

# **Make Yourself A Glorious Retirement Fund**

by *Guy R. Fleury*

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ISBN: 978-1-7389840-1-5

## Other Publications

### **My Books on Amazon:**

[Build The Retirement Fund You Deserve. \*Be Rich, Be Happy\*. Amazon, 2023.](#)

[Reengineering Your Stock Portfolio. Amazon, 2019.](#)

[Beyond the Efficient Frontier. Amazon, 2018.](#)

[From Zero-Beta to Alpha Generation. Amazon, 2017.](#)

[A Quest for Stock Profits. Amazon, 2017.](#)

[Building Your Stock Portfolio. Amazon, 2017.](#)

[Stock Trading Strategy Mechanics. Amazon, 2016.](#)

[Trade Slicing Stocks. Amazon, 2016.](#)

**Aknowlegement:** Special thanks go to my friend Murielle Gagné for her support, editing help, and keeping me motivated.

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## **My Papers (Free):**

[The Age Of The Individual Investor](#). 2023.

[Deviation X](#). 2016.

[The Stop Loss Revisited](#). 2016.

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[DEVX V6 Revisited](#). 2014.

[Unorthodox Trading](#). 2014.

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## **INTRODUCTION**

My last paper: **The Age Of The Individual Investor** ended expressing what is one of my wishes: that smaller investors unite in purpose in some way so they might "maybe" save the planet. By this, I meant having the largest possible number of individuals own most of the world's assets.

As postulated in the above paper, **The Age Of The Individual Investor**, it would benefit more people in the hundreds of millions. And not only a few, should present trends prevail.

The case appeared simple. You have a few major contenders to owning the world's assets: China, the US, Europe, BLK<sup>1</sup>, millionaires, billionaires, and multi-billionaires. As eclectic groups, each could rule the world 40 to 60 years from now. Or we could flatten the curve and let smaller individual investors (current sub-millionaires) in the tens of millions own and control the said assets.

Would this bring us a better world? Maybe, and maybe not. Predicting that far ahead has not shown that much success in the past. Look up predictions made 40 to 60 years ago and even further back. Some came true, but many were fantasies at best and could still be.

Then the question arises: should smaller individual investors, as a group, even try to acquire the world's assets, or should they continue to do what they can to increase their wealth?

All known assets are accounted for. And presently, all assets are in someone's hands. There will be wealth creation over the next century and beyond. It will also end in someone's hands. What is coming would be more like a redistribution of wealth where what one group will gain will come at the expense of another. Nonetheless, all groups will try to make the best of it and the best they can.

Currently, estimates for total worldwide assets are at around \$470 trillion. It would require at least 470 million millionaires to account for all the assets. It would be more than 5.87% of the population on Earth. But it is not what we see.

Presently, there are not enough millionaires to do the job. According to the Global Wealth Report 2022 by Credit Suisse, there were about 62.5 million millionaires at the end of 2021. The United States had the most millionaires, with 24.48 million or 39.1% of the total. China came in second with 6.19 million or 9.4%.

Most of the wealth on the planet is already in the hands of the few. One percent of

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<sup>1</sup> BLK (Black Rock). A few other corporations are illegible and could also qualify as contenders.

the people own more than 40% of the wealth. While the wealthiest 2% control more than 60% of worldwide assets. It means that 60% of worldwide assets are in the hands of 160,000,000 people. The other 7,840,000,000 people get the remaining 40%. That is less than \$38,000 per person. Compare that to any multi-billionaire.

The Forbes 400, a list of the wealthiest people, as a group, have over \$4.5 trillion in assets. Those 400 people represent 0.000005% of the population. It takes about \$3 billion in assets to be on that list. So, 7,999,999,600 people did not qualify.

Nonetheless, just like the earth's population, assets grow exponentially. Assets have increased, on average, over the past 60 years by about 3.5% per year. We should expect this trend to continue in the coming years.

Meanwhile, technology is expanding much faster while population growth is slowing down. Some people think technology is driving growth, but it is not the only driver. The reason why so many things grow at an exponential rate is the underlying population growth. The more people there are, the more people we have to feed, shelter, protect, care for, and entertain. It is not by having fewer people that you distribute wealth. It is by having more people and motivating everyone to survive better by doing more for each other.

We are facing new challenges never seen in the history of humanity. There has never been a time when 8+ billion people had to live on the planet in what we might barely call relative peace. Certainly not harmony. People fear for their future and the future of their loved ones.

We can see on the horizon the possibility of WWIII, a nuclear Armageddon followed by a nuclear winter decimating most living creatures on Earth. A horrible end to humanity, yet some governments consider it a deterrent in their "peace" deliberations.

I like science fiction like any other nerd, but this is getting ridiculous. We can fantasize about fictional futuristic apocalyptic scenarios and still have absolutely no intention of living in one.

## ***Wealth Distribution***

China has 18% of worldwide assets, Europe (23%), the US (31%), BLK (1.4%), and billionaires (1.7%). All are current front-runners already on their way to gaining financial control of all world assets. The competition by these groups will be intense. Within ten years, they might mainly use future digital currencies.

The paper: [The Age Of The Individual Investor](#) ended with the wish that by their sheer numbers, sub-millionaires could independently acquire or control most of the world's assets in less than 50 years. In some 50 years, those sub-millionaires would

become multi-millionaires and could represent the same problem we have today: too few hands holding on to most of the world's assets. It would nevertheless be a highly significant societal change.

As mentioned before, sub-millionaires are not alone in this quest. Furthermore, they are independent of each other. It would require over 100 million of them to accomplish the task, and this, if their average growth was superior to 10% as illustrated in figure (1). It would take years to concentrate their efforts. And it would insert a time delay, bringing their exponential curve down. Most likely, other market participants could do the job faster, like BLK, if it expanded at an average 15% rate over those 50 years.

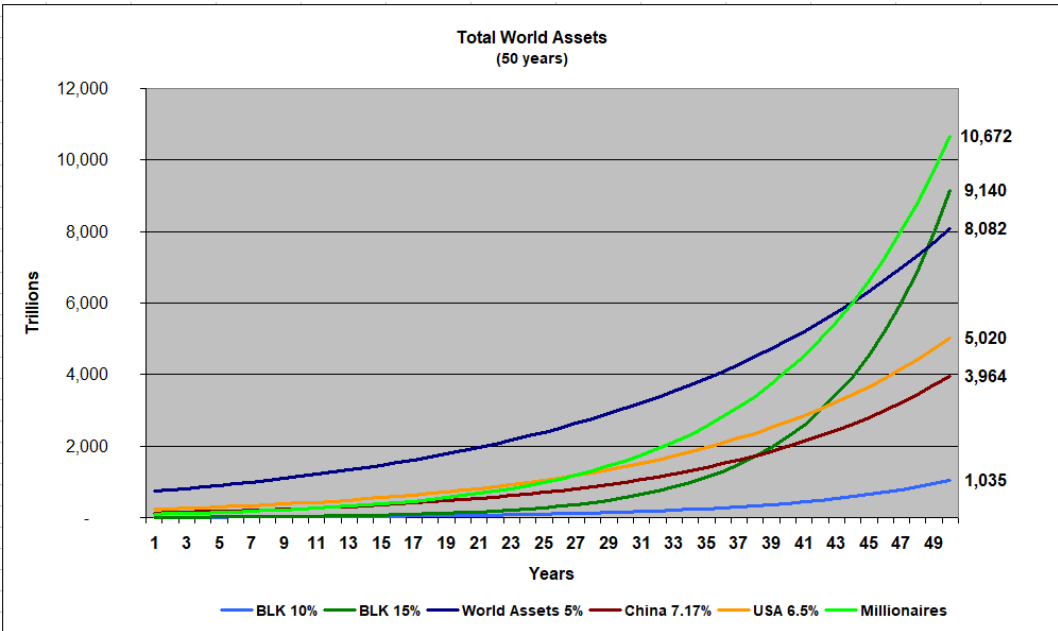


Figure 1: World Assets: China: 7.17%, US: 6.5%, BLK:15%, M: 10%. 50 Years

All groups could continue whatever they were doing, except for the US, which would need to grow faster. At present rates, the US will be surpassed by China and by other groups of sufficient size. It is only a question of time, growth rates, capital, and available assets.

*We are discussing the fate of the planet,  
the world we live in, over this singular notion: profit.*

**Seeking Profits**

As everyone requires a return on their investments, we will have this competition to uncover more and more profit opportunities to such a scale as never seen before.

We simply will have to, we might say, by choice, but it is more insidious. We want to retain the little riches we have worked so hard to accumulate. If we do nothing, like keeping our assets in cash, their value will wither away, as shown in figure (2). Keeping one's assets in cash has been a poor investment idea over the past 200 years. Inflation has constantly been chewing away at its purchasing power.

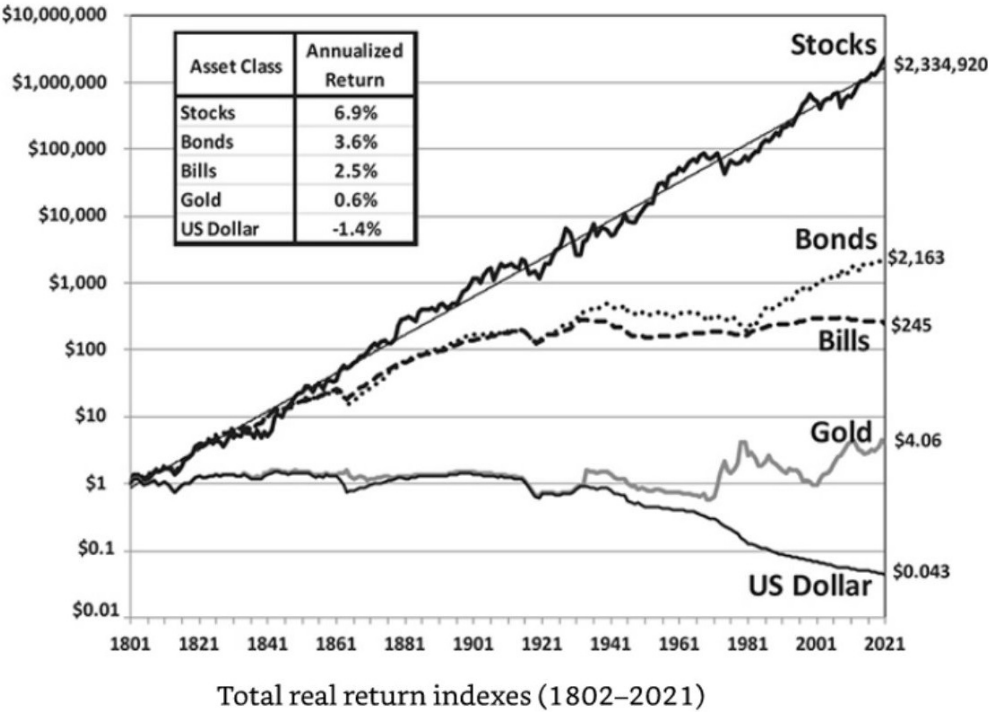


Figure 2: Historical Return Rates Over Last 200 Years

That brings a new set of challenges to the relatively small investor. How can an uncoordinated group in the tens and tens of millions unite their efforts to acquire most of the world's assets? It would be a monumental task considering those assets have a current value of more than \$470 trillion and will continue to grow over the coming decades. Not only that, but the smaller investor will have to compete against formidable contenders, some of which can control banks and governments.

It is the same for all groups that could be challengers in this race for asset supremacy. Each group does not only want to make a profit; they want the process to be sustainable over the long term while minimizing risks. Otherwise, why do it?

In the future, all these groups will still want to profit from their investments. Their ability to make a profit will be at the center of it all, and their profit-making methods will have to remain sustainable for decades.

As put forward in the cited paper<sup>2</sup>, world assets could grow at a 5% rate over the next

<sup>2</sup> [The Age Of The Individual Investor](#).

50 to 100 years<sup>3</sup>. Meanwhile, the self-managed sub-millionaire individual trader's portfolio growth rates over the past 20 years have been, on average, 4% to 6%.

Some, going for a hands-off approach, using indexed funds, did better. But after fees and taxes, they still got less than the 10% generally reported average they were supposed to get. While others, few in numbers and doing it themselves, well exceeded the market's average 10% return.

We could expect average growth rate trends of the past to prevail in the future, as illustrated in figure (2). But even that can change going forward.

Consequently, the small investor might not make it even as a group. It would leave the major contenders: China, large corporations, multi-billionaires, and multi-millionaires in charge of most of the world's assets.

Why is the US or Europe not mentioned in these contenders? Their growth rates are too low to make that much difference over the next 50 to 100 years. They would have to improve on their respective growth rates at the national level first. And that is not easy. Governments are good at increasing the debt ceiling and spending more and more. If they do not have enough money, they print more, which causes more inflation and reduces everyone's purchasing power.

For the US, a growth rate of 2%

## ***The Sub-Millionaire***

What is the sub-millionaire investors to do if they want to be part of the game?

They cannot print money as governments do. They cannot create or add assets like corporations when emitting new shares. They can only leverage their holdings a little, at least not at the level some financial institutions can and do.

Without asset accumulation, the small investor will not be able to create billion-dollar portfolios. So, what are they to do to save the day? More importantly, how could they save the planet if, technically, they are not in the game? Could the other participating groups also maintain financial freedom for all? Or, will we have to knell, like everybody else, before our new masters?

The cited paper<sup>4</sup> suggested that small individual traders/investors should increase their portfolio growth rate to 20%<sup>+</sup> if they want to stand a chance of achieving their goals. It is way beyond their historical average by more than 400% to 500%. How could they do it?

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<sup>3</sup> Over the last 60 years, worldwide, the average growth rate was about 3.5%. So, we are stretching it a bit and being overly optimistic.

<sup>4</sup> [The Age Of The Individual Investor](#).



For one, they would need help; on the premise, they could find some. Otherwise, we will end up with either a country like China ruling the world or having most of the assets in the hands of a few, meaning less than 740 individuals with multi-billion dollar portfolios.

For example, some 930 multi-billionaires, putting 1 billion each at work at a 20% CAGR, would have increased their collective stake to \$8,463 trillion in 50 years. That is relatively close to the estimated value of all worldwide assets 50 years from now. Less than a few thousand people could rule the world.

There are currently about 2,700<sup>+</sup> billionaires. Collectively, they are worth over \$12.7 trillion. The 26 wealthiest of this group own as much assets as the 3.8 billion people comprising the poorest half of the planet's population.

There are more than a few parts to this wealth distribution problem.

For one, you will have to convince the sub-millionaires that they can make a difference and become a solution to saving the world, but saving it from what? At first, I thought it meant conserving the freedom to live as they want with enough financial clout to afford whatever they want, whenever they want. As far as I know, the world is not built that way. Then why would it be a credible solution to financial freedom for most?

Two, sub-millionaires would need new techniques to increase their portfolio growth rates, at least higher than a 15% long-term CAGR. New methods will be required to accomplish this. On the good side, methods are there and easily accessible. But, the multi-millionaires and billionaires are also using the same tools while being more aggressive and more effective. They have a better long-term vision of where they want to go and how to get there.

The mentioned paper<sup>5</sup> ended with the hope that the sub-millionaire investors would win the day by preserving or controlling most of the world's assets within 50 to 70 years. They would not necessarily have to change their long-term investment objectives. But, increasing their CAGRs will require changes to their investment methods.

Sub-millionaires are individually independent traders and investors starting with less than \$1 million in investable capital. It will limit not only their investment style but also what they can invest in.

You would need 100 million sub-millionaires with, on average, \$100,000 each to do the job generating the historical market average of 10% over the same 50 years. In

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<sup>5</sup> [The Age Of The Individual Investor](#).

figure (1)<sup>6</sup>, where millionaires had an average growth rate of 10%, often viewed as the US stock market's long-term historical average.

Figure 1 also shows the other major participants in this asset race with 100 million millionaires having a 10% CAGR on their investment portfolios. That is still 100 million investment accounts. Most of these investors not talking to each other or seeing what they are doing. Acting almost thoroughly independently but with the same objective: searching for more profit.

How could they coordinate their efforts over those 50+ years?

It is where their self-interests as individuals kicks in. The reasoning is simple. They too want to profit from their investments, even if they are relatively smaller. Like everyone else, the need to benefit from their investments will be their motivation.

Moreover, they need to make those investments to at least build themselves a retirement fund as elaborated in my latest book: [Build The Retirement Fund You Deserve. Be Rich, Be Happy](#) where you can find methods to accomplish this task.

The going will not be easy. It does involve decades of work. Also, this portfolio building will require to be done under uncertainty. It means you will have to determine where it is all going before reaching the milestones you set as your financial objectives. The ride will not be as smooth as presented in figure (1). It will be erratic, filled with ups and downs, as illustrated by the top line in figure (2). But overall, you will still reach the endpoint, the final value, and that is what matters.

This puts us back to equation #1 in the cited-paper. To restate:

$$FV = PV \cdot (1 + g)^t \quad (1)$$

The future value  $FV$  formula is simple: you have the present value of some asset  $PV$  to which is applied a growth rate  $g$  for the duration  $t$  in years.

We have 100 million small investors and growing. They all will have different present values, growth rates, and time horizons. We could express this with the following:

$$\sum_1^{100 \text{ Mil}} FV_i = \sum_1^{100 \text{ Mil}} [PV_i \cdot (1 + g_i)^{t_i}] \quad (2)$$

Equation (2) does add up. The future asset value owned by individual investors would still be the total sum of individual assets invested at their respective growth rates over their respective time intervals.

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<sup>6</sup> It is the same figure as figure #17 in the paper: [The Age Of The Individual Investor](#).

We can see that equation (2) would require quite an extensive database to catalog all those assets and then keep track of each of them, not considering the daily updates on their respective values.

However, we do not need to do that. The process is decentralized. Each investor is doing his/her part by managing their respective assets. Their growth rates result from how they do the job, and it will average to some future CAGR. It is up to us to draw expectations based on those estimated and uncertain numbers. Building

scenarios of what might happen if. Nonetheless, it will all end with:  $\sum_1^{100 \text{ Mil}} FV_i$ .

We could evaluate equation (2) for any time interval  $t = t_i$  as if setting a goalpost for all. It is what figure (1) provided. We can sum the general impact based on the inputs and historical averages.

With such numbers as 100 million investors, averages will be good enough approximations for any outcome. The Law of large numbers will apply, and it could give relatively good and reasonable estimates of what to expect.

For instance, having 100 million investors, on average, investing \$200,000 each at an average rate of 10% over 50 years would give:

$$\sum_1^{100 \text{ Mil}} FV_i = 100,000,000 \cdot \$200,000 \cdot (1 + 0.10)^{50} = \$2,347,817,057,593,910$$

that is \$2,347 trillion.

While having the estimated \$470 trillion in worldwide assets with an average growth rate of 5% over the same period would yield:

$$\sum_1^{\infty} FV = \$470,000,000,000,000 \cdot (1 + 0.05)^{50} = \$5,389,677,899,304,230$$

some \$5,389 trillion.

Our 100 million small investors are coming short, only accumulating 43.5% of available assets 50 years from now. It is still quite a lot. Of importance would be that at least 100 million people would have built a substantial portfolio and retirement fund.

It would be sufficient to increase the average growth rate of smaller investors by 2% to change the world.

$$\sum_1^{100 \text{ Mil}} FV_i = 100,000,000 \cdot \$200,000 \cdot (1 + 0.12)^{50} = \$5,780,043,796,600,010$$

generating some \$5,780 trillion.

With such a small change in CAGR, a measly 2%, the small investors could have acquired all the world's assets over the same time interval.

It would change the societal and political landscape considerably. You would have this "elite" investor group and then a "super elite" group within that group because they started their journey with much more capital than the smaller investor.

It would be as if the majority could not escape the control of the few since the ruling elite would technically still control the world, not the small investor. Those 100 million small investors represent only 1.25% of the world population.

***But would it not be what we already have?*** YES.

The multi-millionaires and billionaires, in their search for profit and as a group, could acquire all the world's assets in those same 50 years, as was estimated in my paper<sup>7</sup>. They are not the only ones that could do the job either. We have not even considered India, with its 1.4 billion people. Could they not participate in this race to gain more profits too?

The sum of managed assets will likely fluctuate over time. And, at times, quite considerably. We might not be that good at forecasting over the very short term, but our probability of being right over the long term increases to the point we could mathematically say: a.s. for almost surely.

It might be hard to predict that the stock market will rise tomorrow, but it is much easier to say that in 20 years, the market average should be up. By how much, we do not know, but we could bet that in 20 years, the market will be up with a 95%+ probability. Those are not bad odds for someone looking for positive long-term compounding returns.

It is like saying that the average growth rate for all investors might tend to the secular market average  $\bar{g}$ , which was expressed in figure (1) with the millionaires' growth rate set to 10%.

The financial landscape will change considerably over the next decades, and small investors will have a more challenging investment environment. They will have to battle wealthier asset hoarders with much larger and more diversified portfolios. The idea here is straightforward: if all you have is one million or less to invest, you will not be buying some asset worth \$500 million or more. You will not be purchasing whole companies worth billions either.

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<sup>7</sup> [The Age Of The Individual Investor](#).

The small investor cannot go hunting for elephants like Mr. Buffett. He is not in that game, just as Mr. Buffett cannot be bothered buying a few hundred or a few thousand shares at a time. The smaller investor needs smaller investment chunks.

Historically, as figure (2) shows, small investors might need to limit themselves to stocks, bonds, and low-priced real estate. For sure, they better not keep their assets in cash. The best bet for the small investor is to buy large liquid and publicly traded stocks. Just saying: invest in the winners. At least, they would have better prospects of reaching higher returns.

However, based on figure (2), stocks growth rate could be, on average, at less than the historical average, meaning at less than 10%. Nonetheless, it could be almost sufficient according to figure (1). Should the average growth rate be less than 10%, it would only delay the takeover. The lower the growth rate, the longer it would take to overcome the growth of the world's assets. Anything below 5% would make it impossible to catch up since they would grow at a lower rate than global assets.

But, there is a higher range of growth rates attainable by individual investors in the sub-millionaire category. It could range from negative rates up to +40% and more. It would be only as a large group of individuals that it would be harder to elevate their average above 10%. It needs to be done since the smaller investors, as a group, have to outperform other groups in this race.

My paper: [The Age Of The Individual Investor](#) covered the topic of the evolution of the major players<sup>8</sup> in this asset competition. I wish the smaller investors to win this race since it would spread the wealth over more people. But still, they only represent 1.5% of the population. Notwithstanding, it might not be what will happen.

The headwinds are strong, and overcoming the other contenders will be difficult. Especially since the smaller investors do not, by their very nature, collaborate with the others simply because they are part of the competition; second, there are so many of them that it makes it almost impossible.

Will the governments refrain from interfering in this transition process by increasing regulations, controlling interest rates, inflation, and taxes? All of which could impede anyone's long-term CAGR. Moreover, and most often, those moves are against the small guy, not the big political donors with lobbyists who will somehow have some exemption. You work hard, and the government takes much of it away. You work harder, and they take more. Almost de incentivizing anyone to do more.

Yet, whatever happens to deter you, you will have to go on and do more. I cannot say you owe it to the next generation, but you owe it to yourself, and especially your kids and their children. They should have a better legacy. And you might be the only

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<sup>8</sup> Refer again to figure (1).

one to provide it. Also, you want more for yourself. You deserve a better end of life in retirement where you can enjoy the rewards of all you have built, whether it be entirely for yourself or also for the ones you love.

There are no shortcuts in this process. No one is coming up with: here is an assured 15% CAGR over the next 20 years. Such a rate would multiply your initial stake by 17 times. Doing it twice, meaning lasting 40 years, would push your starting capital to 289 times its original value.

The following chart gives the CAGR needed to multiply one's initial capital by a given factor over a number of years.

Factor	CAGR Needed To Achieve Factor In So Many Years.														
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2	41.42%	18.92%	12.25%	9.05%	7.18%	5.95%	5.08%	4.43%	3.93%	3.53%	3.20%	2.93%	2.70%	2.51%	2.34%
3	73.21%	31.61%	20.09%	14.72%	11.61%	9.59%	8.16%	7.11%	6.29%	5.65%	5.12%	4.68%	4.32%	4.00%	3.73%
4	100.00%	41.42%	25.99%	18.92%	14.87%	12.25%	10.41%	9.05%	8.01%	7.18%	6.50%	5.95%	5.48%	5.08%	4.73%
5	123.61%	49.53%	30.77%	22.28%	17.46%	14.35%	12.18%	10.58%	9.35%	8.38%	7.59%	6.94%	6.39%	5.92%	5.51%
6	144.95%	56.51%	34.80%	25.10%	19.62%	16.10%	13.65%	11.85%	10.47%	9.37%	8.49%	7.75%	7.13%	6.61%	6.15%
7	164.58%	62.66%	38.31%	27.54%	21.48%	17.60%	14.91%	12.93%	11.42%	10.22%	9.25%	8.45%	7.77%	7.20%	6.70%
8	182.84%	68.18%	41.42%	29.68%	23.11%	18.92%	16.01%	13.88%	12.25%	10.96%	9.91%	9.05%	8.33%	7.71%	7.18%
9	200.00%	73.21%	44.22%	31.61%	24.57%	20.09%	16.99%	14.72%	12.98%	11.61%	10.50%	9.59%	8.82%	8.16%	7.60%
10	216.23%	77.83%	46.78%	33.35%	25.89%	21.15%	17.88%	15.48%	13.65%	12.20%	11.03%	10.07%	9.26%	8.57%	7.98%
11	231.66%	82.12%	49.13%	34.95%	27.10%	22.12%	18.68%	16.17%	14.25%	12.74%	11.52%	10.51%	9.66%	8.94%	8.32%
12	246.41%	86.12%	51.31%	36.43%	28.21%	23.01%	19.42%	16.80%	14.80%	13.23%	11.96%	10.91%	10.03%	9.28%	8.64%
13	260.56%	89.88%	53.34%	37.80%	29.24%	23.83%	20.11%	17.39%	15.31%	13.68%	12.37%	11.28%	10.37%	9.59%	8.93%
14	274.17%	93.43%	55.25%	39.08%	30.20%	24.60%	20.74%	17.93%	15.79%	14.11%	12.74%	11.62%	10.68%	9.88%	9.20%
15	287.30%	96.80%	57.04%	40.29%	31.10%	25.32%	21.34%	18.44%	16.24%	14.50%	13.10%	11.94%	10.98%	10.15%	9.45%
16	300.00%	100.00%	58.74%	41.42%	31.95%	25.99%	21.90%	18.92%	16.65%	14.87%	13.43%	12.25%	11.25%	10.41%	9.68%
17	312.31%	103.05%	60.35%	42.50%	32.75%	26.63%	22.43%	19.37%	17.05%	15.22%	13.74%	12.53%	11.51%	10.65%	9.90%
18	324.26%	105.98%	61.89%	43.52%	33.51%	27.23%	22.93%	19.80%	17.42%	15.55%	14.04%	12.80%	11.76%	10.87%	10.11%
19	335.89%	108.78%	63.35%	44.49%	34.24%	27.81%	23.41%	20.20%	17.77%	15.86%	14.32%	13.05%	11.99%	11.09%	10.31%
20	347.21%	111.47%	64.75%	45.42%	34.93%	28.36%	23.86%	20.59%	18.11%	16.16%	14.59%	13.29%	12.21%	11.29%	10.50%

Figure 3: CAGR Needed To Multiply Initial Capital By Factor Over Given Years

Increasing one's initial capital by ten times over the next ten years requires an average 25.89% CAGR. While doing the same job in 20 years would need only a 12.20% CAGR, and in 30 years, a CAGR of 7.98% would be sufficient. All are doable. However, the latter is much easier to do. Buying a low-cost index fund could do the job. Very little work, if any at all.

As a group, we just stated that small investors would need more than a 10% average CAGR to make it worthwhile. It would mean any factor-year combination above this 10% average threshold could do. Increasing the CAGR would reduce the time needed to reach those goals. Twenty times the initial capital in 10 years requires a 34.93% CAGR. Should that be the objective, one must find ways to achieve it. Otherwise, he/she might fall short.

It is not so much a matter of picking which CAGR you choose since looking forward 50 years your estimate simply a guess with absolutely no guarantee of occurring. You could make such estimates and projections, but that is about it.

However, it does not change the need for goals or objectives for where you want to go and what you might achieve.

The road to getting there will most probably be different for everyone anyway, and quite chaotic based on historical records.

The multiplying factor in figure (3) is simply the ratio of the future value based on the current value of the same assets:  $Factor = FV/PV$ .

What can the smaller investor do to increase his/her CAGR above secular trends? For one, my book: **Build The Retirement Fund You Deserve. Be Rich, Be Happy** does provide a simple and automated investment method requiring little time while raising overall CAGR over the long term above 15%. Based on figure (3), one could achieve multiplying his/her initial capital by a factor of 20 in less than 20 years (with an average 16.16% CAGR).

We are not dealing with impossible growth rates but only adding a percentage point here and there based on the various trading procedures we might take. As shown previously, over the long term, a 2% CAGR increase can make quite a difference over extended periods.

The above-cited book suggested that buying QQQ and holding for the long term could be sufficient to reach an average return above 15%. It even provided a link to a program that would trade the 100 stocks in QQQ on a weekly basis<sup>9</sup>.

Benefits come with using QQQ's 100 stocks. Firstly, the stock selection process is pre-built. There is no need to search for, sort, rate, or apply specific selection standards to the stocks. The program is not trying to time the market, but to only follow it.

Additionally, QQQ updates its stock list continuously - maintaining a compilation of the top 100 most valuable stocks on NASDAQ, providing you with a concise collection of the most successful companies.

Stocks dropping off the list are automatically replaced by new additions that outperform the market's average growth rate. Essentially, you get the best of the best without any extra effort<sup>10</sup>.

Another plus of utilizing the stocks found in QQQ is its composition, promising long-lasting availability over the next 50 to 100 years. A top 100 list will always be there, even if we do not know its precise contents. Furthermore, no stocks within the list have gone bankrupt, fostering a sense of security while minimizing overall

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<sup>9</sup> That program requires only a few minutes a week.

<sup>10</sup> The top 100 list of stocks will change over time.

market risks.

## ***What Is The Sub-Millionaire To Do?***

It does not appear that he/she has much of a choice. I have always advocated that individual investors had, in fact, a choice. And yet, here I am, saying they may not have that much of a choice after all.

First, they are almost forced to participate in this wealth-building process for their own good. And their first job is to build a worthwhile retirement fund for themselves. Make it big enough to provide a long-lasting retirement income stream. The idea is simple. As an individual, you want financial freedom, comfort, and the amenities money can buy. And since you might live up to 100 years old and more, you have to make sure you will not run out of money anytime before you die.

If you do not provide a reasonable income stream that can last, who is going to do it for you? Some 50%+ of people reaching 60 years of age have less than \$10,000 in assets. What will they do with that should they live another 40 years?

Second, the smaller investor needs to pick how he/she will make his/her portfolio grow sufficiently to make it worthwhile. It is not about saving money for old age with a sub-five percent return on your monthly deposits. It is about getting a return of significance on your investments that would make a real difference.

[Equation 1](#) is rather explicit on this. Here it is again expressed as the sum of the  $N$  investments an individual could make in a lifetime with variable initial positions at their respective growth rates, each over their time horizon.

$$\sum_1^N FV_i = \sum_1^N PV_i \cdot (1 + g_i)^{t_i}$$

It is nice to have an equation, but we have no way of giving it a monetary value. What will be the outcome of each of those investments:  $\sum_1^N FV_i$ , when we do not even know which investments will be made, how long they might last, or if they will be profitable or not?

Regardless, we can still make long-term estimates of  $\sum_1^N FV_i$ . Where we are not so talented is in making those estimates over the very short term where randomness plays a more important role. Refer to the following articles for more detail: [Your Retirement](#), [Your Time](#), [Your Money](#), and [QQQ To The Rescue](#).

You do not even have odds on this future level of uncertainty. If you expand your time horizon to something like 20 years plus, you could make relatively good estimates based on past long-term trends. Nevertheless, you will have to devise a plan that will make you succeed no matter the amount of future uncertainty you will face.



In a way, your work is all cut out for you even before you start. You need an answer to: what am I going to do?

*You might not have a choice in doing it or not, but you do have a choice on how you will do it.*

My book<sup>11</sup> used, as example, a 30-year-old planning his/her retirement at age 65 and after that withdrawing 5% of the accumulated funds up to their 100<sup>th</sup> birthday. It did set the time horizon, planning for 70 more years. At no time during retirement should the individual run out of money or amenities.

That is the reason for planning far ahead. It is to ensure that even if you cannot be precise, your ballpark figure will be large enough to do the job, even for the hoped-for 35+ years in retirement.

However, equation (1) shows no mercy or wishful thinking. It is a "give me the numbers", and you will get an answer whether it is pleasant or not. It will not give better numbers because you are the one asking. So, as a 30-year-old, you need to determine your available and investable capital (PV) and estimate the average growth rate you might achieve over all those years, including in retirement. As for the time horizon, it has already been determined: two successive periods of 35 years.

Someone with \$100,000 to start with would have the following apply by age 65:

$$FV = \$100,000 \cdot (1 + \bar{g}_1)^{35} \quad (3)$$

where the missing part is  $\bar{g}_1$  the average growth rate over the first 35 years.

It is the only question you have. What growth rate will you, or can you achieve over those 35 years?

You can accept what major banks offer and have the following:  $FV = \$100,000 \cdot (1 + 0.05)^{35} = \$551,602$ . Withdrawing the usually recommended 4% per year in retirement would give a monthly income of about \$1,839 for the first year. But not exactly, since fees and taxes were not considered, nor was the impact of inflation.

Since someone else is doing the job, you will have fees, usually about 2% to 3% per year. The above equation gives:  $FV = \$100,000 \cdot (1 + 0.05 - 0.02)^{35} = \$281,386$ . It would reduce monthly withdrawals to \$938 per month.

That outcome would be in 35 years, and inflation would have taken its toll. The real purchasing power of that \$1,839 would be \$466, with an average inflation rate of

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<sup>11</sup> **Build The Retirement Fund You Deserve.** *Be Rich, Be Happy.*

4% over the period. While the \$938 scenario would be reduced to  $FV = \$100,000 \cdot (1 + 0.05 - 0.02 - 0.04)^{35} = \$70,345$ . You would have lost about 30% of your initial investment. Your first-month withdrawal would now be \$234.

Moreover, you could run out of money by year 25 while in retirement or sooner, meaning before your nineties, you would run out of money. Real bad scenarios, no matter how we look it at. It should be sufficient reasons to show you how dreadful that end of life would be, not something that would even be desirable.

It is why I say: you do not have a choice. You must build a worthwhile retirement fund. Otherwise, you might have to learn the meaning of forced simplicity.

### ***An Alternative***

You put the \$100,000 in QQQ and hold over the next 35 years. Its growth rate might average about 15%. This would give:  $FV = \$100,000 \cdot (1 + 0.15)^{35} = \$13,317,552$ . On retirement, your 4% withdrawal would be \$44,392 per month for the first year. That is \$532,702 for the year. A much better scenario. You did not have much to do since, after buying QQQ, you did let it ride.

Nevertheless, could you push for a little more?

Let's say: you borrow an additional \$100,000 to put in QQQ and use the program provided in my book<sup>12</sup>. You also add by other means a 5% to the growth rate. There are several ways to do that, so it is not that worrisome. The result would be:

$$FV = \$200,000 \cdot (1 + 0.15 + 0.05)^{35} = \$118,133,646$$

The 4% withdrawal would generate a monthly income of \$393,779, or \$4,725,376 for the first year. It would be more than enough to pay for the beer and a few extras. Note that you will have to pay back the borrowed \$100,000, but you would have plenty to pay it back.

We just viewed a few scenarios where the growth rate was of central concern. We did not push beyond the reasonable. As a matter of fact, we did not even exceed Mr. Buffett's 20% average CAGR over the past 50 years. Other investors did even better, so it is achievable. It is almost ordinary. It is something you can also do and could even do better.

*This is where I usually say you have a choice, the choice of investment methods.*

There are thousands of methods, all with their ups and downs. But you are the one to choose which methods you will use. And those methods will dictate your portfolio's long-term outcome.

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<sup>12</sup> Again, refer to: [Build The Retirement Fund You Deserve. Be Rich, Be Happy.](#)

If you had 70,000,000 individual investors doing the last scenario, in about 44 years, they would have bought all worldwide assets. Is that more desirable than having China do the same thing? Or any other country or organization, for that matter?

Do those 70,000,000 individual investors need to coordinate their efforts?

Not at all. They can do what is in their best self-interests. That is, they can grow their portfolios the best they can at the highest rate they can achieve. There is always something you can do to push that growth rate higher to some extent.

Should the individual investor manage his/her own investment fund?

The answer is a resounding yes.

You cannot leave your future in the hands of your government. Not anymore.

Sometimes governments cop out. Some of them renege their promises and obligations. Also, government pension funds might be depleted within the next 20 to 30 years due to an aging population and mismanagement. What they will do to compensate for their ineptitude will be to reduce overall benefits and payouts for all and without your consent. As mentioned before, they will pass a law stripping away your benefits, and there will be nothing you could do about it. The worse part might be that they could make it retroactive too. Look at history more closely. It has been done before.

But it is not the only reason you should take care of your retirement fund on your own. It would be best if you also wanted to be in control. After all, it is your money, your assets, and your future. By doing it yourself, there will be no hidden fees, unexpected expenses, changing of rules, and gradual loss of options. Stuff that was there before that was to your advantage but that was taken away.

Staying in control will allow you to move your assets when you want to. It will become more and more difficult to do this following the introduction of central bank digital currencies (CBDC). Somehow, the government will take or gain control of digital asset transfers of all types, including your digital assets. They will have the ability to freeze or seize your digital assets at will. And that is not a pleasant prospect, but you know they could do it and will eventually do it.

A government could print so much money that it could put the country into a hyperinflationary state<sup>13</sup>. You thought you had savings for your old age, but all that could be left might buy you a cup of coffee or a muffin.

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<sup>13</sup> Some examples of hyperinflationary periods include Germany, Venezuela, Zimbabwe, and the Confederacy during the US Civil War.

If we expect the average growth rate of global assets to be about 5%, then one has to escape the attraction to the mean should one want to exceed that average. For instance, buying US index funds could bring in close to a 10% return over the long run. But that is not the case for all countries, nor is it guaranteed. Nonetheless, an individual must exceed these rates to achieve better results. It all comes full circle to equation (1) and what you can do.

## ***The Years Beyond 65***

It is not enough to manage the first 35 years before retirement, as in the 30-year-old investor example. There is also the need to manage one's funds during retirement. The methods used could be the same as those used during the first 35 years.

Buying the stocks part of the QQQ ETF solved, by proxy, your stock selection process and your portfolio maintenance procedures since the emulation of the QQQ does both. The same methods could apply while in retirement. You would still manage your portfolio and be free to do whatever you like since the job takes less than 10 minutes a week to perform. You will have to wait for things to happen the rest of the time anyway. That is where using the program presented in my book becomes a tool to do the job<sup>14</sup>.

Three great traits to have in investing for the long term are common sense, conviction, and patience. The experience gained during the first 35 years will be sufficient to show you that your best asset was time, and your ability and determination to sit on your bunnies was your second best. You took some 10 minutes a week in the first 35 years to manage your portfolio, and you would do about the same in retirement. Not something that could be called time-consuming.

It all derives from simple common sense. You do not know which stocks will perform best over the next 35 years, so you adopt the notion that the top 100 highest-valued stocks, whatever they may be at any one time, are good enough for you. Is that reasonable? Why would it not?

It took a lot for these stocks to be classified as the top 100 on NASDAQ. It took, even more to rise to their top-100 status. It will take a lot more for each one of them to stay part of that select group.

You will not have to worry about which stocks are part of the group. The program will adapt to whatever changes to that list. Furthermore, you can improve the program to do even better, which would increase its overall CAGR.

It does not matter how much you win, but it does matter that you win more than enough. It implies an above-market average growth rate ( $\bar{g} > \bar{r}_m$ ) for your portfolio.

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<sup>14</sup> There are other tools that could do the same job or better.

Find the means to achieve a higher growth rate. You will not find it in financial instruments generating low returns. It would be best if you did not use any financial instruments only offering low rates, even risk-free rates. It is not enough for your investment or retirement fund. It is your job to find better ways to make your portfolio grow at a sufficient rate to make it worthwhile.

So, it is not a choice. You not only have to perform, you also have to outperform. Otherwise, you will be disadvantaged. By performing below market averages, you provide your children with very little to start with and almost assure them of a life of hardship and continuous struggle to make ends meet. Hopefully, they will figure it out before it is too late and start their portfolio-building process since they will also need their retirement fund.

### ***What Are Possible Solutions?***

Some of my recent articles<sup>15</sup> stated that your savings alone was not enough<sup>16</sup>. It could help, but much more is needed to retire well.

After retiring, why should you downsize, limit your expenses, or hold off on the things you enjoy? Was not the reason to work so hard to accumulate wealth to enjoy in retirement the very things you should now curtail?

You definitely need more than just savings. You need an investment plan and make those investments such that your overall return will at least exceed 15%. Therefore, you should find ways to accomplish that task.

But beforehand, you should also get a decent stake to start with. It is not by using \$1,000 or \$10,000 as initial capital that you will go very far. Check it out using equation (1). You would be better off putting that money into your financial education.

You might live another 35+ years after having retired at 65. That is a long time, during which you should not worry whether you will have enough money or not. It gets down to a simple case of basic survival.

No matter how you look at it, you are at the center of it all.

You are the one to make those plans and decisions on how to retire. How will it be financed? Your worse enemy, or friend, is equation (1), which is restated here:  
 $FV = PV \cdot (1 + g)^t$ .

There are no other elements in that equation. Only money, time, and the degree of profit you can generate. No politics, no religion, no sex, no race, the equation does

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<sup>15</sup> See the list of articles at the beginning of this paper.

<sup>16</sup> See the ad in the [QQQ To The Rescue](#) article (figure #2).

not consider who you are, only if you can produce this positive growth rate. If  $g = 0$ , you have no profit to speak of. You have  $g < 0$ , and you are losing money.

There is only one case to consider, and that is  $g > 0$ . But that is not enough.

You will find sooner or later that there are limits to the growth rate  $g$  you can generate. For instance, doubling every month is beyond reach. However, the growth rate must be sufficient to outperform what is widely available, such as indexed funds, or be large enough to achieve your goals.

We could separate the whole problem into two parts. There is what you can do before age 65 or before your retirement year:  $FV = PV_0 \cdot (1 + g_1)^{65-t}$  where  $t$  is your current age. And what you can do after retirement:  $FV = PV_{65} \cdot (1 + g_2)^{t-65}$  with  $t > 65$  is your age after 65, and  $g_2$  the growth rate of your portfolio while in retirement. Note that  $PV_{65}$  is the value of your fund at age 65.

One thing we could add to the future value equation is a scaler  $k$  to generate the following:  $k \cdot FV = k \cdot PV \cdot (1 + g)^t$  which state that the more you put up as initial capital, the more it will be reflected in the final value. Ten times more to start with, ten times more as the outcome.

For example: say you have:  $\$100,000 \cdot (1 + 0.10)^{35} = \$2,810,244$ , which is not bad, but you could get ten times more:  $10 \cdot \$100,000 \cdot (1 + 0.10)^{35} = \$28,102,437$ , which is a lot better. Getting more initial capital will be worthwhile since it will propagate over the entire investment period. Starting with \$10 million would raise the outcome to \$281 million. It is to consider and does show the value of getting that extra capital to start with.

Also of note is that the initial stake is independent of time. It is something you bring to the game before it even starts. The more you wait to start your retirement fund, the more it will cost you due to the lost opportunity. Say you waited 10 years before starting, then your \$100k might give:  $\$100,000 \cdot (1 + 0.10)^{25} = \$1,083,471$ . That amounts to \$1,726,773 in lost gains just for having delayed the starting year.

It would be best to decide as early as possible to build that retirement fund. My recent articles even suggested you start a retirement fund for your children at birth, giving them up to 100 years of compounding.

*Half of the children currently five or under will reach  
100 years of age in the coming century.*

Time does not have a rerun or a let's do it over by pressing a restart button. The point is that the more you wait or delay the start of your retirement fund, the more it will cost you in opportunity cost. It will even have a more significant impact if you

consider the possible 35 years in retirement.

However, the above is nothing compared to doubling the growth rate to 20%. Using the same formula, we get  $\$100,000 \cdot (1 + 0.20)^{35} = \$59,066,823$  for the \$100,000 initial start scenario, while with the added capital and the higher growth rate, we would have:  $10 \cdot \$100,000 \cdot (1 + 0.20)^{35} = \$590,668,229$ .

It says you could play to have \$2,810,244 in 35 years, or you could go for the \$590,668,229 prize with a little more work. Note that at a lesser rate like 5%, the first scenario would give:  $\$100,000 \cdot (1 + 0.05)^{35} = \$551,602$ , which is not much for having your portfolio grow for 35 years.

To put this in some context, take Mr. Buffett's scenario:  $\$10,000,000 \cdot (1 + 0.20)^{50} = \$91,004,381,500$ . That is outstanding. If you give it time, you could do the same or do it for your children. If Mr. Buffett adds another 20% to his current portfolio in one year, that would add: \$18.2 billion to his fortune in a single year.

It is why longevity and sustainability are major elements in this future value equation. Time is the most impactful element of the future value equation. It is most often overlooked. Most people make projections over much shorter time intervals. At the beginning of Mr. Buffett's career, a 20% move was worth \$2 million. And now, the same 20% represents \$18.2 billion. That is more than 9,100 times more impactful than at the beginning.

But whatever, you are still the one to decide which method you will use should you even decide to use one. Using the free QQQ trading program example illustrated in my articles, you would at least be at a good starting point.

You would know that the strategy is sustainable for decades to come and could produce, on average, in excess of a 15% CAGR. You could even raise that growth rate with minor modifications to the program. However, one thing you should consider before starting that program is adding protective measures to reduce the impact of market drawdowns. Not doing so would be careless, to say the least.

Your main advantage of using the QQQ program is that it requires little of your time, 10 minutes or less a week, and on the day and time of your choosing. You could even do this during one of your coffee breaks. So, we cannot say it would be time-consuming or require much work.

I would make this point: get as much capital as you can before you even start. Test for yourself that the strategy can deliver for a long time. If not, find another program that could do the job.

We all have different views of what is and what is not. And all I can say is: make your own determination. Validate your assumptions, and make sure that the financial

journey you will undertake leads you to your assured prosperity.

You are not alone in this game. We have looked at the more significant participants in this game as generalized groups. But your real competition is all the participants. Millions are developing new trading methods and programs using all the information they can find. You do not only have to outperform most of those individuals but also those server farms filled with ultra-high speed machines capable of doing millions of trades per day using the most capable software money can buy. Anyone telling you it is a leveled playing field might also be selling a fairy tale. I am a certified optimist but not by that much.

You think you innovate. Think again. There are millions of bright people out there designing new programs. You will not have enough time to investigate that many of them. Whatever you may develop as a revolutionary trading program might already have been written by someone else. Furthermore, all the outstanding and productive programs are kept private, so you will not see any of those<sup>17</sup>.

Nonetheless, you should seek a solution that can deliver.

Not just any solution, but one that will work for a long time and to your benefit. You not only want to reach the retirement age of 65 or earlier, but you also want all the years afterward, even up to 100<sup>+</sup>.

How will you ever get it if you do not plan for it?

Earlier, we set a growth rate for the first 35 years as  $FV_{35} = PV_0 \cdot (1 + \bar{g}_1)^{35}$ . For the 30-year-old example, there were two elements to determine: the initial capital:  $PV_0$  and the average growth rate  $\bar{g}_1$ .

The initial capital is what you bring to the game. So, it is a known quantity from the start. You also know how many years there will be before you reach 65; therefore, it is also a known factor from the start. There remains only  $\bar{g}_1$ , the growth rate you will achieve, but you will only know that when you approach retirement age. You want the outcome to be more than a guess, an estimate, or a prediction.

## ***After Retirement***

For the period after retirement at age 65 (or other), the following formula would stand:  $FV_{35} \cdot (1 + \bar{g}_2)^{35}$  where whatever was accumulated, up to age 65 ( $FV_{35}$ ), is now the initial capital for the next period.  $FV_{35}$  would grow at the rate of  $\bar{g}_2$ . An estimate on  $\bar{g}_2$  could be:  $\hat{g}_2 = \bar{g}_1 - |w|$  where  $|w|$  is the withdrawal rate while in retirement.

As long as  $g > |w|$ , the portfolio will continue to grow at the growth rate of  $(g_2 - |w|)$ :

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<sup>17</sup> There are still exceptions to this.



$FV_{35} \cdot (1 + (g_2 - |w|))^{35}$ . The withdrawals also grow at the same rate  $(g_2 - |w|)$ . It lets the withdrawals grow at the same rate as the portfolio value. It means that your retirement income stream will grow year over year at the average rate of  $(g_2 - |w|)$ .

The above is the main reason why you should manage your retirement fund and do it all yourself. It is like designing for yourself a rising annuity income stream. Year after year, you would get more. It is like indexing your income to inflation, but in this case, it can go higher and depend on your portfolio return  $\bar{g}_2$ .

You would be the only one to set whatever withdrawal rules you wish, not a government, fiduciary organization, retirement plan, or financial institution. It would all be your money and under your control where it should have been in the first place.

Doing it yourself will require some of your time. Some of it could be delegated to someone else with predefined expected results. Even I could do it. And that says: anybody could.

Nonetheless, doing it yourself makes it even more compelling when comparing the difference in CAGR your financial institutions could provide with rates around 5% or less and what you could do on your own. For example, compare:  $FV_{40} = \$100,000 \cdot (1 + 0.05)^{40} = \$703,999$  with what you could do over the same period:  $FV_{40} = \$100,000 \cdot (1 + 0.20)^{40} = \$146,977,157$ .

But like in everything else, the methods used to build your retirement fund are always your choice.

What might not be a choice is: whether to do it or not.

You will almost be obligated to do it, whether for you or your loved ones. Going for more could, at least, provide a better and more significant legacy.

*It is all stuff you can do yourself where you could get even better results than the expected average secular trend of about 10%.*

You could raise your CAGR to 20%+, it would give you:  $FV_{40} = \$100,000 \cdot (1 + 0.20)^{40} = \$146,977,157$ . And if you added another 20 years, it could give you:  $FV_{60} = \$100,000 \cdot (1 + 0.20)^{60} = \$5,634,751,435$ .

Could you maintain that pace over the same 60 years but starting with \$1 million, you would get:  $FV_{60} = \$1,000,000 \cdot (1 + 0.20)^{60} = \$56,347,514,353$ . Note that after the first 20 years, your fund should be about:  $FV_{60} = \$1,000,000 \cdot (1 + 0.20)^{20} = \$38,337,600$ , more than enough to retire on and start withdrawing monthly income at the pace you want.

Again, the investment methods you will use are your choice, and you are looking for something that can average a 15% CAGR ( $\bar{g} > 0.15$ ) or better.

The all-inclusive formula presented earlier:  $\sum_1^N FV_i = \sum_1^N PV_i \cdot (1 + g_i)^{t_i}$  expressed that your future value is dependent on all the investments made over the life of your portfolio. You will have variable initial capital values  $PV_i$  where  $i$  could be in the thousands. You would also have  $g_i$ , the growth rate attached to a particular investment ( $PV_i$ ). With each of those transactions over their respective time interval ( $t_i$ ) related to each investment or position.

The above equation did not say which assets could be used, nor did it restrict any asset. All it talks about is profit generation and degeneration depending on the value of  $g_i$ .

Another thing of importance in this is that only the investments participating in this equation are considered. The equation did not say that you were totally invested at all times, only that the sum of generated profits from all those transactions was part of the total outcome over the investment period.

We could link the portfolio's payoff matrix equation to the above equation:

$$\sum_1^N FV_i = F_0 + \sum_1^N PV_i \cdot (1 + g_i)^{t_i} = F_0 + \sum_1^N (\mathbf{H} \cdot \Delta \mathbf{P})$$

Those investments are then expressed as a payoff matrix that summarizes all transactions from start to finish with an initial capital ( $F_0$ ). This equation restates that the traded assets and investments do not need to be correlated. The only requirement would be that, on average, those assets grow with time.

For any portfolio, we could always get the average portfolio growth rate from the following:

$$\left[ \frac{F_0 + \sum_1^N FV_i}{F_0} \right]^{1/t} = \bar{g}$$

The average rate of return on those investments ( $\bar{g}$ ) could then be used to make generalizations. Stuff like: whatever Mr. Buffett did over the last 50 years resulted, on average, in a 20% CAGR. We do not know what he did exactly, but we do have the result, and it was equivalent to having had a 20% CAGR over those 50 years.

In real life, as we go forward, we do not know  $\sum_1^N FV_i$  and have little means to figure it out except for making estimates and projections which might or might not happen. It is a cruel world where you can be precise about what happened. Still, once you look at the future, you enter into the realm of hypothetical possibilities with no guarantees, not even having a probability measure, simply saying: you will not have odds on what is coming.

Yet, the future is where you have to operate. There is no money to be made speculating on the past. So, plan for the moves ahead.

What you can put in the above equations is totally under your control. Whether it be stocks, bonds, real estate, or collectibles, it is all your choice. The point is you purchase some asset, let it grow in value, evaluate it or sell it later and make or take the profit. It all goes into your payoff matrix. Your main objective is to have your investment portfolio almost fully invested at all times. And you can always add more as you go along.

You are in search of profits just like everyone else.

The whole point is, how are you going to do it?

You know your objectives. There are two parts: the first is to build an investment fund that could serve as a retirement fund for when you retire. And the second is to continue developing your fund after retirement while withdrawing substantial income for living expenses and everything else you might want.

The things to add are an initial capital of sufficient size, your investment methods, and providing the time needed for your assets, whatever they may be, to appreciate. You realize that your most important ingredient in all this is time, and you will need a lot of time. You stand ready to put all the time you have in this venture. Not as working full-time, but following your quest for profits for decades, even if it only takes a few minutes a week.

The most fundamental ingredient to your success is plain common sense.

Before making any investment, you should know, whether in stocks, bonds, real estate, or anything else, that they will grow in value over time. You have enough examples of all those things to select whatever is appropriate for you. What matters most is making most of those "bets" profitable. Nonetheless, the value of all the winning bets must far exceed the value of all the losing ones.

I rarely mention risk. Yet, we all know that investing can sometimes be risky. If not, all the time. However, I see a greater risk in doing nothing. Over the long term, we can measure it as profit opportunities lost by not doing more when more was readily available.

You do not have a choice in building a retirement fund. Even so, you do have a choice in the investment methods used. We could make it an equation:

$$F_0 \cdot (1 + 0.05)^{50} \ll F_0 \cdot (1 + 0.20)^{50}$$

Actually, for someone putting \$100,000 on the table, the difference would: \$908,897,075. It is what is being thrown away by not going for the higher CAGR.

It also puts a price on your efforts. And if you had started with \$1,000,000, the difference would have been \$9,088,970,750. It too, is part of the opportunity cost.

The risk is not in the money you will lose. You will undoubtedly lose some, but in not doing your best to achieve higher returns and finding ways to start with a larger stake. Planning for what you want to do and how you will do it could bring you over \$8 billion more in profits over those 50 years. And if you started at 30 years old, you would still have another 20+ years to enjoy your retirement with all the comfort you deserve. Regardless, it is all up to you.

It is easy to set goals. It is another thing to execute what is needed to reach them.

You are playing with equation (1). That's it. Nothing more. But it is up to you to master this equation and its potential. Exploit what it can give you. It could bring you a better understanding of what will matter.

*If you do the same things as everybody else,  
you should expect the same result.*

And that could be considered your curse, just being average. But I do hope you will want to do more. More is available, and there are many ways to do the job.

Take examples from those who have achieved great wealth, and see how they did it. Did they make it themselves or inherit it? The latter, most probably, is not you. Therefore, your choice is to make it on your own. And maybe, with the help of others.

My point is: you can make it. Put your common sense to the task. Solve the problem to your liking. Your solution will probably be different from the other guy, but that is perfectly OK. You are different, and it will be your way, your solution.

What equation (1) tells you is to be almost fully invested and that it will take a lot of time. How much you invest does matter as well. Nonetheless, you have to start somewhere. If you don't, you will be left in the cold and live your retirement with reduced means.

A small trader/investor with \$1 million or less is limited in what he/she can do, and based on figure (2), investment choices have been simplified.

Keeping your money in cash has not been the right solution. At least, not over the last 200 years. Some investments available in small chunks are stocks. You can slice positions to the value you want to spread the risk. In the beginning, concentrating your bets is a good idea as long as you know what you are buying.

You cannot be of the speculative type or play the venture capitalist. You want more

assured and secured returns. Look around you, and see what is working. For example, you cannot easily find a parking space when you go to Costco, then wait in long lines at the cashier to get out. Costco is giving you a hint. You see everyone paying with Visa or Mastercard, another hint. You go to some other store with ease of parking, almost no one in the store, and you have a hard time being served. You just got another hint which would be to avoid that one.

Common sense can significantly help you make better investment decisions. Know what you will be dealing with, for in a way, you are playing your future, and you should have known better.

Look again at figure (2), and notice the straight trend line behind stocks. It says that over the past 200 years, you could have jumped on that line and won simply by holding for the long term. You could have all done it yourself. There is no secret there, just common sense. To do more, buy stocks with a growth rate higher than that secular trend line.

But first, you will have to build yourself and gain the confidence that what you want to do is not only doable but, most importantly, that you can do it. Learn what you need to be more convinced about what you will do. Make those projections, set your goals, and strive for them. You do not need to be that accurate; a ballpark figure is often good enough. So, get to it, live long, and prosper.

### ***The Impact Of Drawdowns***

A portfolio risk you will encounter and hard to avoid is drawdowns. Initially, it looks like a dip in value, except stock prices go down deeper. And, at times, quite deep. Some stocks do not even recover from their slide down. They go bankrupt.

You will not know how deep the next market drawdown will be nor how long it could last. Thereby making the case that protective measures are a must. You should know when to step aside, hedge your bets, or short.

Nonetheless, you will have to survive the drawdowns. Not just once but a few times. And it only means you will be losing money. Paper profits are also money but can fade away. It is by not cashing in those paper profits that makes the loss. If your portfolio drops by 50%, it hurts. It hurts even more as your portfolio grows.

We could start with the 30-year-old planning his/her retirement example as presented earlier. We had an average 20% CAGR over the 35 years before retirement. We used the following equation:

$$FV = \$100,000 \cdot (1 + 0.20)^{35} = \$59,066,823$$

If you had started with a larger initial stake, like ten times more, you could have had

ten times more:

$$FV = \$1,000,000 \cdot (1 + 0.20)^{35} = \$590,668,229$$

However, we will stay with the \$100k scenario. You could move the decimal point in the following calculations to get to the higher stake scenario.

After reaching retirement, say we have a 50% drawdown on year 36:

$$FV = \$100,000 \cdot (1 + 0.20)^{35} \cdot 0.50 = \$29,533,511$$

You were doing OK, and in one year, you lose \$29,533,511 of your paper profits, money you once had just the year before. As shown, the 50% drop is consequential<sup>18</sup>.

The average CAGR decreased in a single year to:

$$\left[ \frac{\$29,533,511}{\$100,000} \right]^{1/36} - 1 = 17.12\%$$

from the previous 20% average.

As can be observed, it did not cut the long-term CAGR in half. It reduced the 35-year 20% CAGR average by -2.88%. Or the prior 20% average was reduced by -14.4%. After 36 years, you have an average of 17.12% CAGR over the total period. So, not that bad. But, just the year before, you had twice as much assets in your account.

Without the drop in year 36, on your first year in retirement, your average rate of return could have been the same as the prior years, giving you:

$$FV = \$100,000 \cdot (1 + 0.20)^{36} = \$70,880,187$$

but all you got was: \$29,533,511. It raises the question: how long will it take to recover from that setback?

It took you 36 years to get there. When will you have recovered from this drawdown? Or, will you ever? You only need to double your portfolio to get there.

I have a series of articles on this subject. For example, look over the following:

[Recovering After A Bear Market?](#)

[Portfolio Drawdown Protection](#)

[Surviving Market Drawdowns](#)

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<sup>18</sup> Even more so in the \$1 million initial stake or higher scenarios.

Another series of interesting articles on using the 100 QQQ stocks to achieve your goals is provided in the **Related Articles** section at the top of this paper. Each article addresses a different aspect of how to protect your portfolio, evaluate the impact, and show methods to recover from those drawdowns<sup>19</sup>.

It does not matter where in the series of yearly returns you will find the drawdown:

$$FV = (PV_0 \cdot (1 + r)^{35} \cdot 0.50) \cdot (1 + r)^{34} \quad (4)$$

where  $r = 0.20$ . The 50% drop occurs again in year 36. After that, the growth rate returned to its average CAGR of 20% for the next 34 years.

The overall impact is even more significant since the loss in year 36 propagates exponentially. Putting numbers in the above equation would give:

$$FV = (\$100,000 \cdot (1 + 0.20)^{35} \cdot 0.50) \cdot (1 + 0.20)^{34} = \$14,537,039,872$$

We could compare the above against the scenario without the drawdown which gives:

$$FV = (\$100,000 \cdot (1 + 0.20)^{35}) \cdot (1 + 0.20)^{35} = \$34,888,895,693$$

That 50% drawdown on year 36 now represents \$20 billion in lost opportunity. Did the drawdown have significance? For sure.

It is not only the immediate loss that matters. It is also what follows, the money you will not be making. Those paper profits will not materialize. The impact could be considerable.

It did not matter where in the series of yearly returns the 50% drawdown occurred. You would get the same result that it happened during the first 35 years or any year during the 35 years after retirement.

Some might argue that since the \$14,537,039,872 is not half of the \$34,888,895,693 that the drawdown does not impact the same depending on where in the series it occurred. Actually, it does have the same impact. On the 36<sup>th</sup> year, there was a 50% drop in asset value, but there was also a 20% average rise that did not occur, which explains the discrepancy. As proof, consider the following:

$$FV_{36} = F_0 \cdot (1 + r) \cdot (1 + r) \cdot \dots \cdot (1 + r) \cdot (1 + r)_{35} \cdot (1 - 0.50)$$

$$FV_{36} = F_0 \cdot (1 + r) \cdot (1 + r) \cdot (1 - 0.50) \cdot \dots \cdot (1 + r) \cdot (1 + r)_{36}$$

which does demonstrate the point.

Read the above-cited articles for more details on how to solve this problem. When looking at the numbers, it is worth it to protect your portfolio from those dreadful

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<sup>19</sup> [QQQ To The Rescue](#) has another six articles related to this subject.

drawdowns. Moreover, should you have such drawdowns, and you will have them, you should have recuperation measures as presented in those articles ready to recover your CAGR level.

All this stuff is trying to tell you:

1. You can do it. And you can do it all yourself.
2. You can do it safer by adding some protective measures.
3. You can trade the 100 stocks part of QQQ to do it.
4. Stocks part of QQQ do not go bankrupt while in QQQ.
5. It is the easiest of trading strategies.
6. There will always be a top 100 stocks by value.
7. You can add or subtract to your fund anytime.
8. You could add more shares to your fund at any time.
9. You could also do it by buying QQQ outright.

We often hear that the S&P 500 is a good proxy for a market average. It has been used this way for years and years. And based on the S&P 500, your expected long-term return should average near a 10% CAGR. You could use SPY to represent the 500 stocks in the S&P 500 index. You could also take the top 100 SPY stocks and improve your expected overall return simply because you would have put aside the relative underperformers.

Taking the top 100 stocks part of QQQ, which are the same as the 100 stocks in the NDX index, does the same thing as using the top 100 stocks of SPY. It would raise your long-term CAGR without really trying since, in the process, you would have purchased some added alpha. Technically, a free lunch, even if they say: there is no free lunch.

You can make it all yourself. All that is missing is your capital, your will, and your patience. Get to it. Find more capital if you do not have enough. It is your future that is at stake.

May you have a glorious retirement.