A Finance Lesson for Your Teenager - The Opportunity Cost of a Cup of Coffee

(I started this note as a letter to our youngest daughter to pique her financial curiosity. It's a story with many learning opportunities – I chose to focus on the benefits of frugality and compound interest.)

We had just finished an errand to fix Michelle's car. What a good feeling to check off one of our weekend to dos. A friend recently told her about a great new coffee trailer near the auto supply store.

To celebrate our triumph, we drove over to check it out.

The parking lot with the trailer had a number of other "food carts" in it. They work like this. You park your car, walk up to order at one of the trailers, return to your car and the order is delivered to your car. This order and delivery system combines Portland's food cart chic with drive-in like service.

Michelle walked to the coffee trailer to order while I stayed in the car listening to music and relaxing. 35 minutes later (Michelle claims it was only 25) she returned to the car. She is empty handed - her drink will be delivered to the car when its ready. 10 minutes later (Michelle claims it was only a few minutes), her $4.00 drink arrives. Oops, it was $5.00 with tip.

She was happy. Her dad was appalled.

As a parent, I now had the urge to teach.

Dear Michelle,

What a joy it was Saturday afternoon being with you while we took care of your car. A nice sense of accomplishment came over me as we left the auto parts store.

Our trip to the Coffee Kiosk inspired me to discuss your financial future and how your investment choices could impact your financial security. I hope some of the side benefits of our discussion will include practicing your math skills and sharing what you learn with your Gen-Z friends.

We'll figure out how this story could end via our homework assignment. You'll be able to write the actual epilogue in 50 years or so.

Our lesson starts with the price of a cup of coffee at the Coffee Kiosk; $ 4.00 for the cup of coffee; plus reasonable compensation for those serving you, $1.00 in this instance; for a total beverage cost of $5.00.

Have you ever heard the term “Opportunity Cost”? According to Investopedia, Opportunity Cost is the cost of an alternative that must be forgone in order to pursue a certain action.

Let’s identify the Opportunity Cost incurred in buying a cup of coffee at the Coffee Kiosk:

The Coffee Kiosk was pretty busy. So let’s say on average it only takes 20 minutes and 4 miles of driving to get to and from the Coffee Kiosk to buy a cup of coffee. At seventeen, let’s assume your time is worth $ 11.50/hour, the minimum wage in our great state of Washington (you are priceless to your mom and I but I’ll save that for a different letter). Oh, I almost forgot, AAA calculates the cost to drive your car at $.57/mile.

So, what is the opportunity cost for your cup of coffee as measured in US dollars?

$5.00 for the cup of coffee

$2.28 car operating costs ($.57/mile * 4 miles)

$3.83 in lost wages ($11.50 * 1/3/hour)

$11.11 Opportunity Cost

Let me know if you compute the Opportunity Cost the same way.

You might ask me what better opportunity is there than the opportunity to buy and enjoy a cup of coffee?

For purposes of this lesson, let’s use creating an investment portfolio as the opportunity cost of your daily cup from the Coffee Kiosk.

As one of the smartest 17 year-olds I know, you’ll do a great job investing your money over the next 50 years. Let’s assume your investment portfolio averages a 7% annual return over your working life, say to age 67 or 50 more years. That means any money you put in your portfolio will be worth 7% more a year after you invest it. Better yet, the balance at the end of each year will also earn 7% during the next year. Financial wizards call this “the magic of compounding interest”.

By the way, there is this economic malady (for coffee buyers anyway) called inflation we need to deal with. Inflation occurs when demand exceeds supply. When that happens suppliers and workers increase their price to “ration” demand and the consumer pays more for the product. Since 1940 the USA has only had 3 years that were not inflationary. Let’s use a nominal inflation rate of 2% per year. So, for this lesson, coffee, the cost to operate a car and wages all go up in price 2% annually.

The homework assignment is to calculate your total opportunity cost of foregoing a cup of coffee at the Coffee Kiosk every day for the next 50 years. That’s the Value of a Cup of Coffee.

Love,

Dad.

Post Script: here is an Opportunity Cost Worksheet we developed to complete the homework assignment. Not only does it work for the coffee example, it can be used to calculate the Opportunity Cost for any frequent, discretionary purchase.

Share this with your teen. Someday they may thank you for it.