Up, Up, and Away

Inflation

So What?

Have you ever heard a person who is older than you say something like, "When I was your age, this only cost a dollar"? It's true—prices for almost everything tend to go up over time. It's called inflation. Look at the effects of inflation on a few of the products you probably buy:

- A gallon of gas was about:
  - $0.29 in 1955
  - $0.57 in 1975
  - $1.11 in 1995
- A bar of Hershey's chocolate was approximately:
  - $0.05 in 1960
  - $0.25 in 1980
  - $0.50 in 1995
- A movie ticket would cost you about:
  - $1.31 in 1970
  - $3.53 in 1985
  - $6.38 in 2005

Today, it's hard to imagine paying $0.05 for a chocolate bar or $1.31 for a movie ticket. Inflation doesn't just affect consumers, though—it affects businesses as well. Read on to learn more about what inflation is and how it influences the economy, especially the business sector!

Higher and Higher

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A steady rise in the general price levels of goods and services over time is known as **inflation**. When inflation occurs, the purchasing power of the dollar is reduced. In other words, your money won't buy as much tomorrow as it will today. Here's a simple example. Let's say you have exactly $1 to spend on a pack of gum. Today, that gum costs $1, and you can buy it. But, next year, that same pack of gum might cost $1.02 due to inflation. The same dollar that's in your hand right now won't be enough to purchase the gum next year.

INFLATION

Though you might not be old enough to see the "big picture" of inflation the way a grandparent or older relative does, you may have noticed some subtle changes over the years. Let's say you were born in 2002. When you were six years old, a tall white chocolate mocha at Starbucks was $3.20. In 2018, the price was closer to $4.00. When you were eight years old, the average price of a new car in the U.S. was about $29,000. If you want a new ride in 2019, however, you'll pay around $35,000. These changes might not be *huge*, but you can see how inflation can significantly change prices over longer periods of time.

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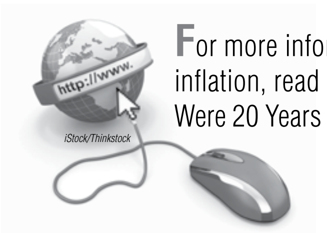
To see for yourself how inflation has altered the value of money over the years, check out the Bureau of Labor Statistics' inflation calculator at http://www.bls.gov/data/inflation_calculator.htm.

Objectives

A. Explain the concept of inflation.

B. Describe how inflation affects businesses.

It’s important to note that inflation is a *general* trend. The average prices of goods and services in an economy may go up over a certain period of time, but that doesn’t mean that the price of each individual product has gotten higher. As a matter of fact, the prices of some products may even go down. For example, some products get cheaper over time as they become more common or are produced more efficiently. Televisions and laptop computers, for instance, are much more affordable now than when they were first introduced to the market. However, since inflation is calculated as an average, these lower prices are not enough to keep the general rate from going up.



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For more information on products that are getting less expensive over time despite overall inflation, read Sarah Crow’s article “20 Products Today That Are Way Cheaper Than They Were 20 Years Ago” at https://bestlifeonline.com/products-cheaper-today-than-20-years-ago/.

Cause and effect

What causes inflation to occur? The popular view among economists is that inflation happens when the country’s overall money supply grows faster than the economy does. The **money supply** includes cash, credit, loans, mortgages, etc. When the availability of money is too great, it creates a situation that economists refer to as “too much cash chasing too few goods.” Consumer demand (and ability to buy) is greater than supply, so prices go up. This situation is also known as **demand-pull inflation**.

Inflation can also occur when certain **commodities** become more limited and more expensive, driving up the prices of all related goods and services. This is called **cost-push inflation**. Here are a few examples:

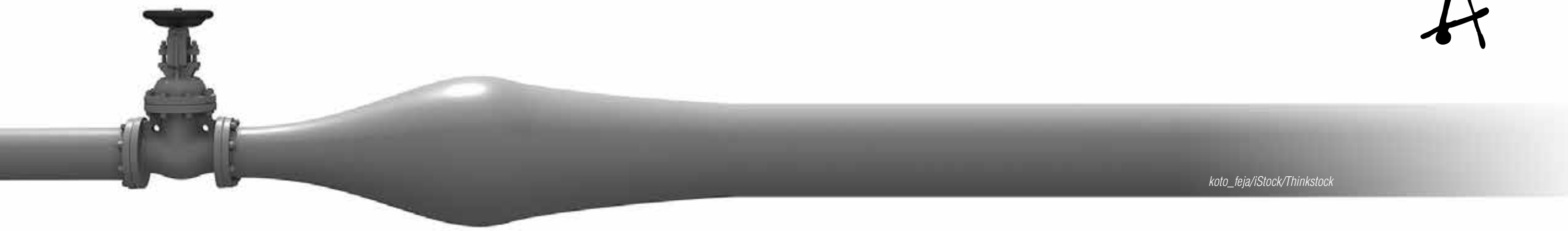
- A scarcity of steel pushes up the costs of constructing new buildings, manufacturing new cars, etc.
- A strong labor union negotiates higher salaries for its members, pushing up the costs of the goods their company creates.
- A producer with considerable market power decides to increase its prices, and the competition isn’t strong enough to push them back down. This happened in the 1970s when the Organization of the Petroleum-Exporting Countries (OPEC) increased the price of oil as a form of political protest against the United States. This pushed up the costs of many goods and services in the United States, including gasoline, shipping, land and air travel, etc. To access informative articles, photos, and videos about the 1970s energy crisis, visit http://www.history.com/topics/energy-crisis.
- **Supply shock** occurs because of an unexpected event, pushing up costs and prices. For example, suppose that an oil spill destroys a considerable percentage of the lobster population, making lobsters much scarcer this season. This causes lobster dishes to become more expensive for restaurants to make and, therefore, more expensive for customers to buy.

Demand-pull inflation—Occurs when demand is greater than supply. Demand “pulls” inflation higher.

Cost-push inflation—Occurs when commodities are limited, causing products to be more expensive to make. Costs “push” inflation higher.


southtownboy/iStock/Getty Images Plus

▲ If an unexpected winter storm damages orange trees in Florida, you can bet that the price of oranges is going to go up!



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A little helps a lot

So, if inflation means that prices go up and your money loses value, the best-case scenario would be to have no inflation at all, right? As strange as it sounds, that's wrong. A little bit of inflation is actually a good thing. Most governments strive to keep their country's **inflation rate** (annual percentage change in inflation) somewhere above 0% and below 3%. When a government decides to pursue a specific inflation rate, it's known as **inflation targeting**. The current target inflation rate in the United States is 2%. This means that the U.S. government takes appropriate steps to guide the inflation rate toward 2% each year (excluding seasonal increases in food and energy costs). To learn more about how and why inflation targeting is used, check out Kimberly Amadeo's article "How Inflation Targeting Works" at https://www.thebalance.com/inflation-targeting-definition-how-it-works-3305854.

Low and controlled inflation is beneficial because it stimulates the economy by encouraging consumers to buy now instead of later (when the value of their money is lower). It also allows room for the government to adjust **interest rates** in the best interest of the economy. You see, the inflation rate factors into overall interest rates. And, if the inflation rate is zero, it can be difficult to set interest rates any lower. Also, a little bit of inflation guards against deflation (which we'll discuss more in a bit). Deflation is *not* a good thing!

Remember that inflation itself is not the enemy. Low, controlled inflation can be helpful. It's **hyperinflation** (high and/or unexpected inflation) that can mess up an economy. (We'll talk more about the effects of hyperinflation later on.)

Keep it stable

A main goal of inflation targeting is **price stability**. In theory, price stability means that prices don't change at all, and there is neither inflation nor deflation in the economy. However, in reality, price stability means that prices in an economy don't change very rapidly, and the value of money is dependable. Imagine running a business in an economy with unpredictable inflation and unstable prices. Charlotte owns a bakery, but the price of flour is 20% higher this month than it was last month. She had planned to hire a new employee and expand her menu, but because her costs are increasing, and she isn't sure how much higher they'll go, she puts her plans on hold. Other businesses are taking similar measures. No one knows what to expect, and the economy begins to stall.

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You can see why governments desire price stability. It instills consumer confidence in the economy, which promotes economic growth, a high employment rate, and financial strength. When prices are stable, consumers and businesses don't worry about inflation too much on a day-to-day basis. They don't have to be afraid that what costs $100 today will cost $125 tomorrow. This assurance keeps the economy running smoothly.

A

Don't go too low

The opposite of inflation is **deflation**, or a steady decline in the general price levels of goods and services over time. While deflation might seem desirable, it's actually bad for the economy as a whole. When general price levels fall, companies often have to keep lowering and lowering their own prices to stay competitive. This can lead to falling profits, reduced output, layoffs, and even business failures. Eventually, decreased demand and higher unemployment can lead to an economic depression.

Japan went through a long period of deflation in the 1990s and 2000s. Individuals and businesses didn't spend their money—they held on to it because prices kept getting lower. The effects were harsh. Reluctance to spend and invest resulted in an economy that didn't grow for almost 20 years. Fortunately, deflation is rare in the United States. There hasn't been an extended deflationary period since the Great Depression in the 1930s.

For an in-depth look at the impact of inflation and deflation on an economy, check out this video lesson from Khan Academy titled "Winners and Losers From Inflation and Deflation" at https://www.khanacademy.org/economics-finance-domain/ap-macroeconomics/economic-iondicators-and-the-business-cycle/costs-of-inflation/v/winners-and-losers-from-inflation-and-deflation-ap-macroeconomics-khan-academy.

▲ Unemployment is one negative consequence of deflation.

Summary

Inflation is a steady rise in the general price levels of goods and services over time. It reduces the purchasing power of the dollar. The two main types of inflation are demand-pull inflation and cost-push inflation. Low, controlled inflation is beneficial for an economy; high and/or unexpected inflation is not. Most governments set a target inflation rate to achieve price stability and instill confidence in the economy. The opposite of inflation is deflation, or a steady decline in prices over time. Deflation is undesirable because it can lead to increased unemployment or even an economic depression.

TOTAL RECALL

1. What is inflation?
2. What is the main effect of inflation?
3. Why is inflation considered a general trend?
4. Why is low, controlled inflation desirable?
5. What is price stability?
6. What is deflation?

THE GRAY ZONE

Sometimes, inflation can be caused by strong labor unions pushing up costs or by producers with a lot of market power raising their prices to increase profits. These tactics can benefit some members of the economy, but they will hurt others. What do you think? Is it ethical for unions, producers, or even government entities to take actions that push up inflation, knowing that it will not affect everyone in the economy equally?

Inflation and Business

The big picture: Inflation and the economy

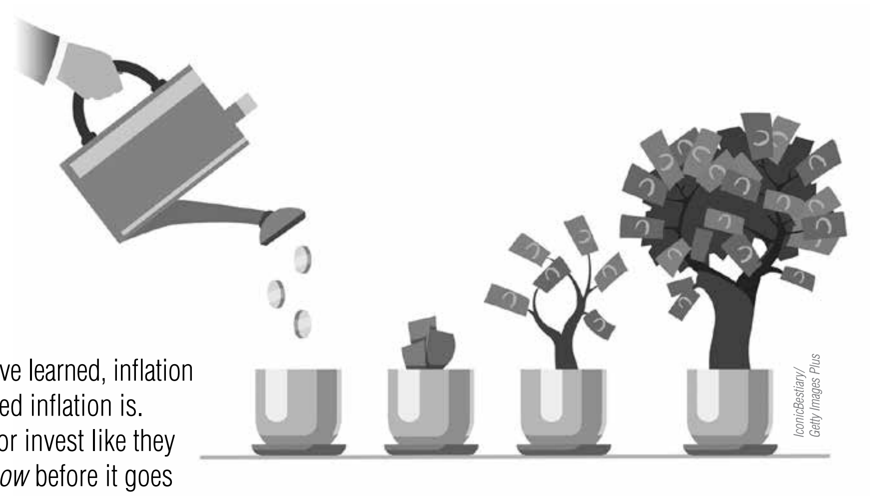
Inflation affects every participant in the economy, including individual consumers (like you!), small businesses, large corporations, nonprofit organizations, and all levels of government. It doesn't, however, affect everyone equally. In an inflationary environment, some prices rise faster than others, and the results aren't the same for everyone. For example, if gas prices are rising faster than the general rate of inflation, transportation companies and people who have long commutes to work will feel the impact more than people who don't have to fill up their vehicles as often. If college tuition rates are increasing rapidly, it will mainly affect those who are currently attending postsecondary school.

The unevenness of inflation also results in certain individuals' and businesses' incomes rising faster than others. Let's say the price of natural gas (used for heat and energy) is increasing even more quickly than the general rate of inflation. This means that natural gas companies will make more money, and their executives and employees may see salary increases as well.

Inflation also benefits borrowers over lenders. Let's say that you've borrowed $1,000 at a 0% interest rate, payable at the end of one year. You pay the loan back on time; however, since there was 2% inflation during that year, the $1,000 you initially borrowed is now worth just $980 to the person or bank who loaned it to you. Make sense? It's easy to see why lenders must charge interest—not only to make a profit but also to keep up with inflation!

"Winners and Losers If Inflation Skyrockets" is an interesting article by Taylor Tepper regarding the inequality of inflation. You can read it here: https://www.bankrate.com/investing/winners-and-losers-if-inflation-skyrockets/.

Negative effects of inflation on the economy. As you've learned, inflation itself isn't a bad thing; rather, high and/or unexpected inflation is. When inflation is out of control, people don't save or invest like they should. Instead, they want to spend their money *now* before it goes down in value. A healthy amount of spending is good for the economy (see Objective A), but balance is key. Without saving or investing, an individual or business isn't on solid financial ground for the future.



▲ It's important to invest and save, but too much inflation means that people will spend their money before it loses value. They won't be as prepared for the future.

If inflation is too high and/or unexpected, it may be difficult for companies to increase employees' wages quickly enough to keep pace. When wage increases can't keep up with price increases, consumer spending will go down, potentially stalling the economy. Are you beginning to see how important it is to keep inflation at a desirable rate?

In addition to decreasing spending, hyperinflation can create a reduced **standard of living**, especially for those on fixed incomes. When wages cannot keep pace with prices, consumers are forced to change the way they live so that they can make ends meet. They may not be able to afford to eat out very often or to go to movies or sport events like they once did. For those on **fixed incomes**, such as people who depend on retirement savings or **Social Security**, the effects can be even harsher. Without alternative means of earning money, they may find it more and more difficult to meet their basic needs.

Rising housing costs due to inflation can have a devastating impact on low-income individuals. According to a recent study, the percentage of Americans living out of their cars surged in 2018. Check out this news report from CBS to learn more about how inflation impacts consumers' standard of living: https://www.cbsnews.com/news/cost-of-living-2018-increasing-at-fastest-rate-in-10-years/.

In some cases, hyperinflation can even cause shortages of goods. When inflation is out of control, consumers may buy and "hoard" goods before prices climb any higher. Let's say your country is currently experiencing hyperinflation. You love coffee, and the price of coffee beans is getting higher and higher each week. Since your cash is losing value rapidly, you decide to use some of it to buy as much coffee as you can before it becomes unaffordable for you. If many other people have this same idea, there may be a shortage of coffee beans in your country. This situation might happen with any number of different goods.

Positive effects of inflation on the economy. You know by now that low, controlled inflation is desirable. It encourages economic growth and contributes to financial stability. A stable economy is the best environment in which to run a business or manage personal finances.

Though inflation lowers the value of money, it usually means that there is more of it flowing through the economy. Individuals and businesses use this money to spend, invest, and expand. When businesses have more money, they often hire more workers. Therefore, a little inflation is considered a boost for employment. And, the higher the employment rate is, the greater the number of people who are making money and putting it back into the economy. These positive effects help offset the undesirable result of money losing its value.

▲ When inflation is at a healthy level, it's a lot less stressful to manage your finances. It's easier to invest, grow a business, and purchase the things you want and need.

Let's focus: Inflation and businesses

You might think that business owners would welcome high inflation since it means an increase in prices. However, hyperinflation is just as bad for businesses as it is for individual consumers. It makes running a business very unpredictable and complicates management and planning tasks, such as product planning, sales forecasting, human resources management, etc. In an inflationary environment, the costs of labor and materials rise, which can force businesses to increase their own prices even further. Higher prices can reduce sales and profits. Because businesses want to avoid this situation, they may not increase production or strive for business growth during periods of high inflation. This not only limits the potential of businesses, but it also puts a damper on the entire economy.

Inflation can also raise interest rates, making businesses reluctant to borrow for the purposes of starting or expanding a company. The interest rates that borrowers pay are adjusted for inflation. As inflation goes up, so do overall interest rates. Fortunately, the government has some control over interest rates and can attempt to keep them at reasonable levels for both consumers and businesses.

Read more about inflation and interest rates here: http://www.investopedia.com/university/inflation/inflation3.asp.

The balance of trade between countries is subject to the influence of inflation as well. Inflation affects **currency exchange rates** as well as the prices of **imports** (products coming in from other countries) and **exports** (products being sold to other countries). Currency exchange rates refer to the value of one country's money in relation to another. Let's say, for example, that the U.S. dollar and the Euro have the exact same value. However, if the inflation rate is higher in the U.S. than it is in Europe, the dollar will actually have less purchasing power than the Euro.

If one country's inflation rate is much higher than another's, it will cost more for businesses to create products, and product prices will be higher. This not only hurts businesses' chances of exporting products to other countries, it causes lower cost imports from other countries to undercut their prices at home. The domestic economy is in a weaker competitive position all around, and businesses can suffer from the adverse effects.

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▲ Inflation rates can have a significant impact on international business.

When inflation rates shift too often, it creates "menu costs" for businesses that can affect the entire economy. **Menu costs** are the costs associated with changing prices. For example, it may be necessary to reprint menus, change price tags, update websites, notify clients of price changes, etc. All these activities take time and cost money. The expenses, most often, are passed on to consumers.

Taking a measurement: The role of price indexes

In the United States, the most well-known tool for monitoring inflation is the **Consumer Price Index (CPI)**. It's a monthly measure of the inflation rate, taken by comparing price changes for a representative section of consumer goods and services, including:

- Apparel
- Education and communication
- Food and beverages
- Housing and utilities
- Medical care
- Recreation
- Transportation
- Other (personal services, funerals, etc.)

Each item is weighted according to its assumed importance to consumers. The inflation rate is calculated by comparing this month's average prices to the average prices of a certain point in the past (called a **base year**).

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▲ If the price of a latte at your favorite coffee shop has gone up, that increase will be reflected in CPI.

The CPI is a good general indicator of inflation, as it reflects prices for about 87% of the population. However, it isn't a completely accurate measurement for every area of the country or for each specific household. Plus, it applies only to consumers, not businesses. And, the CPI is subject to **sampling errors** and **non-sampling errors**, just like any other type of research. For these reasons, businesses look at the index as an overall gauge, not a "set-in-stone" number. You can look at the CPI here: http://www.bls.gov/cpi/.


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▲ No matter which tool is used, it is important to track the rate at which prices are rising or falling.

Other inflation-monitoring tools include:

- **Producer Price Index (PPI).** The PPI is a family of indexes that measure prices at the producer and wholesaler levels. It covers three categories of prices:
  - Raw materials
  - Intermediate goods (goods that require further processing)
  - Finished goods sold to retailers


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Many businesses consider the PPI to be a predictor of the CPI. You can browse the PPI here: http://www.bls.gov/ppi/.

- **Employment Cost Index (ECI).** The ECI is a quarterly report that measures the costs of compensating employees. It doesn't monitor inflation specifically; however, it is a good indicator of many of the pressures that often lead to increased prices. You can find the latest ECI data here: http://www.bls.gov/news.release/eci.toc.htm.
- **Gross Domestic Product Deflator.** The GDP Deflator is similar to the Consumer Price Index, but it's more flexible since it doesn't measure fixed categories of goods and services. This article explains how to measure the GDP Deflator on your own: https://quickonomics.com/calculate-gdp-deflator/.
- **Personal Consumption Expenditures price index (PCE).** The PCE is also similar to the Consumer Price Index, but it takes changing consumer preferences into account, rather than simply focusing on the same goods and services each time. You can find the latest PCE data here: http://ycharts.com/indicators/personal_consumption_expenditures.

Businesses use these price indexes as general guides to inflation for planning and management purposes. Keeping a close watch on the inflation rate helps businesses calculate wage increases and **pensions**, negotiate labor contracts, determine loan terms, etc. No business can afford to ignore the potential effects of inflation on the economy and on the company itself.

B

Summary

Inflation affects every participant in the economy, but it doesn't affect everyone equally. High and/or unexpected inflation can have negative effects on the economy—it can discourage people from saving or investing, decrease consumer spending, reduce the standard of living, and even cause shortages of goods. Low, controlled inflation, however, is good for the economy. Hyperinflation makes running a business difficult and unpredictable. It can limit growth, making borrowing difficult, and put companies in weak positions compared to overseas competitors. Businesses use inflation-monitoring tools, such as the Consumer Price Index, to help plan for the effects of inflation.

TOTAL RECALL

1. What are the negative effects of inflation on the economy?
2. What are the positive effects of inflation on the economy?
3. How does inflation affect businesses?
4. What price indexes do businesses use to monitor inflation?
5. How do businesses use price indexes?

Make It Pay!

How have you noticed the effects of inflation within your lifetime? Can you think of any products that are more expensive now than they were one or two years ago? What are they? Has inflation kept you from buying them? Do you think it might in the future?

