Economic Profit

by Sophia

WHAT'S COVERED

This tutorial will cover economic profit, discussing the difference between accounting and economic costs, as well as how to calculate both accounting and economic profits.

Our discussion breaks down as follows:

1. Opportunity Cost
2. Accounting Profit
3. Economic Profit
4. Accounting vs. Economic Profit

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1. Opportunity Cost

If we are thinking like a business or investor, the point of both--owning a business or investing in a business--is to make a profit.

For a business, profit equals revenues or sales minus costs.

Profit = **Revenues - Costs**

Now, investors and firms have to make strategic decisions all the time, such as what to produce, which technology to use, whether to hire more labor, etc.

Whatever their decision, they are sacrificing something else, which is known as an opportunity cost.

> EXAMPLE For example, suppose a firm has to make a decision about producing Product A or Product B. If they decide to focus their attention on Product A, they are sacrificing the ability to produce Product B, as well as sacrificing the potential returns that Product B could have given them.

Similarly, if they choose one technology over another, they are giving up the ability to implement that other, next best technology.

Investors also make decisions. When investing, they are looking at which company will yield a better return.

They need to evaluate whether a potential investment is safe versus risky.

THINK ABOUT IT

When it comes to investing, are you safe or risky? Would you rather keep your money in the bank or in a low interest bond, or would you invest it in a risky business venture that could potentially yield a high return? If you opt for the risky business venture, you are sacrificing the safe return you could have made on the bond.

Therefore, whatever their decision, investors are also sacrificing the return that could have been made on the other option.

As investors, it is important that we consider what we are sacrificing or giving up, because these opportunity costs will help us decide whether or not we made a profitable decision.

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2. Accounting Profit

Accounting profit is rather straightforward: total revenue minus total cost.

Total revenue--abbreviated TR--is the price of the product times the quantity sold.

Total cost is the cost per unit times the quantity.

FORMULA TO KNOW

Accounting Profit

$$Profit = TR - TC$$
$$where:$$
$$TR = price \times quantity\ sold$$
$$TC = cost\ per\ unit \times quantity\ produced$$

It is important to keep in mind that with accounting profit, the cost per unit represents explicit, out-of-pocket costs--exactly what it cost to produce the product.

Let's look at an example.

IN CONTEXT

Sue opens a diner and wants to know if she has made an accounting profit in her first year.

She tells her accountant that she sold 15,000 meals at $10 each that first year. She figures out that her overall cost per meal--after factoring in those explicit costs such as the food, labor, overhead costs, etc.--was $8 per meal.

To calculate accounting profit, the accountant takes total revenue minus total cost:

Total Revenue	Total Cost
P x Q	Cost per Unit x Q
$10 x 15,000	$8 x 15,000
$150,000	$120,000

According to this calculation, Sue's accountant says that Sue has an accounting profit of $30,000.

3. Economic Profit

However, what would an economist say?

An economist would say that something is missing, that the calculation above did not account for *all* of Sue's true costs.

It did not account for her opportunity costs. An economist would ask Sue what she gave up the opportunity to do in order to open her diner.

Well, it turns out that she quit her previous teaching job in which she was earning $40,000 per year.

She also had invested $100,000 of her savings to open the restaurant, and before she invested it in the restaurant, she was earning a guaranteed 5% interest on it, or $5,000.

Sue's Total Costs	
Explicit Costs	$120,000
Opportunity Cost - Teaching	$40,000
Opportunity Cost - Guaranteed Interest	$5,000
Total Cost	$165,000

Therefore, Sue's total costs, including opportunity cost, equal $165,000, also known as her economic costs.

An **economic profit**, then, is total revenue minus total cost, where total cost includes implicit or opportunity costs.

So, what does her economic profit look like? Well, nothing changes on the revenue side; it's still price times quantity.

However, on her total cost side, she has to account for her explicit costs *plus* the opportunity cost of what she gave up--her previous job and the guaranteed interest.

Total Revenue	Total Cost
P x Q	(Cost per Unit x Q) + Opportunity Costs
$10 x 15,000	($8 x 15,000) + ($40,000 + $5,000)
$150,000	$165,000

We would actually call this an economic loss of $15,000 in her first year of operations.

As a reminder, economic profit equals total revenue minus *all* costs, which would also include opportunity costs.

FORMULA TO KNOW

Economic Profit

$Profit = TR - TC$

$where:$

$TC = all\ costs\ including\ opportunity\ costs$

EXAMPLE For example:

- What return could you be earning in another investment?
- Did you forgo any other opportunities, like quitting your job with a salary to start a business?

TERM TO KNOW

Economic Profit

Total revenue minus total cost, where total cost includes implicit (opportunity) costs

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4. Accounting vs. Economic Profit

Now, it is possible for a firm to earn zero economic profit.

You may think that this is a terrible situation, but in reality, zero economic profit simply means that you have covered all of your opportunity costs.

EXAMPLE In Sue's example, she would have made enough opening her diner that it would have covered the salary she used to make in her teaching job and the previous interest she earned.

This would be a positive accounting profit. In this case, zero economic profit would actually just be enough to keep Sue in that business.

Therefore, accounting profit minus economic profit equals opportunity cost.

Accounting Profit - Economic Profit = Opportunity Cost

The opportunity cost here represents the return an investor or business is expecting. It is the foregone return on the next best alternative available.

If a firm earns higher returns by changing investments--earning *more* than zero economic profit--then we can say they have made an economic profit.

SUMMARY

Today we learned that **accounting profit** and **economic profit** are the same formula except that economists consider *all* costs, including **opportunity cost**, when evaluating the profitability of a decision. Remember, the opportunity cost is a fixed cost that represents what was sacrificed in order to make a decision, such as a return on another investment or business decision.

Source: Adapted from Sophia instructor Kate Eskra.

TERMS TO KNOW

Economic Profit
Total revenue minus total cost, where total cost includes implicit (opportunity) costs.

FORMULAS TO KNOW

Economic Profit

$$Profit = TR - TC$$
$$where:$$
$$TR = price \times quantity\ sold$$
$$TC = (cost\ per\ unit \times quantity\ produced) + opportunity\ cost$$