## **Compound and Compare**

- This article reviews the power of compounding returns.
- Compounding leverages time so that it works for you, rather than against you.
- The earlier you begin saving toward a goal (e.g., retirement, college expenses), the more likely you are to reach it.

Approaching retirement with too little money is unfortunate. Furthermore, getting sucked into the daily hype that has people jumping in and out of the stock market can be disastrous. The market will inevitably go down once in a while, but history proves that despite this, the long-term trend for the market is up. Taking that into account, the earlier an individual begins to invest, the better.

Data from the Bureau of Economic Analysis indicates that the U.S. overall savings rate has been drastically falling since the early 1980s, and only recently started to recover a little (since 2005). Even so, most people simply aren't saving enough for retirement, in an era when even more responsibility for retirement savings has been shifted from corporations to individuals.

This long-term lack of savings is partly a cultural phenomenon. Baby boomers have a stronger sense of optimism than the World War II generation, and have not placed the same priority on saving. Worse yet, they have relatively easy access to credit and a habit of spending beyond their means, regardless of how much money they make. This trend continued in subsequent generations. The problem is that nowadays people should be saving more, considering the declining availability in pensions provided by employers and the level of confidence in receiving Social Security benefits. The good news is that people have started to realize this recently.

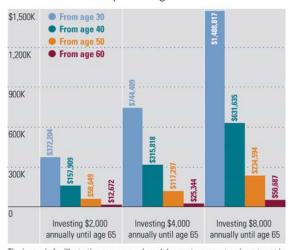
By contributing early and often to an investment plan, an investor's money compounds over time. Compounding, otherwise known as the ability of an asset to generate earnings from previous earnings, accelerates the growth of your assets over time. How does compounding work, exactly? Let's say you begin in year 1 by investing \$1,000. Year 1 proves to be a very good year for the market, and your investment returns 12%. You now have \$1,000 + \$120 = \$1,120. Year 2, however, is not so great, and your return for year 2 is now only 7%. The power of compounding is that you have now gained not 7% of your principal value (7% of \$1,000 = \$70), but 7% of your total investment value at the beginning of year 2: 7% of \$1,120 =

\$78.4. Now imagine what continuous compounding over a longer period or time can do.

The image below illustrates the growth of an account based on an investor's age and the amount contributed annually until age 65. The 30-year-old investor contributing \$8,000 per year will have nearly \$1.5 million at the age of 65. This is more than double the ending wealth value of an investor who saved the same amount per year but waited until age 40 to begin saving. It is quite clear that the earlier you start and the more you invest, the easier it is to achieve your retirement savings goal, thanks to the power of compounding investment returns

But all is not lost for investors who do not start to aggressively save for retirement until they reach their 40s or 50s. The good news for these investors is that they still have enough time to change their savings behavior and achieve their goals, but they will need to act quickly and be extremely disciplined about their savings. Time waits for no one, so don't procrastinate-get started now.

## The Power of Compounding



The image is for illustrative purposes only and does not represent an investment in any specific security. The calculations assume an 8% annual rate of return, compounded annually. The values represented do not account for inflation or taxes. Savings rate information from the Bureau of Economic Analysis.