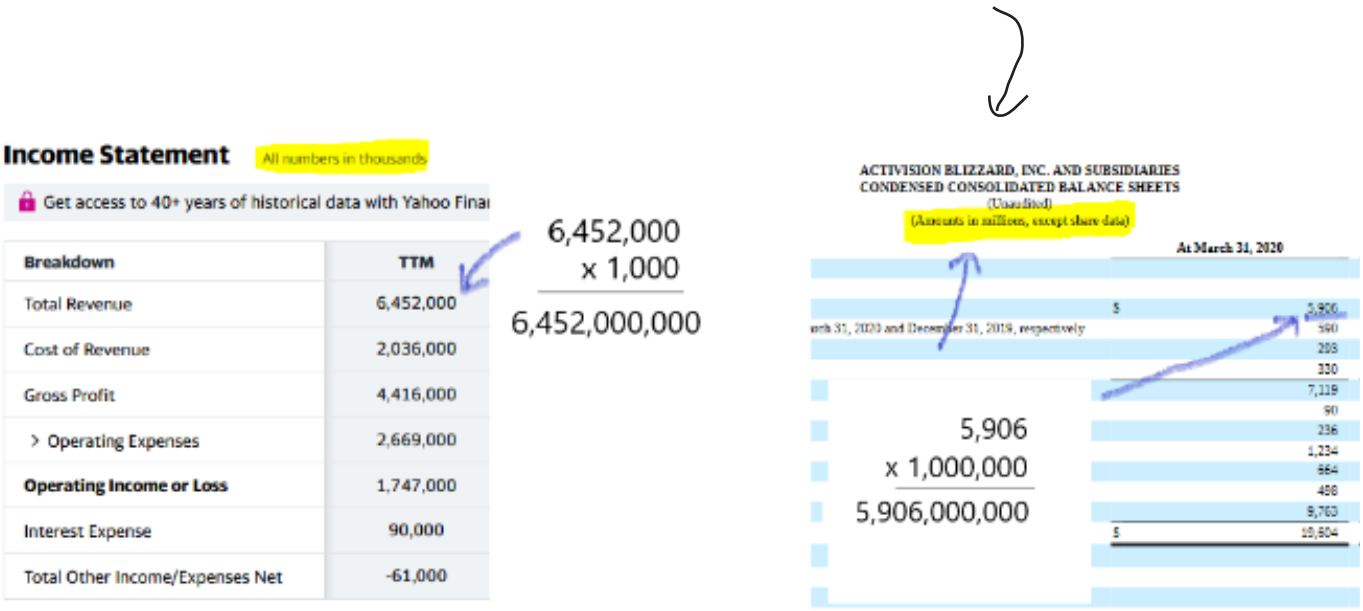
Calculating A Company's Efficiency

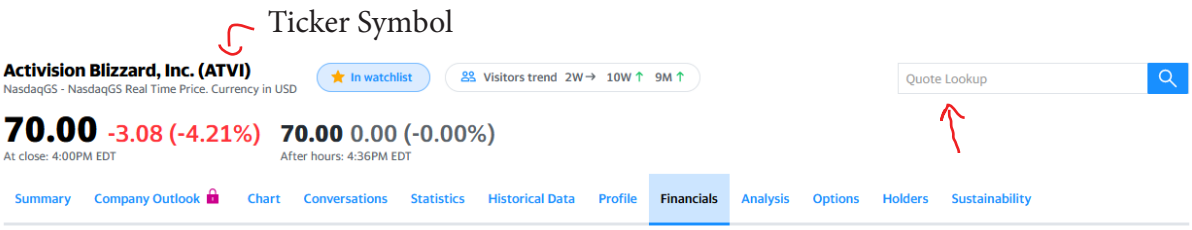
Disclaimer for those who are new to reading financial statements:

For those of you who are new to investing, keep in mind that the numbers you see on the screenshot are in thousands, meaning that “6,452,000 (6.4 million),” is actually 6,452,000,000 (6.4 billion). Numbers in thousands just means to take the number you see on screen e.g. “6,452,000” and multiply it by 1,000. Same thing goes for numbers in millions just that instead of multiplying by 1,000, you multiply by 1,000,000. The reason for this, generally, is to just show the more important digits and to make the numbers easier to readdue to how big these numbers are because of how much money these companies aremaking.Financial statements will generally tell you whether the numbers are in thousands or in millions, like so:

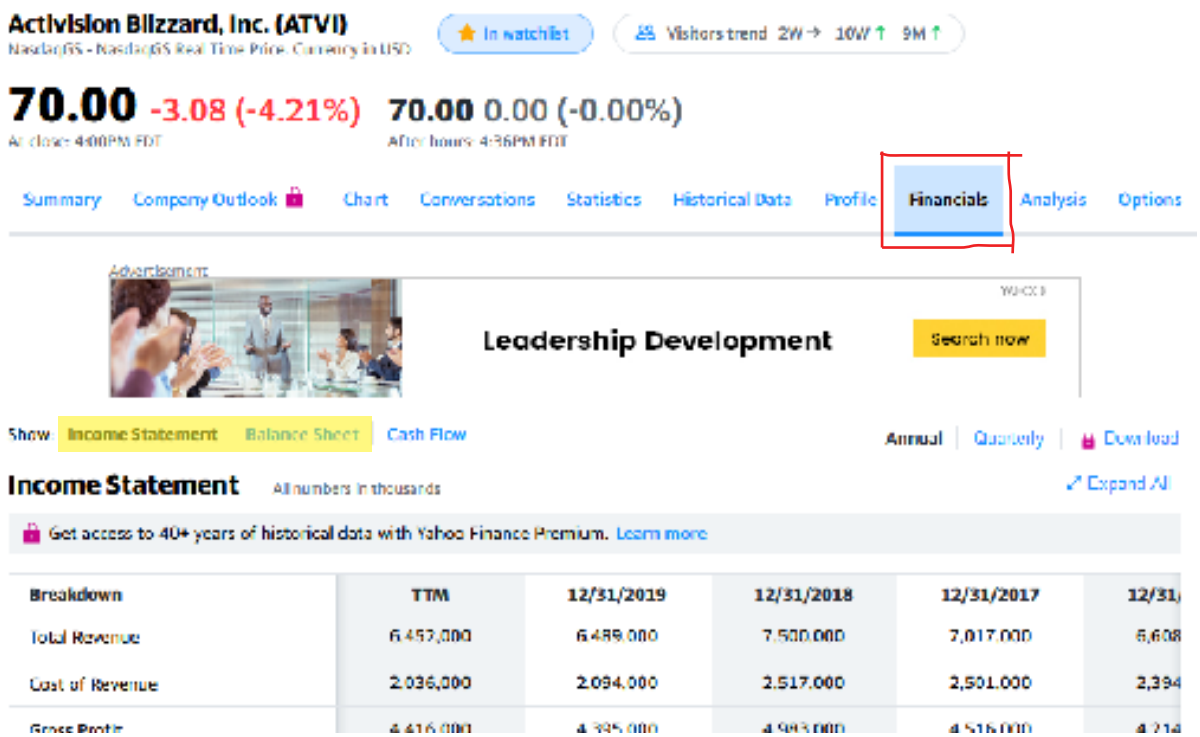


Navigating to the Page:

The easiest way to access a company's income statement, balance sheet, or cash flow statement, is by going to Yahoo Finance. From there you can type in the ticker symbol for a stock you like on the search bar in the top right corner that says "Quote Lookup." If you don't know the ticker symbol of a stock, just look up the name of the company and wait for it to pop up on the search bar.

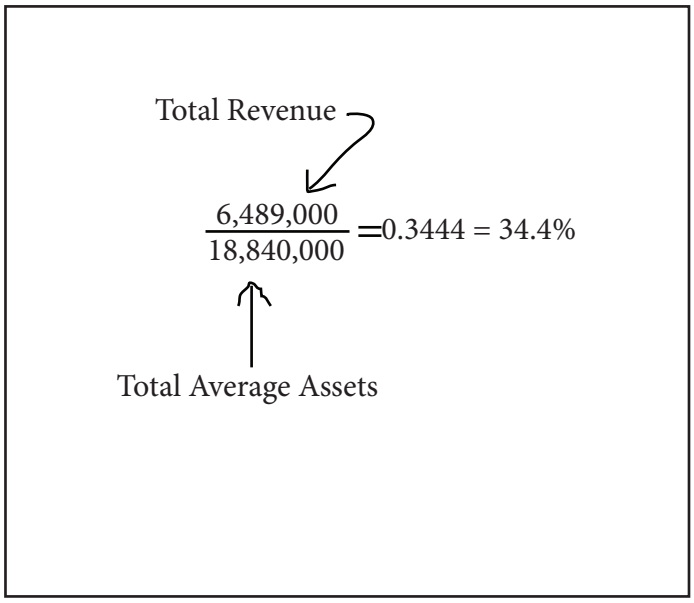


From there just go to their "financials" tab and there you go!



Efficiency is a really good way to gauge how a company manages its assets to generate revenue. Companies have assets that help them keep the business going by either helping them create, deliver, and manage their products. These could be things such as office buildings, trucks, machines, and of course, cash. Business need to make sure they don't have too much of one thing that doesn't provide them with any additional value and doesn't generate the revenue to justify its purchase. This can be easily found by calculating the asset turnover ratio. This can be found by using the following formula:

$$\frac{\text{Total Revenue}}{\text{Total Average Assets}} = \text{Assets Turnover Ratio}$$



Example:

Total Revenue

Breakdown	TTM	12/31/2019
Total Revenue	6,452,000	6,489,000
Cost of Revenue	2,036,000	2,094,000
Gross Profit	4,416,000	4,395,000
> Operating Expenses	2,669,000	2,656,000
Operating Income or Loss	1,747,000	1,739,000
Interest Expense	90,000	90,000
Total Other Income/Expenses Net	-61,000	-95,000
Income Before Tax	1,670,000	1,633,000
Income Tax Expense	109,000	130,000
Income from Continuing Operations	1,561,000	1,503,000
Net Income	1,561,000	1,503,000

Average Total Assets

Total Current Assets	7,292,000	6,106,000
v Non-current assets	12,553,000	11,729,000
v Property, plant and equip...	253,000	282,000
Gross property, plant and e...	1,002,000	1,052,000
Accumulated Depreciation	-749,000	-770,000
Net property, plant and e...	253,000	282,000
Goodwill	9,764,000	9,762,000
Intangible Assets	585,000	800,000
Other long-term assets	658,000	482,000
Total non-current assets	12,553,000	11,729,000
Total Assets	19,845,000	17,835,000

19,845,000 + 17,835,000 = 37,680,000

37,680,000 / 2 = 18,840,000

Figuring Out the Problem

So ideally, you'd like to see a company's efficiency at 100%. But, as you can see, ATVI's efficiency is nowhere near that. Low efficiency indicates that they're not managing their assets properly and not using their assets efficiently to generate more revenue. This could be due to a variety of reasons, such as buying too many assets that don't really contribute much, if at all, to generating sales. Now, usually, you'll want to figure out the source of these problems and you can easily find the asset in question by simply finding the asset that's much bigger than all the others. For ATVI, Goodwill is the asset in question. Goodwill is basically the amount a company paid to acquire another company, over their net asset value. Net asset value is just their assets minus liabilites, so if you have $200 in assets and $100 in liabilities, your net asset value is $100. Simple! So essentially, they overpaid for the businesses they've purchased because they're not contributing enough towards that revenue to make it worth what they paid. The company you chose will likely have a different issue. If it doesn't and their efficiency is 100% plus, then great, move on to the next thing in your research!

Breakdown	12/31/2019
Assets	19,845,000
Current Assets	7,292,000
Cash	5,794,000
Cash And Cash Equivalents	5,794,000
Total Cash	5,794,000
Net Receivables	848,000
Inventory	32,000
Other Current Assets	618,000
Total Current Assets	7,292,000
Non-current assets	12,553,000
Property, plant and equip...	253,000
Gross property, plant and e...	1,002,000
Accumulated Depreciation	-749,000
Net property, plant and e...	253,000
Goodwill	9,764,000
Intangible Assets	585,000
Other long-term assets	658,000
Total non-current assets	12,553,000
Total Assets	19,845,000

As you can see, goodwill is at 9.764 billion, quite a bit more than all the other assets. The only other asset that comes somewhat close is cash and cash equivalents. Goodwill accounts for 49.2% of ATVI's assets. This means that ATVI paid too much for businesses that aren't generating the revenue to justify the price paid for that business. Goodwill shows up on the balance sheet when a company pays in excess of a business's net asset value. Net asset value is assets minus liabilties. So if a business has $200 in assets and $100 in liabilities, then their net asset value is $100. Keep in mind though, that low efficiency may not always be a bad thing depending on the business or their business model. For example, having a lot of cash on the balance sheet will lower a company's efficiency because cash and cash equivalents is basically just cash that's sitting there doing nothing. So that cash isn't being used to generate more sales. Maybe a business makes more money than it knows what to do with and that isn't necessarily a bad thing. They can fix this by paying dividend, they might use it to pay debts, in case the market is weak and sales aren't coming in, that cash comes in handy. Point is, there's nothing wrong with a cash loaded company.

Doing the Recalculation

So once you've found the problem for your specific company, then you can just simply redo the calculation, with the only difference being that you'll subtract that number you found from the equation like so:

$$\frac{6{,}489{,}000}{(18{,}840{,}000 - 9{,}764{,}000)} = 0.7149 = 71.5\%$$

So as you can see, even after the recalculation, we still don't get an efficiency of 100%. So what do you do if this is the case? Well, do the recalculation again! The re-recalculation. You basically just keep doing that until you get to your 100%.

Re-recalculation:

$$\frac{6{,}489{,}000}{(18{,}840{,}000 - 9{,}764{,}000 - 5{,}794{,}000)} = 1.9753 * 100 = 197.6\%$$

And there you go! That's how you find a company's efficiency using the asset turnover ratio