

Investing to Avoid the Consequences of Being Wrong

An Interview With William Bernstein

Article Highlights

- If you have enough savings to retire on by staying in safe assets for living expenses, risk only the money you don't need.
- The ideal portfolio for younger savers is 100% in stocks, but most people don't have the risk tolerance to handle this type of allocation.
- Learn market history. The worst time to buy is when there is a lot of blue sky; the best is when the world looks like it is going to heck in a handbasket.

William “Bill” Bernstein is a neurologist, co-founder of the investment firm Efficient Frontier Advisors and the author of several books. We spoke at the Morningstar Investor Conference about his approach to investing, which includes avoiding the risk of running out of money.

—Charles Rotblut, CFA

Charles Rotblut (CR): You reference Pascal's Wager—which holds that it's better to believe in God than to risk eternal damnation—when talking about investing. Would it be fair to describe your approach as being based on avoiding the worst-case scenario versus trying to go for the best-case scenario?

William Bernstein (WB): Yes, and sort of a corollary to that is to never confuse outcome with process. By that I mean that there is a lot of noise in investing, and it is perfectly possible to have a bad strategy or be a stupid investor, if you will, and do very well. People who buy lottery tickets occasionally win. Having a good strategy and not having a good result happens all too frequently as well. The essential thing people really don't understand about finance is that there is an enormous amount of noise, particularly over the short term.

To give an example of Pascal's Wager, let's say it is 2009 or 2010 and you are looking at the start of very low interest rates. Pascal's Wager would say that if you believed that there was going to be the possibility of severe inflation, you would have kept your bond durations (interest rate sensitivity) short and endured relatively small coupons so that if you were wrong—and, in fact, you were wrong—you wound up losing a couple of percent per year of return from your lower coupons, which is not good.



But the person who made the opposite bet—who believed that there was going to be no inflation—and happened to be wrong would have seen much greater losses. The person who got a low rate of interest on short-term bonds is still doing fine, whereas the person who, for example, bought long bonds in 1941 saw an inflation-adjusted total return, including reinvested dividends, of minus 65% over the next 40 years, worse than ever has been seen in stocks. That is an

example of a Pascal's Wager in investing. You invest in such a way that if you are wrong the consequences are relatively minimal; you avoid the really bad result of being wrong in some other direction.

You make a decision and you ask yourself, “How can I be wrong?” and you pick the path that leads to the least damaging outcome if you are.

CR: So is your approach more risk-based than, say, behavioral-finance based?

WB: Yes. I am trained in neurosciences and I think that the neuroeconomic angle of investing has been grossly overplayed. It is all common sense. Ben Graham said it as well as it needed to be said 70 or 80 years ago: “The biggest enemy that you've got is the face staring back at you in the mirror.”

CR: Is it also why you emphasize saving, which is to avoid the worst-case scenario of running out of money?

WB: Exactly. The other way of looking at Pascal's Wager is that when you have won the game, you stop playing. If you have acquired enough assets to retire on by staying in

safe assets, then the only money that you should be putting at risk in stocks is the money you don't need. That is the money that will go to your heirs and your charitable beneficiaries.

CR: *If someone is retired and they've saved enough, are you of the opinion that they should annuitize or put the money they will need to cover living expenses in safe investments? Doing so limits their risk to only those dollars not needed for expected living expenses.*

WB: Exactly.

In other words, if you are an older person and you are retired and you have sufficient assets, then you have two pools of assets. You've got your money and you've got other people's money [excess return from investing]. Other people's money is the money that you should be putting at risk. That doesn't mean you can't spend it. If that money does well, there is no reason why you can't splurge on a BMW or first-class air travel. But don't put the money at risk that you absolutely need to retire on.

There is a wonderful expression that Warren Buffett used to describe the principals of Long-Term Capital Management, the large hedge fund that blew up in the 1990s and required a bailout from the Federal Reserve. I believe the quote is that, "To make the money they didn't have and they didn't need, they risked what they did have and did need."

CR: *You're saying it's better to insure*

against a big risk and give up some return, than to go after potentially higher returns and chance incurring a far bigger loss?

WB: There is another basic concept here, which is that people—academics in particular—like to make a parlor game of how risky stocks are and how the risk grows or does not grow with increasing time horizon.

The orthodoxy is that stocks grow riskier with time, in spite of the fact that their annualized returns converge while their total returns don't. What is missing from that is the key question about the person who is investing, which is: What is their ratio of investment capital to human capital? In other words, how old are they? Are they still saving?

There are three different situations. The first is the person who is saving aggressively. The second is the person who is basically treading water, buying and holding, and the last person is one who is actively de-cumulating, not saving anymore and living off their savings. Stocks have entirely different risk for those three groups. For the first group, the young saver, stocks are hardly risky at all. The young investor should get down on his or her knees and pray for low returns, a very volatile market and periods of very large losses so they can accumulate stocks cheaply. For the young person, stocks aren't really that risky.

At the opposite end of the spectrum you have an old person who has little savings. For that person, you combine any kind of a reasonable burn rate,

5% or 6%, with a bad series of stock returns like we saw back in the 1960s and 1970s—real (inflation-adjusted) stock returns that is—or that we saw of course during the Great Depression. Within five or 10 years, they are going to be toast. I use this as a metaphor, but they may be pushing a shopping cart under a bridge if they are really unlucky. That is the outcome you want to avoid. The moral is that for the older person who is retired and living off their savings, stocks are extremely risky.

CR: *What should they do, given the prevailing interest rate environment? As we speak in June 2016, German bonds just went negative. Some of our members feel that low interest rates are pushing them into higher dividend-paying stock allocations. What do you say to somebody who is concerned about getting 1.5% or 2% from a bond and trying to live off of that?*

WB: Any time that you decrease your credit quality or substitute dividend-paying stocks for bonds, you are picking up nickels in front of a steam roller. You are taking a risk that you really don't understand. What also tends to happen is that you are exposed to the kind of risk you have never really been exposed to before. The person who has always invested in fixed income and suddenly starts buying REITs (real estate investment trusts), utilities stocks and oil stocks, for that matter, is going to wind up in a world of hurt probably sooner rather than later and be exposed to the kind of risk that they are completely not prepared for. That is an unfortunate thing that tends to happen all too often.

This is a very old phenomenon. A hundred and fifty years ago, Walter Bagehot was the editor of the *The Economist* and wrote a very, very prescient sentence. He said that John Bull can stand many things but he can't stand 2%. What he was talking about were the falling interest rates that were seen during the middle and latter part of the 19th century when you could get 4% on Consols (consolidated British annuities), which was

The Portfolio Theory of Everything

- The primary decision facing you, the investor, is the overall percentages of the portfolio allotted to stocks and bonds; this determines the risk/return characteristics of the mix.
- Since we cannot predict in advance which stock and bond asset classes will perform the best, we diversify.
- During periods of sharp market declines, all stock asset classes tend to drop, but in the long run, diversification among stock asset classes often works quite well, thank you.
- The portfolio's the thing; do not pay too much attention to its best- and worst-performing asset classes.

Excerpted from "The Investor's Manifesto," by William J. Bernstein (John Wiley & Sons, 2010).

a real yield; there was no inflation back then to speak of because they were on a gold standard. Yields went down to 2% and people couldn't live on 2%, so they began investing in speculative assets and invariably got their fingers burned.

To circle back to your question: What do you do? There is nothing to do except perhaps to be philosophical. If you owned a mixed portfolio of stocks and bonds, the Federal Reserve's zero interest rate policy has driven up the price of speculative assets and given you far more assets than you deserve to have. I would rather have what I have now, what most investors have now, which is a somewhat bloated portfolio with very low yields, rather than a portfolio that is much smaller, but has high yields or historically average yields.

CR: *What about rebalancing? You have suggested doing it less often—once every two to three years. From a behavioral standpoint, in terms of having the discipline to do it, as well as from a tax standpoint, would a person be better off by rebalancing once a year on a specific date? Or do you think the costs will be lower if rebalancing is done less often?*

WB: Rebalancing in a taxable account has a fairly ferocious cost of taking capital gains. So you should do it relatively sparingly. You do it every two to three years for at least two different reasons.

One is in the taxable account, when you don't want to rebalance all the time and take capital gains all the time. The second reason is that asset classes exhibit some momentum. If you rebalance every month, every quarter, maybe even every year, you are going anti-momentum. You are selling your winners; they are liable to do even better in the year ahead. If you wait two or three years, you are starting to get in the territory of gain reversion. Over periods of up to one year, asset classes exhibit momentum, but during periods beyond two or three years, they start to exhibit real mean reversion and that is when you want to be rebalancing. Rebalancing, after all, is a bet on mean reversion.

CR: *If someone is following more of a glide path where they are getting more conservative with age, would they use rebalancing to make tweaks to the portfolio?*

WB: Exactly.

CR: *If they are young and they are periodically rebalancing and want to stay aggressive, is there an upper and lower range of allocations they should use as a prompt to rebalance?*

WB: There are two different ways to rebalance. One is calendar, so you can do it every two or three years. For the average person, especially in a tax-sheltered account, just doing it once a year is probably not a bad idea. Maybe you should do it at the end of October every year. October, on average, isn't a bad month, but when there are really awful months they tend to be around September and October. You should do that once a year.

The second way of doing it is threshold rebalancing, which is to have it banded. The trick with that is, especially if you have several different asset classes, the bands have to be different for each asset class because they have different volatilities.

You might have a 20% band up or down, with 20% being 6% versus 5% of your portfolio, for relatively non-volatile stock assets like large U.S. and foreign stocks. Your band is a lot wider for emerging market stocks, and it certainly should be a lot wider if you own precious metals equities, which can be a real wild ride. Use a 20% band with precious metals equity and you would have been rebalancing once every three weeks over the past year. So, you want to be careful.

What I am getting at is that threshold rebalancing is a difficult process. You better be quantitatively grounded. You better know how to write complicated spreadsheets and figure it out for yourself. I doubt that the average investor is set up to do that.

CR: *That leads to another question. If I am to understand you correctly, you favor starting with a 60% stock/40% bond allocation and then adjusting it based not only on age, but also on one's tolerance for risk and complexity.*

WB: There are two different dimensions there. As far as your risk tolerance goes, theoretically, the ideal portfolio for the young saver is 100% stocks. There is no question in my mind about that. If you are 25 to 35 years old, maybe even 40 years old, you should be investing 100% in stocks because your investment portfolio is so small relative to the size of your human capital, your potential and your future savings.

The trick is that most 25- or 30-year-olds aren't mentally equipped to handle 100% stocks. I'm certainly not. The most aggressive policy I would recommend to anyone who is a very young person is maybe 80% or 85% stocks if they are saving and they have a very high risk tolerance. When they encounter their first bear market and their first panic, they'll discover what their real risk tolerance is.

If you started out with 60/40 and there is a bad bear market, you've got dry powder. You up your stock allocation and you know you are able to do that. But, most people aren't able to do that. There was a wonderful article by Neal Templin at The Wall Street Journal in April of 2009 entitled, "Honey, I Shrunk the Nest Egg (And I'm Sorry)." He thought that he was more risk tolerant than he actually was. I think that most people discover that they are less risk tolerant than they think they are. It is particularly dangerous—not just dangerous—and is most likely to happen during a bull market because during a bull market the mantra is that "every penny you don't have in stocks will hurt you," which I believe was a direct quote from the Motley Fool from about 15 years ago.

In a bull market, everybody is a buy-and-hold investor, everybody is a long-term investor, until they find out they're not.

CR: *That ties back into your background in neurology. Is part of our aversion to losses biological and evolutionary because of where the fear sensor in our brains is located and the signals it sends out?*

WB: Yes. You don't need to be a neurologist to understand this. All you need is to have a working knowledge of evolutionary biology, which is that

Investment Theory and History: The Short Course

First and foremost, risk and return are intimately related. You cannot earn high returns without bearing painful losses along the way. You cannot achieve perfect safety without dooming yourself to low, long-term returns. The promise of high returns with low risk is a reliable indicator of fraud.

From time to time, the markets can go stark-raving mad, as occurred on the upside in the 1990s, or on the downside during the 1930s and [2008–2009]. Your primary defense against being swept up in the madness of such periods is a command of the history of the financial markets and the resulting ability to say, “I’ve been here before, and I know how the story ends.”

Never forget that at the level of individual securities the markets are brutally efficient. Whenever you buy or sell an individual stock or bond, you are likely trading with someone who is smarter and better informed than you are and who is working harder at it. In the worst-case scenario, you are competing against a corporate executive who knows more about his or her company than even the best analyst. You are as likely to win this game as you are to star in the next Spielberg movie.

Excerpted from “The Investor’s Manifesto,” by William J. Bernstein (John Wiley & Sons, 2010).

we lived and we evolved in an environment in which quick and instinctual responses to direct threats were made instantaneously and had an emotional component to them.

You saw a flash of yellow and black stripes in your peripheral vision, you had a rush of adrenaline and you ran like heck. Back then people lived with a time horizon of a couple of minutes. If you were a member of a hunter-gatherer group, you might have a time horizon of a couple of weeks moving from pasture to pasture or from field to field. And as humans evolved into settled agricultural societies, maybe your time horizon increased to about a year.

We all evolved from people who evolved over 5,000 or 10,000 years from settled farmers. Very few of us evolved directly from Genghis Khan. We evolved from people who ran farms.

The time horizon then was crop cycles, which is about a year. That’s what the planning horizon was. In fact, when you do neurobehavioral studies on peoples’ risk tolerance, they seem to behave as if their risk tolerance is about one year. This is what Shlomo Benartzi and Richard Thaler found.

Guess what? You’ve now got a time horizon of 50 years. So we are completely maladapted. The analogy I like is that if you are a skunk and you see a large predator coming at you, the appropriate response is to turn, lift your tail and spray. If the predator is a large

carnivore that is the right thing to do. But if you live in a skunk patch where the major threat is a large piece of steel moving at 60 miles an hour toward you, that is not the right response, and that is the situation we’re in.

CR: *People are watching CNBC. They are worried about the headlines. I’ve talked to Daniel Kahneman and his thought was you cannot avoid behavioral errors.*

WB: Danny even says that he can’t avoid them. Knowing prospect theory doesn’t make you a psychologist, and even being a psychologist doesn’t help you avoid your own mistakes. Danny is the first person to admit that.

CR: *Is there anything people can do?*

WB: Yes, you can do two things. Number one is understand that CNBC wants to make you poor and stupid. Turn it off. The only thing that I do is, occasionally, if I want amusement, I’ll turn on Jim Cramer, but I’ll turn the sound off and I’ll pretend I’m watching “Animal Planet.” That is the first thing you can do.

The second thing you can do is learn some financial history. There are lots of people out there who are quantitatively gifted, who are engineers, and a lot of them are AAI members. The mistake they make is not knowing enough market history. They can do the math—and the math is important; you have to be able to do the math—but if you don’t

know market history, you don’t know that when there is a lot of blue sky, it is the worst time to buy stocks because when there is blue sky, stock prices get bid up and future returns are low.

The very best returns are made when you are rewarded for the risks. That comes straight out of finance theory. But if you know financial history, you know that the best times to buy stocks were June of 1932, September/October of 1974, June of 1982 and March of 1989. Those four times the world looked like it was going to heck in a hand basket. Those are always the best times to buy.

A third sort of correlate is don’t pay any attention to macroeconomics. Macroeconomics is a contrary indicator. Market strategists love to talk about the economic outlook for this country or that country. Those are all contrary indicators. If you knew 30 years ago that the Chinese economy was going to grow at 10% real per year, you might have thought, “Gosh we should buy Chinese stocks.” Well guess what? Chinese stocks have had a negative real return over the past 25 years. The point is that macroeconomics and equity returns have very little to do with each other.

CR: *I’ve seen a quote attributed to you, though have never seen a source for it: “Bonds give you the courage to invest in stocks.”*

WB: It sounds like something I would have said in several different ways. The point is the concept of the sleep-

ing point, which is that no matter what your stock or bond allocation is, there are always going to be times when you feel bad that you didn't invest enough in stocks and there are always going to be times when you feel bad that you didn't invest enough in bonds.

The trick is to find that stock/bond allocation where you feel at those points about half the time each. Let's say your allocation is 60% stocks/40% bonds. If

half the time you feel bad that you don't have enough in stocks and half the time you feel bad that you don't have enough in bonds, then you know that's the right allocation. If at 60% you feel bad that you have too much stocks all the time, then you have too much in stocks. Bonds allow you to sleep at night.

For most people, over the long term it probably is optimal to be 100% in stocks, but almost nobody can execute

that optimal strategy. So, a suboptimal strategy that you can execute is better than an optimal one you can't. For most people, the best path is one that involves owning a large amount of bonds so they can sleep at night during the bad times.

Go to AAIL.com to hear bonus audio of Bill's guidance for millennial investors and the biggest lesson he's learned over the course of his career. ▲

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Feature: Exchange-Traded Funds

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the same balanced perspective that a shorter period cannot.

The online version of this article, available on AAIL.com, contains a list of the 50 top-performing funds, expanding on the top 10 displayed at the beginning of Table 1 on pages 8 and 9.

Look Beyond Performance

There is always a temptation to look more favorably at the best-performing funds. Though performance does matter, it is just one factor to consider.

You should also consider your portfolio needs. A basic allocation of ETFs holding domestic stocks with varying market capitalizations, international stocks, government bonds, corporate bonds and international bonds will

serve most investors well. Once this basic portfolio allocation is established, other asset classes—such as real estate and commodities—and more specialized funds can be added.

Sector and country funds can boost a portfolio's returns, but prudence is required when using them. Make sure you understand the factors that have driven a sector's performance over the past few years and how likely it is that those trends will continue in the future. You cannot safely navigate a winding road by only using a rear-view mirror. Country-specific ETFs can allow you to target specific markets but can be more volatile and expose you to exchange-rate risks.

Be sure you fully understand the index that the ETF is designed to fol-

low. Similar-sounding indexes can have different return characteristics. They can also either hold different stocks or weight the same stocks differently. A quick visit to an ETF family's website can give you the list of current holdings and information about the underlying index it tracks. Many index providers also give more detailed information about their indexes on their own websites. (Type the index's name into an Internet search engine, such as Google, to find the specific website.)

Finally, use this rule of thumb when looking at ETFs: "Just because you can invest in something, doesn't mean you should." Buy only those ETFs that you fully understand; avoid those tracking indexes or investing in sectors or countries with risks that you cannot identify. ▲

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