale, the phone and the upgrades.

Standard-setters concluded Apple had two performance obligations. They're called deliverables. They could not be separated and this is important. They saw this one big deal. Delivering iPhones at the time of the sell and delivering free software upgrades in the future.

This is an example of a multiple element sales agreement wherein customers pay one price for two or more products delivered at different dates. These are very, very common and they had been at the heart of many challenging revenue recognition issues for both standard-setters and companies.

Prior to October 7th, 2009, Apple had to recognize iPhone revenue evenly over the 24 months. So, if they sold it for, let's say, $240 to make it easy and divided by 24, they get $10 worth of their revenue each month.

As a result, Apple recognized nearly $15 B of deferred revenues. You see what would happen is they'd sell the iPhone here and they would recognize deferred revenue of $240 and then after one month, they get $10 and another month $10 and it was kind of like a value card, right?

Here's the timeline, Apple's fiscal year-ended for 2009 on September 26th, 2009. The FASB changed the revenue recognition standards shortly thereafter. And then Apple filed amended returns and these we get to see. So what changed? Well, let's make this simple for you.

At the end of 2009 under the original accounting, they had a $15 B deferred revenue. That means they had sold all these iPhones $15 B worth but that 24 months hadn't gone by yet. And so they yet to recognize revenue. That's a lot of deferred revenue.

When Apple restated this 2009 balance sheet to conform with the new rules, the liability decreased $12 B. And the way that worked is liability went down $12 B, revenues went up $12 B, a big number.

So, what are the key lessons here? The details are not really that important but the big picture is - revenue recognition can require a considerable judgment by standard-setters and companies and these judgments and changes in them can really affect revenues.

You see standard-setters started out faced with a big problem how do you do multiple element contracts. And so they came up with guidance that made sense, it seemed, for a broad set of contracts. But then over time, companies would come to them and say, "You know, it may make sense for these other contracts but it really doesn't make sense in this case." And the standard-setters said, "Right, the original rules were too restrictive for this situation." So they modified the rules, and that's the evolution of accounting. That happens frequently.

So we learn more about their business context and which rules are going to be applied and then we modify them. And over here, you can download this, it shows the difference in all the numbers and on the balance sheet for Apple with regard to deferred revenue.

Authoritative Guidance
Now, what we want to talk about next is what's called revenue recognition guidance. Guidance is also called standards. So when you hear somebody talk about authoritative guidance, they're also talking about accounting standards.

And so, what's the demand for standards, that is why do we need them? Why do we need them for revenue recognition? Well, there are plenty of them so we want to spend a little bit of time talking about this. The demand for revenue recognition guidance comes from motive and from opportunity. And by motive and opportunity, we're pertaining to the prepares of accounting reports.

So revenues have a significant effect on stock prices. When an investor is looking at a company, one of the things they look for is how are their revenues and that becomes a critical element in building what's called valuation models. So revenues are really important to investors. So measuring revenues as reliably as possible is important for effective function of capital markets. Capital markets meaning the debt markets and the equity markets.

They need reliable information because it's so critical to the models they build and the way they value companies and if they value companies incorrectly then capital is allocated inefficiently in the economy. So, revenue recognition is an extremely important decision in terms of getting it right for the capital markets.

Companies have an incentive to exaggerate revenues to boost their stock price. So the motive is two-fold, there's a motive, at the public interest level, we need good numbers in order to have capital markets work well. But companies get rewarded for good numbers so they have an incentive to exaggerate their revenues.

And in fact, if you look at the cases that are called enforcement actions by the Securities and Exchange Commission in the U.S. somewhere between 30 to 40% of those are related to revenue recognition where companies have exaggerated their revenues and got in big trouble with the regulators. So there's plenty of motive. People can exaggerate their numbers, numbers that are very important to market so better get the numbers right.

And then there's opportunities. Problems in accounting and that is people exaggerating the numbers. What are some other crimes, right? There has to be a motive and there has to be an opportunity. So let's get to the opportunity.

To the extent the dispersion of objective experts estimates or related measures are widely dispersed or recognition is otherwise problematic, well, you got opportunity. Why? Well, suppose you were trying to exaggerate your numbers and suppose you're looked at – here's where the objective experts' dispersion is, right here. Really tight together.

Well, if you pick a number that's way down here or way up here, you're going to be far from the experts and if you're far from the experts, well, you're probably going to get accused of manipulating your revenue.

Now, contrast that with this situation, here where the experts themselves or their estimates are dispersed widely. Well, you could pick any number in here and say, "Well, I'm an expert." And you could do that opportunistically, pick a high number or pick a low number depending on what you needed to meet your objectives.

So there are opportunities to manipulate revenues but there's also opportunities just to get lost because when things are complicated and experts have a difficult time measuring something, well, there's lots of room for honest errors.

So, the point being, there's a big demand for guidance restricting the measurement possibilities, putting some discipline on those measurement possibilities because if we don't do that people can make honest errors or they can manipulate numbers.

So here's the current criteria for revenue recognition under the International Accounting Standards Board. And we will soon look at how similar these are to U.S. GAAP. There are five criteria and we'll just quickly look at them.

The entity has transferred to the buyer the significant risk and reward of ownership. How does the seller perform? Well, the seller performs by transferring the goods to the customer and the entity retains neither continuing managial involvement to the degree usually associated with ownership nor affective control. So, the company gives up control.

The amount of revenue can be reliably estimated. So, if you have product returns in the future and price protection and things like that and you can't estimate them reliably, then you can't recognize revenue. It's probable that the economic benefits associated with transactional flow of the entity. Well, that's just collectability. They're pretty sure they're going to collect on receivable and they can estimate the cost in order to fulfill the rest of their obligations. These are all things we talked about as we went through the example. Now, we're making them explicit. And this is the current guidance now we're saying current guidance because all of this is about to change and you're going to be prepared for it.

Now, this is U.S. GAAP over here versus IFRS. They are essentially the same. If we take the first two criteria, the risks and rewards of ownership go to the customer and control is given up by the company that's essentially delivery. And if you look at the U.S. standards that's essentially delivery. And the amount of revenue can be measured reliably. The sellers' price to buyer is fixed or determinable, is a criteria.

Fancy language but it just means you can reliably tell what the net revenues are going to be that you'll ultimately realize. And it's probable that the economic benefits associated with transaction will flow to the entity, well, that just means collectability is reasonably assured.

So the only point where there's a real difference is IFRS has this criteria that says the cost to be incurred in respect to the transaction can be measured reliably. So, whatever it is that you're going to face is future cost while you can estimate those reliably these criteria are pretty much the same. I mean, they do differ but not significantly at this general level.

Here by the way is similar criteria for service contracts. You can download this and look at them. They're almost identical except they pertain to services rather than products.

Revenue recognition has those general criteria that we gave on the prior slides but when you get into specific industries, well, those general criteria are not sufficient. Both standards setting bodies have found they have to offer more guidance. And so if you look under IASB, there's specific revenue recognition criteria for construction contracts like building bridges or building highways, something that takes a long time, for leases, for insurance contracts, for what's called financial instruments and for minerals extraction but that's it. That's pretty much it under IASB.

By contrast, there are 155 standards covering many different industries under U.S. GAAP. So your take away from that is first of all, by looking at the basic revenue recognition examples that we looked at earlier in this video, well, they're going to cover a good deal of sales, they're going to help you out, they're going to get you off to a really good start but later, we're going to have to come back and look at a bunch of other situations because revenue recognition is much more challenging. And because it's so challenging, there's lots of guidance and there's much more guidance under U.S. GAAP.

So current guidance is similar at the big picture of principal level but U.S. GAAP has much more detailed guidance, much more. And this has led to a great deal of frustration. All these various rules and even under IASB and a need to come up with a common set of accounting for both IFRS and U.S. GAAP and to try to come up with some better principles that will cover more business context and will simplify the accounting significantly.

And right now, there are proposed changes. And the propose changes are very consistent with what we've been discussing in this video. The goal is to get more consistency so if you're looking at financial statements for Siemens that you're comparing at the General Electric, one is an IFRS company, one is a U.S GAAP company, well, you want to be comparing apples to apples as much as possible and the revenue recognition rules which are absolutely essential to investors, well, they have to be comparable and right now they're generally not.

So, what are we going to do? Well, revenue recognition and measurement in the current draft of the new proposed changes is all expressed in terms we've used here. Sellers rights and performance obligations, well, that's what we've been talking about.

So we framed the current gap in terms of terms and concepts that you're going to see in the new GAAP. And our hope in doing that is that we've both prepared you for the current GAAP but also for the future GAAP. And its asset and liability recognition to measurement – so their new standards will be based on the asset and liability recognition, and derecognition issues that we talked about earlier.

There will be a five-step process. You got to identify the contract with the customer, that's the sales agreement line that we drew for you, identify the separate performance obligations in the contract, that's what we drew for you, determine the transaction price, how much could we charge for the goods, we saw that in our examples, allocate the price as a separate performance obligations. So for example, Apple allocating part of the price to the software upgrades and part to the iPhone and recognize revenue when the entity satisfies each performance obligation which is exactly what we talked through.

So we've gone through a good deal of work here to both prepare you for the current accounting and also for where we think the accounting is heading.

Take-aways

What should you know by now? What are the takeaways? Well, let's begin with revenue recognition decisions. What are they? When do events and circumstances occur in the course of ordinary activities lead to recognizing an increase in net assets? And that's revenue.

So when – and then we didn't talk about it much but how much should be recognized?

Now, here's a revenue recognition myth and students come hard wire with this myth because I think it's intuitive. Here's the myth. Revenue should be recognized when cash is collected from customers. You know, we saw that in the coffee sell, the very first example, but students tend to think you recognize revenue every time you get cash from a customer.

Well, you'd be right about 1/3 of the time. What's the reality? Revenue should be recognized when an increase in net assets arising in the course of ordinary activities is recognized which sometimes occurs when cash is collected from customers but not always. Let's see what we mean.

Here's the situation where revenue is recognized before cash is collected, remember? We produced the coffee beans if we were Starbucks. They were delivered to the distributor, the distributor was invoiced and the cash was collected later. So we recognized revenue here because we had great confidence that the receivable is going to be collectible in the future. So, in that case, revenue was recognized before the cash was collected.

We also looked at a situation where revenue was recognized when the cash was collected simple coffee sale. Remember, it only took a few minutes, got the order, did the production, sold the coffee. In this case, revenue is recognized when cash was collected. But revenue can be recognized after cash is collected. Remember the value card? Sold the value card to the customer. Cash was collected back here. Revenue wasn't recognized until the next reporting period when we sold coffee.

We've also learned that revenue recognition can be challenging. Now, you don't need to understand all those challenges at this point. You need to understand the basic revenue recognition but you have to have an awareness of how important revenue recognition is and how challenging it can be, along with many, many dimensions that we looked at.

Hope you enjoyed this video and we'll see you in the next one.