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IS&R Highlights

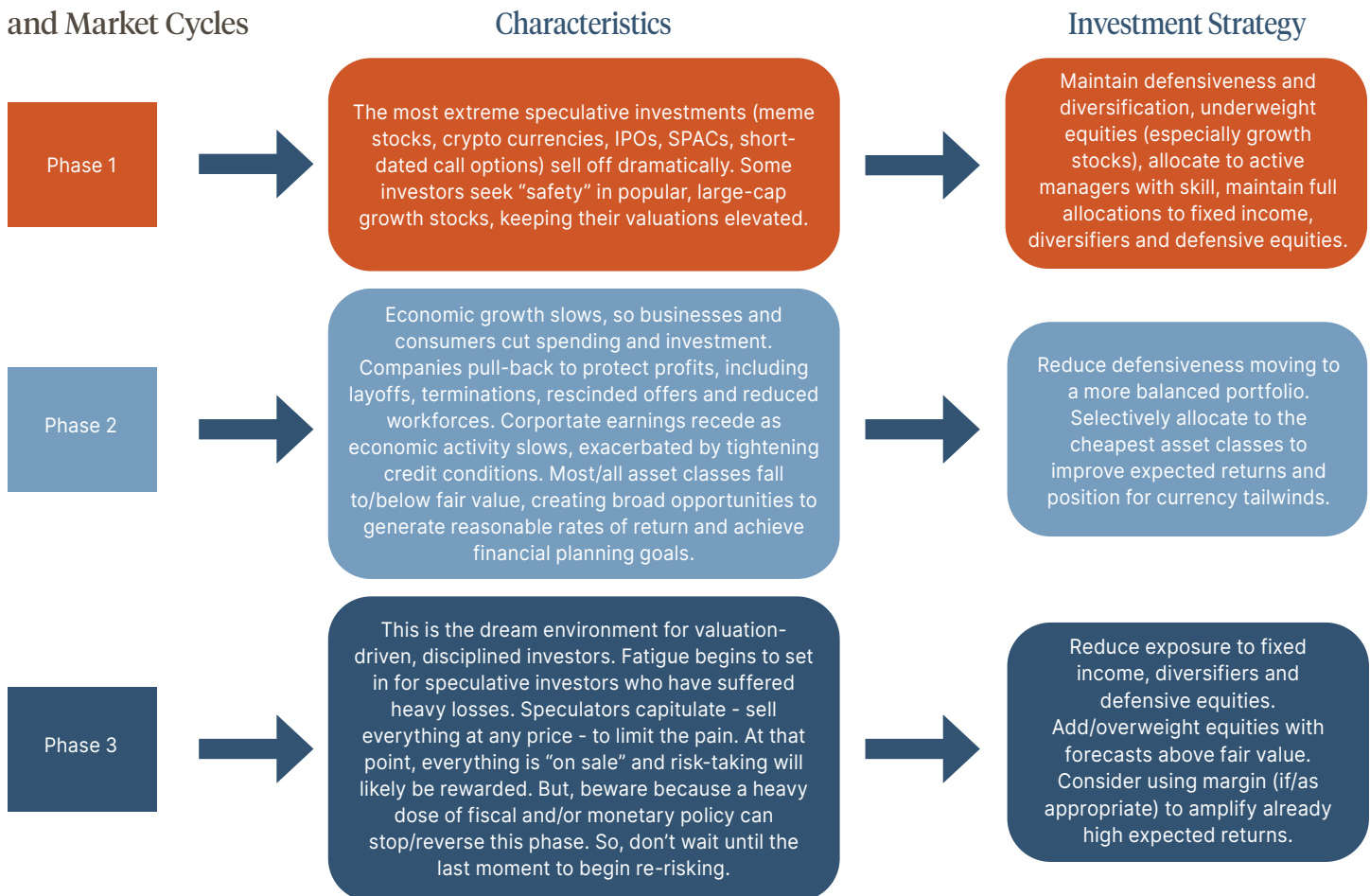
- ▶ We don't expect the Fed will pivot and reduce rates in the near-term.
- ▶ Consumers are not the only ones having to confront the new realities of borrowing in today's markets; the U.S. government is also facing a higher interest expense.
- ▶ One of the mistakes investors commonly make is believing the future will look like the past and acting accordingly.
- ▶ In today's environment, investment portfolio diversification remains paramount.
- ▶ Some pockets of equities are reasonably attractive, including international value, emerging value and low volatility stocks.



A General Sense of Direction

Let's start by revisiting a framework to help us understand and anticipate how the final stages of business and market cycles typically play out. These final phases set a bearing on where we are today and where we are likely headed. Typically, aspects of these phases overlap so there isn't a clean delineation between each phase, but the framework gives us a sense of direction.

Final Phases of Business and Market Cycles



In 2022, we passed through much of **Phase 1**, during which many of the most speculative investments (meme stocks, crypto currencies, IPOs, SPACs, short-dated call options) sold off by more than 80%. Shellshocked, earlier this year, some speculators began seeking "safety" in popular, large-cap growth stocks, extending their already elevated valuations. For example, the Magnificent seven stocks – Apple, Alphabet, Amazon, Meta, Microsoft, Tesla and NVIDIA – are up +55% this year, while the remaining stocks in the S&P 500 are actually down about -1.0%. As a result, the valuation of these Magnificent stocks, based on the price-to-earnings ratio, is more than two times the rest of the index. In this kind of environment, investors should maintain defensiveness and diversification, underweight equities (especially growth stocks), allocate to active managers with

skill and maintain full allocations to fixed income, diversifiers and defensive equities. Investing in this manner often results in returns that are competitive with passive benchmarks, but with less downside. That's where we've been between 2022 and thus far in 2023. So, where are we heading?

We think we're entering **Phase 2**. During Phase 2, economic growth slows, so businesses and consumers cut their spending and investment. Companies pull-back to protect profits, which includes layoffs, terminations, rescinded job offers and reduced workforces. Corporate earnings recede as economic activity slows, exacerbated by tightening credit conditions. Most, if not all, asset classes fall to or below fair value, creating broad opportunities to generate reasonable rates of return and achieve financial planning goals. As asset classes begin falling, we believe the most sensible

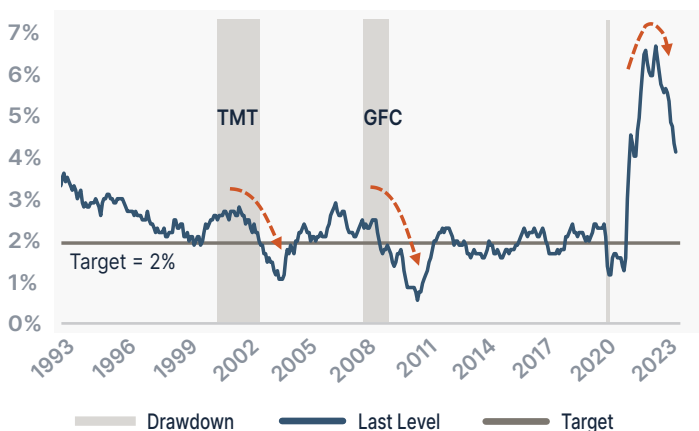
investment strategy is to begin reducing defensiveness in favor of moving toward a more balanced portfolio. We recommend selectively allocating to the cheapest asset classes to improve expected returns (often value stocks) and position for currency tailwinds (often non-U.S. equities). Along the way, portfolios should begin adding broad-based equities (including growth stocks) as they become cheaper. It's hard to predict how long this phase will last. That being said, we expect most aspects to unfold over the next three to five quarters – roughly through the end of next year.

Thereafter, we'd expect to enter **Phase 3** toward the end of 2024 or beginning of 2025. Although this phase can be terribly painful for speculators, it can be a dream scenario for valuation-driven, disciplined investors! That's because fatigue sets in for speculative investors who, at that point, have likely suffered heavy losses. So, many speculators begin capitulating – selling everything at any price – in order to limit the pain. At that point, financial assets go “on sale” and risk-taking is likely to be rewarded. We've seen that scenario play out a number of times throughout history, including during the Technology, Media and Telecommunications (TMT) implosion in the early-2000s as well as the Global Financial Crisis (GFC) in the later-2000s.

However, investors must beware as a heavy dose of fiscal and/or monetary policy can stop/reverse this phase. So, it's typically not sensible to wait until the last moment to begin re-risking. With that said, we're not expecting much financial stimulus anytime soon.

During **Phase 3**, we recommend an investment strategy that reduces exposure to fixed income, diversifiers and defensive

FIGURE 1
Core Inflation is Falling



Data as of 9/30/23. Source: Aspiriant analysis. Data from Bloomberg, Bureau of Labor Statistics. Please see additional disclosures regarding third-party data and other considerations.

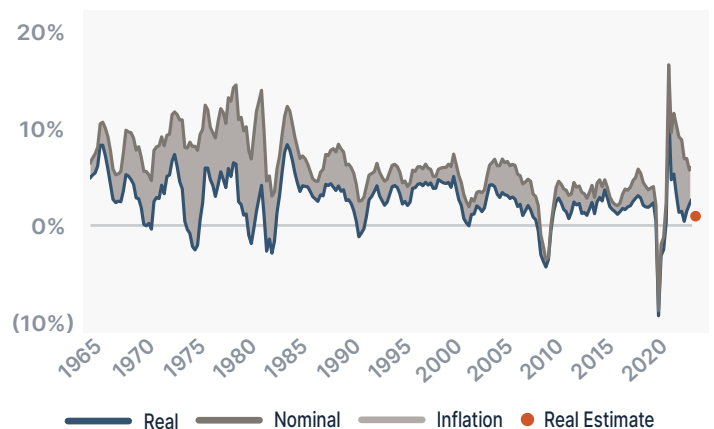
equities, and that is overweight equities. During this phase, even growth stocks can become cheap. And, if most asset classes are indeed cheap, then we'd recommend that clients consider using margin (where appropriate) in order to amplify already high expected returns.

Inflation Cooling and Growth Fading

The Fed has paused raising interest rates, but we don't think it will pivot and reduce rates in the near-term. **Figure 1** shows level of Core Inflation over the past 30 years. The huge spike in inflation – caused by COVID-related fiscal and monetary stimulus, among other factors – has indeed fallen in response to the Fed's tightening measures. Nevertheless, it still sits at 4.1%, well above the Fed's target of 2%. Since December 2019, the cumulative effects of necessity inflation have outpaced wage gains by 6%. In short, everyone is feeling the pain, especially the most vulnerable among us. Without additional hikes, we wonder if Core CPI will settle above the Fed's target of 2% and perhaps even above 3%. Notably, if inflation remains elevated, U.S. Federal Reserve Chair Jay Powell has indicated the Fed wouldn't be comfortable reducing interest rates for fear of stoking inflationary flames.

Moreover, **Figure 2** indicates the Fed has a bit more room to remain patient. This chart plots Nominal versus Real GDP. The strength of nominal spending, which typically accounts for 70% of Nominal GDP (the gray line) recently garnered a

FIGURE 2
GDP Growth
Real vs. Nominal



Data as of 9/30/23. Source: Aspiriant analysis. Data from Bloomberg, Bureau of Economic Analysis. Please see additional disclosures regarding third-party data and other considerations.

lot of headlines, such as “The Economy Remains Resilient, Strong or Resistant,” but real GDP (the blue line) – which excludes inflationary effects – tells another story. Real GDP is expected to come in at just 1% for 2023.

Beyond that, we see continued slowing as wage gains are eroded by inflation, consumers deplete their COVID-related excess savings and the mounting level of consumer debt builds. Plus, bank lending standards continue to constrain growth. Notwithstanding the weakening likely ahead, Real GDP, and certainly Nominal GDP, provide some cover for the Fed to maintain its restrictive monetary policies . . . at least for a while.

Interest Rates: Higher for Longer?

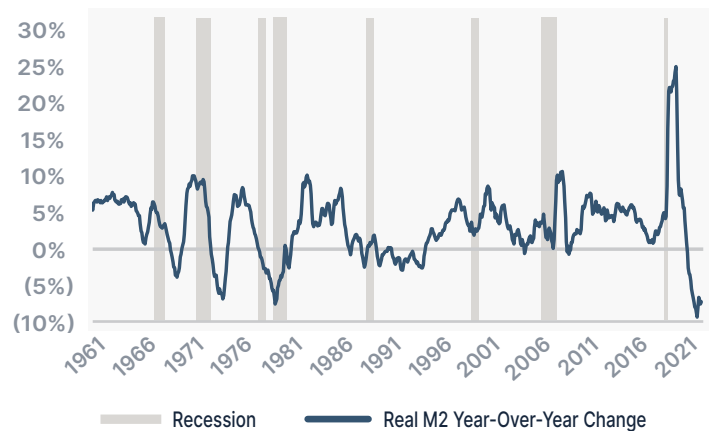
Next, we turn to short-term and long-term interest rates. Short-term interest rates are largely driven as the Fed sets the Federal Funds Rate. Long-term interest rates are largely driven by i) the Fed’s decisions to buy or sell government securities, ii) the Treasury Department’s decisions to sell government securities to finance U.S. fiscal deficits, as well as iii) market forces of other buyers and sellers of treasuries.

When we look at the market’s expectations of interest rates as of December 2021, December 2022 and recently as of September 2023, for both short-term and long-term interest rates, investors dramatically shifted their interest rate expectations further up and farther out. In other words, investors have come to the realization that interest rates will have to be “higher for longer” in order to quell inflationary pressures.

By offering an alternative, high short-term cash rates compete with bonds and equities. At the same time, they tend to reduce corporate earnings and dissuade capital expenditures and share buybacks. Likewise, high long-term bond rates cause bonds to compete with equities. While bonds have sold off, as future returns pressed higher, they could face additional pressure as the U.S. Treasury seeks to finance our deficits for a couple of reasons. First, the Treasury could not, and did not, issue any debt during the U.S. debt ceiling standoff earlier this year and it will likely resume issuing more T-Bonds than T-Bills going forward. Second, there are fewer natural buyers of U.S. Treasuries as U.S. banks and foreign buyers have slowed their purchases.

FIGURE 3

Money Supply (M2) is Falling



Data as of 9/30/23. Source: Aspiriant analysis. Data from Bloomberg, The National Bureau of Economic Research, Federal Reserve Bank of San Francisco. Please see additional disclosures regarding third-party data and other considerations.

Tightening Conditions

At the same time higher interest rates are raising the cost of borrowing and curtailing spending, most notably in housing, liquidity and savings are also undergoing large changes. M2 is a broad measure of the money supply and includes physical currency, checking and savings accounts, time deposits (like a certificate of deposit) and retail money market funds. Generally, with more money in the economy, more can be spent. Therefore, large reductions in M2 can precede significant changes in price levels.

Figure 3 shows real or inflation adjusted M2 growth reached 20% to 25%, on a year-over-year basis, in 2020 and 2021. Inflation did accelerate soon after these increases, peaking in 2022. Now M2 growth has turned negative, with M2 falling by roughly \$700 billion since the start of the Fed tightening cycle. On an absolute basis, the decline in M2 is a first in over 60 years and, of course, coincides with the modest reversal in inflation over the past several months. Whether or not that decline or more to follow signals a return to target CPI changes is difficult to know, especially when M2, despite the recent drop, is still about \$5 trillion above its pre-pandemic level.

With lockdowns early in the pandemic, along with a series of substantial government aid packages, consumers accumulated large savings above and beyond the patterns observed before the pandemic. These excess savings, on an aggregate basis, reached \$2.1 trillion by June of 2021.

With vaccines widely available and the re-opening of the economy, consumers at that time began to draw upon these savings and spend. First, on goods and, later, on services like vacations and travel. By June of this year, the San Francisco Fed estimated that all but \$200 billion of those excess savings were depleted. Further, they forecasted the remaining balance would be exhausted by September 30 of this year. As those savings disappear, consumers must make one of two decisions: either borrow to maintain existing spending or cut spending and/or change purchasing decisions. For many years, the former was an easier choice, but today's interest rates will likely push more to embrace the latter, which has broad implications for the economy at large.

Borrowing is Expensive

A few key lending rates highlight why borrowing more is currently the less likely path or solution for most consumers. The cost of credit card debt was range bound for much of the past 20 years at 12% to 14%. Expensive but manageable, especially over short intervals. Today, the annual rate on credit card debt is north of 21%, and in some cases above 24%. These interest rates are the highest in more than 50 years. Not surprisingly, delinquency rates (accounts that have not made the minimum payment for 30 days or more) are now above pre-pandemic levels and the highest in over 10 years. The same is true for auto loans. Consumers, clearly, are having difficulty servicing debt at these higher levels.

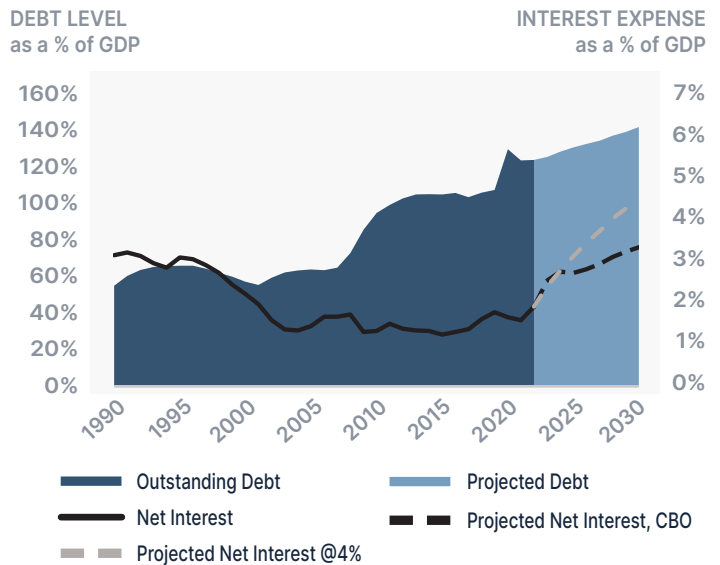
Prior to this tightening cycle, one of the most reliable and affordable paths for sourcing funds at attractive rates was tapping equity in a home, but that opportunity has abruptly shut. About 90% of outstanding mortgages have interest rates of less than 5%. Many homeowners are unwilling to trade their existing rate for something approaching 8% today – rightfully so. Home equity lines of credit, even if you can get one (as most major banking institutions stopped offering them), have even higher rates, along with interest rate risk (as most are floating rate loans). Mortgage application activity for both purchases and refinancings, is down to 178,000 on a weekly basis, off 85% from the COVID peak and the lowest level in roughly 25 years.

Fiscal Policy

Consumers are not the only ones having to confront the new realities of borrowing in today's markets. The Federal government, long among the least

disciplined of spenders, has overseen a doubling of the national debt over the past 12 years, which now stands at 120% of GDP, the dark bolded area on the **Figure 4**.

FIGURE 4
National Debt is Rising



Data as of 9/30/23. Source: Aspiriant analysis. Data from Bureau of Economic Analysis, Federal Reserve, Congressional Budget Office, Office of Management and Budget, Bloomberg. Please see additional disclosures regarding third-party data and other considerations.

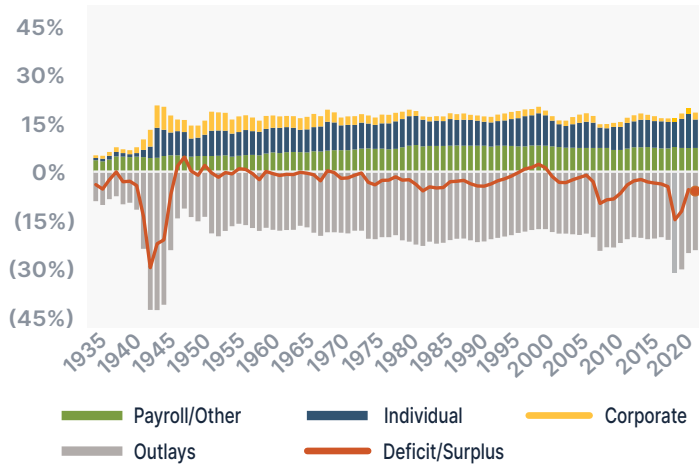
With the secular decline in interest rates over the past 40 years, that rise in debt, while worrisome, translated into interest servicing costs of about 1.5% of GDP through 2020, the black line in the chart. With the climb in interest rates at both ends of the yield curve, interest payments alone will double to around 3% of GDP in the years ahead and cause the U.S. to run ongoing deficits in excess of 5% of GDP or \$1.5 trillion for the foreseeable future. In non-recession years and their immediate aftermaths, budget deficits averaged less than 3% over the past 50 years, which is about half of what we will experience in the coming years. These projections by the Congressional Budget Office assume an average interest rate of approximately 3.3% on all federal debt. Needless to say, current rates are well above those estimates. Should the average interest rate move up incrementally to just 4%, represented by the dashed dark gray line, the deficit would widen by about another 1%.

With that daunting outlook, it seems major new spending programs have little, if any, room to fit into an already overextended budget. Additional revenues will likely be needed to better align with spending over time - especially from corporate taxpayers.

FIGURE 5

Federal Budget Revenues and Outlays

PERCENT OF GDP



Data as of 9/30/23. Source: Aspiriant analysis. Data from Bureau of Economic Analysis, Federal Reserve, Congressional Budget Office, Office of Management and Budget, Bloomberg. Please see additional disclosures regarding third-party data and other considerations.

Figure 5 shows revenues as a percentage of GDP, in the top half of the chart, with payroll taxes in green, individual taxes in blue and corporate taxes in yellow. Over the years, the contribution from corporate taxes, due to tax planning strategies, corporate inversions and the Trump tax cuts, dropped from over 5% of GDP in the 1950s to less than 2% of GDP today, while payroll and individual taxes remained relatively steady.

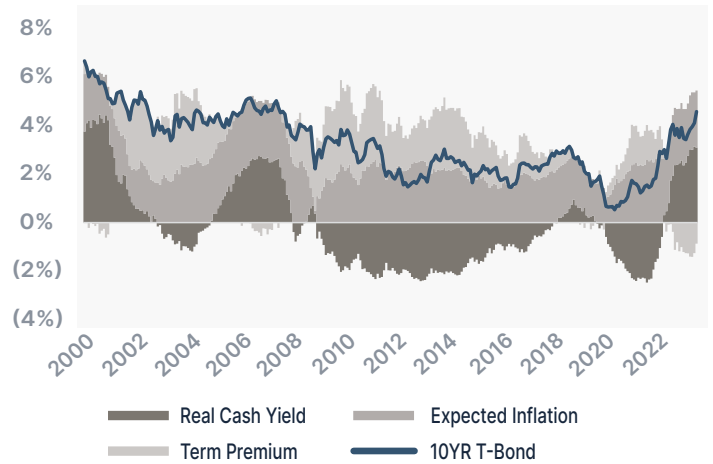
Current Yields

Figure 6 deconstructs the Total Treasury Bond Yield (blue line) into its three component parts: i) The Real Cash Yield (dark gray shaded area), which we've approximated by 1-year Treasury Bonds minus expected inflation; ii) plus, expected inflation, which we've estimated as the break-even yields for 10-year treasury bonds minus 10-year treasury inflation protected securities (or TIPS); iii) plus, the term premium, which is the difference between the yield on 10-year nominal bonds and 1-year nominal bills.

In a normal environment characterized by positive economic growth and limited monetary or fiscal policy intervention, all three components should be positive contributors to the total yield on a 10-year Treasury Bond. In addition, the total bond yield should also be the highest data series on the chart. So, in a normal environment, there should be nothing below 0% and the blue line should be at the top. With that understanding, we can make a few valuable observations to assess the opportunity of holding cash or bonds:

FIGURE 6

10 Year Treasury Bond Return Composition



Data as of 9/30/23. Source: Aspiriant analysis. Data from Bloomberg. Please see additional disclosures regarding forecasts, third-party data and other considerations.

- **First**, real cash yields should be positive to compensate investors for holding cash without its value being eroded away. Although that wasn't the case for much of the past 15 years (due to monetary intervention), it was the case in the early- and later-2000s and is the case again today.
- **Second**, there should be a positive term premium (the light gray area) to compensate investors for holding longer-term, riskier bonds as opposed to shorter-term, less risky cash. Although the light gray area dipped below 0% as of September on this chart, during October the term premium moved back toward 0%.

Today, all three components are at or close to being above the 0% line. As a result, from a current yield perspective, owning cash (and especially cash-plus strategies) as well as bonds makes sense.

Figure 7 plots the equity risk premium (ERP) of the S&P 500 Index, which indicates the relative attractiveness of equities to bonds based on the current yields of each. The line subtracts the 10-year bond yield on the top chart from the S&P's earnings yield, which is the total after-tax earnings of the companies in the index divided by their aggregate market capitalization. The ERP line is color-coded according to when equities were relatively very attractive (in green) and when equities are very unattractive (in red). Importantly, the current earnings yield ignores future growth in corporate earnings, but that's true across the entire 20-year period shown. The analysis provides valuable insights, especially over time.

FIGURE 7

Equity Risk Premium of the S&P 500



Data as of 9/30/23. Source: Aspiriant analysis. Data from Bloomberg. S&P 500 is a market-capitalization weighted index that includes the 500 most widely held companies chosen with respect to market size, liquidity and industry. An investment may not be made directly in an index. This information alone is not sufficient and should not be used for the development or implementation of an investment strategy. It should not be construed as investment advice to any party. Please see additional disclosures regarding forecasts, third-party data and other considerations.

After the massive run-up during the TMT of the late-1990s and early-2000s, equities were priced extremely expensively relative to bonds. For example, in January 2000, equities had an earnings yield of just 3% while bonds were earning 6%, resulting in an ERP of negative 3%, which is where the line starts on the far left. As a result, over the next 10 years, buy-and-hold bond investors earned an average annualized return of 6% while those invested in the more expensive and riskier equities lost -1%. In other words, over the decade of the 2000s, buy-and-hold investors in the S&P 500 lost 9% of their money.

Expected Returns

Comparing the current yields of one asset class to another is a useful tool for putting the current environment into perspective, but our forecasting framework allows us to estimate the total expected returns of asset classes. Currently, some pockets of equities are reasonably attractive, including international value, emerging value and low volatility stocks.

Figure 8 applies our Capital Market Expectations (CMEs) to three different environments or points in time. The light gray line indicates the expected returns to cash, bonds and equities in an average or fair value environment. The light gray line is a pretty good indication of what investors should expect from each asset class over rolling market cycles. The

dark gray line indicates where the three asset classes were priced as of December 2021. Comparing Line 2 to Line 1, all three asset classes were expensive at that time, with lower expected returns versus their long-term averages, especially for equities. Line 3 plots our current CMEs as of quarter-end for the three asset classes. The first two dots on the orange line (cash and bonds) are meaningfully above their long-term averages. However broad based equities are still expensive relative to their long-term averages as well as compared to cash and bonds today-- even though they are down 12% from their peak--meaning we're expecting lower returns for them going forward as indicated by Line 2. That being said, select pockets of opportunity within equities do exist.

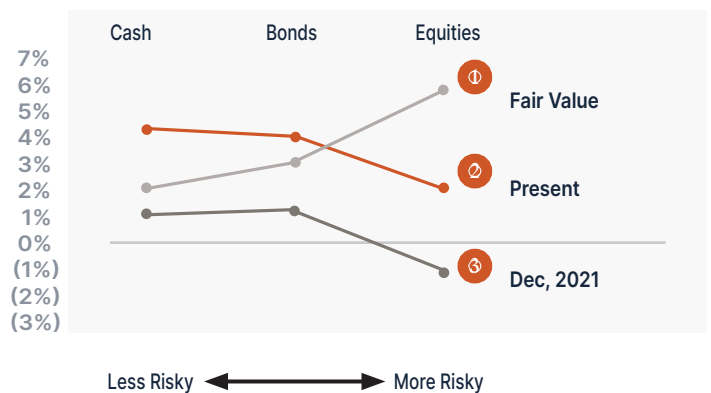
Final Thoughts

One of the mistakes investors make is believing the future will look like the past and acting accordingly. We have seen this occur in the market over the past 18 months. Market participants consistently assumed the spike in inflation was temporary and largely a function of supply chains disruptions. Once those issues were resolved, inflation and interest rates, it was believed, would quickly revert to pre-pandemic levels. Yes, inflation has receded from its highs, but we have now recorded 30 consecutive

FIGURE 8

Capital Market Expectations Cash, Bonds and Equities

EXPECTED RETURN



Data as of 10/24/23. Source: Aspiriant analysis. Data from Bloomberg. CMEs for the period from September 2023 through September 2023. Capital Market Expectations are annualized returns over a seven-year period for an asset class. Bonds represented by the Barclays Municipal Aggregate Index. Equities represented by the MSCI ACWI Index. Past performance is not indicative of future results. All investments can lose value. The performance and volatility of an investor's portfolio will not be the same as the index. Indices are unmanaged and have no fees. An investment may not be made directly in an index. See additional disclosures regarding general market forecasts and other considerations.

months of core (excluding food and energy) price increases in excess of 3%. Before this stretch of elevated inflation, the last time core CPI was 3% or higher was January of 1996.

It is this last phase of the inflation reset that will be the hardest to normalize. Particularly in light of the economy being at or near full employment and annual wage growth around 4% to 5%. Investors were reminded of this struggle again during the quarter as tightening came from the long end of the curve with the yield on the 10-year Treasury up more than 1% since the start of the year. Reduced liquidity from quantitative tightening and less bank demand for long-dated Treasuries also contributed to the rise in rates.

If short-term rates hold steady at 5% or higher, cash will continue to be a competitive alternative to other financial assets (equities or U.S. Treasuries). To get people to forego the safety of cash, yields on 10-year Treasuries must go up, which is what has been happening in recent weeks. There may be more room to go.

Of course the interest rate environment is not the only condition that shifted over the past few years. Tailwinds to equity returns over the course of the 2010s appear to have reversed or, at best, stalled. Valuations, as we have discussed repeatedly, are high, regardless of the metric, and particularly in light of the interest rate environment. Policy support is less likely to be as forceful, with higher debt and more expensive servicing costs, not to mention growing political divisiveness and dysfunction. Supply chains are shifting from a focus on efficiency to resiliency, and that will come with higher costs. With conflicts in Ukraine, the Middle East and possibly Taiwan, the flash points and risks of major power disputes is more serious now than any time in the last 35 or 40 years. And last, the signs and costs of a warming climate are much more visible and significant, adding urgency to the energy transition process that will be long, hard and expensive.

We seem to be pivoting to a new regime from what we enjoyed for the last decade or so. As a point of reference, the annualized returns of a balanced portfolio in the 2010s were among the highest over the last 60 years. Those returns were driven, in large part, by long duration, high growth, U.S. public and private equities. Over history, periods of exceptional performance are rarely repeated in the subsequent decade. It is probable that a different mix of assets will outperform over the course of the 2020s.

While we acknowledge this historical context, we want our portfolios to be resilient across a wide range of possible outcomes. Specifically, we think investors should i) hold a healthy amount of fixed income as it offers, for the first time in years, attractive and positive real yields; ii) despite the higher yields available in fixed income, maintain an allocation to diversifiers, or exposures that tend not to move in tandem with the ups and downs of traditional markets, to provide ongoing capital protection and absolute returns; iii) overweight international equities, which are better priced today, to provide an appropriate return relative to bonds and cash; iv) own defensive equities with more durable business models and consistent cash flows to better withstand slowing economic growth; v) where appropriate, add investments in private markets to harvest differentiated return streams and further broaden portfolio diversification; vi) and, finally, take advantage of market sell-offs to selectively rebalance into U.S. equities to capture the benefits of potential new technologies and unforeseen policy changes.



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COVID is the COVID-19 health pandemic.

GFC is the Global Financial Crisis.

Gross domestic product (GDP) measures the monetary value of final goods and services produced in a country in a given period of time.

IPOs refer to initial public offerings.

Meme stocks describe the shares of companies that are prominently featured on social media and have gained a significant following.

SPACs (special purpose acquisition vehicles) are publicly traded and created for the purpose of acquiring or merging with an existing company.

S&P 500 is a market-capitalization weighted index that includes the 500 most widely held companies chosen with respect to market size, liquidity and industry. An investment may not be made directly in an index.

TMT is Technology, media and telecom. Refers to the 2000 stock market crash, due to the overvaluation of stocks and bursting of the dot-com bubble.