PAGE ONE Economics®
Middle School Version

Focus on **FINANCE**

Money and Missed Opportunities

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GLOSSARY

Consumers: People who buy goods and services to satisfy their wants.

Debt: Money owed in exchange for loans or for goods or services purchased with credit.

Income: Payment people earn for the work they do.

Opportunity cost: The value of the next-best alternative when a decision is made; it's what is given up.

Scarcity: The condition that exists because there are not enough resources to produce everyone's wants.

"The way we *should* think about the opportunity cost of money is that when we spend money on one thing, it's money that we cannot spend on something else, neither right now, nor any time later."
—Dan Ariely, author of *Dollars and Sense*

Imagine you're at the mall and deciding between two different smoothie flavors—mango or strawberry-banana. Both smoothies cost $7. If you're like most people, you think simply about whether you want the drink; if yes, you are likely to pay the $7. Now imagine you put on a unique pair of "economist glasses" that allow you to see the world through an economic lens. In this scenario, you are likely to ask yourself a series of questions: "How much do I value this smoothie?" "What am I giving up now to have a smoothie?" "What am I giving up in the future to have this smoothie now?" The main difference is that you are more likely to consider the **opportunity cost** of your decision when looking at your options through an economic lens.

Money and Opportunity Cost

Choices exist because people cannot have everything they want. You can blame this on good 'ol **scarcity**. Scarcity is the reason that many of the choices you make involve costs or trade-offs. These costs are not limited to just how much you pay. Costs can also be social and emotional. There are unlimited wants going after limited goods, services, time, money, and opportunities. Money is a way for you to have access to some of those wants.

It can be hard to think of every possible use for your money. Making decisions about money involves thinking about opportunity costs. Opportunity cost is the value of the next-best alternative when a decision is made; it's what is given up. Unfortunately, opportunity costs tend to be neglected. You are more likely to decide which smoothie to buy instead of thinking about every other current or future use for the money. For example, rather than thinking of a smoothie costing $7, think of it as costing a ticket for that movie you've been wanting to see. Too often, people do not think about other ways they can spend their money.

We all face opportunity costs. For example, professional athletes often sign contracts worth millions of dollars with major league teams at a young age. While their peers are still in college, they are earning millions. Their lack of knowledge about how to manage millions of dollars can hurt them. It can often result in many high-priced impulse purchases. They do not visualize or consider the opportunity costs of some of their financial decisions. They may lack awareness about how, on what, and how fast they spend their earnings during their professional careers (which are not lifetime careers). This leads to almost 80 percent of professional athletes declaring bankruptcy or experiencing financial stress within five years of retirement.[1] Had they taken the time to think about the opportunity costs of their financial decisions, they may not have had to face the consequences of their impulse spending.

Opportunity Costs and Not Going Broke

Studies have shown that when people buy expensive items, they tend to neglect opportunity costs even more. Let's say, for example, you're buying a pre-construction home. The starting price of the home is $200,000. Purchasing a pre-construction home allows you to customize the house. Buyers can choose the paint colors, type of flooring, cabinets, doorknobs, hinges, and other accessories and finishes. Notice that the price stated is a "starting price"—that is, the price before the added costs of any customizable options. You go down the list of options, and you see one for satin nickel doorknobs and hinges that cost $1,300. (The house could have 16 doors.) It is an upgrade from the standard brass hardware, which does not cost extra. You say to yourself, "Well, what's another $1,300 relative to the $200,000 I'm willing to spend?" This way of comparing the price of the doorknobs to the cost of the house is known as relative value. It is the value of one item relative to the value of another item.[2] Do you know what the real value of those doorknobs and hinges are? Like most people, you may not, so you look for a different way to estimate the value. It is easier in our minds to compare one item to another. In this case, it's the price of the doorknobs compared to the price of the house. The $1,300 seems relatively low cost when compared to the $200,000; it is less than 1 percent (0.65 percent) of the total price.

Is this way of thinking considering opportunity costs? The real value of the $1,300 lies not in comparing it to the $200,000. Rather, if you spent it you would have $1,300 less in your bank account. Therefore, you have given up the opportunity to purchase $1,300 worth of other goods and services. Think for a minute about how much more you value the nickel doorknobs and hinges than the standard brass. If you bought an older house that has brass doorknobs and hinges, would you really pay $1,300 for someone to switch them all out? It is about evaluating the value of the $1,300 by thinking more about the unseen alternatives—information, alternatives, and opportunity costs *not* present at the time of making a decision—and not basing your decision solely on obvious alternatives—the information, alternatives, and opportunity costs present at the time of making a decision. It is about thinking beyond the present and determining alternative uses for the money—that is, not being narrow-minded.

The "Unseen" Costs

One of the authors of *Dollars and Sense*, Dan Ariely, and his assistant wanted to test how shortsighted **consumers** can be. They did this by visiting car dealerships. For example, they asked people at a Toyota dealership what they thought the opportunity cost would be if they bought the Toyota. The hope was that people would include in their answers both the obvious and unseen alternatives for the amount they were willing to spend. Surprisingly, most people did not have a complete answer. Ariely then posed the question differently. He asked what other goods and services they could not purchase if they bought the Toyota. Most consumers answered by stating they could not buy another brand of vehicle (e.g., a Honda) or other simple alternatives. Consumers were spending a large amount of money. However, they did not seem to think about all the other financial opportunities they had with that money.[3]

Consumers shopping for cars tend to focus on the obvious alternatives, not the unseen alternatives. Car dealerships do not post signs that say "You can buy a car today for $24,000, or pay for college tuition!" They are more likely to advertise that their brand is better and a better value compared with other car brands, models, and prices. It turns the buyer's focus to one use for the money—a car. They also throw in what they consider mind-blowing deals and decorate their showrooms with balloons. It's like welcoming you to a car-buying party.[4]

An Opportunity Cost Nudge

Behavioral economics is a field that blends features of psychology and economics to explain consumer behavior. For example, one study examined whether mentioning the opportunity cost of a purchase influenced consumers. One hundred fifty students at Arizona State University were given two different versions of the survey question pictured below. Version 1 of the survey included Option A as it is shown below and Option B as just "Not buy this entertaining video." (The unseen alternative here is that they kept the money for other purchases.) Version 2 included Option A as it is shown below and option B as "Keep the $14.99 for other purchases." The results of the study show that if the opportunity cost is obvious (Version 2), when compared with leaving the opportunity cost unseen (Version 1), the eagerness to purchase the entertaining video decreased from 75 percent to 55 percent. The authors of the study state that these manipulations should not have any effect if consumers were to think of every opportunity cost (obvious and unseen) before making their decision. The results state that this is not the case. (Frederick et al., 2009. See footnote 4.) Therefore, we need to be nudged.

Imagine that you have been saving some extra money on the side to make some purchases, and on your most recent visit to the video store you come across a special sale on a new video. This video is one with your favorite actor or actress, and your favorite type of movie (such as a comedy, drama, thriller, etc.). This particular video that you are considering is one you have been thinking about buying a long time. It is available at a special price of $14.99.

What would you do in this situation? Please circle one of the options below.

(A) Buy this entertaining video

(B) Not buy this entertaining video [**Keep the $14.99 for other purchases**]

Impatience

"No opportunity cost, I want it *now*!" …may be something you'll say to yourself when you shop. You may also start thinking of the opportunity costs of your decisions. Most of our decisionmaking that involves money is based on buying something now rather than buying something in the future.[5] One opportunity cost that people may think of when spending money is not having that amount to save. The benefits of saving are not seen until sometime in the future, while the costs of saving are felt now. Saving is setting money aside, so you may have less to spend now but hopefully more money in the future.

There are signs in some stores that say "buy now, pay later." This means you can borrow money to buy something even if you didn't have the money to pay for it right away. Banks lend money, and people and businesses can also lend money. Borrowing money allows consumers to enjoy having something sooner rather than later. It is sometimes called "using credit," or simply having a loan. If you pay something back in the future, it could take a few weeks to many years to finish paying it back. For example, if you borrow $10 from your mom to buy a new shirt you just have to have today, she may want the $10 plus $2 paid back to her within a few weeks. The amount borrowed is not much, so it will hopefully not take long to pay back. The amount your mom wants back as a fee for lending you the money is interest. It is usually stated as a percentage. In our example, mom is charging 20 percent interest.

When you owe money, you have **debt**. Is that shirt really worth paying mom an extra $2 to have it now? In total, with the $10 plus the 20 percent interest, the real cost of the shirt is $12. Since it does not have to be paid back until sometime in the future, you may not think about the unseen alternatives for the money right away. There is an opportunity cost to borrowing money if you want something now. Let's say you make $40 babysitting. You have to use $12 to pay mom back. You may have needed the $40 to buy a new backpack for school, but now you only have $28. There are times when it may be better to wait. Promising to pay back something with money you have not earned yet is not always the best way to spend your money. Having enough money saved for something you want means you do not have to owe anyone anything (including interest).

Some professional athletes have shared their stories about how they overspent and took on a lot of debt. They claim to have had plenty of cash. Although, they still had access to more money through credit, which was very tempting. The obvious alternatives between which house and which car(s) to buy were made more accessible to them through the buy-now, pay-later model of using credit. It seems that just like people in other careers, professional athletes need a little nudge to spend wisely. (See boxed insert.) As some of the athletes claimed, they wish they would have thought of the opportunity costs of their careless spending during their careers. For example, instead of spending $150,000 on a third fancy car, they could have saved or invested it for future **income** once their professional careers ended.[6]

Conclusion

While it may not sound like a lot of fun to think about the opportunity costs of every financial decision, we need to be careful and not get too caught up in an "autopilot" mode of decisionmaking. Thinking about everything we could do with our money is hard. At the time you make a purchase, remember that you can spend the money only once. The unseen alternatives are always there. You just have to take the time to think about them, which is not easy to do. The difficulty leads us back to using mental shortcuts during our decisionmaking.

Think of as many alternative uses for your money as you can. If you haven't done this often, begin doing it little by little. It can even be for small purchases such as a pack of gum or can of soda. Thinking about opportunity costs may go quicker the more you do it. You probably won't think of every single opportunity cost all at once, because that would be tiring. However, keep in mind that your future well-being depends on the financial decisions you make today. Remember that our most common money mistakes are failing to consider opportunity costs altogether or not considering them enough.[7] ■

Notes

[1] Holmes, L. "ESPN's 'Broke' Looks At the Many Ways Athletes Lose Their Money." National Public Radio, October 2012; https://www.npr.org/series/pop-culture-happy-hour/2012/10/02/162162226/espns-broke-looks-at-the-many-ways-athletes-lose-their-money. Accessed July 18, 2019.

[2] Ariely, D. and Kreisler, J. *Dollars and Sense*. New York, NY: HarperCollins, 2017.

[3] Ariely and Kreisler, 2017. See footnote 2.

[4] Frederick, S.; Novemsky, N.; Wang, J.; Dhar, R. and Nowlis, S. "Opportunity Cost Neglect." *Journal of Consumer Research,* 2009, *36*(4), pp. 553-61; http://faculty.som.yale.edu/ravidhar/documents/OpportunityCostNeglect.pdf. Accessed July 19, 2019.

[5] Thaler, R.H. *Misbehaving: The Making of Behavioral Economics*. New York, NY: W.W. Norton & Company, 2015.

[6] Holmes, 2012. See footnote 1.

[7] Ariely and Kreisler, 2017. See footnote 2.

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Name____ **Period**________

Federal Reserve Bank of St. Louis *Page One Economics*®:

"Money and Missed Opportunities"

After reading the article, answer each of the following questions:

1. The reason people cannot have everything they want is because of
   a. scarcity.
   b. alternatives.
   c. shortages.
   d. credit.

2. AJ is buying a new car and chooses to pay $250 for upgraded floor mats because he is already spending $24,000; the $250 is only about 1 percent of the purchase price. This describes an example of
   a. taking into account the opportunity costs of buying the car and making the best choice.
   b. relative value because he is comparing the value of the floor mats relative to the value of the car.
   c. the best way AJ can spend his money because he is thinking of everything he could do with his money.
   d. the unseen alternatives of his decision, such as saving money or paying for college.

3. Tati made an impulse purchase by buying a $1,000 handbag. An impulse purchase means that she most likely did not think of the ______________________ alternatives for the $1,000.
   a. best
   b. obvious
   c. unseen
   d. worst

4. Opportunity cost is
   a. all of the alternatives we have in making a decision.
   b. the condition that exists when there are limited wants and unlimited resources.
   c. the value of the next-best alternative when a decision is made; it's what is given up.
   d. the price that is paid when purchasing something you do not really want.

5. Which of the following best describes why people are impatient to make a purchase?
   a. Many items are not available for purchase in the future.
   b. People consider their opportunity costs carefully when making a decision.
   c. Consumption today is valued more than consumption in the future.
   d. There is nothing else that money can be spent on in the future.

6. One of the reasons people may find it difficult to save is because
   a. the benefits of saving are experienced immediately.
   b. interest is earned when you save.
   c. they have less money to spend now.
   d. they have more money to spend in the future.

7. The information, alternatives, and opportunity costs present at the time of making a decision are known as
   a. benefits of making a decision.
   b. unseen alternatives.
   c. trade-offs.
   d. obvious alternatives.

8. How is it possible for someone to spend more money than they make?
   a. They can make a purchase using credit.
   b. They can save enough to make a purchase.
   c. They can make a purchase using saved money.
   d. They can wait until their next paycheck to make the purchase.