Market Perspectives: 3rd Quarter 2022

Enhanced Return ▪ Effective Diversification ▪ Managed Risk

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The Fed's Gambit

Central banks are playing a high-stakes game with the economy. Thus far, the Fed's efforts to fight inflation by raising interest rates have not had their full intended effect. Meanwhile, the leading problems of war, inflation, and the pandemic seem little closer to resolution today than last quarter. With more aggressive rate hikes on the horizon as well as little indication of improving global conditions, markets continue to price for an uncomfortable economic future.

Market Performance

Markets rose at the start of the quarter before dramatically reversing and ending down. MSCI ACWI regained 10.74% from the end of June through Aug. 16, then fell 15.9% from that high by the end of September, posting three quarterly declines in a row. Bond markets also experienced a short rebound in July, up 2.9% before falling 7.5% through the quarter-end. Stock and bond markets were down for the year: ACWI -25.6%, S&P 500 -23.9%, U.S. aggregate bonds -14.6% and global bonds -19.9%—marking the first time in modern history both global bonds and global stocks have been in simultaneous bear markets.

Throughout the quarter, inflation expectations have been driving markets. For example, when hope for a Fed pivot to ease rate hikes faded after higher-than-expected August CPI (Consumer Price Index) data was released on Sept. 13, the S&P 500 saw a single-day loss of 4.32%.

The quarter ended with 10-year real yield at 1.68% (nominal yield to 3.83%) after hovering in negative territory for more than two years. The U.S. dollar remained multi-decade strong, up 6.7% for the quarter and 16.8% for the year.

International markets were hit harder by economic woes. Notably, the U.K. experienced a chaotic week as markets reacted to its tax-cuts plan, while China's zero-COVID related shutdowns and property crisis held back growth. As a result, European equities (-10.7%), Asia-Pacific equities (-7.5%) and Emerging Market (EM) equities (-10.8%) all underperformed U.S. equities (-4.9%) this quarter.

Strategy Performance

Against this backdrop, New Frontier's ETF portfolios closed the quarter with negative returns, in line with broad markets. The conservative portfolios posted smaller losses than aggressive portfolios.

On the fixed income side, the main detractors include long-duration bonds and international Treasury bonds hurt by the stronger dollar. High yield remained resilient and short high yield was the best performing bond for the quarter. Exposure to long

About New Frontier

New Frontier is a Boston-based institutional research and investment advisory firm specializing in the development and application of state-of-the-art investment technology. Founded in 1998 by the inventors of the world's first broad spectrum, patented, provably effective portfolio optimization process, the firm continues to pioneer new developments in asset allocation and portfolio selection. Based on practical investment theory, New Frontier's services help institutional investors across the globe to select and maintain more effective portfolios.

More information is available at newfrontieradvisors.com

Treasurys is at its lowest in our 18-year history—the conservative portfolios have shorter duration than aggregate bonds while the aggressive portfolios allocate proportionately more to longer duration for equity hedging.

Value and dividend stocks outpaced growth stocks for the year by almost 20%, but both trailed slightly this quarter. International REITs, EM equities and European equities were the worst-performing assets. The aggressive portfolios benefitted from overweight in U.S. small cap stocks but underperformed due to overweight in EM equities and REITs.

Model Reallocation

The Tax-Sensitive ETF model portfolios were rebalanced earlier this quarter on July 15. The rebalance was triggered for risk management with a focus on more efficiently sourcing tax-efficient fixed income yield and maintaining a diversified optimal balance between risk factors. Fixed income exposure shifted from government and corporate taxable bonds to municipal bonds, resulting in a reduction in credit risk and duration. We anticipate most investor accounts will experience small taxable losses from the sale of certain fixed income ETFs as part of the trade. Eliminated positions include: TIPS, International Treasuries, Short High Yield, and Long-term Corporates.

New Frontier uses the Michaud-Esch portfolio rebalance test to guide portfolio reallocation and rebalancing decisions. This framework allows us to simultaneously consider changes to the risk characteristics of portfolios from price movements, and changes to optimal portfolio exposures from new capital market expectations. Other ETF models were rebalanced late last quarter and remain statistically intact for their investment objectives.

The Economy

The short-term economic picture is not healthy. The world's three largest economic zones have different ailments and two are self-inflicted: Europe is suffering from a war and commodity scarcity; China continues to prioritize a zero-Covid policy over economic output; and the U.S. is single-minded in its battle with inflation – itself greatly exacerbated by the independent problems of China and Europe.

The rate of inflation change and the cooling of the job market have been too slow for the Fed. Economists acknowledge that it takes time for Fed actions to reverberate through the economy and find a new equilibrium. To illustrate a familiar example, higher rates lead to higher mortgage costs, which reduces demand for new housing, reducing production of new housing, lowering wages and increasing the availability of contractors,

New Frontier Portfolios

New Frontier develops and manages a broad range of ETF asset allocation portfolios for advisors and their clients, and currently oversees over $5 billion in ETF asset allocation portfolios.

finally leading to lower prices. But each step in this causal chain can take a meaningful amount of time to take hold, and it will take months and even years for the full effect to manifest. Given that the Fed needs to steer an economy that's many months down the road, it's no surprise many criticized it as being slow to act.

problem it matters more that people believe you will do what you say than that you actually do it. Similar to cold war games, it can pay to be excessive since the more everyone believes you'll do anything, the less you have to do. The positive implication is that the more it seems that the Fed is willing to cause a recession, the less likely it will have to do so.

Fortunately, there are signs of inflation moderating without serious intervention. Energy prices have fallen from their peaks mid quarter and raw materials are lower as well. Higher inventory at stores and anecdotes of half-empty restaurants further indicates prices may have peaked and consumer demand is insatiable no longer. Even lingering price pressure from pandemic stimulus has been offset by cheaper imports from the stronger dollar. But the bigger picture for inflation remains—inflation is a global issue. The impact of supply chains and Russia dwarf the policies of the past two presidents, and the still-robust labor market indicates continued investment and growth expectations which may need to be cooled by the Fed.

The Fed

The Fed is running on a set of rules where interest rate policy is set by applying financial theory to economic data. But are these rules really appropriate in the context of today's situation? We should be skeptical since they were not designed to accommodate a war in Ukraine, or a global pandemic - especially one where the world's largest producer of goods insists upon a policy of zero-Covid shutdowns. Regardless of the theoretical merits of the rules, Fed policy can have little effect on the war or COVID.

We should also be cautious about the implications of this policy. Rapidly rising interest rates lead to disruptions of their own. Mortgage rate uncertainty, account swapping for favorable interest rates, asset liability valuation and business planning uncertainty are all economically unproductive.

From a game theoretic perspective, the Fed's models may be less relevant. It's stuck in a Catch-22—if it's reasonable and measured, the economy will keep as it is and inflation will remain high. But if it's aggressive, high rates will send the economy into a recession and the Fed will be blamed for over-reacting. A classic solution is bluffing. The Fed is playing chicken on a global scale with the economy, but so far, not enough of the economy has blinked. To extend the metaphor, the global economy has more than one set of eyes, and the Fed needs the majority of them to see it as serious. All indications, for better, or worse, is that the Fed truly intends to go through with its stated intentions, and is willing to keep raising rates to fight inflation no matter the consequences for the economy. If that happens, a recession is likely. However, if a large enough part of the economy believes the Fed will push us into recession, job hiring and consumption will slow, reducing demand and wages. This could be enough to get inflation under control while giving stubborn supply chain issues time to resolve and finally let supply and consumption finally equilibrate.

Consequently, the three most probable economic scenarios to occur are:

1. Supply problems are solved from surprising, good news in Europe and China;

2. The Fed's gambit works, and inflation comes under control with little economic damage;

3. Central bank policy is ineffective or goes too far and high rates slow the global economy.

Unfortunately, the first two scenarios currently seem optimistic.

Other Themes

• The **dollar continued to rise** against nearly all major currencies (16.8% YTD) despite similar intervention from other central banks.

• The **strong dollar reduces U.S. inflation**, but is challenging globally. Cheaper imports help the U.S. consumer and dollar denominated commodities help U.S. producers, whereas the stronger dollar exacerbates inflationary pressures in other countries.

• **Mutual funds issue capital gains** when forced to sell longstanding low cost-basis positions due to shareholder redemptions. This can happen in down markets such as 2022.

• **ETFs generally do not issue capital gains from redemptions** in down markets. Investors can consider switching to a more long-term tax efficient ETF portfolio with the added benefit of selling out of mutual funds in a down market.

• **China is suffering from a slowing economy** due to its zero-Covid policy, housing crisis, and continued regulation leading up to the party's 5-year meeting and what is likely to be Xi's unprecedented 3rd term.

• **Economic fallout from Ukraine** continues to have dire implications for the European economy and significant impact on global energy prices and inflation.

• According to prediction markets, **midterm elections** are likely (79% according to Predictit.org as of 9/30) to change the federal balance with Republican control of the House. Historically, markets tend to care about politics less than the media does.

• **The UK demonstrated the problem with government stimulus while central banks**

fight inflation. There's an obvious contradiction with raising rates to slow the economy and lowering taxes to boost the economy at the same time. The value of UK stocks, bonds, and currency fell dramatically. Other central banks were reminded that there's no simple solution that reduces inflation and keeps an economy growing.

Look Ahead

The dollar's strength, particularly against the developed economies of Europe and Japan, has contributed to those markets' underperformance this quarter. Mean reversion is not inevitable, but frustrated investors considering dramatically changing course should understand the risk of momentum shifting in the other direction—volatile markets suggest relative prices could move as quickly in one direction as the other.

Long-term investment arguments remain solid. Painfully gained higher interest rates leave bond markets with positive real yields for intermediate and long-term bonds. In the long term, equity market returns depend on whether the economy grows and if investors participate in that growth. In aggregate, innovation continues and investors in most markets are rewarded.

In the short term, the recent volatility in both stock and bond markets (as measured by the VIX and MOVE indices) is likely to continue. Fed policy is easily criticized as a domestic (endogenous) solution to a global (exogenous) problem. With sufficiently severe policies, the Fed can reduce domestic consumption. It's less clear that production will improve. Intuitively, the endemic volatility from rapidly rising inflation, aggressive interest rate hikes, the risk of recession, and the uncertainty associated with central bank game theory all add to potential volatility ahead. It's important for investors to understand and be comfortable with the risk exposure of their portfolios.

Conclusion

Game theory can lead to superior outcomes for everyone when it works (e.g. nearly 80 years of nuclear peace). However, by its nature, the brinkmanship required for successful strategies can be extremely uncomfortable (e.g. the Cuban missile crisis) and in this case lead to great uncertainty and market volatility.

Many have dismissed the market reaction to Fed signaling as simple changes to the discount rate of stocks and bonds. But given the potential consequences of excessive rate hikes, markets may be expressing skepticism with Fed policy and reasonably pricing in lower growth expectations.

Continued stock and bond volatility from the combined risks of each major economic zone supports a diversified portfolio exposure. Economic theory predicts financial assets should be priced to reward investors on average for the risk of investment. We hope the Fed's gambit works and inflation is tamed with minimal economic harm. However, the Fed may need to reconsider its strategy and choose between its own credibility and the best interests of the economy.

We understand the uncertain state of the economy can be unsettling for investors positioned to participate in the long-term growth of the global economy. As a portfolio manager, we are constantly monitoring and incorporating current information via our investment process, as well as examining thousands of scenarios for asset risks and returns, to uniquely account for uncertainty in capital markets. Hence, investors can invest, and stay invested, in our portfolios without being at the mercy of any particular market scenario. As always, the choice investors must make is how much risk they're willing to assume with their portfolios; New Frontier will continue building efficient, optimized portfolios to best meet the needs of investors across the full range of risk profiles.

To learn more about New Frontier's risk-return efficient portfolios, and how our investment process enables our portfolios to adapt to shifting and evolving markets, contact us at 617-482-1433, or at nfglobal@newfrontieradvisors.com.