Depreciation & Taxes

Depreciation – A Non-Cash Expense

Depreciation Everywhere
Depreciation Expense is a line item on the Income Statement, and Accumulated Depreciation is on the Balance sheet, being subtracted from the gross fixed assets.

Example:
In the MACRS table below, the original purchase price of the asset was $265.8k. Since the first-year depreciation is 33.33%, the depreciation amount is $88.59k ($265.8k x .3333). Subtracting that depreciation amount ($265.8k - 88.59k) means that the asset’s book value at the end of year one will be $177.21k.

Depreciation Schedule
The percentage to be depreciated is always a percentage of the original amount.
Once you’ve found the dollar value of that percentage, subtract it from the previous year’s book value.

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A Non-Cash Expense
Although depreciation is subtracted from Gross PP&E to get Net PP&E for the Balance Sheet, and it is subtracted on the Income Statement to get EBIT, there is actually no cash moving anywhere.
You see, depreciation is just a concept – not cash. It’s just in there to keep us from having to pay taxes on the “brand new” price of the asset.
This is why – when we’re doing CFO, FCFF, and other cash flows – depreciation is ADDED. It is first taken out to make the taxes less, then put back in when we’re counting cash.

How Does Something Depreciate?

Depreciation Calculation
Assets aren’t taxed by what they are actually worth. They’re taxed by what their value in the accounting books is. And that “book value” is determined by what method the firm chooses to use:

Straight-Line Method
This one is easy. The asset goes from full value down to zero (or some salvage value) over a certain number of years. The formula to figure this out is:

Depreciation = (cost – final value) / years

Example: An asset was bought for $265.8k and will depreciate to zero in four years. What is the yearly depreciation?
($265.8k – $0) / 4 = $66.45k depreciation per year
What if it was going to have a salvage value of $6.7k? The same simple formula:
($265.8k – $6.7k) / 4 = $64.775k depreciation per year

MACRS Method
Instead of straight-line – where every year’s depreciation is the same – MACRS is different each year. The numbers come from the US Government. (And fortunately, you won’t have to memorize them because they are provided in the test questions!)

TAXING THE BOOK VALUE
Look at the MACRS method table above. If you sold that asset for $25k at the end of year 3, how much cash would you end up with after taxes?

Taxes
Your book value at the end of year three is $19.7k
As far as the government is concerned, you came out ahead $5.3k ($25k - $19.7k).
If you have a 38% tax rate, your tax bill will be 38% of $5.3k, which is $2.014k.

Cash
Cash from sale: $25,000
Minus taxes: - $2,014
Total cash gained: = $22,986

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