The Power of Compounding

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There is one fundamental principal that lays the foundation of any successful investment strategy – the power of compounding. When you invest your money, you expect to earn a return on your investment. This return may be in the form of interest (on a savings account, certificate of deposit, note, or bond), dividends (from stocks), or capital appreciation (the increase in the market value of your investment). If you don't touch the return, but instead reinvest it and let it add to your initial investment, then you will begin to earn a return on your return, as well as a return on the original principal. This is known as compound interest.

To illustrate, let's assume that you invest in shares of stock of a good quality company that pays a 3% dividend to the shareholder. Let's also assume that you invest $10,000 in this stock at the beginning of the year. Your dividend during the first year will be $300 ($10,000 * 3%). At the end of the first year, let's suppose that the market value of the stock is now $10,500. If you reinvest your dividends, your investment is now worth $10,800 ($300 dividend + $500 capital appreciation). Your total return for the year was 8% on your initial investment ([$10,800 - $10,000] / $10,000 = 8%). Now let's imagine that you continue to hold the investment for another four years earning the same 8% each year. At the end of five years your initial investment of $10,000 is now worth $14,693.28, and you've done nothing but exercise patience and discipline to earn it!

	8% Return	Ending Balance
Initial Investment	-	$10,000.00
Year 1	$800.00	$10,800.00
Year 2	$864.00	$11,664.00
Year 3	$933.12	$12,597.12
Year 4	$1,007.77	$13,604.89
Year 5	$1,088.39	$14,693.28

Time Is On Your Side, But Don't Procrastinate

The longer you leave your money invested, the more powerful the compounding will be. Therefore, the earlier you start investing, the more you will benefit from compound interest. By the way, it is never too late to start investing either.

Chart 1 (see page 2) illustrates the cost of waiting to invest. This chart compares three people (Karen, John, and Tom) who each begin investing at different times. Each person invests $5,000 a year. However, Karen begins investing at age 20 and only makes her investment for five years. John waits until he is age 25 to begin investing, and he makes his investment for ten years. Now, compare Karen and John. John invests twice as much money as Karen, but at age 65 his total

earnings are less than Karen's and the ending value of his investment is almost the same as Karen's! Now compare Karen with Tom. Tom waits until he is age 35 to begin investing (15 years after Karen made her first investment), but he makes his $5,000 investment for 31 years. At age 65 Tom has invested $130,000 ($155,000 - $25,000) more than Karen, but his total earnings aren't much more than half of what Karen has earned! At age 65, Karen has $671,000 more than Tom! As the chart illustrates, the person who starts the soonest will have to invest the least amount of money to achieve the same goal. Don't procrastinate by delaying the decision to invest in your future. It will cost you dearly!

Chart 1
The Cost of Waiting
10% Annual Return

Karen			John			Tom		
Age	**Invest**	**Value**	**Age**	**Invest**	**Value**	**Age**	**Invest**	**Value**
20	$5,000	$5,500	20		$0	20		$0
21	$5,000	$11,550	21		$0	21		$0
22	$5,000	$18,205	22		$0	22		$0
23	$5,000	$25,526	23		$0	23		$0
24	$5,000	$33,578	24		$0	24		$0
25		$36,936	25	$5,000	$5,500	25		$0
26		$40,629	26	$5,000	$11,550	26		$0
27		$44,692	27	$5,000	$18,205	27		$0
28		$49,162	28	$5,000	$25,526	28		$0
29		$54,078	29	$5,000	$33,578	29		$0
30		$59,486	30	$5,000	$42,436	30		$0
31		$65,434	31	$5,000	$52,179	31		$0
32		$71,978	32	$5,000	$62,897	32		$0
33		$79,175	33	$5,000	$74,687	33		$0
34		$87,093	34	$5,000	$87,656	34		$0
35		$95,802	35		$96,421	35	$5,000	$5,500
36		$105,382	36		$106,064	36	$5,000	$11,550
37		$115,921	37		$116,670	37	$5,000	$18,205
38		$127,513	38		$128,337	38	$5,000	$25,526
39		$140,264	39		$141,171	39	$5,000	$33,578
40		$154,290	40		$155,288	40	$5,000	$42,436
41		$169,719	41		$170,816	41	$5,000	$52,179
42		$186,691	42		$187,898	42	$5,000	$62,897
43		$205,360	43		$206,688	43	$5,000	$74,687
44		$225,896	44		$227,357	44	$5,000	$87,656
45		$248,486	45		$250,092	45	$5,000	$101,921
46		$273,335	46		$275,102	46	$5,000	$117,614
47		$300,668	47		$302,612	47	$5,000	$134,875
48		$330,735	48		$332,873	48	$5,000	$153,862
49		$363,808	49		$366,160	49	$5,000	$174,749
50		$400,189	50		$402,776	50	$5,000	$197,724
51		$440,208	51		$443,054	51	$5,000	$222,996
52		$484,229	52		$487,359	52	$5,000	$250,795
53		$532,652	53		$536,095	53	$5,000	$281,375
54		$585,917	54		$589,705	54	$5,000	$315,012
55		$644,509	55		$648,675	55	$5,000	$352,014
56		$708,959	56		$713,543	56	$5,000	$392,715
57		$779,855	57		$784,897	57	$5,000	$437,487
58		$857,841	58		$863,387	58	$5,000	$486,735
59		$943,625	59		$949,725	59	$5,000	$540,909
60		$1,037,988	60		$1,044,698	60	$5,000	$600,500
61		$1,141,786	61		$1,149,167	61	$5,000	$666,050
62		$1,255,965	62		$1,264,084	62	$5,000	$738,155
63		$1,381,561	63		$1,390,493	63	$5,000	$817,470
64		$1,519,718	64		$1,529,542	64	$5,000	$904,717
65		**$1,671,689**	65		**$1,682,496**	65	$5,000	**$1,000,689**
	$25,000	**= Total Invested**		**$50,000**	**= Total Invested**		**$155,000**	**= Total Invested**
	$1,646,689	**= Total Earnings**		**$1,632,496**	**= Total Earnings**		**$845,689**	**= Total Earnings**

This chart assumes that you invest at the beginning of each year, and the value is the value at the end of the year.
The annual rate of return is 10%.

The Rule of 72

There's an easy rule that also illustrates the power of compound interest. Just divide 72 by your expected annual return. The result will tell you how long it will take for your money to double without ever adding anything to it.

For example, let's say you have $5,000 invested that is expected to earn an 8% annual return. If you use the rule of 72 you will know that your money will double every 9 years (72 / 8 = 9). So, this means that if you invest $5,000 into an investment where you will earn an 8% annual return, then:

After 9 years you will have $10,000;
After 18 years you will have $20,000;
After 27 years you will have $40,000; and
After 36 years you will have $80,000.

Look at what happens to your money each time it doubles. The more times you can make it double, the better off you will be. Time is on your side! Use the rule of 72 to remind you of the power of compound interest!

What does it take to accumulate $1 million?

I am often asked what it would take to accumulate $1 million. My response is always "discipline and patience." Discipline is required to implement a consistently regular savings plan to help you achieve your goal. Patience is required because you won't reach that goal overnight! You have to have the patience to allow compounding to do its work. I suggest that you begin with the end in mind. Establish a vision of the freedom that would come by building an investment portfolio that will provide you with a secure financial future.

Once you have developed a vision that will motivate you to achieve your goal, you are ready to take action. First, you need to decide how many years you have to achieve your goal. Second, you must set your expectations for the return on your investments. Once, you have determined your time horizon and expected return, you can calculate how much you will need to invest each month, each quarter, semiannually, or annually.

Table 1 and Table 2 (see page 4) give you a general idea of what it will take to accumulate $1 million. In both tables, I have highlighted all ending balances greater than $1 million. Table 1 assumes that you invest $500 per month for the entire period. Table 2 assumes that you invest $10,000 annually for the entire period. You can see that with enough time and with the discipline of investing on a regular basis, you can build a significant amount of wealth.

TABLE 1

Beginning Value $0
Monthly Investment $500 (made at the beginning of each month)

Rate	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years	35 Years	40 Years
0%	$30,000	$60,000	$90,000	$120,000	$150,000	$180,000	$210,000	$240,000
4%	$33,260	$73,870	$123,455	$183,999	$257,922	348,181	$458,388	$592,951
6%	$35,059	$82,349	$146,136	$232,176	$348,229	504,769	$715,917	**$1,000,724**
8%	$36,983	$92,083	$174,173	$296,474	$478,683	$750,148	**$1,154,588**	**$1,757,141**
10%	$39,041	$103,276	$208,962	$382,848	$668,945	**$1,139,663**	**$1,914,138**	**$3,188,390**
12%	$41,243	$116,170	$252,288	$499,574	$948,818	**$1,764,957**	**$3,247,635**	**$5,941,210**

TABLE 2

Beginning Value $0
Annual Investment $10,000 (made at the beginning of each year)

Rate	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years	35 Years	40 Years
0%	$50,000	$100,000	$150,000	$200,000	$250,000	$300,000	$350,000	$400,000
4%	$56,330	$124,864	$208,245	$309,692	$433,117	$583,283	$765,983	$988,265
6%	$59,753	$139,716	$246,725	$389,927	$581,564	$838,017	**$1,181,209**	**$1,640,477**
8%	$63,359	$156,455	$293,243	$494,229	$789,544	**$1,223,459**	**$1,861,021**	**$2,797,810**
10%	$67,156	$175,312	$349,497	$630,025	**$1,081,818**	**$1,809,434**	**$2,981,268**	**$4,868,518**
12%	$71,152	$196,546	$417,533	$806,987	**$1,493,339**	**$2,702,926**	**$4,834,631**	**$8,591,424**

Now, how are you going to invest that hard earned money?

The reality is that it's just not enough to have the discipline and patience to invest on a regular basis. Once you decide to set up a regular savings plan you will need to have a strategy to invest that money to produce the greatest return for the least amount of risk. Most people don't have the knowledge, time, energy, or desire to take on the burden of managing their own investments. I suggest that you find a professional money manager who you can trust as your advisor. A good money manager can help you develop a strategy that will help you achieve your investment goals. A money manager will also take the daily burden of portfolio management off of your shoulders. This will free you up with more time to spend doing the things that you enjoy and the things that are important to you.

About the Author

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