Miller Howard
INVESTMENTS

Will Inflation Ruin Your Retirement?

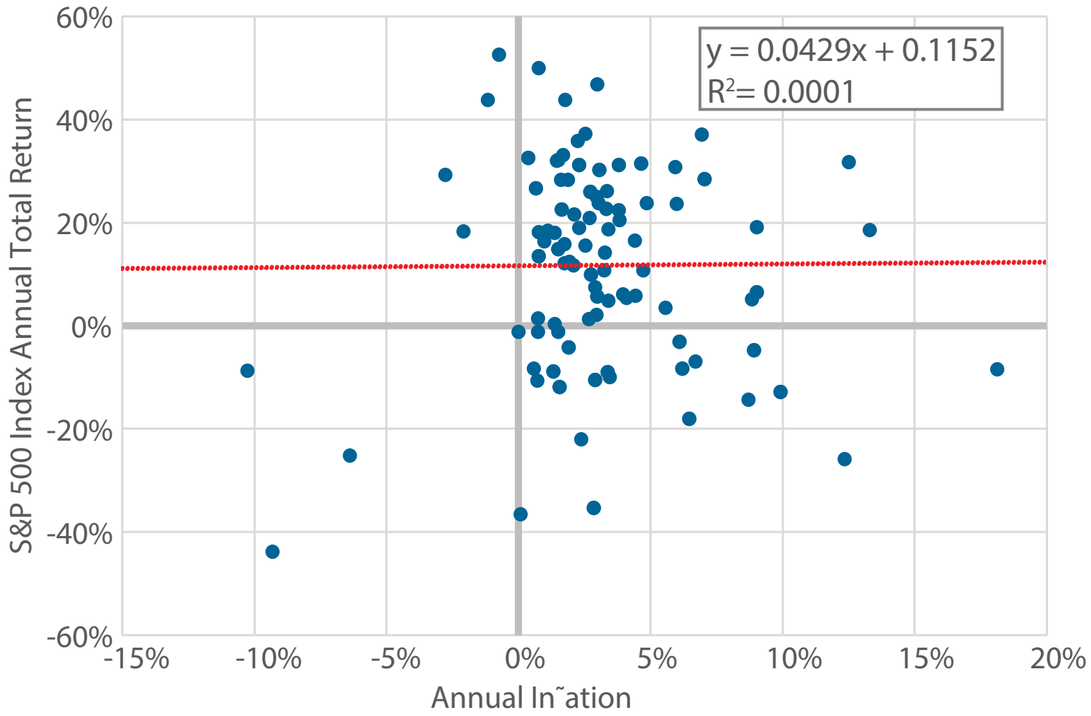
QUARTERLY REPORT 3Q 2024

What if your hard-earned dollars are not worth as much in retirement? Depending solely on investments to meet spending needs can be a daunting challenge when both spending and investment returns are hard to forecast. The spike in inflation in the last few years has heightened client concerns over whether their savings will be enough to support their retirement plans.

Conventional wisdom says that stocks are immune to inflation—prices go up, costs go up, corporate profits go up…what's the problem? As plausible as this may sound to the theoretically minded, actual inflation and investment returns over the past century do not support the notion that inflation is somehow magically passed on in equity returns. The correlation between inflation and equity market returns has been basically nil. Years with elevated inflation have had both high and low stock market returns—we see no evidence that stock market returns neutralize inflation.

Given the threat of inflation, how should we think about engineering our investments so that we can balance high returns versus the risk of running out of money during retirement? Sometimes clients frame the problem in an overly negative fashion, effectively asking how they can cope if inflation goes up forever while stock prices go down forever. Bad outcomes may be looming, but our view is that the past century has provided plenty of negative scenarios to battle test our investment plans. This period includes the horrible equity market returns in the Great Depression, spiking inflation after World War II and again in the 1970s, and an assortment of bull and bear markets. Rather than conjuring up implausibly negative scenarios, let's examine how alternative retirement strategies would have fared given the real-life vicissitudes of the past century.

Virtually No Relationship Between Market Returns and Inflation



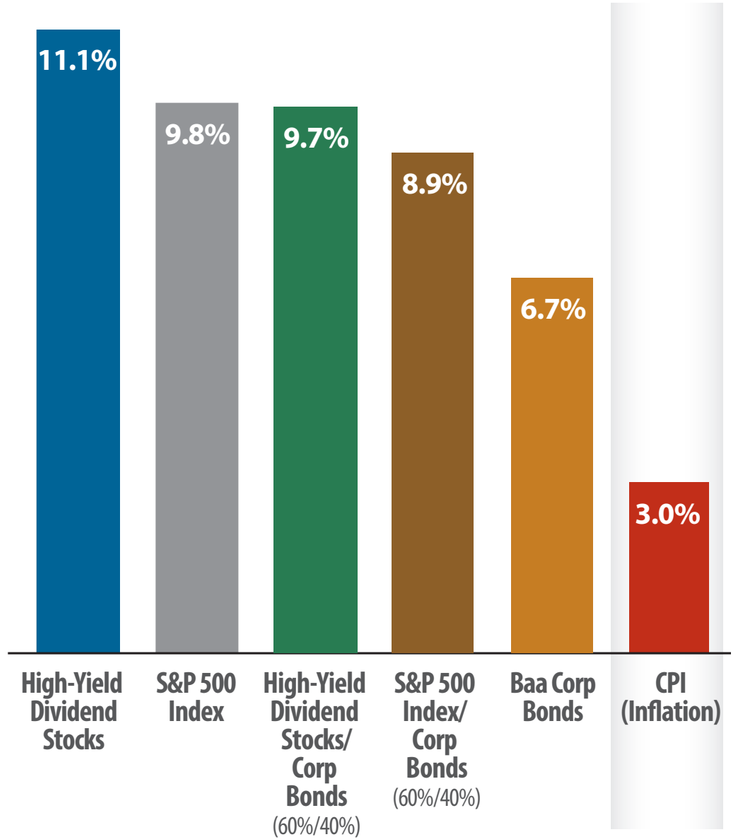
As of December 31, 2023. Data range: 1928-2023. Sources: Morningstar Direct; Federal Reserve Bank of St. Louis. Inflation is the year-over-year change of the Consumer Price Index for All Urban Consumers (CPI Index). Red dotted line=trend line.

Which Asset Allocations Do Best in Retirement?

To answer this question, we compiled investment returns for the S&P 500 Index, high-yield dividend stocks (stocks in deciles 7, 8, & 9 as provided by Fama/French), and corporate bonds (dating back to 1928, the earliest shared date across our sourced datasets).

Annualized Returns vs. Inflation

(1928-2023)



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Using these historical returns, we simulated 67 30-year retirements, starting from 1928-1957 (all ranges are inclusive), 1929-1958, and so on through 1994-2023. We use the "4% rule" to model spending in retirement, with the retiree spending 4% of savings in the first year of retirement and then growing spending by the rate of inflation.

Bond-Only Portfolios Frequently Lead to Failure

30-Year Retirements with Inflation Adjusted 4% Annual Withdrawal					
	Baa Corporate Bond	High-Yield Dividend Stocks	S&P 500 Index	High-Yield Dividend Stocks/ Corp Bond (60%/40%)	S&P 500 Index/ Corp Bond (60%/40%)
Failure	30	1	5	0	1
Reduced Ending Estate	16	2	6	3	16
Higher Ending Estate	21	64	56	64	50

As of December 31, 2023. Sources: Morningstar Direct; Federal Reserve Bank of St. Louis (FRED); Fama/French; Damodaran Historical Returns US (NYU Stern School of Business). High-Yield Stocks=total return reflects a basket of the returns for deciles 7, 8, & 9 as provided by Fama/French (value weighted). Inflation is the year-over-year change of the Consumer Price Index for All Urban Consumers (CPI Index). Baa Corp Bond returns are calculated from Damodaran dataset using Moody's Seasoned Baa Corporate Bond Yield (BAA), retrieved from FRED. "Reduced Ending Estate" and "Higher Ending Estate" starting values are post inflation adjusted withdrawal versus initial retirement account. 60%/40% portfolios are rebalanced annually.

Our first conclusion is that depending solely on corporate bonds during retirement has a high risk of failure, defined as running out of money prior to 30 years of retirement. In our simulations, retirees using just corporate bonds failed in 30 of the 67 periods. In another 16 of the 67 periods, retirees ended the 30-year retirement with investments worth less than their starting point on an inflation-adjusted basis.

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Why do bond-only strategies perform so poorly in this exercise? First, the average return for corporate bonds from 1928-2023 was only 6.7%. This may not sound bad, but we are trying to cover 4% withdrawals plus inflation, which averaged 3% over the period. Bond returns were frequently not high enough to cover inflation-adjusted spending.

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The second observation on bonds is that the last failure was the 30-year period beginning in 1967. Bond returns generally fall when interest rates rise, as they did in the decades before rates peaked in 1981. In recent decades, bond-only portfolios have been successful in meeting the 4% plus inflation bogey. Yet we believe, this should not give anyone confidence in a bond-only strategy. Given the threat of inflation and the low starting point for interest rates, in our view, it's unlikely that interest rates will trend down over the next three decades. If long-term interest rates grind higher (as they did from 1941-1981) or remain roughly flat, retirees depending only on bonds will run a high risk of failure.

Based on our simulations, equity-based retirement strategies have a much higher likelihood of success than bond-based approaches. Allocating all funds to the S&P 500 resulted in successful retirements in 62 out of 67 30-year periods, with the resulting estate typically being ahead of the starting retirement account on an inflation-adjusted basis. High-yield dividend stocks fared even better, with retirees running out of money in only 1 out of 67 30-year periods. With high-yield dividend equities, the ending estate was worth more than the starting value, adjusted for inflation, in 64 out of 67 periods.

Success Rate was Higher for High-Yield Stocks than S&P 500 Index

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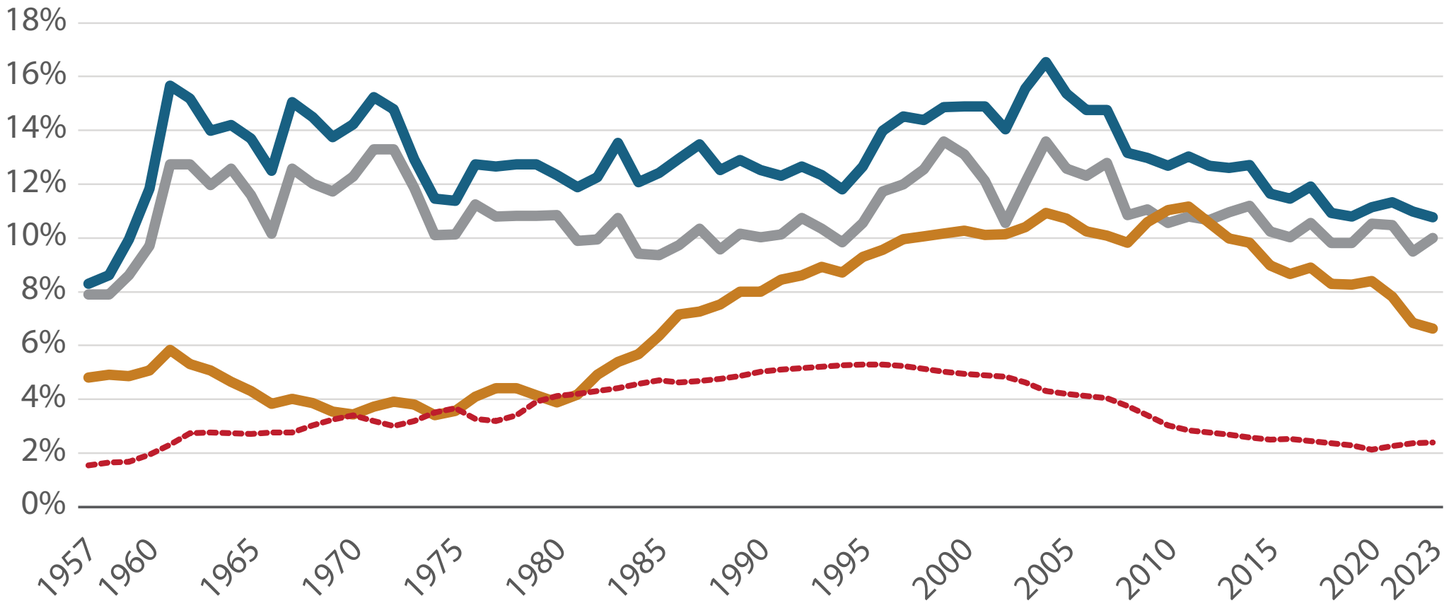
High-Yield Dividend Equities Outperformed S&P 500 in Every 30-Year Period



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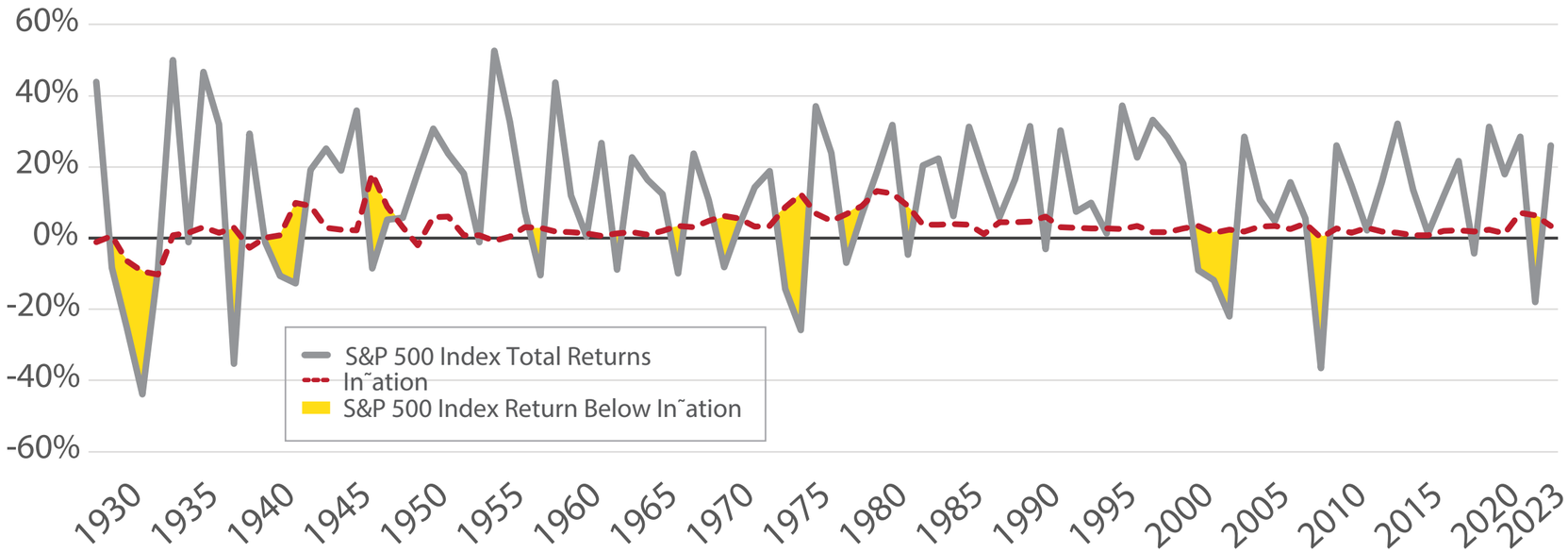
High-yield dividend stocks had a higher success rate than the S&P 500 in large part because high-yield dividend stocks had higher average total returns in every 30-year period between 1928-2023. Most importantly, high-yield dividend stocks held up better for retirees hit by high inflation in the 1973-81 period. In contrast to high-yield dividend stocks, average returns for the S&P 500 softened during and following this high-inflation period, just when retirees needed better performance to deal with elevated living expenses.

Market Returns Periodically Trail Inflation



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Prior to retirement, buy-and-hold investors can ride through bad markets without selling. Investing during retirement is fundamentally different—spending continues regardless of how investments are faring. Rather than buy low/sell high, retirees are forced to sell at low prices during bad markets to fund spending. This can be particularly stressful when investment returns trail inflation for multiple year periods.

Using the classic 60%/40% stock/bond strategy is one way for retirees to avoid selling low. The key to the 60/40 stock/bond strategy is regular rebalancing—when stocks zoom up, you sell stocks and buy bonds to get back to 60/40. More importantly, when stocks fall, the retiree sells bonds and buys stocks at low prices. Overall, the 60/40 strategy reduces average returns because bonds are a lower returning asset class.

60/40 Portfolios Have Low Failure Rates

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But the key point is that returns are smoothed, reducing the chance that a bad streak in the equity market shrinks the investment account below the level required for spending. For both high-yield dividend stocks and the S&P 500, employing a 60/40 strategy reduced the frequency of failed retirements. The high-yield dividend stock/corporate bond 60/40 strategy did not have any failures during the 1928-2023 period.

60/40 Portfolios Have Low Failure Rates

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Each of us get just one retirement, so being told "on average" everything will be fine is not great comfort. Let's examine the retirement failures in our simulations to see what we can learn. Setting aside the large number of failures associated with bond-only strategies, we saw five failures using the S&P 500, one using high-yield dividend stocks, and one using a 60/40 S&P 500/bond allocation.

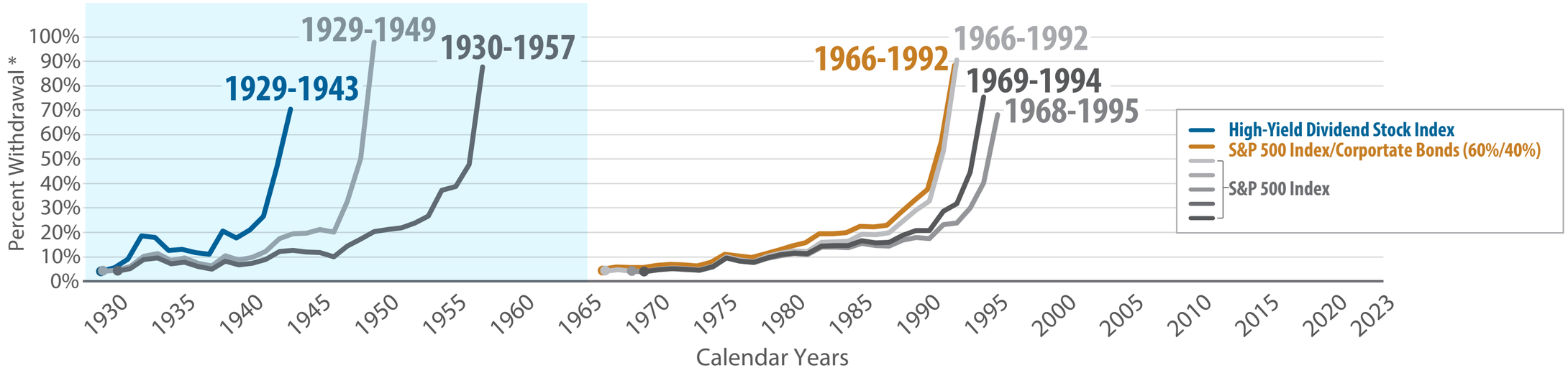
The seven failures using equity or equity/bond strategies all shared one of two time periods.

Great Depression Stock Market

The S&P 500 allocation failed when beginning in 1929 or 1930 and high-yield dividend stocks failed when starting in 1929. The stock market fell for four straight years beginning in 1929, down a cumulative 65%, providing a real pressure test for any retirement plan.

Failure Simulations: Low Returns and High Inflation Cause Spending to Exhaust Savings

(1928-2023)



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What can we learn?

- None of the 60/40 strategies failed in this period. Investors using these strategies would have allocated more to equities as stocks fell, thus benefitting more from the eventual rallies.

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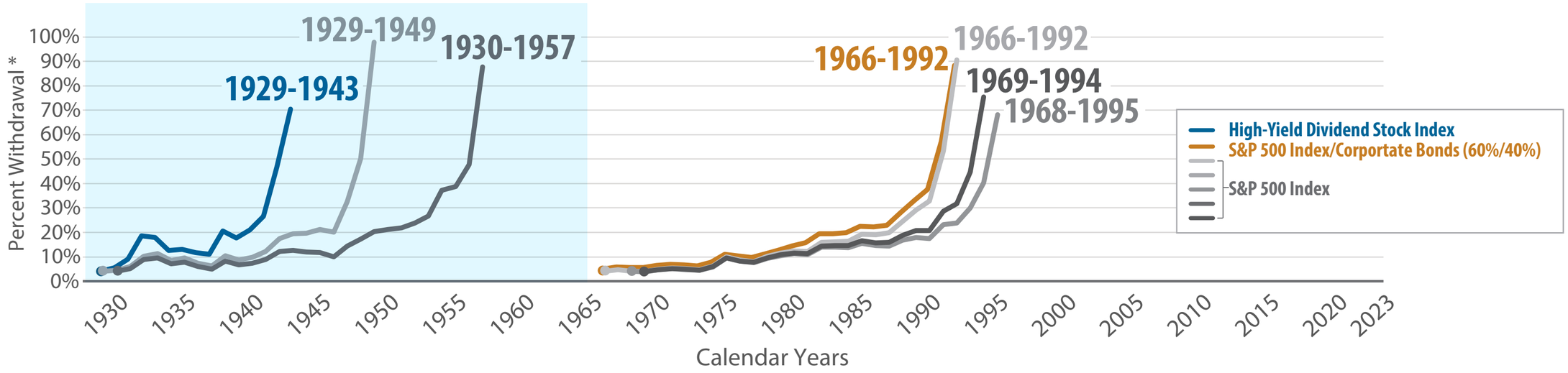

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What can we learn?

- Retirement simulations beginning in 1928 (when the market was up 44%) did not fail. Failures occurred when the market fell immediately following retirement and continued for multiple years.

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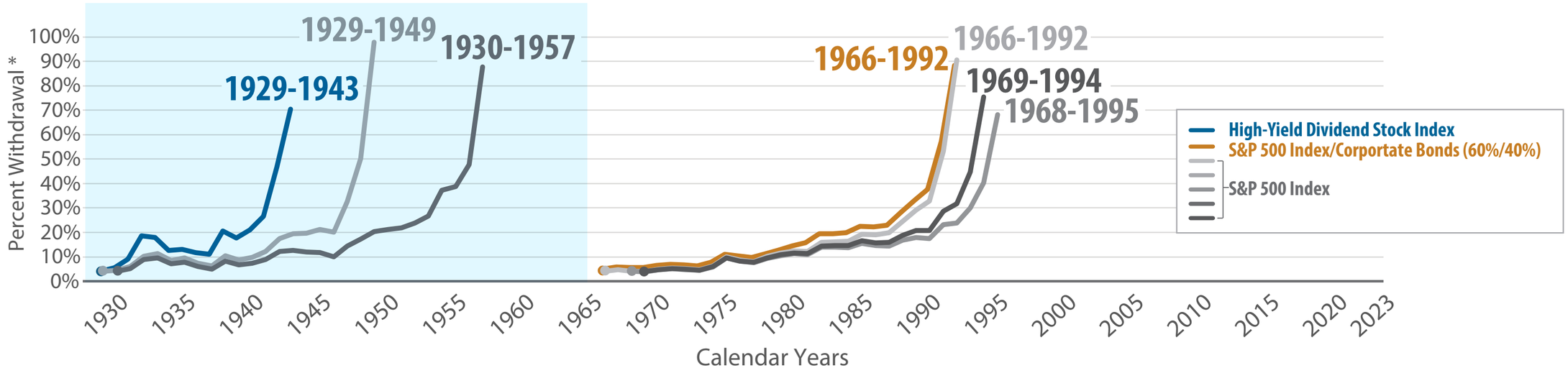

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What can we learn?

- Even with the steep market drop, the failed retirements beginning in 1929 were still able to maintain their spending plans into the mid-1940s. Low investment returns combined with inflation spikes in the early/ mid-1940s pushed these accounts into a downward spiral with spending racing ahead of investment returns.

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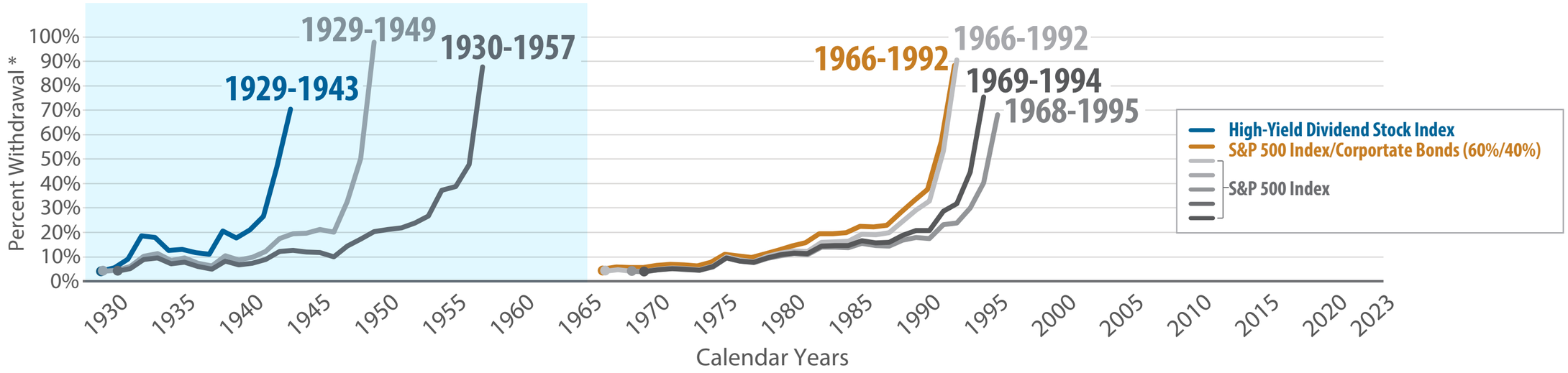

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1973-1981 High Inflation

Between 1973-1981, inflation averaged 9.2% while the S&P 500's annualized return was only 5.3%, putting a great strain on those who retired in the late 1960s. In our simulations, retirements using the S&P 500 beginning in 1966, 1968, and 1969 failed. In addition, retirements using a 60/40 S&P 500/bond strategy beginning in 1966 also failed.

Failure Simulations: Low Returns and High Inflation Cause Spending to Exhaust Savings

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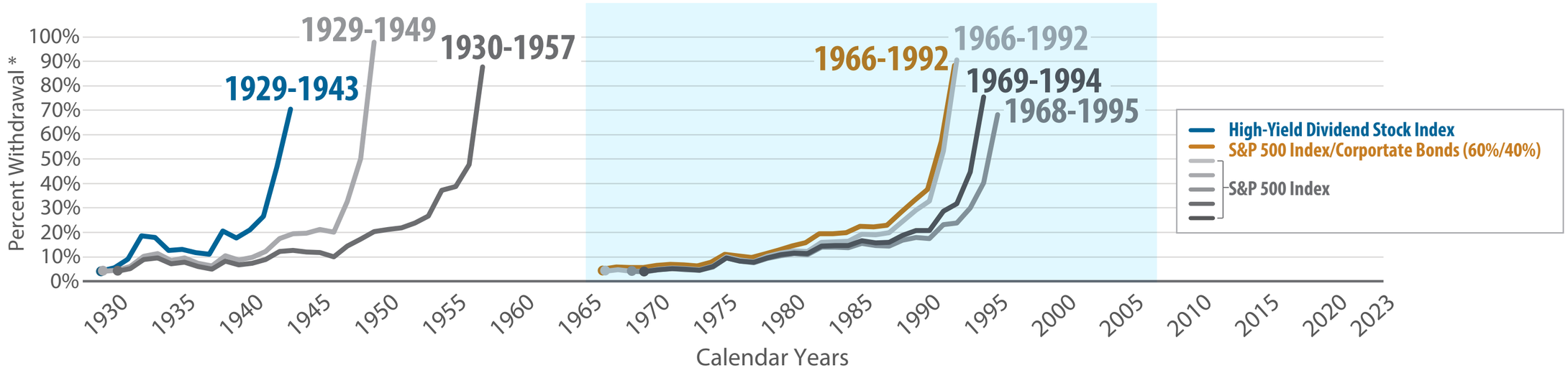

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Here's what we can conclude from the period:

- Strategies using high-yield dividend stocks did not fail in this period. Between 1973-1981, high-yield dividend stock returns averaged 10.7%, allowing retirees to stay ahead of inflation.

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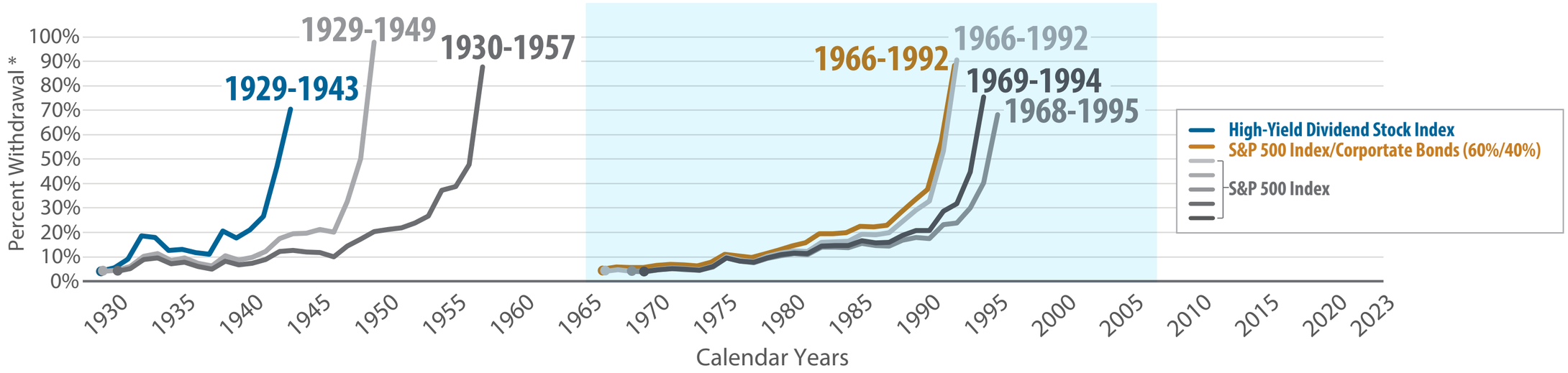

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Here's what we can conclude from the period:

- Inflation can indeed ruin a retirement. Even when the rate of inflation moderated in the 1980s, prices facing consumers were permanently higher. For the four S&P 500-based failures, this meant that withdrawal rates rose to double-digit rates, eventually draining accounts in the tepid early 1990s stock market.

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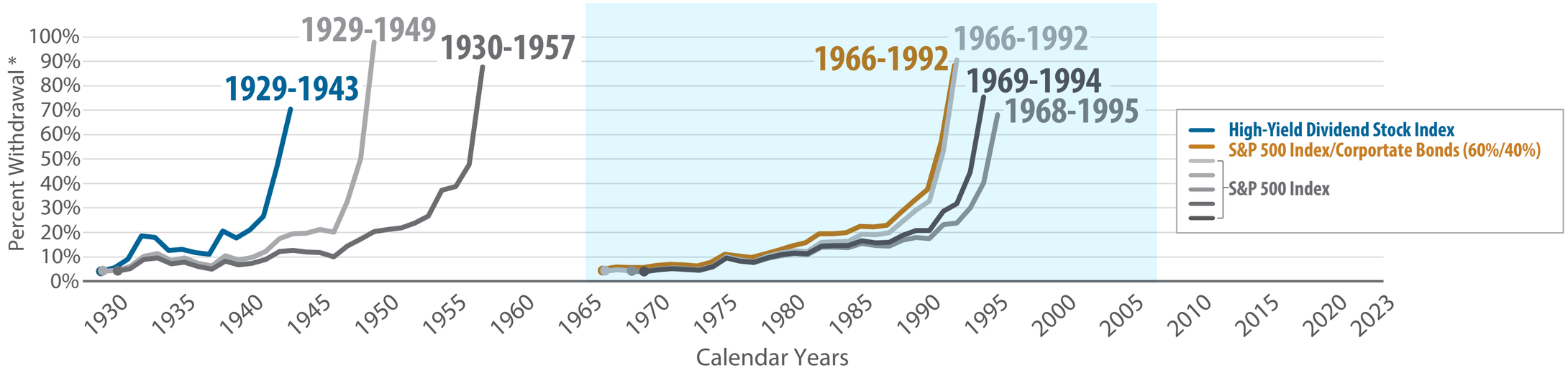

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It's completely understandable that clients' questions tend towards worst case scenarios—everyone wants to enjoy retirement free of worry. Many clients have the intuition that relying on bonds during retirement is the sensible, low-risk solution. Unfortunately, the truth is that bonds frequently have not generated enough return to stay ahead of inflation. The other solution that appeals to some clients is to just buy and hold the S&P 500 or some other market-cap-weighted index. The success rate for the S&P 500 in our simulations was much higher than for bonds, but it still had five failures in the 67 30-year periods we examined. In our experience, many clients will find this failure rate to be too high.

Using high-yield dividend equities or a 60/40 S&P 500/corporate bond strategy each had just one failure in the 67 30-year periods. The simulation using 60/40 high-yield dividend stocks/corporate bonds did not have a single failure. These calculations are based just on historical investment returns, inflation rates and the well-known 4% spending rule. In our opinion, there are two reasons why high-yield dividend stocks and 60/40 strategies were better at avoiding failure than bonds or the S&P 500:

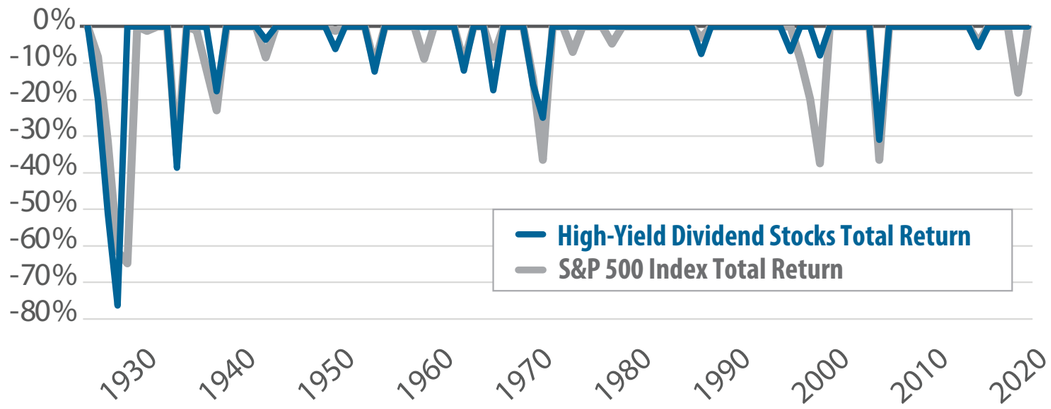
1. The best strategies had high enough returns to stay ahead of inflation. Bonds have lower volatility, but, in our view, the sacrifice of returns is too great, making the strategy vulnerable to bouts of inflation.

2. High-yield dividend stocks and 60/40 allocations are "buy low/sell high" strategies. Stock prices are more volatile than dividends, so appreciating stocks can fall out of the high-yield dividend category while stocks with falling prices can join it. When the high-yield dividend category is reconstituted (annually in our calculations), investors are effectively buying low and selling high. The same is true with the 60/40 strategies. In contrast, the S&P 500 is market-cap-weighted, so is truly a "buy and hold" strategy that does not take advantage of price fluctuations.

During saving years, investors following the adage that ‘time in the market is better than timing the market’ will tilt towards equities as the highest-returning asset class. The same logic applies to retirement years—but with a twist. Spending in retirement complicates the issue because severe drawdowns might lead to an empty account. Another layer of complication comes from inflation which has returned episodically with no reliable pass-through to equity returns.

The best retirement plan will have plenty of “time in the market” with high-returning assets but must be able to survive severe drawdowns and bursts of inflation.

High-Yield Equities had Lower Drawdowns in Recent Decades



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During the 1928-2023 period:

- High-yield dividend equities had the highest return for every 30-year period.
- Both high-yield dividend equities and the S&P 500 had severe drawdowns at the outset of the Great Depression. On average, high-yield dividend equities had smaller drawdowns than the S&P 500 over the past 80 years.
- Using all high-yield dividend equities only failed when retirement started in 1929—otherwise returns were high enough to stave off inflation.

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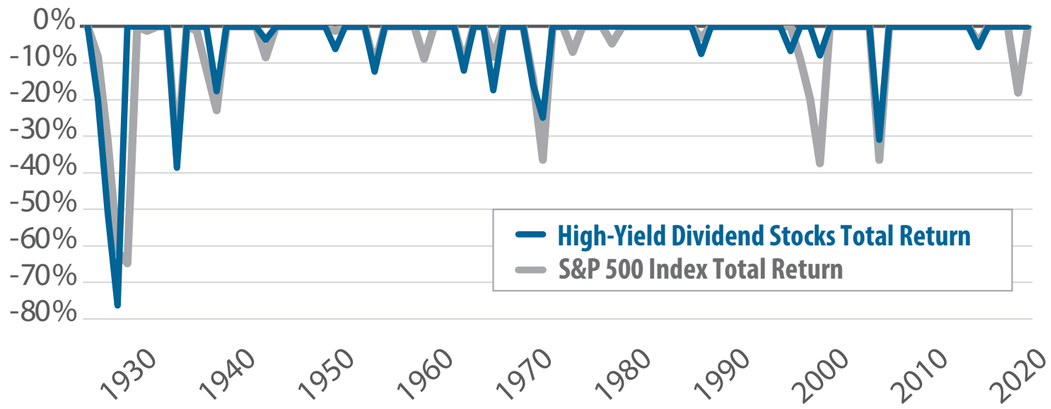

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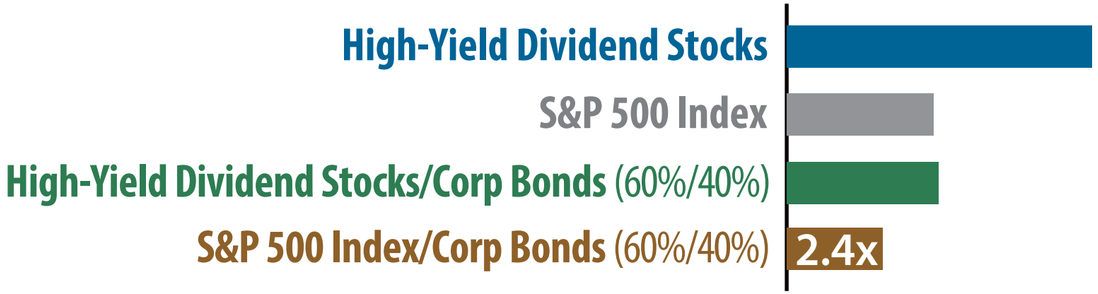
During the 1928-2023 period:

- Allocating only to the S&P 500 resulted in failure for two starting dates in the Great Depression and three starting dates in the 1960s. Additionally, an all-S&P 500 retirement starting in 2000 is not performing well in our simulation.
- A 60/40 strategy using high-yield dividend equities and corporate bonds had no failures, but resulted in a lower ending account balance.

In choosing between an all-equity strategy and a stock/bond mix, retirees need to judge whether we could ever have another period like the Great Depression. View another Great Depression as a distinct possibility? Then some mix of high-yield dividend stocks and corporate bonds with periodic rebalancing is the right strategy, in our opinion. If you trust the Fed to halt any spiral towards a repeat of the 1930s (arguably as they did in the pandemic) then a 100% high-yield dividend equity allocation would make sense.

We have rightly focused here on avoiding tail risk, but what will successful retirements look like using equity and 60/40 strategies? For our successful retirement simulations, withdrawal rates averaged well below 5% for 30 years. For high-yield dividend equities, the average withdrawal rate is just above 1% after 30 years, meaning that investment returns have typically galloped well ahead of inflation-adjusted spending. The investment account left at the end of 30 years is typically a multiple of the starting amount even adjusted for inflation.
For high-yield dividend equities, the average ending account balance is 7.6 times the starting amount adjusted for inflation. Those pondering retirement can conclude that they can possibly spend more or that they will likely leave a handsome estate. Either way, the key point is that high-yield dividend equities have typically generated high enough returns to prevent inflation from ruining a well-deserved retirement.

Ratio of Inflation Adjusted Estate vs. Initial Investment

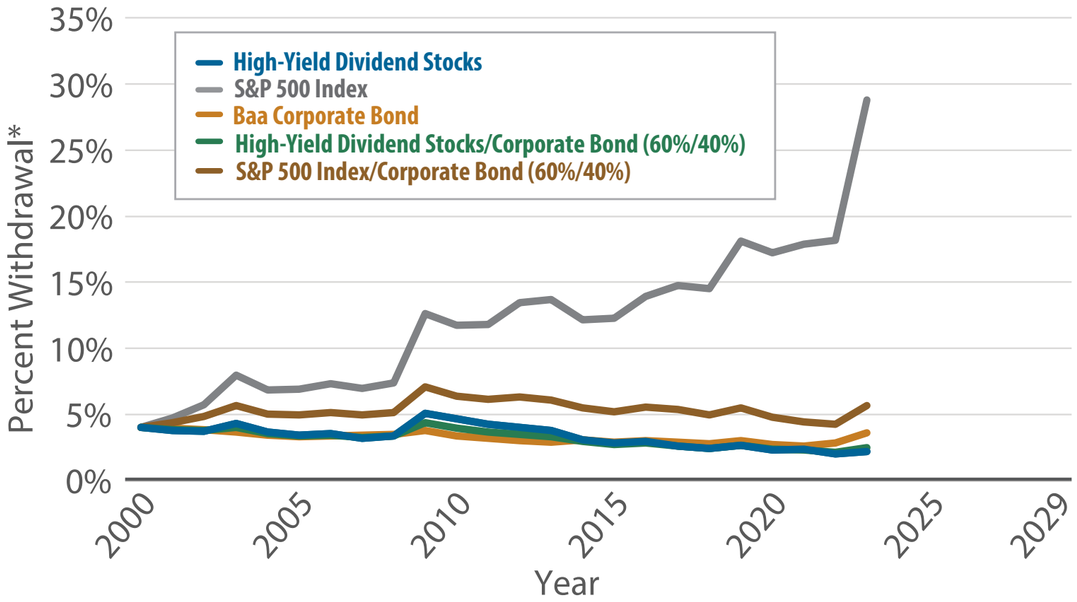


As of December 31, 2023. Sources: Morningstar Direct; Federal Reserve Bank of St. Louis (FRED); Fama/French; Damodaran Historical Returns US (NYU Stern School of Business). High-Yield Stocks=total return reflects a basket of the returns for deciles 7, 8, & 9 as provided by Fama/French (value weighted). Inflation is the year-over-year change of the Consumer Price Index for All Urban Consumers (CPI Index). Baa Corp Bond returns are calculated by Damodaran dataset using Moody's Seasoned Baa Corporate Bond Yield (BAA), retrieved from FRED. Failed portfolios were assigned a ratio of 0.0x. Time frame is 30-Year retirement portfolios from beginning 1928 to 1994, where 1994 portfolio ends in 2023. Failed portfolios were assigned a ratio of 0.0x. The investment ratio displays the average estate end balance in relationship to the inflation adjusted value of the initial account balance.

Recent Challenge: 2000 Retirement

The crash of the tech bubble in 2000 followed by the Great Financial Crisis in 2008 provides the most recent stress test. We won't reach the 30-year mark until the end of 2029, but it seems clear how our simulation for a retirement beginning in 2000 will fare—withdrawal rates in the mid-single digits for high-yield dividend stocks, the 60/40 strategies and bonds all bode well for a retirement that is in its third decade.

Market Downturns and High Inflation Can Cause Withdrawal Rates to Spike



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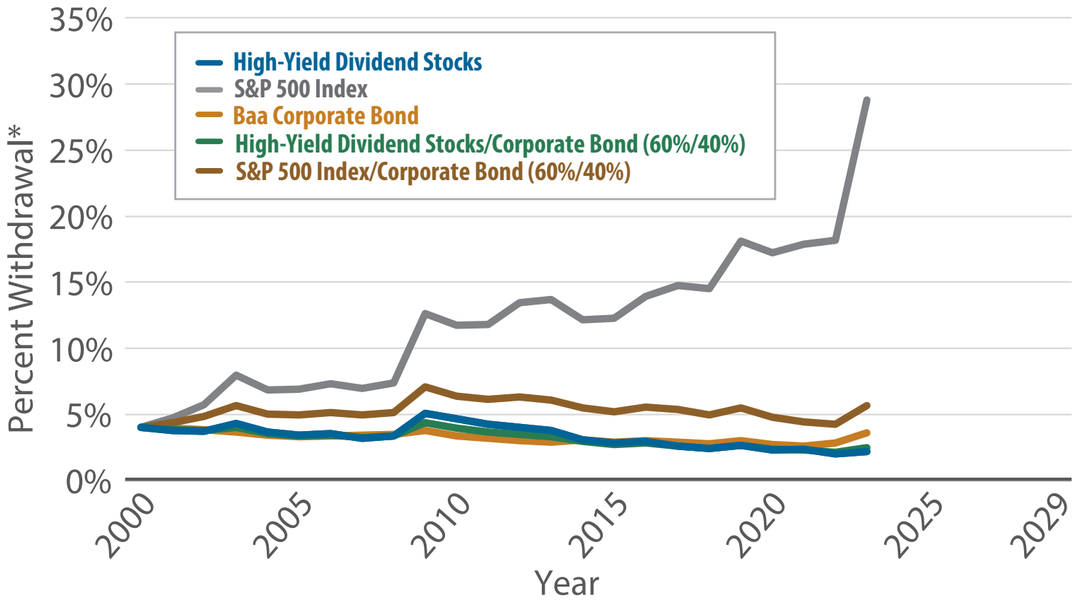
In contrast, a retirement using only the S&P 500 would have floundered. The S&P 500 fell by a cumulative 37% during 2000-2002, pushing withdrawal rates up to meet spending needs. Poor returns in 2008 propelled the withdrawal rate above 10%. Sometimes high market returns and low inflation can save retirements with high withdrawal rates, but bad times reappeared—high inflation and the S&P 500 falling 19% in 2022 sent the 2023 withdrawal rate to 29%, almost surely on the road to failure.

Market Downturns and High Inflation Can Cause Withdrawal Rates to Spike



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We continue to evolve and develop portfolios that strive to provide investors with various levels of current income and dividend growth. Our objectives are to generate total returns in line with the broad equity market and provide a high and rising stream of income with the lower volatility that an investor might seek from bonds or other income alternatives. With a primary goal of reliable income and long-term returns, coupled with a belief that investors can play an important role in securing a sustainable future, our shareholder advocacy efforts include environmental, social, and governance (ESG) research and/or screening, direct engagement with companies, filing shareholder resolutions, proxy voting, coalition building, and public policy involvement.

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