

National Best-Selling Author



Sequence of Returns risk

Let's look at some facts and base information before we dive into this risk.

Bear markets

	Timeframe	Length in Days	% Change
1	June 1948 – June 1949	363	-20.57
2	August 1956 – October 1957	446	-21.63
3	December 1961 – June 1962	196	-27.97
4	February 1966 – October 1966	240	-22.18
5	November 1968 – May 1970	543	-36.06
6	January 1973 – October 1974	630	-48.20
7	November 1980 – August 1982	622	-27.11
8	August 1987 – December 1987	101	-33.51
9	March 2000 – September 2001	546	-36.77
10	January 2002 – October 2002	278	-33.75
11	October 2007 - November 2008	408	-51.93
12	January 2009 – March 2009	62	-27.62
13	February 2020 – March 2020	33	-33.92
14	January 2022 – October 2022	282	-25.40
	Average	344	-31.90%

- Since 1948, there have been 14 bear market losses (defined as 20%+ loss), or about one every 5.7 years.
- The average bear market lasted 10 months and took the market down 31.90%
- Few investors have the risk tolerance to emotionally accept a series of losses of 20%+
- The timing of these downturns can have a negative effect on reaching financial goals, such as college savings or starting retirement.

So, let's look at what this means. So, consider 30% loss, how do we get it back? What's the recovery time? Let's take a look at some facts. Since 1929 there have been 25 bear markets (defined as a 20% loss), meaning we have one about every 3.4 years.

The average bear market lasts 10 months and results in a 31.90% decrease.

Here's what we know, few investors have the risk tolerance to accept a series of losses of more than 20%. Again, the timing of these losses can be devastating for some.

You should absolutely understand what your risk tolerance is and you should absolutely have a plan In place to make sure your retirement is still on track and that you can still accomplish all the things that you want to accomplish.

Getting back to even

So we understand what we've lost, what does it take to get back to even?

Look at this chart. If we assume a 30% loss in the market, at a 3% return it would take 12 years to get back to just even.

We double that return at 6% it still takes 6 years, and if we go out and get a really good 8% return, it still takes 4.6 years to just get back to even. Remember, we see a bear market an average of every 3.5 years.

So does it still make sense to be in the market? For some it does, some have time to recoup and gamble the market, for others maybe not so much. You should be aware, and you should have a conversation with an advisor about your unique situation, everybody is different.

If you lose this much:	At a 3% return, you'd need:	At a 6% return, you'd need:	At an 8% return, you'd need:
10%	3.6 years	1.8 years	1.4 years
20%	7.5 years	3.8 years	2.9 years
30%	12.1 years	6.1 years	4.6 years
40%	17.3 years	8.8 years	6.6 years
50%	23.4 years	11.9 years	9.0 years

Rate of return vs yield



Let's assume that everyone has \$500,000, okay?

Let's say that we put our money into the market back when it was really shooting up. And let's be silly, let's act like we got a positive 50% rate of return. How much money did you just make?

We just made \$250,000. Now, how does that feel? Pretty good, right.

We just made \$250,000 on our \$500,000 investment and we feel great because now we're at \$750,000.

Now, after the big gain, guess what might come next?

You called it right – what goes up must go down. Look, let's be fair. Since we said it went up 50% in the first year, let's now say it goes down in the second year by 50%.

Now how much is that?

It's not 50% of the money you put in – it's 50% of the current value, so you lose \$375000.

Now, in looking at that we now have \$375,000. Now, wait a minute. Plus 50 minus 50, isn't that a zero rate of return? How much money do you have? You have 375 thousand.

Let's look at one more year returns for this example.

In the third year let's assume we got a positive 30% return.

30% of \$375000 is 112500, add those together we have \$487,500. We started with \$500,000 and had an average rate of return of 10%, but you have less money!

Never ever ask what my average rate of return is...

ASK WHAT IS MY YIELD?

Example of the huge impact of sequence of returns risk:

New and soon-to-be retirees are more vulnerable to sequence of returns risk. That's because once you retire and start taking regular withdrawals from your investment portfolio, annual market returns become key to maintaining a reliable income stream. If your stocks experience a significant loss in value because of a correction or crash, and you find yourself having to sell more shares to generate the income you need, it can affect how long your retirement savings will last.

If that loss comes early in your retirement, or just before you retire, the unfortunate timing could end up killing the retirement income you're depending on for a steady retirement paycheck – even if your portfolio's "average" rate of return is favorable.

Let's look at impact of sequence of returns, this is almost unbelievable when I look at it. It's critical to retirement.

Here's a hypothetical example of how the sequence of returns can affect your retirement outcome. Let's say we have two investors, both of whom start retirement with \$1 million and a plan to withdraw \$50,000 a year. Over the next 30 years, they experience the exact <u>same</u> average rate of return (6.3%), but their annual returns occur in the exact opposite order.

Investor A experiences three down years at the start of retirement, and it nearly cuts his savings in half. Despite several good years later on, he never recovers and eventually runs out of money and only halfway through their retirement.

Investor B gets off to a much better start. And though he has some tough times going forward, after three decades, he doubles his money to more than \$2 million.

Here is how this looks year by year for the two investors.

	Invest	or A	Investor B		
	Investor A		Investor B		
Year	Net Return	Year-end Value	Year	Net Return	Year-end Value
1	-17.50%	\$775,000	1	9.90%	\$1,049,000
2	-11.30%	\$635,925	2	25.90%	\$1,269,191
3	-4.60%	\$553,627	3	17.60%	\$1,439,524
4	9.60%	\$551,973	4	6.60%	\$1,479,896
5	-9.80%	\$441,604	5	14.10%	\$1,632,286
6	12.10%	\$437,075	6	-19.70%	\$1,252,752
7	13.10%	\$434,629	7	-1.80%	\$1,170,509
8	18.40%	\$453,107	8	16.20%	\$1,298,638
9	6.00%	\$416,955	9	8.60%	\$1,346,983
10	-8.30%	\$317,109	10	9.90%	\$1,415,095
11	18.40%	\$308,261	11	-0.30%	\$1,343,654
12	7.20%	\$261,244	12	25.60%	\$1,618,418
13	-3.70%	\$180,290	13	15.90%	\$1,804,458
14	-1.00%	\$105,061	14	23.60%	\$2,156,884
15	13.00%	\$43,089	15	16.90%	\$2,445,768
16	16.90%	\$ 0	16	13.00%	\$2,685,819
17	23.60%	\$0	17	-1%	\$2,578,725
18	15.90%	\$ 0	18	-3.70%	\$2,400,670
19	25.60%	\$0	19	7.20%	\$2,488,397
20	-0.30%	\$ 0	20	18.40%	\$2,858,587
21	9.90%	\$0	21	-8.30%	\$2,531,018
22	8.60%	\$ 0	22	6.00%	\$2,589,865
23	16.20%	\$0	23	18.40%	\$2,970,595
24	-1.80%	\$0	24	13.10%	\$3,261,063
25	-19.70%	\$0	25	12.10%	\$3,554,012
26	14.10%	\$0	26	-9.80%	\$3,101,030
27	6.60%	\$0	27	9.60%	\$3,289,969
28	17.60%	\$0	28	-4.60%	\$3,027,566
29	25.90%	\$0	29	-11.30%	\$2,571,055
30	9.90%	\$0	30	-17.50%	\$2,003,292

The order in which the negative returns happened is the key.

As you can see the sequence of return is crucial to retirement planning and you have to have strategies in place to reduce this risk is imperative during your retirement years. In one scenario you are out of money halfway through retirement and one you still have over two million dollars. In the later scenario you could realize your retirement goals and even leave a legacy. You need to have a plan that prioritizes safeguarding the wealth you've accumulated.

You may be thinking, I can't control the market, what can I do? You can't control the amount or order of your returns. But you can adjust your portfolio (and your investing mindset) to help minimize sequence of returns risk. There are investment strategies that can help reduce this risk and even take it off the table.

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If you plan to use money invested in the market as a source of retirement income, sequence of returns is the monster in the closet. Most people I talk to have never heard of sequence of returns risk, and surprisingly even if they're working with an investment adviser or broker. That is why you need a retirement advisor that also covers investments.

Here's what it is and why it matters: Upon retirement you no longer add money to your retirement account. Instead, you begin taking withdrawals. If your money is in the market, these market returns become critical to maintaining a reliable retirement income stream. If stocks are

at a low because of a big correction or crash, you are pulling money from shrinking accounts, which could significantly reduce the longevity of your plan.

When that correction or crash comes early in retirement, or just before you get there, it can seriously derail your plans. For one thing, that's typically when you have the largest balances in your accounts, therefore the greatest exposure to a major loss. And even when the market recovers, you might not recover with it, as you do not have the runway anymore to recover.

Fortunately, there are ways to minimize and protect from the damage sequence of returns risk can cause. You might find, for example, that it makes sense to reduce your exposure to volatility with a more conservative portfolio mix, invested in the proper investment vehicles for that stage of life. We can help you put together the proper investment mix. A well-thought-out, prudent retirement income plan should provide protections and flexibility when the markets are acting up.

Whatever you do, don't take this threat lightly.

Case Study: The Potato Farmer

Carmen is a potato farmer. On average, each potato plant will have an average "rate of return" of six potatoes. However, just like in the market, there are variabilities in soil, water, insects, and other factors. This means that the yield of each potato plant can be vastly different. Some potato plants will yield six gigantic potatoes while some will yield six withered fingerling potatoes. Some will yield just one potato while some will yield a dozen. Some plants will yield potatoes that grow too close to the surface and become green (which is poisonous), meaning much of those potatoes have to be thrown out) while other plants produce potatoes that grow deeper in the soil.

The average rate of return (six potatoes per plant) doesn't really speak to what is actually harvested: the actual yield.

What can Carmen do to ensure a more consistent yield of six good-sized potatoes each year? Carmen strives to recreate virtually the same ideal growing conditions each year: conditions that help each potato plant reach its potential. This could mean planting potato varieties that are more suited to her particular climate, and not those that are rockstars in a different climate. This could mean installing an irrigation system rather than relying on hand-watering. This could mean planting potatoes just a few inches farther apart.

You can take a similar approach with your retirement portfolio to ensure relatively optimized yields no matter what the market is doing. Yes, you'll have up years and down years, but on average, you want your yield to be fairly consistent and predictable.

You do this by diversifying and by choosing the right investment vehicles (based on many diverse and unique factors). As you can see from the example of Joe and Bob, a one-size-fitsall approach (starting with \$1 million and randomly investing it) does not generate the same yields, even though the brothers' average rate of return was identical.

Reducing your withdrawals after a crash or significant loss at the beginning of retirement is an option. You could also cash in other assets or reduce your living expenditures. However, wouldn't you rather not have to do that? You are much more likely to enjoy a consistently comfortable retirement by having the proper comprehensive retirement plan designed and put in place.

Naturally, this still means developing and sticking to a budget. Again, budgeting is not meant to be an austerity measure that deprives you of the fun times you should be having as a retiree.

It's there strictly for the purpose of ensuring you have enough money to last throughout the entirety of your retirement.

The problem is clear, but what can you do about it? Let's look at the different ways you can mitigate sequence risk.

In a great article, Dr. Pfau describes four ways to manage sequence risk: reduce volatility, spend conservatively, flexible spending, and buffer assets.

Two of the four are about reduced spending (such as the 4% rule), and the other is to attempt to reduce the volatility of the portfolio. The reduction in volatility means less time with a negative portfolio from which to potentially withdraw.

Buffer assets are a great and interesting concept. These assets are non-correlated with the stock market, More on this in a minute.

During downturns in the market, think about strategies and investments that may be less affected by the chaos.

- 1. Build a lifetime spending floor with income annuities
- 2. Build a retirement income bond ladder
- 3. Rising equity glide path in retirement (equity allocation that is even lower than typically recommended at the start of retirement, but then slowly increase the stock allocation over time)

As you approach retirement, you can begin to move some of your assets into lower-risk investments, such as bonds. That can help shield a portion of your money from market volatility. But you also give up potential for growth, so you might want to keep a certain amount of your portfolio in more aggressive investments. A better option to include in your plan, that reduces risk and maintains some growth is a deferred annuity.

Like many terms in retirement planning, "buffer asset" is a slang term and Dr Pfau derived the term from cash value life insurance's "volatility buffer." Specifically, refers to buffer assets as those assets outside of your investment portfolio where returns are not correlated with the stock market. So, they can be used to prevent negative dollar cost averaging. That is, if the market is down, you don't have to sell low in order to provide income during retirement. Selling low locks in the losses and is a cardinal sin in investing. Instead, use/harvest a buffer asset when the market is down.

As examples, Pfau cites cash value life insurance (permanent life insurance) You can "borrow" the cash value of a permanent life insurance product tax free. The results of using this in a downturn to mitigate risk is impressive and then the use of reverse home mortgages. Both can be valuable tool/asset for retirement.

Variable spending strategies are important for retirement income planning. Logically and emotionally, this is what most retirees will do during down markets. Reducing spending after portfolio decline is effective in mitigating sequence risk. It is also a natural behavior when the economy is in recession. Sequence risk is partially mitigated here by reducing spending after a portfolio decline, thereby allowing more to remain in the portfolio to experience any subsequent market recovery. However, this alone will not prevent or mitigate sequence of returns risk, you need to implement some of the strategies listed above.

It's easy to see how these scenarios can play out in real life as you plunge into retirement. How long your money lasts could be affected by how well the market is doing when your retirement begins. However, you can plan and put things in place to mitigate that risk.

A bull (positive) market those first few years would be good news. On the other hand, a bear (negative) market to start out could spell disaster. You need to do whatever you can to guard against the latter. Usually, you don't want to work out those plans alone. Consult with a financial professional for careful planning that will sort out ways to reduce the chances that the sequence-of-returns risk will decimate your portfolio — and your retirement along with it.

The first buckets to suffer from this will be the Wants and Wishes. Eventually, the Needs buckets could suffer too. The point is to make *all* of your retirement years as pleasurable as possible while ensuring you are financially secure.

