More Advanced Merger Models (Case Study 1): Purchase Price Allocation for Stock vs. Asset vs. 338(h)(10) Deals

Welcome to our next lesson in this module on more advanced M&A deals and merger models. We're going to look at the purchase price allocation here, which is another aspect or schedule or setup that you've seen in the previous models, the 60-minute version and the 3-hour version, for example. But there are some added complexities this time around. So, this will be an extension of what you have previously learned. As always, I have the written notes over here on the side.

You already know why Goodwill gets created an M&A deals, or you should if you've made it this far in the course. The complexity this time around is that depending on the type of deal, a stock purchase or an asset purchase, the acquirer might be able to deduct depreciation and amortization on the asset write-ups, and it might even be able to amortize and deduct for cash-tax purposes Goodwill. If you want more on how all this works, you should really take a look at the written guide and go down to the section about Stock versus Asset versus 338(h)10 Deals.

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I think it's more effective to look at this in written form. It's a little bit difficult to explain something this abstract in a video. I can show you the calculations, but take a look at the comparison table to see how everything here works, and I think that's really the best way to learn it. You can also look at the case study document, and we do provide a short summary here of how some of these items differ and how these different deal structures are different.

The short answer though is that in a stock purchase, the acquirer purchases all of the target's shares, and it gets all the target's assets and all of its liabilities, including off-balance sheet line items. In an asset purchase, the acquirer picks and chooses specific assets and liabilities to acquire and it only pays for those items. Now, there are some other differences as well, but these are the two main concepts that you need to understand to pick up on why these transactions are different. So, it's no coincidence that up here in the very beginning, for the deal structure, we have these two choices, stock purchase and then the asset or 338(h)10 purchase, and it's set to the stock purchase for now.

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Now, be careful because stock purchase here does *not* refer to using stock, issuing stock to do the deal. It refers to the legal structure that is used to do the deal. So, you can have a stock

purchase that is an all-cash deal or an all-debt deal or an all-stock deal. You can have an asset purchase that is a cash, debt, or stock deal, or a mix of all three. So, this is about the legal structure not the financing for the deal.

In terms of other consequences here, in a stock purchase, the acquirer cannot deduct depreciation and amortization on asset write-ups. It cannot amortize Goodwill, at least if the target is a public company. And so, it creates a deferred tax liability. Also, it may write down a portion of the target's net operating losses, but it may use some of them depending on the exact numbers, which we'll get into later on.

In an asset purchase, the acquirer can deduct depreciation and amortization on asset write-ups. It does amortize Goodwill for tax purposes, and it does not create a deferred tax liability because of the fact that it can deduct that D&A on the asset write-ups.

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Also, it needs to write down the target's entire NOL balance, so most of, or at least a good portion of, the deferred tax asset will disappear. A 338(h)10 Election is specific to the U.S. tax code, but sometimes there are similar structures in other countries; essentially, it combines a stock purchase and an asset purchase. So, the acquirer gets all the assets, liabilities, and off-balance sheet items of the target, but also gets the tax benefits of an asset purchase.

We're not going to show the case where Builders FirstSource only acquires specific assets and liabilities of BMC Stock Holdings because it's going to be way too complicated, and it normally isn't even possible for public companies. We've divided this into four main steps here. We need to finish filling out the target's balance sheet as of the transaction close date first, and then we'll make the usual calculations for the allocable purchase premium and write-ups. We will then calculate the tax depreciation and amortization versus book depreciation amortization for different line items. And then we'll link in everything to calculate the Goodwill created here.

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We need the target's balance sheet first because of these items for the book value and the write-off of the target's existing Goodwill. We don't have those right now. So, let's start by going over to the combined balance sheet and filling these in. Now, we already have the formula for total debt, which we filled in in the last lesson here. And really, we can just take this and copy it all the way around here because we already have everything set up. So, I'm just doing that right now. And then we'll get it up here at the top as well. And then we can just sum

these up. Do the same thing for the liabilities. We have that and then we have the same thing for the common shareholders' equity down here.

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You see now why these INDEX and MATCH functions are so useful. Yes, I know they take a bit more time to write in the beginning. But they're really useful for a case like this, where you have new line items being created and where you don't have exact alignment on one version of the balance sheet and another version. They save you a lot of time because then you can just copy and paste these formulas around. And as long as the names, like common shareholders' equity, match up, that's all you really have to do: copy and paste formulas.

Let's sum up our total liabilities and equity as well, and then do a check of the balance sheet. And so we have that. We have all of our items here. We know how much in net PP&E we can potentially write up. We know how much in existing Goodwill of the target we can potentially write down. We also have their deferred tax assets, although we won't be dealing with that directly here. I'm going to save that for a later lesson on taxes and net operating losses, because it does get a bit complicated and there's a lot of new material to cover there.

Let's go to step two now and look at the allocable purchase premium and the asset write-ups. So, the equity purchase price here, we can just go up and link to the purchase equity value in our selected structure.

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Then for the seller's book value, let's go over to the combined balance sheet that we just filled in and link to the common shareholders' equity here. For the write-off of existing Goodwill, let's go up and link to it right here. This just has a positive sign, and then we can add up our allocable purchase premium.

Now, for the write-ups here, for the PP&E write-up, let's take the 10% and go over and link to the seller's net PP&E, so we have that. For the purchase price to allocate for the intangibles, we will just go to our allocable purchase premium. We'll say that 40% of this goes to indefinite-lived intangibles, just as we did in the simplified model. And then for the remainder, let's say 20% goes to definite-lived intangibles, so we have that.

Now, for these annual amortization periods, it's just going to be zero for Goodwill because Goodwill is never amortized for book purposes, at least when you have a public seller like this and a public acquirer.

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For the PP&E, we are going to have depreciation on a book basis. So, let's take our write-up amount divide by the depreciation period here. And then for the definite-lived intangibles, we're also going to take our write up amount and divide by the amortization period, so we have that.

Then let's go to step three here and look at what happens when it's an asset or 338(h)(10) deal because the tax depreciation and amortization will be slightly different; in fact, very different here. First off, for the Goodwill amortization, we're going to do a check here and see what type of deal structure we're dealing with. So, if it's an asset or a 338(h)(10) deal, meaning that we've entered 2 here, then we need to take our Goodwill created and then divide by the period here of 15 years. Otherwise, I'm going to say zero. Now, right now this is just zero because we haven't calculated Goodwill, but that's okay, we'll get into this in a little bit.

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For the fixed asset write-up, it's very similar. So, we can go up and once again, look at our deal structure and then say that if this is equal to 2, then we can, in fact, deduct this for cash-tax purposes. So, we'll take the write-up amount and then we'll divide by the number right here. Otherwise, we'll say zero. And then, it's similar for the last one here. I'm actually just going to copy down this formula so we have it. And I will take our indefinite-lived intangibles, I've created a named cell for it here as well, and then I'll divide by the tax period of 15 years.

If you're wondering about these tax periods and the book periods, 15 is kind of the standard for Goodwill amortization for tax purposes. And with intangibles, it's very similar. It's sort of the default to say 15 years when you amortize these for cash tax purposes. Depreciation can vary a little bit, but sometimes the period here is shorter because companies often want to depreciate more quickly and save more in their cash taxes if they can do so. So, we have these, and we've calculated the tax depreciation and amortization.

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We also, in this part in this step, want to calculate the deferred tax liability. So, remember here that if this is a stock purchase, we will get this. If it is not a stock purchase, then we will get nothing here. So, let's start by checking the deal structure. And if it's number one, a stock purchase, then we need to include all the write-ups. So, the PP&E write-up, the indefinite-lived intangibles, and the definite-lived intangibles and multiply by the buyer's tax rate.

Otherwise, if it's an asset or 338(h)(10) deal, we'll say zero, because we're not going to get a new DTL in that case. So, we have that.

We have this setup, let's now go to step four and link these into the Goodwill created or link these in so that we can calculate the total Goodwill created. I'll start by subtracting the PP&E write-up right here. This is subtracted because we're increasing something on the assets side, so it means we'll need less of Goodwill.

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For the intangibles, let's link to our numbers here. And then we have this item, the write-down of deferred tax assets, this is something we're skipping for now because it gets complicated and I would rather save it. But if you go to the tax schedule right here and you go to the DTA write-down in cell L14, we can link to it for now, just so we don't forget to include it later on, but it's really just going to be blank for now, though it will change in a little bit when we progress through this lesson.

For the write-down of deferred tax liabilities, we are going to assume that these get written down regardless of the deal structure. Now, before you leave a comment or question asking about this, this is not always strictly true, but it's not quite as easy to say what the exact rules are here. Also, the DTL for the target here is rather small, all things considered. So, we're not going to worry a tremendous amount about this one, but be aware that this is a bit of a simplification. We're not going to go into this one in as much detail as we're going into on the deferred tax assets.

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But nevertheless, this is fine for now, and we're just going to link to it and say that it is always written down. A write-down of a liability is a negative because it means that we will need less in Goodwill on the assets side to balance the changes. And then finally, we will link to our new deferred tax liability down here, and so we have that. Let's now add up everything to get our Goodwill created. So, we get to $764 million.

Now, just to check ourselves a little bit and make sure that we haven't done anything crazy or wrong here, let's go and change this to an asset or 338(h)(10) deal. And you could see how it's different. We don't get a deferred tax liability. We do get amortization of Goodwill. We get amortization of these definite-lived intangibles for tax purposes. We also get a different number for the depreciation of the PP&E write-up here. But the important part is that we

don't get a deferred tax liability. Much of the rest of this stays the same. And as you'll see later on, the write-down of the deferred tax assets will also differ in this case.

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The bottom line, though, is that we get less in Goodwill created when we have an asset or 338(h)(10) deal. I'm going to change this back for now. And if you want to, you could try changing the other assumptions to test this, but I'm not going to bother.

That's about it for this lesson. Let's do a quick recap and summary. The main point here is that different types of transaction structures, namely a stock purchase versus an asset purchase, create differences in the purchase price allocation, because in a stock purchase, when the acquirer gets all the target's assets and liabilities, including off-balance sheet items, the acquirer cannot deduct D&A on asset write-ups. It can't amortize Goodwill. And so it creates a deferred tax liability. It will also write down a portion of the target's net operating losses, though it can use some of them.

And we see that right here. We don't have any Goodwill being amortized for tax purposes, nothing for the intangibles, nothing for the PP&E write-up, and we get a deferred tax liability to reflect the lack of ability to deduct these types of items on the write-ups.

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On the other hand, in an asset or 338(h)(10) deal, it's the opposite. We can amortize Goodwill for tax purposes and deduct it. We can do the same thing for the depreciation on the PP&E write-ups, and also for the amortization of the definite-lived intangibles. Since we can deduct these write-ups or the amortization and depreciation of these write-ups, we do not get a deferred tax liability. As a result, our total Goodwill created is lower in this deal structure, although the write-down of the deferred tax assets will change this a little bit later on when we get to it.

Other than that, there aren't really that many differences here. It's still a pretty standard purchase price allocation schedule that's based on the equity purchase price, writing down all the seller's common shareholders' equity, and then writing off their existing Goodwill, and everything else is pretty standard like that.

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That's it for this lesson. Coming up next, we'll finish up with the rest of the combined balance sheet here. We'll fill in the numbers for the acquirer, and then we'll make all the pro-forma adjustments here on the side.