THOUGHTS FROM THE FRONTLINE

The Bull's Eye Matrix: Updated

By John Mauldin | March 1, 2025

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Bull's Eye Investing was published on January 1, 2004. It quickly became a bestseller. The main thing that people still ask me about was a trifold spread color chart of stock market returns since 1900. Returns were color-coded so readers could see the ebb and flow of returns over time. That remarkable representation of market performance was created by Ed Easterling of Crestmont Research. Ed and I shared a very nerdy, wonkish fascination with markets and trends. We spent a great deal of time together in that pursuit.

Ed and I jointly wrote chapters 5 and 6 of *Bull's Eye Investing*, which many people think were the most important. Ed still maintains those charts and a staggering amount of data at his research-oriented [Crestmont Research](#) website.

Today we are going to revisit that matrix updated through 2024. We will see what we got right and wrong, what further inferences we can now make and why I think it confirms my general shift in market strategy over the past few years. The first part explains how to review the charts while the second offers what I think are very critical implications. So let's dive in…

Into the Matrix: 2025 Edition

John Mauldin and Ed Easterling

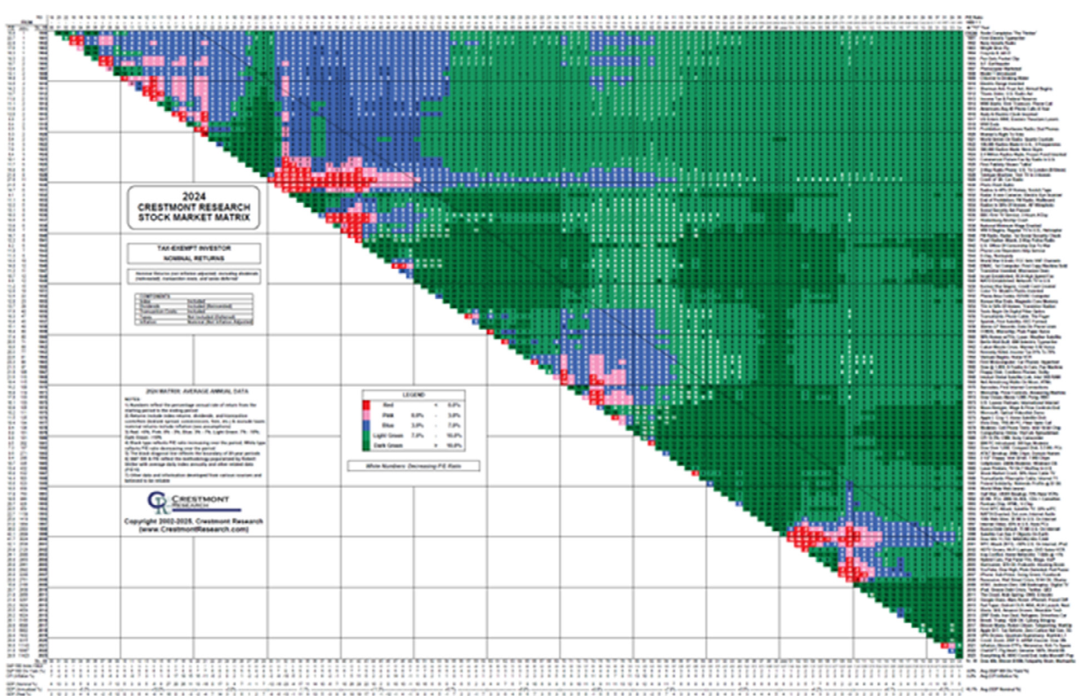
It was no simple feat to convince John Wiley & Sons to add a centerfold to the book. It really did increase the cost of the book. But once the editor understood the chart, she committed to including the full-color version! (Sidebar: A bit of trivia: I grew up in a print shop and had considerable experience publishing books. I was able to show Wiley how to insert the chart at considerably less cost than their original estimates.)

The following paragraphs will explain this amazing chart and how to use it.

We'll start with a description of Crestmont's Matrix. For reference, here's a large thumbnail view of a chart that's best viewed poster-sized, or at least 11" x 17". This concentrated view may be the most insightful, even if its details are obscured. Also, we're including links to the 8.5" x 11" versions, which print on two standard letter-sized pages and can be taped together to create an 11"x17" version. For viewing on a screen, the smaller version allows more detail to be seen.

The first visual intrigue is the clusters of alternating colors. Note the above-average returns (dark green) alternating with clusters of below-average returns (a low pink or a negative red). After many decades, usually beyond most investors' horizons, the long-term average settles into a field of blue or light green. However, few individual investors are around long enough for market bliss.

Retirement Account – Nominal Returns



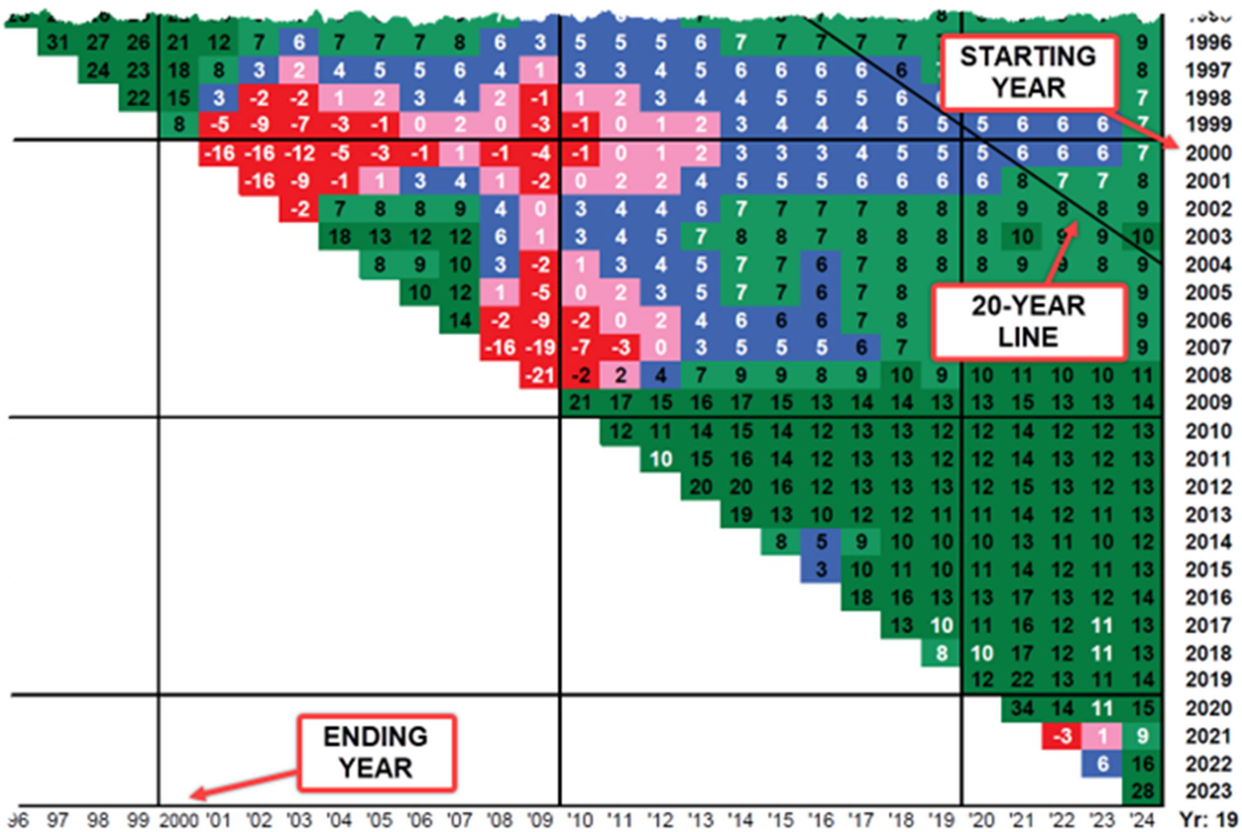
Source: Crestmont Research

Links to larger images: Tax-Exempt Nominal [(11"x17"; 1 page)] and [(8.5"x11"; 2 pages)]

Let's look at how to use this matrix. The Matrix presents the annualized return for every combination of starting years since 1900 and ending years since 1901 (e.g., 1900-1901, 1925-1950, 1910-2020, etc.).

The starting years are listed on the left and right sides of the chart. The ending years run along the top and bottom of the chart. To highlight the Matrix's messages, each period (i.e., square) is assigned a color based on its average annual return.

The legend toward the center of the chart displays the ranges used to color each period from red to blue to green (i.e., low to medium to high returns). The result is a heatmap of returns extending back more than a century. Let's take a small snapshot to see the details:



Source: Crestmont Research

The color of the return number for each period is insightful and very important. It highlights the change in the stock market's P/E ratio over the investment period. The number is shaded black when P/E increases over the period. P/E expansion enhances the return from earnings growth since the change in P/E multiplies earnings growth to generate capital gains.

For example, if a company's stock price is $200 and earnings per share is $10, its P/E is 20 (i.e., 200/10). If P/E remains 20 and EPS increases to $11 (+10%), the stock increases 10% to $220 (20x11). However, if P/E increases to 25 while EPS increases to $11, the stock price increases to $275 (+38%)! An increase in P/E can supercharge returns, just as a decline can decimate them.

The number is shaded white when P/E decreased over the period, thereby offsetting some or all of the return from earnings growth. It's no coincidence that most red periods have white numbers while green periods have black ones. P/E for each year is listed as the leftmost column and uppermost row in the Matrix.

There are two ways to view the Matrix. The first is to pick a starting year (e.g., your birth year) and an ending year (e.g., last year, 2024). Next, run your eye down and across the chart to find the square representing your investment period. Although the result is interesting, single periods mostly solve curiosity.

The second and more powerful way to view the Matrix is from a distance—stepping back to take it all in. As you stare across the patchwork of colors, note the patterns that emerge. Gaze at the diagonal margin where the white field changes to colorful squares.

Note the alternating dark red and dark green pockets. This area is the zone of short-term returns from one year to a few years or more. Yet, as the colorful field extends upward and to the right (i.e., very long-term periods), the field settles into mostly light green.

To make the Matrix particularly relevant to most investors, note the thin black line that parallels the diagonal margin of the squares. The line designates a twenty-year time horizon across history.

Each square adjacent to the white field is the first year following each starting year. The thin black line delineates the twentieth year following each starting year. For many investors, twenty years is more or less a full retirement period. For others, twenty years captures the capital accumulation phase from mid-career to retirement.

Note the colors along the 20-year horizon. Even across two decades, average annual returns don't consistently achieve the long-term average of 10%. The return is often dark green (well above average) or blue (well below average). **Also, note the propensity for dark green periods to have black numbers (P/E increase) and for below-average blue and light green periods to have white numbers (P/E decrease).**

A key insight we'll discuss today is the implication of today's elevated P/E on the next 20 years. We'll also discuss P/E's impact during the years following our comments in *Bull's Eye Investing* more than 20 years ago.

All versions of the Matrix (except "Index Only: Year-End") use conventions popularized by Robert Shiller (Yale). Annual gains are based on the average daily S&P 500 index throughout each year, and the P/E ratio for each year is based on the Cyclically Adjusted P/E (CAPE, also known as P/E 10). *The daily average index across the year better reflects the actual experience of investors who add funds, adjust holdings, and otherwise manage their stock portfolios.*

There are **six versions of the Matrix**. For today's discussion, we'll focus on the version that includes S&P 500 index gains, dividends, and *an assumption for transaction costs*. Transaction costs include bid/ask spreads, commissions, and management fees at all levels. Most historical analyses don't factor in the costs which are quite real.

Get Real

Our discussion wouldn't be complete without factoring in the effects of inflation. Over the past few years, families have been reminded of the decimating impact of inflation on everyday expenses. Similarly, inflation can also have a dramatically negative effect on investors' portfolios.

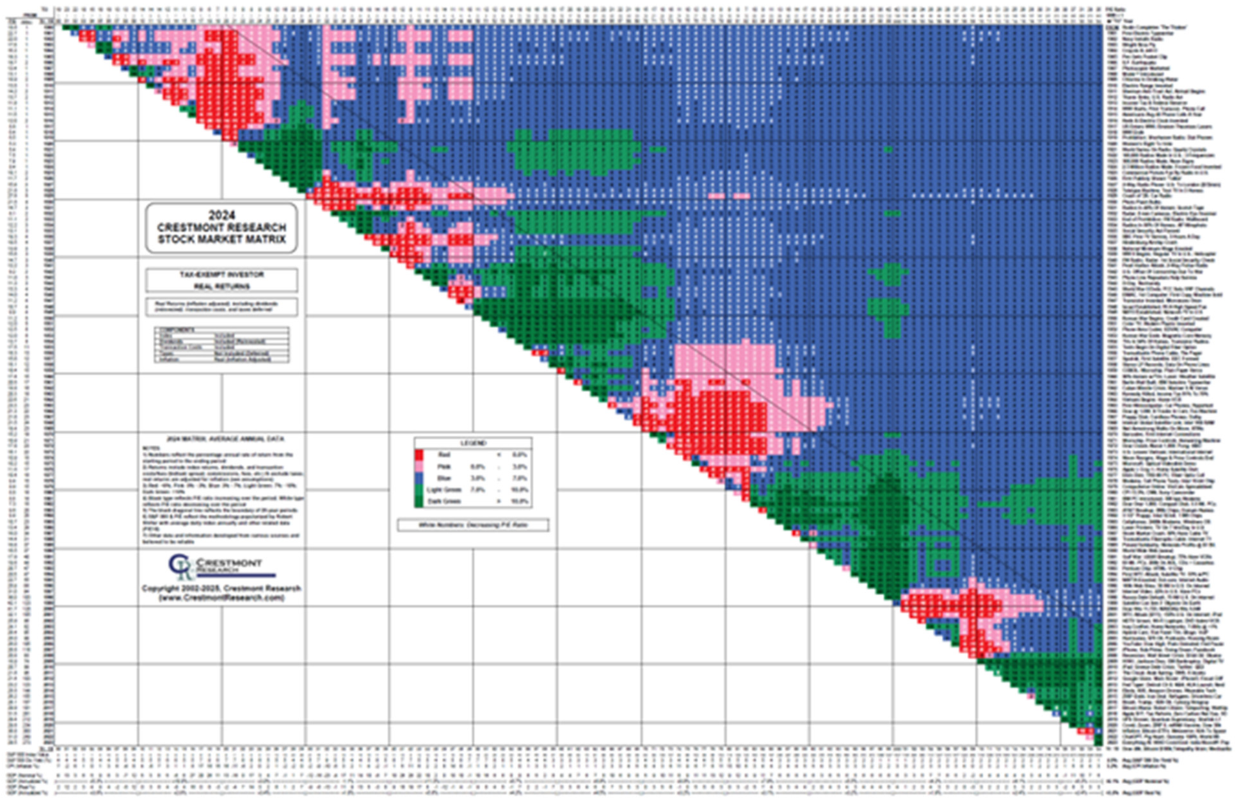
Keep in mind the returns in the previous version of the Matrix are nominal (i.e., before reducing the returns by the cumulative effect of inflation). Often, stock market pundits point to statistics showing positive returns from the stock market over every 20-year period. Yet when positive returns fail to exceed inflation, it's hardly a financial success.

The nearby Crestmont Matrix, with a title including "Real Returns," shows the inflation-adjusted return for its 7,750 periods. Especially note the black 20-year line and the long-term field. Much of the modest light green in the nominal version fades to mediocre blue when adjusted for inflation. Many blue periods slip to pink or red.

This version of the Matrix enhances its value as a planning tool. It helps to give investors and advisors a perspective on the ultimate spending power from portfolios. Inflation assumptions can significantly affect financial planning models and safe withdrawal rate analyses.

Serious warning: When some investment advisor tells you that you can invest for the long term and do fine because the market always goes up, they are not accounting for inflation and actual buying power at the end of the period. This chart clearly shows 20-year and even 40-year periods where investment returns were flat in terms of buying power. ***Where you start makes a huge, monster difference.***

Note that this real version assumes no taxes. While there is an estimated tax version on the website, we don't discuss it here because everybody's tax situation is different. But if you look at the tax version, the long-term implications are even more stark.



Source: Crestmont Research

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Reflections on the Matrix

On page 94 of *Bull's Eye Investing*, we wrote, "What we are saying is that P/E ratios are going lower—potentially much lower than current ratios."

As it turned out, P/E generally declined for the balance of the '00s. The overvalued P/E of 25.9 at the end of 2002 declined to 16.9 at the end of 2009. No doubt, the Great Recession of '07–'09 had an impact by driving down the stock market and P/E.

Similarly, the Fed's response to the Great Recession muscled the market and economy, possibly offsetting some of the painful cleansing that results from most recessions. The unprecedented double-barrel approach of Quantitative Easing (QE) and Zero Interest Rate Policy (ZIRP) disrupted financial markets and created various economic dislocations.

During the 2010s, the stock market rebounded significantly. The trifecta of near-average P/E, low inflation, and aggressive monetary policy set the stage for an extended stock market surge. P/E marched higher with few setback years. As the Fed slowly moved away from ZIRP, COVID struck, and the Fed injected another round of ZIRP and QE.

Further, 2020 included the shortest recession on record (two months; the next shortest is six months). It's ~~unclear~~ doubtful whether that recession was economically cleansing. Ironically, that period's supply chain, employment, and trade disruptions may have exacerbated economic dislocations.

It's unclear whether the past 25 years represent a new normal or simply an era of market-distorting dislocations awaiting adjustment during or before the next recession.

For example, the average P/E 10 across the 1900s (including the late '90s dot-com era) was 15.2. For the past 25 years (2000–2024), the average P/E 10 has been 27.4, with only one year below 20.7. The near doubling of P/E without a confirmed financial justification is worth noting.

Also, dividend yield, which historically contributed nearly 40% of total return, *has shifted significantly. In the last century, dividend yield from the S&P 500 averaged 4.6%. For the past 25 years, the average is 1.9%, and the dividend yield* ***in 2024 was 1.4%.***

The shift in dividend yield has two implications. First, a low dividend yield materially reduces a major component of stock market returns. With less return from dividends, the burden falls on capital gains to deliver investment returns. The market has provided those gains in recent years, but only because of above-average earnings growth and increased valuations. *That recent 25% lower dividend yield contribution has been made up by multiple expansions!*

The second implication of low dividend yield is its confirmation of high P/E valuation. When the valuation level of the S&P 500 increases relative to earnings, it also increases relative to the aggregate dividends from S&P 500 companies.

Companies often seek to manage a steadily rising dividend. It's good for the stock price. Dividend increases generally lag earnings surges, but companies also try to avoid big changes when earnings fall due to the business cycle. This makes dividend yield a more reliable indicator of the market's overall valuation. It also makes low dividend yield a confirmation that P/E is high (Dividend Yield vs. P/E Ratio).

Considering the Future

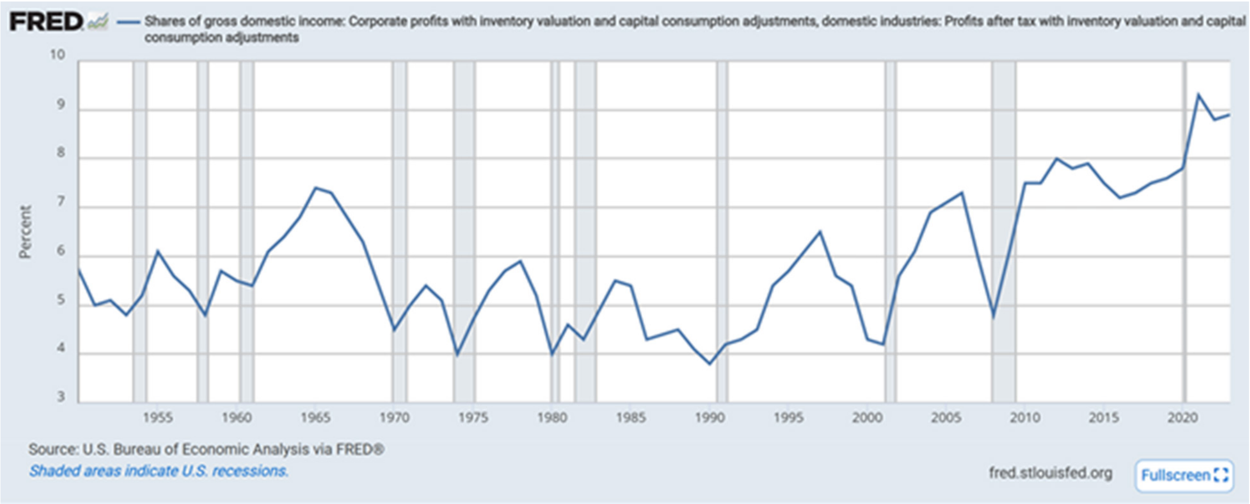
As reflected by the green and red patches in the Matrix, returns from the stock market follow a cycle from above-average to below-average. As indicated by black and white numbers, **the direction of P/E is highly related to the relative level of return.**

Let's consider the implications for the future. The dividend yield is currently near 1.5%, largely due to an elevated P/E near 35. Compared to the historical average return from stocks of 10%, the current low dividend yield shaves off 3%.

The rate of earnings growth across the economy was historically similar to the rate of GDP growth. As reflected in the nearby FRED chart, the long-term pattern changed coming out of the Great Recession. The chart shows the ratio of corporate profits to gross domestic income (which is similar to GDP).

Instead of the ratio cycling within a somewhat level band, earnings broke out to the upside after 2010, held near steady for a few years, and then surged again in 2020. Arguably, the pattern since 2010 results from the Fed's QE and ZIRP actions with a further boost from the compounding effects of highly stimulative multi-trillion dollar fiscal and monetary policy stimulus following COVID.

Even if the previous earnings surges are sustained, it may not be reasonable to assume the same rate of growth will continue. The earnings growth component of total return might only keep up with historical rates. That would leave P/E as the remaining component to drive returns. From P/E's currently elevated level, that also may not be reasonable.



Source: Crestmont Research

Let's consider another noteworthy point about the FRED chart. The chart includes shaded bars reflecting recessions and non-shaded gaps between recessions (i.e., the expansion periods). The most recent "official" recession started with March 2020 and ended with April 2020 (a total of two months).

As a result, the record books reflect that the previous expansion posted a record of 128 months (eight months longer than all other expansions). But, considering the expected resetting effects of a recession in a normal economic cycle, we should seriously consider whether the 2020 recession provided the typical cleansing and rebalancing of a standard recession. The current indicators beg a series of questions.

Had the random and devastating COVID pandemic not occurred, would a recession have ripened in 2020 or since then? Without that two-month recession, the expansion starting in 2009 would now be 188 months long—more than 50% longer than any expansion on record (starting in the 1850s). Are we vulnerable to a recession as fiscal and monetary stimuli subside?

For Crestmont's Stock Market Matrix and equity portfolios, the wildcard is P/E. If P/E remains at 35 for the next 10 or 20 years, its effect on total return will be neutral. That leaves dividend and earnings growth as the drivers. Any valuation below 35 will detract from total return. Most of all, to achieve the historical average 10% returns, P/E will need to continuously increase to boost returns from earnings growth and dividend yield.

Ask yourself this question: Do you really think that P/E valuations on the total stock market of all companies will rise to 45 or 50, keeping the total returns higher as they have in the past decade or so? The likelihood may depend on sustaining the current "new normal" conditions of elevated earnings and record-level P/E.

Final Thoughts on Investment Implications

John here; I'll take this closing section to share my experience and perspective. Ed considers himself to be a stock market climatologist. As his followers know, Ed's recommendations stop at investment philosophy and before investment strategy.

My world involves many aspects of investment strategy. I read lots of perspectives, always including Crestmont Research, and formulate responses to the market environment. The current conditions are challenging to navigate, but I find one approach addresses many of those challenges.

When I wrote *Bull's Eye Investing*, I predicted flat returns for the decade of the 2000s. My solution was to make alternative investments in hedge funds. That worked. However, what I should have done but did not have the experience or the data was to add a healthy portion of high and growing dividend stocks. That would improve the returns for the decade. I have written about dividends elsewhere, but the general concept is to find companies that have grown their dividends for decades and have a reasonable expectation of being able to do so in the future. Combining a carefully shepherded dividend portfolio with an equally curated alternative investment portfolio has been superior to any index fund model over the last 25 years and even much shorter recent periods.

I am an optimist about the future and believe the world will be massively better in the 2030s. But we have to get there. I don't believe 2020 was a business recession. That means our current cycle is 15 years long without a truly cleansing recession. Can we go a few more years? Absolutely. Do I think we can do that with the crises I see coming? Not really. The current administration is in the process of resetting the fundamentals of our economy. It will have implications. It will create changes.

But I do not fundamentally think that Americans will lose their entrepreneurial and business expertise. I want to be like Warren Buffett and bet on America. You can create a dividend portfolio that will yield in the neighborhood of 4%. That means their valuations are less and that is what will matter in a recession. Yes, those dividend stocks will go down, but history says not as much. And they recover faster. Combine that with an alternative portfolio yielding high single digits, throw in a few special situations, and I think we can get to the 2030s with our buying power more than intact.

You can do this on your own, and I did for a long time, but most investors need a manager to do so. I have looked at hundreds of managers over the decades and the manager that I want to be managing my portfolio through what I think will be an uncomfortable (politely put) period is David Bahnsen and his team at The Bahnsen Group.

For the last year, I've been recommending that you subscribe to David Bahnsen's *Dividend Café*. I suggest you try it out. You can also click on this link to request information about TBG's services and you will automatically get a copy of a white paper called ***Why I Am Working with the Bahnsen Group***. You should read it not just to see if they are a potential fit for you, but to understand what you should think about when choosing your own money manager. Many readers will of course want to use someone else or a different style. I believe this paper will help your decision-making process.

When you talk with one of the associates at TBG, ask them for a copy of David's book on dividend investing. It is simply the best explanation on dividend investing and convinced me this is one of the best ways, combined with their serious commitment to high-quality alternatives, to get through what I believe is the coming crisis I will describe in my next book.

Next week we will further explore the implications of the Matrix and dive deeper into the data at Crestmont Research.

Palm Beach, Dallas, and Gone Fishing

I will be in Palm Beach in two weeks and then shortly thereafter to Dallas. This could be a busy year for travel. But I want to quickly mention that there are a few spots left for what is a bucket list fishing trip for salmon, halibut and cod in Northwest British Columbia August 28–31. We have 32 spots and the bulk of them are taken from people coming back from last year. It is at the West Coast Fishing Club, a true five-star experience and you can learn more by clicking on this link. Feel free to ask questions. It was truly the highlight of Shane's and my last year.

And with that, I will hit the send button. Have a great week.

Your dreaming of tight lines and dividends analyst,

John Mauldin

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