Bonds Are Safer Than Stocks

"Everyone knows bonds are safer than stocks."

Even after 2022's bond beatdown, that belief remains asset orthodoxy – a 100%, take-it-to-the-bank, of-course-the-sky-is-blue truism. After all, bonds still beat stocks in their atypically terrible 2022. Even investigating the idea stocks could be safer seems sacrilegious.

But beliefs so widely, broadly, universally held are often those that end up being utterly wrong – even backward.

So go ahead. Ask, "Are bonds safer?"

Initially, it may seem intuitive that typically plodding bonds are safer than stocks with their inherent wild wiggles. But I say, whether bonds are safer or not can depend on what you mean by "safe."

There's no technical definition – and huge room for interpretation. For example, one person might think "safe" means a low level of expected shorter-term volatility. No wiggles! Another person might think "safe" means an increased likelihood he achieves long-term goals, which may require a higher level of shorter-term volatility.

Bonds Are Volatile, Too

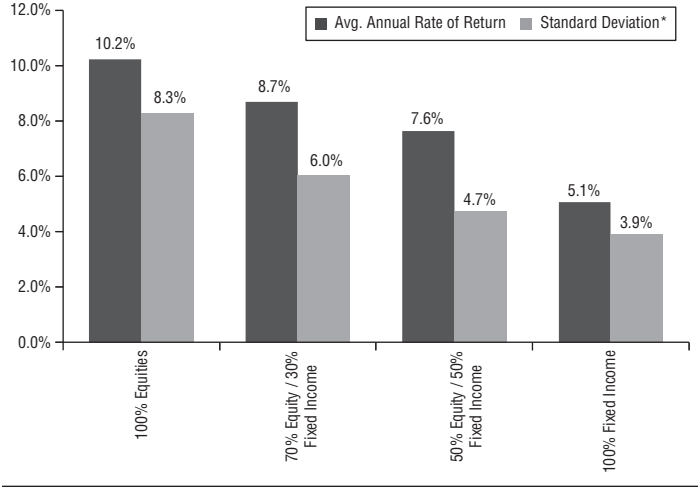
In 2022, many people learned the hard way that stocks aren't the only asset with negative volatility – bonds wiggle, sometimes downward, as well! But that is nothing new. Bonds have *always* had price volatility. Their prices move in inverse relationship to interest rates. When interest rates rise, like in 2022, prices of currently issued bonds fall, and vice versa. So from year to year, as interest rates for varying categories of bonds move up and down, their prices move down and up. Some categories of bonds are more volatile than others – but in any given year, bonds can have negative returns – even benchmark US Treasurys, which plunged –17.0% in 2022.[1]

But overall, as a broader category, bonds typically aren't as volatile as stocks – over shorter time periods.

That's an important caveat. Over shorter time periods like a year or even five, bonds are less volatile. They have lower expected returns, too. But if your exclusive goal is mitigating volatility, and you don't care about superior long-term returns, that may not bother you.

Exhibit 1.1 shows average annual returns and standard deviation (a common measure of volatility that shows the

Exhibit 1.1 Five-Year Time Horizon – Volatility



*Standard deviation represents the degree of fluctuations in historical returns. This risk measure is applied to five-year annualized rolling returns in the chart.
Source: Global Financial Data, Inc., as of 2/21/2024. US 10-Year Government Bond Index, S&P 500 Total Return Index, average rate of return for rolling five-year periods from 12/31/1925 – 12/31/2023.

difference from the average return) over five-year rolling periods. It's broken into a variety of allocations, including 100% stocks, 70% stocks/30% fixed income, 50%/50% and 100% fixed income.

Returns were superior for 100% stocks. And, not surprisingly, average standard deviation was higher for 100% stocks than for any allocation with fixed income – stocks were more volatile on average. The more fixed income in the allocation over rolling five-year periods, the lower the average standard deviation.

So far, I haven't said anything that surprises you.

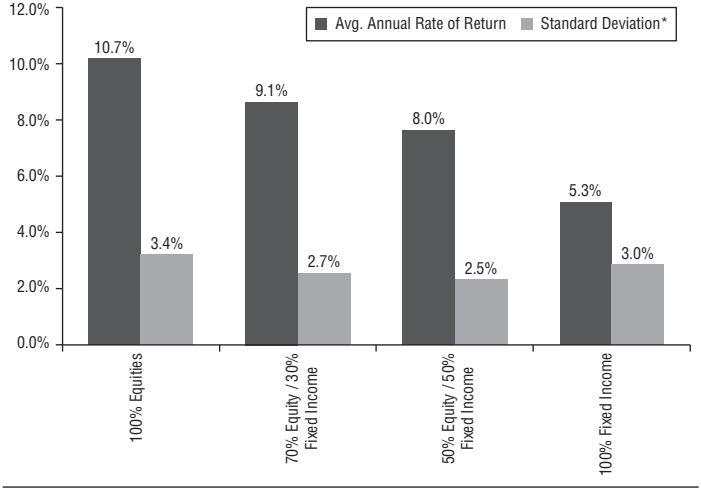
Everyone knows stocks are more volatile than bonds.

Stocks Are Less Volatile Than Bonds?

But hang on – if you increase your observation period, something happens. Exhibit 1.2 shows the same thing as Exhibit 1.1, but over rolling 20-year periods. Standard deviation for 100% stocks fell materially and was near identical to standard deviation for 100% fixed income. Returns were still superior for stocks – but with similar historic volatility.

It gets more pronounced over 30-year time periods – shown in Exhibit 1.3. (If you think 30 years is an impossibly long investing time horizon, Chapter 2 is for you! Investors commonly assume a too-short time horizon – a 30-year time

Exhibit 1.2 20-Year Time Horizon – Volatility

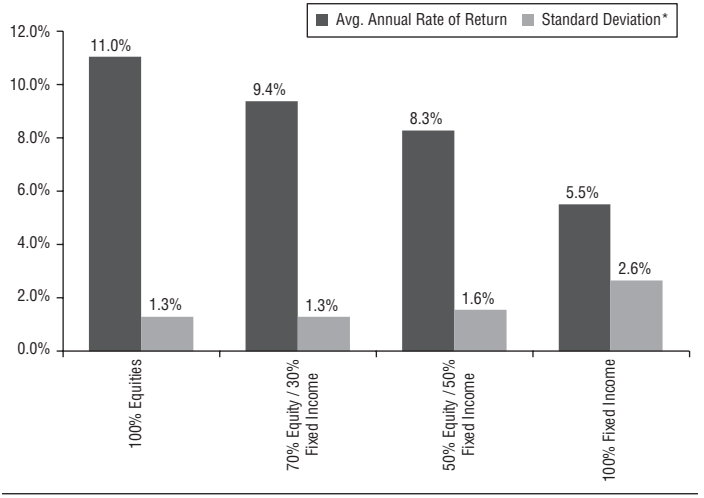


*Standard deviation represents the degree of fluctuations in historical returns. This risk measure is applied to 20-year annualized rolling returns in the chart.
Source: Global Financial Data, Inc., as of 02/21/2024. US 10-Year Government Bond Index, S&P 500 Total Return Index, average rate of return for rolling 20-year periods from 12/31/1925 – 12/31/2023.

horizon likely isn't unreasonable for most readers of this book.) Over rolling 30-year periods historically, average standard deviation for 100% stocks was *lower* than for 100% fixed income. Stocks had half the volatility but much better returns!

Day to day, month to month and year to year, stocks can experience tremendous volatility – often much more than bonds. It can be emotionally tough to experience, but that

Exhibit 1.3 30-Year Time Horizon – Volatility



*Standard deviation represents the degree of fluctuations in historical returns. This risk measure is applied to 30-year annualized rolling returns in the chart.
Source: Global Financial Data, Inc., as of 2/21/2024. US 10-Year Government Bond Index, S&P 500 Total Return Index, average rate of return for rolling 30-year periods from 12/31/1925 – 12/31/2023.

higher shorter-term volatility shouldn't surprise you. Finance theory says it should be so. To get to stocks' long-term superior returns over fixed income, you must accept a higher degree of shorter-term volatility. If stocks were less volatile year to year on average, their returns would likely be lower. Like bonds!

But given a bit more time, those monthly and yearly wild wiggles resolve into steadier and more consistent upward volatility. And yes, volatility goes both ways. You probably don't

hear this often (if ever), but data prove stocks have been less volatile than bonds historically over longer periods – and with superior returns.

Blame Evolution

If that's the case, why do so many investors fear stocks? Easy: evolution.

It's been proven that investors feel the pain of loss over twice as intensely as they enjoy the pleasure of gain. That's from the Nobel prize-winning behavioral finance concept of prospect theory. Another way to say that is it's natural for danger (or perceived danger) to loom larger in our brains than the prospect of safety.

This evolved response no doubt treated our long-distant ancestors well. Folks who naturally fretted, constantly, the threat of attack by saber-toothed tigers were likely better off than their more lackadaisical peers. (The best way to win a fight with a saber-toothed tiger is not to get into one.) And those who had an outsized fear of the coming winter likely prepared better and faced lower freezing and/or starvation risk. Hence, they more successfully passed on their more vigilant genes. But obsessing about future pleasantness or the absence of freezing risk didn't really help perpetuate the species.

Our basic brain functioning just hasn't changed that much in the evolutionary blink-of-an-eye since. Which is

why the research shows a 10% portfolio loss feels about as bad to US investors on average as a 25% gain feels good. (European investors feel the pain of loss even more intensely.)

Stocks Are Positive Much More Often Than Not

What does that have to do with the common misperception stocks are just down a lot? Exhibit 1.4 shows how often stocks are positive versus negative over varying time periods. On a daily basis, the odds stocks are positive are slightly better than a coin flip. And negative days tend to come in clumps. Positive days, too! But because we're hyper-aware of danger, the negative clumps loom larger in our brains, even though that isn't reality.

Behaviorally, it can be very difficult not to think so short term. But if you can stretch your observation period just a bit longer, odds are good stocks will be positive. Stocks are positive historically in 62.9% of calendar months – though they come in clumps, too. Rolling 12-month periods are positive 75.0% of the time. And yet, headlines and pundits hyperventilate as if there's a bear market perpetually lurking around every corner. What they should really fear is missing market upside (see Chapter 3), but that isn't what comes naturally to our brains – which aren't all that different from our distant ancestors' caveman brains.

Exhibit 1.4 Stocks' Historical Frequency of Positive Returns

S&P 500 Returns (As of 12/31/2023)					
	Number of Periods			Percent of Periods	
	Positive	Negative	Total	Positive	Negative
Daily Returns*	13,157	11,610	24,767	53.1%	46.9%
Calendar Month Returns	739	436	1,175	62.9%	37.1%
Calendar Quarter Returns	270	122	392	68.9%	31.1%
Calendar Year Returns	72	26	98	73.5%	26.5%
Rolling 1 Year Returns, Monthly	873	291	1,164	75.0%	25.0%
Rolling 5 Year Returns, Monthly	986	130	1,116	88.4%	11.6%
Rolling 10 Year Returns, Monthly	998	58	1,056	94.5%	5.5%
Rolling 20 Year Returns, Monthly	936	0	936	100.0%	0.0%
Rolling 25 Year Returns, Monthly	876	0	876	100.0%	0.0%

*Daily return data begin 1/1/1928 and are based on price appreciation only; all other data begin 1/31/1926 and reflect total return.
Source: Global Financial Data, Inc., as of 2/23/2024. S&P 500 Total Return Index from 1/31/1926 – 12/31/2023.

History is clear – stocks are positive much more often than not on average. And over longer periods like 20 years or more, they're actually less volatile than bonds. It can be difficult to overcome ingrained behavior and think that way,

but if you can, the long-term rewards are likely to be better with stocks (if you have a well-diversified portfolio, of course) than with bonds.

Stocks Are Positive – And Overwhelmingly Beat Bonds

But some folks just have a hard time battling millennia of cognitive evolution and can't stop thinking, "What if?" What if stocks buck the odds and do terribly ahead? Let's look at just what the odds are.

Investing is about probabilities, not certainties. There are no certainties in investing – not even in Treasurys, which can lose value in any given year. (Again, remember 2022!) You must rationally assess probabilities of outcomes based on history, basic economic fundamentals, and what you know about current conditions.

Odds are, if you have a long time horizon, stocks are likelier to outperform bonds. But what if they don't? There have been 79 rolling 20-year periods since 1926 (as far back as we have good US data, which can serve as a reasonable proxy for world stocks). Stocks beat bonds in 77 of them (97.5%).[2] Over 20 years, stocks returned an average 806% and bonds 232% – stocks beat bonds by a 3.5-to-1 margin.[3] Pretty darn good! When bonds beat stocks, however, it was by just a 1.1-to-1 margin on average – and stocks were still positive, averaging 239% to bonds' 257%.[4]

In Vegas, the lower the probability, the bigger the potential payout. Yet this is the opposite of how the stock-versus-bond decision typically works. (Another reason why folks who compare investing to gambling are hugely wide of the mark.) Incidentally, over 30-year rolling periods, bonds have never beaten stocks. Stocks returned an average 2,359% to bonds' 547% – a 4.3-to-1 outperformance margin.[5]

So, yes, over shorter periods, bonds on average have materially lower volatility characteristics. Some people might call that "safe." But if your goal is to generate higher returns over long periods to increase the likelihood of achieving your goals, bonds' shorter-term lower volatility may be less useful. And 20 or 30 years later, if you discover your portfolio hasn't grown enough to meet your goals, you may not feel so safe – particularly since over that longer time period, stocks are likely to be less volatile on average.

The Stock Evolution

Data and history prove stocks have had superior long-term returns. But there's an additional reason to believe stocks are likely to have superior returns over long periods moving forward: Stocks evolve.

Stocks are a piece of ownership in a firm. Taken together, stocks represent the collective wisdom of the business world. And they represent the promise of future technological advances and future profits from those innovations.

Businesses and, hence, stocks adapt. Some businesses don't survive. They fail—but get replaced by something newer, better, more efficient. That's creative destruction, and it's a powerful force for societal good.

Firms will always be motivated to chase future profits. Whatever problems get in our way – energy, food, water, disease – someone (or someones) will find ways to collide past innovations in new ways to yield something new that can knock down or at least greatly mitigate whatever problems pop up. How can you know this? Because it's always been that way.

In 1798, the Reverend Thomas Malthus predicted food production would soon peak – there was simply no way in his (rather unimaginative) mind the world could produce enough to feed much more than a billion people. He outright rejected the notion of "unlimited progress" in food production.

Yet, seven billion more people later, in much of the developed world, the greater problem we face is obesity. Yes, in some emerging nations, famine is still a problem. But that's nearly entirely a factor of poor governance. The world has more than enough food – we need more freedom and democracy so poor, oppressed nations needn't rely on corrupt governments and their failing infrastructure to distribute food to the populace.

Time and again, folks with dire, long-term forecasts are proven wrong because they rely on poor assumptions that

ignore future innovations and the power of profit motive. My favorite was the fellow who, in 1894, predicted London's growing population and industry would require so much horse power, by 1950, London would be covered in nine feet of manure![6]

How on earth could he have predicted the combustion-engine revolution that would soon render horse-drawn transportation a quaint relic? He couldn't have, but he might have had more faith in the transformational power unleashed by folks eager to chase profits.

The wildly popular 1968 book *Population Bomb* assured us that in the 1970s, famine would kill hundreds of millions. Didn't happen, thanks to Norman Borlaug (a guy who truly deserved his Nobel Peace prize) and his dwarf wheat – not to mention agricultural innovators who preceded him over multiple millennia.

Folks who believed ardently Peak Oil (the point at which conventional oil production peaks) would be the death of us missed this, too. Early this century, many perfectly rational folks posited conventional oil production already peaked – some pinned it sometime in the 1970s, others in the 1980s, 1990s, and even more recently.

What happened next? A petro-party! The rise of hydraulic fracturing – "fracking" – and horizontal drilling set off a boom in shale gas extraction. America led the way – good ol' capitalism fostering innovation. Producers applied similar techniques to oil drilling.

The result: Proven crude reserves are 2.6 times what they were in 1980. Natural gas reserves are 2.8 times as big![7] America is the world's top oil producer. Technological advances have allowed us not just to discover more oil and natural gas, but to innovate ways to extract both from spots once thought unrecoverable.

Yet consumption has overall and on average increased far *less* over that time – just 58% total.[8] Why? Because we have developed means to do more with less! In 1980, the global economy generated just more than $500,000 in gross domestic product for every one thousand barrels of oil produced. By 2022, that had soared to $2.8 million![9] Innovation spurs efficiencies.

Guess what *hasn't* soared? Oil prices! Sure, we've seen some peaks – like in 2022 after Putin's horrific Ukraine invasion sparked fears of supply crunches (which didn't materialize). But overall, increased efficiency and abundant supply have kept prices in check.

Now most arguments around Peak Oil center on oil *demand* peaking, not supply. They say the rise of Electric Vehicles (EVs) means investment in extraction could prove a sunk cost. But this all assumes EVs suddenly dominate – including things like aircraft, ships, and more. That isn't happening soon. And, even if demand does tick down a bit, prices will adjust. Short-term wiggles notwithstanding, I suspect oil extraction will remain a profitable, viable business for years into the future. So when you

hear talk of Peak Oil – be it supply or demand – chalk it up as bunk. If you don't believe that, check London, which isn't buried under nine feet of manure.

That transformational power unleashed by profit motive is encapsulated by stocks. Bonds are fine, but they don't represent future earnings. Bonds are a contract. You buy a bond, you get that yield – that's it. But future earnings eventually improve, as they always have and always will – that's captured in stocks.

Think of Moore's Law – the idea that the number of transistors on an integrated circuit should double about every two years – conceived by Gordon Moore, co-founder of Intel, in 1965. Despite frequent predictions of its demise, Moore's Law keeps on chugging. Moore's first writings on the topic envisioned a then-unfathomable 65,000 transistors on a chip by 1975.[10] Now we're heading for a trillion by 2030![11] And then there's the Shannon-Hartley Theorem, which states the maximum rate information can be transmitted over a communications channel (think fiber optics) is also increasing exponentially.

What does all that mean? We conceive of progress as linear, when it's really exponential – and the collision of all these technologies means future innovation will move faster, as technologies conceived by people unknown to each other in far-flung locations collide in perfectly unpredictable ways to produce the next life-saving or -improving technology or process.

If you think today's electronic gadgets represent the pinnacle of human ingenuity, you'll be proven wrong. I don't know when or how, but I needn't know – I can just own stocks and benefit. Human nature hasn't changed enough that folks won't be self-motivated to use their ingenuity to devise solutions to profit from problems. Always been that way. And those who profit most from innovation aren't the technologists. No, they're those who learn to package, market, and sell those innovations – and their shareholders.