

Productivity



Say you own a business that produces sports cars or high-end fashions. How do you determine what to charge for your products? While you might say “As much as I can!” probably a better answer would be “As much as it costs to make them, plus some profit to keep the business growing.”

How much *does* it cost to make a sports car? How can you reduce those costs and make one more efficiently and increase your profit? How do all of these affect supply?

Let’s look at what goes into making products, so we can better understand how to answer these questions.

How much does it cost to make?

Production Costs
Fixed Costs
Variable Costs



Fixed Costs + Variable Costs = Production Costs
 Revenue = Total money received from sales
 Revenue – Costs = Profit

How much does it cost to produce an item?

In order for any business to answer this question, it has to consider the production costs, which are those expenses that businesses must pay in order to run their businesses. There are two kinds of costs, fixed and variable.

Fixed costs are ones that stay the same no matter how much of a good or service is produced. An example of a fixed cost is rent. The business has to pay the same amount of rent every month regardless of whether they produce one product or one thousand.

Variable costs go up as the company produces more goods. Examples of variable costs are electricity, production materials, and part-time workers.

Suppose your FBLA chapter decides to have a bake sale, and each member is asked to contribute baked goods. If you make one cake, you have to pay for the ingredients, which are the variable costs. What if you decided to bake ten cakes? Obviously your materials costs will go up for the extra ingredients. Your variable costs are higher the more cakes you make. In order to make a profit, you will need to figure out your total cost and set the price for your cakes higher than your costs.



This applies to businesses as well. Businesses add their total fixed costs to their total variable costs to come up with their total costs of production. They set their prices higher than these costs. Revenue is the amount of money received from sales. Total revenue minus total costs equals profit.

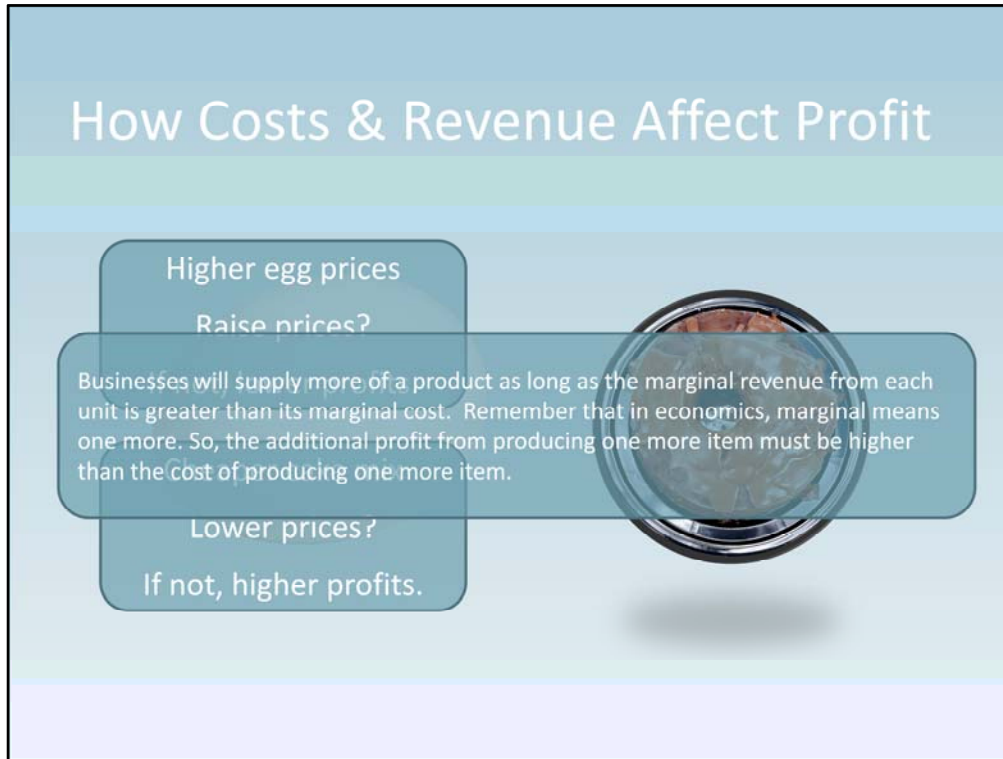
Costs, Revenue and Profit

Question ▾

Classify the following items as fixed costs, variable costs, revenue, or profit.

PROPERTIES

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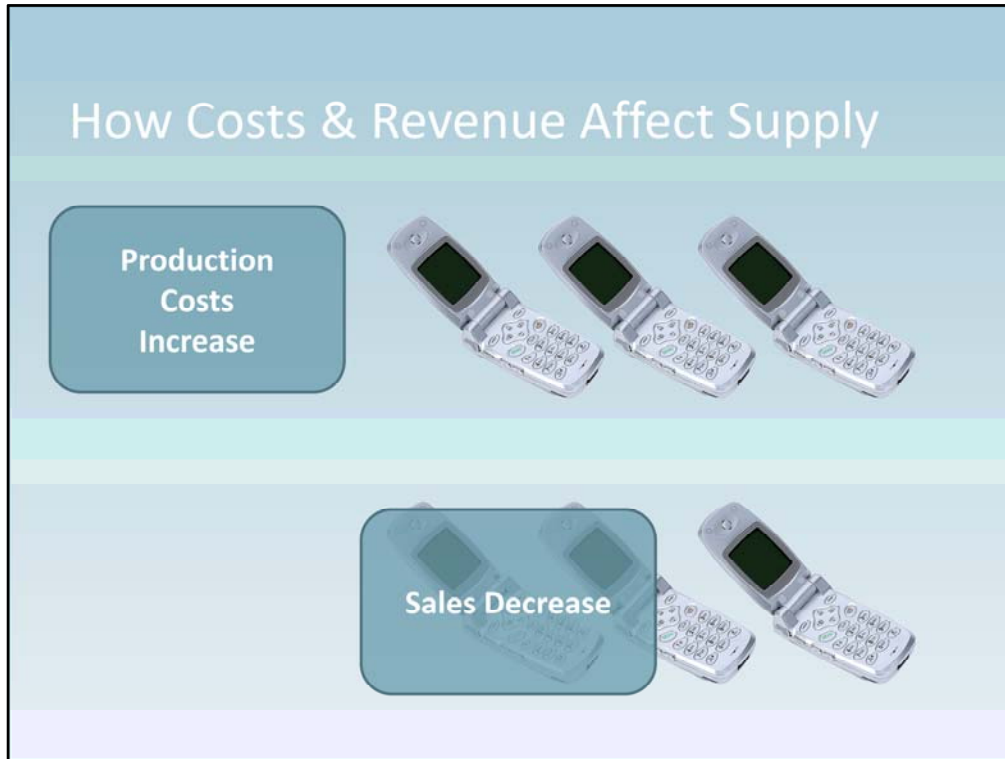
How do costs and revenue affect a company's profit?

Let's go back to the cake example. If the cost of eggs goes up, it's going to cost more to make your cakes. Should you raise your prices? If you don't, your profits will be lower. What if you find a really good deal on the cake mix? Should you drop your price or should you keep it the same and make a higher profit per cake?

As both of these examples show, the lower your costs, the higher your profit.

This is the same for businesses. If a product is selling well, a business may produce more in order to raise profits. They may even lower the price of an item in an attempt to get people to buy more. If sales go up enough, they will make more profit even though their profit per item costs are lower.

In general, a business will supply more of a product as long as the marginal revenue from each unit is greater than its marginal cost. Remember that in economics, marginal means one more. So, the additional profit from producing one more item must be higher than the cost of producing one more item.




Since businesses in market economies exist to make a profit, costs and revenues also affect supply.

Sometimes the cost to produce an item increases, but the business believes that raising the price of the item will hurt sales. So, the business may choose to produce less of that product because they aren't making as much profit from sales. They may also decide to stop making the product altogether if costs go up considerably.

The same is true if sales go down. If a product is not selling well, a business may feel that it is not profitable enough to continue making the product at its current level or even at all.

Measuring Productivity

Productivity =
Output based on inputs



Average = 1 Hour
Slow = 1.5 Hours
Fast = .5 Hours

Let's say one of your chores is to mow the lawn, and it takes you about one hour to do it. Today it takes you an hour-and-a-half because you stayed up late last night for a concert. We can say that your productivity today is lower than normal because you're tired and it took longer to do the same amount of work.

What if today, you're feeling really energetic, and it only takes you half-an-hour to complete the job? Your productivity is high because you did the work in less time.

How do we measure productivity? By measuring the amount of output that is produced based on the inputs used. In our example, your output is one mowed lawn, and your inputs are the gas for the lawnmower, the use of the lawnmower, and your labor. Assuming that the cost of the gas and the use of the lawnmower are the same no matter how fast or slow you go, the only productivity that changes is your labor. If you ran a business cutting lawns, the more productive you are, the more lawns you could mow in a day, and the more money you could make. This would determine how much per hour you are earning. If you value your free time, your productivity is an important number.

This example is similar to what economists are talking about when they look at productivity in the workplace. If it takes fewer man hours to do the same amount of work, then productivity is going up.

Measuring Productivity

Productivity = goods or services per hour.

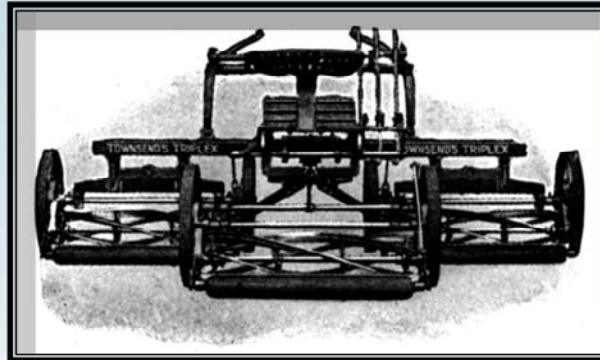
Higher productivity =

Labor Productivity = goods or services per worker per hour

more lawns cut =

More goods per hours = increased productivity

Capital Productivity = goods or services per unit of capital
more money per hour = increased output



Productivity is typically expressed as an average, usually items per hour. Labor productivity is the amount of goods or services produced by a worker per hour. When a worker produces more per hour, productivity increases.

Businesses measure more than just labor productivity. They also include capital productivity, which measures whether tools and supplies help to produce the same output with fewer resources.

Let's look at your hypothetical lawn mowing business. You currently have a push mower. If you bought a riding mower, you would be able to go faster and cut a wider path so that you would cut the average lawn more than twice as fast. The capital productivity of the riding mower is much higher than the push mower, as long as it costs about the same to run it.

Productivity goes up when you produce the same output with fewer capital or labor resources. Since fewer resources are used, this lowers the costs of production.

As you get more experienced at mowing lawns, and get better equipment, your productivity goes up as you can do the same amount of work in less time thereby increasing how much money you make an hour. You can choose to take on more customers and make more money, or have more free time. If you ran a business full-time, you would most likely try to make more money by getting more customers.

As the productivity increases for businesses that manufacture goods, they usually produce more, thereby increasing the supply.

Productivity and the Standard of Living

Standard of Living

Value of goods and services produced per person. Also known as the GDP per capita.

Increased productivity is crucial to a rising standard of living.



Does productivity impact more than just how profitable the businesses are? Yes. It has a positive impact on the average person's standard of living, which measures how well off the people of a country are economically.



Remember that the best way to measure the standard of living for a country is to measure the value of goods and services produced, on average, per person. This is also known as the GDP per capita. The most important factor of a country's standard of living over the long run is the productivity of its resources, especially its people. In other words, as each citizen produces more, the nation prospers. Even a small rise in productivity, if it continues for years, has a huge affect on living standards because there are more goods and services available. Increased productivity is crucial to a rising standard of living.

Labor and Capital Productivity

Question

Read the following questions and determine whether the productivity gains would be classified as increased labor productivity, capital productivity, or both.

PROPERTIES

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How to Increase Productivity

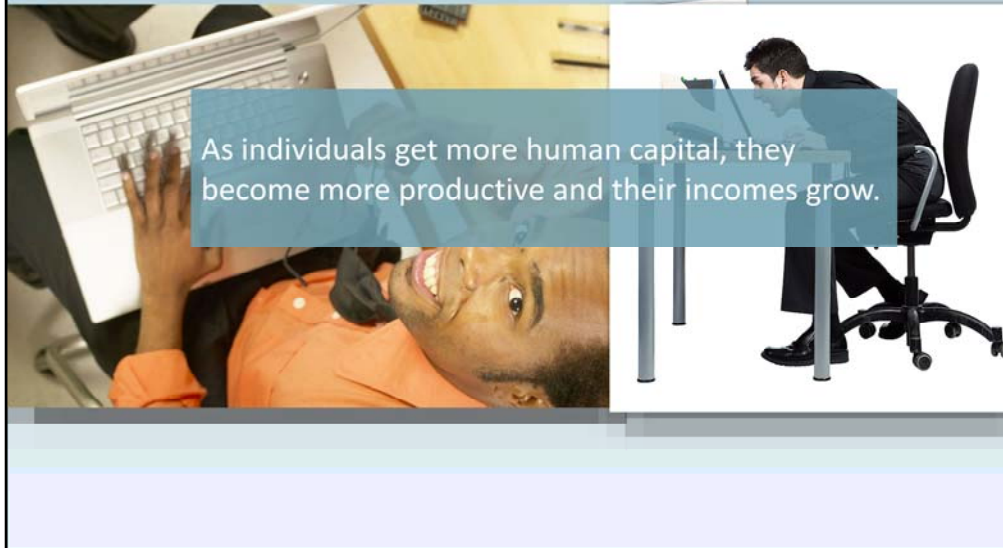
Higher productivity

- makes businesses more profitable
- increases the number of available products
- raises the standard of living

How do companies do increase productivity?
By investing in human capital, capital goods, and technology.

So higher productivity makes businesses more profitable, increases the number of available products, and raises the standard of living. But how do companies do increase productivity? By investing in human capital, capital goods, and technology.

Human Capital



Human capital refers to the skills and knowledge a person has acquired through experience and/or education. Better trained, more skilled workers, can usually produce more goods in less time at lower costs than less educated or less skilled workers. For example, a company that builds web pages will produce more web pages with experienced web developers. Less experienced workers will not be as efficient, or be able to solve problems as well. Education and training can help less experienced employees become more efficient by introducing them to new technology and techniques, which in turn leads to higher productivity. As individuals get more human capital, they become more productive and their incomes grow as well.

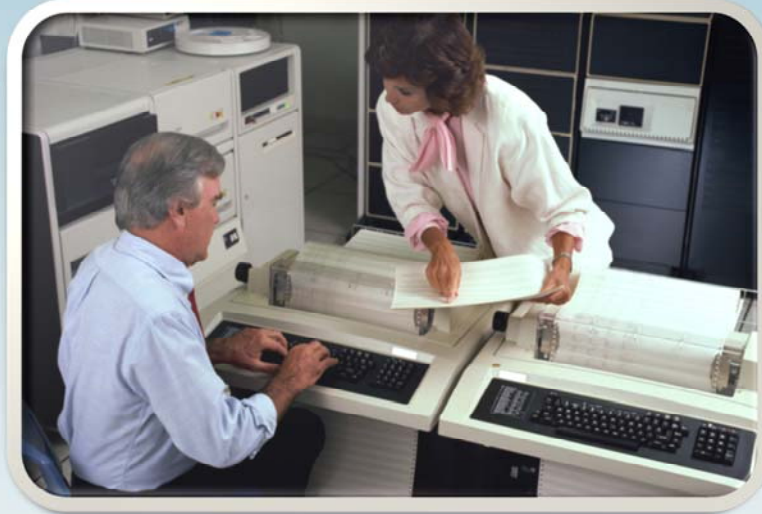
Capital goods



Well-designed and implemented capital goods can help increase productivity.

Capital goods are man-made things that help people do their jobs better. This can include machines, buildings, roads, communications networks, computers, et cetera. Think of our lawn service business. The bigger, faster lawn mower is an example of a capital good, which makes workers more productive. Well-designed and implemented capital goods can help increase productivity.

Technology



Highly technical capital goods can have a large impact on productivity as well as on workers. For example, computer technology can increase productivity; however, it can require more skilled workers. When companies invest in technology, they also need to invest in human capital by training their employees on the new equipment or hiring people with those skills. Education and training help people develop skills to help them enter and function productively in the market economy.

Thus, investing in human capital, capital goods, and technology increases productivity and standards of living!