

A Guide to Understanding Savings Accounts and Interest Rates

While many high-schoolers take basic economics, they don't always learn about the more relevant topic of personal finance and of saving their own money. Even many college graduates may not understand the differences between Certificates of Deposit (CDs), Money Market accounts, and Savings accounts.

But being financially savvy doesn't have to be difficult. Here's an activity that can help your teenager realize his financial options and use that information to make informed decisions for his future. The insights from this activity can help govern your young adult's financial choices for years to come, allowing him to save wisely for college, a car, and other future needs.



What You Need:

- Access to the Internet or banks' rate sheets
- Calculator
- Pen and paper

What You Do:

1. First, learn about the differences between different types of savings accounts:
 - Basic Savings: A typical savings account is the most basic type of bank account. The bank keeps your money safe for you, and you can visit an Automatic Teller Machine (ATM) to take money out anytime. You'll earn a small percentage rate, which often varies depending how much money you are saving. While it may feel like you're earning money by making interest, these rates actually don't add up to much: they're designed to keep up with inflation, so you keep the same amount of money relative to the cost of things.
 - Money Market Accounts: Money Markets are simply more advanced savings accounts. They often offer a slightly higher percentage than an average savings account. You can still take out money, or add money, anytime you want. Some Money Markets also allow you to write a few checks a month on the account.
 - Certificates of Deposit (CDs): You deposit a certain amount of your money in the bank for a certain period of time. That amount is guaranteed to earn a certain interest rate for that term. You can take your money back when the certificate expires, or renew it at the new interest rate. If you want to use your money in the meantime, you often have to pay a penalty for taking it out early, before the certificate expires.
2. Now do some research online to identify and compare the interest rates offered by different types of accounts at two local banks in your area. Look for the APY, or Annual Percentage Yield—the amount you earn on your deposit in one year.
3. Based on the interest rates, choose which of the two banks is a better place to invest. (Keep in mind that for actually opening an account, you would need to consider other factors too, such as account fees or ATM locations.)
4. Next, learn how to calculate how much you'll earn over 1 year when you invest with these banks.

Here is the formula:

$$FV = P(1 + i)^n$$

FV = the future value of your investment

P = your principal investment

i = the interest rate

n = the number of years invested

By multiplying your interest rate times your principal, you'll calculate how much interest you've earned. But to know the final amount or your total value, you'll need to know the interest amount plus the amount of your principal!

Example: If you earn 5% on \$100 over 1 year, you have: $100(1 + 0.05)^1 = \$105$

Now, assume you're starting with a \$5,000 investment that you earned by mowing your neighbors' lawns for the last few years. Based on the percentage rates at your local bank for a Savings, Money Market, and CD accounts, how much would each account earn you over a period of one year?

5. Use the same formula and calculations for 3 year and 5 year periods, and you'll see a greater difference in the amounts you'll earn in using different accounts.

$$FV = P(1 + i)^n$$

6. From the equation above, you can tell that the amount you make compounds exponentially over each year. What is the difference in the actual values?

Here are some examples based on the current gloomy rates of mid-2009:

Savings (0.1% APY)

One year: $5,000 (1 + 0.0001) = \$5000.50$

Three years: $5,000 (1 + 0.0001)^3 = \$5001.50$

Five years: $5,000 (1 + 0.0001)^5 = \$5002.50$

Money Market (1% APY)

One year: $5,000 (1 + 0.01) = \$5050.00$

Three years: $5,000 (1 + 0.01)^3 = \$5151.50$

Five years: $5,000 (1 + 0.01)^5 = \$5255.05$

CD (5% APY)

One year: $5,000 (1 + 0.05) = \$5250.00$

Three years: $5,000 (1 + 0.05)^3 = \$5,788.13$

Five years: $5,000 (1 + 0.05)^5 = \$6,381.41$

Notice how much difference just a few percentage points can make over time? Now imagine that when a high-schooler becomes an adult with a full time job, he will be investing much larger amounts, and hopefully at larger percentage rates.

7. Remember that interest rates change over time, based on the economy and how well your bank is doing. So, be sure to check back every so often, to see if your bank is still giving you a good rate.

