Executive Summary

Third Quarter 2022

BLUE EDGE CAPITAL

Financial markets went from bad to worse during an often gut-wrenching third quarter, as a near 20% midsummer rally in stocks collapsed in August and September to leave global equities at new bear market lows heading into Q4. The S&P 500 Index slid 4.9% for the quarter and 23.9% for the year-to-date period, while the MSCI ACWI Index of global equities fared even worse, posting comparable losses of 6.8% and 25.6%, respectively. Meanwhile, bond markets offered no protection, with the Bloomberg U.S. Aggregate Bond Index suffering Q3 and year-to-date losses of 4.8% and 14.6%, by far the worst year on record for high quality bonds. 60/40 investors are left staring at year-to-date losses of more than 20%, the deepest nine-month declines for balanced portfolios since 1931 in the heart of the Great Depression.

It is often said that diversification tends to fail during periods of extreme financial market stress as the correlation of returns between asset classes tends to rise in tandem, and that has certainly been the case this year. There have been few, if any, places for investors to hide as year-to-date returns have been almost universally negative, including large caps (-23.9%), small caps (-23.2%), NASDAQ (-32.0%), European stocks (-28.8%), EM stocks (-27.2%), investment grade bonds (-14.6%), foreign bonds (-23.9%), REITs (-29.3%), and gold (-9.4%).

As we look back on our year-end letter, we entered 2022 with a reasonably optimistic view of the markets given low interest rates, strong consumer and corporate fundamentals, and a global economy poised finally to emerge from the long Covid pause. Thus, we have had to dramatically adjust our thinking and our portfolio positioning over the past nine months as the investing skies have darkened. So how could the investing landscape have unraveled so quickly? Since the 2008 Financial Crisis, investors have benefited greatly from a host of largely experimental programs designed to support and stabilize financial markets, dramatic overreach in both fiscal and monetary policy, and an extended period of benign inflation, and we are now paying the piper for this largesse. In our view, the Fed and other central bankers clearly made a significant mistake by not unwinding their extraordinary Covid-related policy measures sooner, which allowed the global economy to overheat. Initial measures intended to tap the brakes proved insufficient, as economic growth, labor markets, corporate profits, and inflation have proven more resilient than expected. Thus, the Fed has been forced to amp up its hawkish rhetoric and dramatically accelerate its tightening plans. We are learning that, while the financial markets may hate uncertainty, they share an equal distain for a Fed seemingly intent to double down on its policy mistakes by triggering a potentially severe, near-term recession.

While it is our view that the worst of this market correction is likely behind us, we remain cautious heading into 2023. While this is our fifth market pullback of 20% or greater since 2011, this one is fundamentally different than the others in that, with the Fed focused on quelling inflation, they are unlikely to step in to support financial markets as they have on each of the other occasions. We will discuss our recent trading activity in coming pages, but our portfolios are more conservatively positioned today than they have ever been since our launch, with a heavy U.S. bias, defensive bond positioning, and elevated cash. The good news is that, with equity valuations back in line with historical norms and a bond market that is rapidly becoming an investable asset class again, the stage is being set for the next market rally.

	Sector	Recent Change	BEC Sentiment: Negative	Neutral	Positive	Rationale
Primary Asset Classes	Equities	↓		●		Hawkish Fed policy triggers economic slowdown, recession fears
	Fixed Income	↑	●			Treasury yields highest since 2008, now viable alternative to stocks
	Liquid Alternatives			●		Commodity prices in retreat on expected demand destruction
	Cash	↑			● ●	6-7% cash position both defensive and safer alternative to bonds
Equities	Growth		●			Modest underweight to growth during period of P/E contraction
	Value				●	Value has performed better during rising rates and inflation
	Cyclicals	↓			●	Pared exposure to global materials on economic slowdown risk
	Defensives			●		Neutral position given historically high market valuations
	U.S. Large Caps				● ● ●	Remains our largest overweight across BEC portfolios
	U.S. Small/Mid Caps	↓	●			Despite attractive valuations, small caps vulnerable to recession
	Developed Europe	↓	● ●			Surging inflation, energy shortages, and strong $ weigh on Europe
	Developed Asia	↓	● ●			China lockdowns, geopolitical risk, and sagging Yen are challenges
	Emerging Markets	↓	● ●			Strong dollar, inflation, and de-globalization are headwinds
Fixed Income	Duration/Rate Risk	↑	●			Unwinding short duration bet after surge in sovereign bond yields
	Credit Risk			●		Default risk and credit spreads rising on recession fear
	U.S. Treasuries/TIPS	↑			● ●	Increased exposure to Treasuries and extended duration in Q3
	IG Credit/Preferred				●	Credit spreads continue to widen, prefer short duration
	High Yield		●			Underweight with bias to high quality
	Developed Market		● ● ●			No current exposure
	Emerging Market	↓	● ●			Strong dollar, inflation, and geopolitics weigh on EM bonds
Alternatives	REITs		● ●			REIT shares stumbling in 2022 amid surging interest rates
	Commodity/Resources	↓		●		Reduced exposure to global materials in favor of energy
	MLPs / Infrastructure	↑			● ●	Added additional MLP exposure on global energy shortages
FX	U.S. Dollar	↑			● ●	Fed policy, safety trade fueling continued dollar rally

Global Equity Market Review

Third Quarter 2022

BLUE EDGE CAPITAL

Piling on to a brutal first half for stock investors, global equity markets suffered their third straight quarterly decline during Q3, as financial markets buckled under runaway inflation, soaring interest rates, and a myriad of geopolitical tensions across the globe. With the MSCI All Country World Index posting third quarter and YTD losses of 6.8% and 25.6% respectively, global stocks closed the quarter at new 2022 lows, deep in bear market territory, and tracking for their worst annual performance since the Great Financial Crisis of 2008. While we believe the market has now priced in an awful lot of bad news, it will be hard to make a bull case for equities until tamer inflation allows a pause in aggressive monetary tightening around the world.

- After declining 4.9% during Q3, the S&P 500 Index has posted a year-to-date loss of 23.9%. After three consecutive quarterly losses, the S&P is off to its worst first nine-month start since 2002 and its third worst start since 1931. The Index closed down six of the last seven weeks of the quarter, including losing a cumulative 12% during the last three weeks.
- U.S. mid caps (-2.5%) fared a bit better than large caps (-4.9%) and small caps (-5.2%) during Q3, while growth stocks outperformed value stocks across all size segments.
- Among eleven S&P 500 sectors, only consumer discretionary (+4.4%) and energy (+2.4%) posted gains for Q3, while communication services (-12.7%) and real estate (-11.0%) lagged. With YTD returns of 34.9%, energy is the only sector with positive returns for the year.

International Equity Market Highlights (MSCI indices, all returns in US$):

- Dragged down in large part by the strength in the U.S. dollar, returns for international stocks fared notably worse than those of U.S. stocks, as the MSCI All Country World Index (ex U.S.) posted negative total returns of 9.9% during Q3 and 26.5% for the year-to-date period.
- Among regional indices, MSCI Pacific (-8.1%) outpaced MSCI Europe (-10.2%) and MSCI EM (-11.6%) for the quarter, while all three regions underperformed the U.S. (-4.9%).
- For the second straight quarter, all 20 MSCI developed market country indices posted losses. Top performers included Singapore (-1.5%) and Israel (-1.9%), while Germany (-12.6%), Spain (-14.1%), Austria (-15.2%), Norway (-15.3%), and Hong Kong (-17.0%) were laggards.
- 7 of 24 EM countries posted Q3 gains, led by Turkey (+16.3%), Brazil (+8.5%), Indonesia (+7.8%), and India (+6.5%), while Korea (-16.4%), Colombia (-18.5%), the Czech Republic (-19.2%), China (-22.5%) and Poland (-25.1%) led decliners.

Liquid Alternatives:

- The Bloomberg Commodity Index declined 4.1% during the third quarter, as rising interest rates and a surging U.S. dollar weighed on commodity prices. The dispersion of returns across commodities was noteworthy, with natural gas (+26%), palladium (+16%), cattle (+8%), and wheat (+6%) logging gains, while oats (-41%), lumber (-36%), gasoline (-36%), iron ore (-22%), soybeans (-18%), and copper (-11%) ranked among notable decliners.
- Rising interest rates and recession risk have weighed heavily on REITs, while MLPs enjoy a strong rebound year after a terrible decade with energy prices higher and supplies tighter.

Global Equity & Liquid Alternatives Market Recap

		Total Return (in U.S. Dollars)				
Region/Asset Class	**Index**	**Q3**	**YTD**	**3-Year**	**5-Year**	**10-Year**
Domestic Equity						
U.S. Large Cap Core	S&P 500	(4.9%)	(23.9%)	8.2%	9.2%	11.7%
U.S. Mid Cap Core	S&P 400	(2.5%)	(21.5%)	6.0%	5.8%	10.0%
U.S. Small Cap Core	S&P 600	(5.2%)	(23.2%)	5.5%	4.8%	10.1%
U.S. Total Stock Market	S&P 1500	(4.8%)	(23.7%)	8.0%	8.9%	11.6%
Domestic Equity - Size & Style						
Large Cap Growth	S&P 500 Growth	(3.9%)	(30.4%)	9.9%	11.4%	13.2%
Large Cap Value	S&P 500 Value	(5.8%)	(16.6%)	5.1%	6.2%	9.6%
Mid Cap Growth	S&P 400 Growth	(0.7%)	(25.5%)	5.1%	5.7%	9.8%
Mid Cap Value	S&P 400 Value	(4.0%)	(17.5%)	6.3%	5.5%	10.0%
Small Cap Growth	S&P 600 Growth	(3.4%)	(26.2%)	5.5%	5.5%	10.5%
Small Cap Value	S&P 600 Value	(6.8%)	(20.0%)	5.0%	4.0%	9.5%
Domestic Equity - Sector						
Information Technology	S&P 500 Technology	(6.2%)	(31.4%)	14.9%	16.7%	17.1%
Real Estate	S&P 500 Real Estate	(11.0%)	(28.9%)	0.4%	5.8%	7.8%
Industrials	S&P 500 Industrials	(4.7%)	(20.7%)	4.0%	4.9%	10.4%
Energy	S&P 500 Energy	2.4%	34.9%	13.4%	6.1%	3.5%
Consumer Discretionary	S&P 500 Cons. Discr.	4.4%	(29.9%)	6.7%	10.5%	13.2%
Communication Services	S&P 500 Telecom	(12.7%)	(39.0%)	(0.1%)	2.0%	3.8%
Consumer Staples	S&P 500 Cons. Staples	(6.6%)	(11.8%)	6.2%	7.6%	9.5%
Utilities	S&P 500 Utilities	(6.0%)	(6.5%)	3.7%	7.8%	9.9%
Materials	S&P 500 Materials	(7.1%)	(23.7%)	7.6%	5.9%	8.6%
Financials	S&P 500 Financials	(3.1%)	(21.3%)	4.9%	5.5%	11.4%
Healthcare	S&P 500 Healthcare	(5.2%)	(13.1%)	12.5%	10.2%	13.7%
International Equity						
Developed Market	MSCI EAFE	(9.4%)	(27.1%)	(1.8%)	(0.8%)	3.7%
Emerging Market	MSCI Emerging Market	(11.6%)	(27.2%)	(2.1%)	(1.8%)	1.1%
Frontier Markets	MSCI Frontier Market	(6.5%)	(25.7%)	(1.3%)	(1.2%)	3.6%
International Total Market	MSCI ACWI (ex. U.S.)	(9.9%)	(26.5%)	(1.5%)	(0.8%)	3.0%
International Small Cap	MSCI EAFE Small Cap	(9.8%)	(32.1%)	(2.2%)	(1.8%)	5.3%
Europe	MSCI Europe	(10.2%)	(28.8%)	(1.7%)	(1.2%)	3.5%
Pacific	MSCI Pacific	(8.1%)	(23.8%)	(2.2%)	(0.2%)	4.1%
Liquid Alternatives						
U.S. Real Estate	DJ U.S. Select REIT	(10.4%)	(29.3%)	(3.3%)	2.0%	5.5%
International Real Estate	S&P Global X-U.S. REIT	(13.0%)	(30.1%)	(9.0%)	(2.2%)	2.0%
TIPS	Barcap U.S. TIPS	(5.1%)	(13.6%)	0.8%	2.0%	1.0%
Master Limted Partnerships	Alerian Energy MLP	8.1%	18.9%	4.5%	1.9%	0.7%
Commodities (Broad)	Bloomberg Commodity	(4.1%)	13.6%	13.5%	7.0%	(2.1%)
Gold	Spot Price	(8.6%)	(5.5%)	11.6%	41.5%	2.7%
Crude Oil (WTI)	Spot Price	(27.4%)	5.9%	47.0%	112.0%	(18.4%)
Copper	Spot Price	(10.6%)	(17.4%)	31.0%	27.7%	18.6%

Global Fixed Income Market Review

Third Quarter 2022

BLUE EDGE CAPITAL

Q3 was the third consecutive quarter in which virtually all corners of the global bond market suffered losses, and fixed income markets continue to track towards their worst year in history. Runaway inflation has forced central bankers to become more aggressive in their paths to policy normalization, including both rate hikes and quantitative tightening. The Federal Reserve has raised the Fed Funds Rate five times so far this year for a total of 3.0%, including three 75-bps hikes in the past four months (the first hikes of that magnitude since 1994). With inflation and economic data proving surprisingly resilient, the Fed has ratcheted up its rhetoric since its August meeting in Jackson Hole, intent on demonstrating their resolve to stick with aggressive tightening until inflation returns to 2% historic norms. The financial markets have paid attention, pricing in an additional 1.50-1.75% in hikes by year end, which will only add to what is proving to be the fastest climb in interest rates in 40 years.

Short-term interest rates, which dropped rapidly at the onset of the Great Financial Crisis in 2008 and remained near zero for nearly 15 years, have moved notably higher throughout this year. With 1-year T-bills yielding nearly 4.3% and money market funds yielding nearly 3.0%, investors have viable, low-risk alternatives to risker stocks and bonds for the first time in years.

Domestic Fixed Income Market Highlights:

- The Bloomberg U.S. Aggregate Bond Index posted a negative total return of 4.8% during Q3, bringing year-to-date losses to 14.6%, by far the worst loss for the broad investment grade bond index in its 50-year history.
- The yield on the 10-year Treasury ended Q3 at 3.83%, an increase of 85 bps for the quarter and 231 bps year to date resulting in negative returns of 5.8% and 16.9% respectively. The 2-year Treasury yield has fared even worse, soaring 349 bps from 0.73% at year end to 4.22% at the end of Q3 as the markets price in and accelerated rate hike path by the Fed.
- Credit spreads on investment grade corporate bond indices ended Q3 at 159 bps, up 4 bps during Q3 and 68 bps YTD and modestly wider than the long-term average of 151 bps.
- Credit spreads on HY bond indices finished Q3 at 569 bps, down 17 bps for the quarter but an increase of 269 bps YTD and slightly above the 20-year average of 511 bps.
- Q3 corporate credit issuance of $295 billion is down 33% versus last year, with investment grade issuance down 17% and high yield issuance down 81% for the quarter.
- The yield curve (10-year minus 2-year Treasury) remains the most heavily inverted since the bursting of the dotcom bubble in 2000, a widely-watched harbinger of recession.

International Fixed Income Market Highlights (all returns in USD, unless noted):

- Foreign bond markets, as measured by the Bloomberg Barclays Global Aggregate (ex. U.S.) Bond Index, posted negative total returns of 8.9% for the quarter and 23.9% YTD, the worst year for global fixed income since 1949, when Europe was rebuilding from World War II.
- The surging U.S. dollar accounted for more than 60% of the year-to-date losses in foreign bonds for U.S. investors.

Global Bond Market Recap

		Total Return				
		Period		Annualized		
Region/Sector	**Index**	**Q3**	**YTD**	**3-Year**	**5-Year**	**10-Year**
Domestic Fixed Income						
Treasuries-Short	Bloomberg Treasury 1-3	(1.6%)	(4.5%)	(0.5%)	0.5%	0.6%
Treasuries-Interm.	Bloomberg Treasury 7-10	(5.5%)	(15.7%)	(3.9%)	(0.4%)	0.6%
Treasuries-Long	Bloomberg Treasury 20+	(10.1%)	(30.1%)	(8.9%)	(1.8%)	0.5%
U.S. Broad	Bloomberg U.S. Aggr.	(4.8%)	(14.6%)	(3.3%)	(0.3%)	0.9%
MBS	Bloomberg MBS	(5.4%)	(13.7%)	(3.7%)	(0.9%)	0.5%
IG Credit	Bloomberg Credit	(5.0%)	(18.1%)	(3.6%)	(0.1%)	1.6%
High Yield	Bloomberg Corp HY	(0.7%)	(14.7%)	(0.5%)	1.6%	3.9%
Leveraged Loans	S&P US Lvgd. Loans	1.5%	(3.1%)	2.3%	3.0%	3.6%
Preferred Stock	S&P Preferred Stock	(2.0%)	(17.2%)	(0.9%)	1.5%	3.9%
TIPS	Bloomberg U.S. TIPS	(5.1%)	(13.6%)	0.8%	2.0%	1.0%
International Fixed Income						
Global Broad	Bloomberg Global Aggr.	(6.9%)	(19.9%)	(5.7%)	(2.3%)	(0.9%)
Int'l. Broad	Bloom. Glbl. Aggr, xUS	(8.9%)	(23.9%)	(7.8%)	(4.0%)	(2.4%)
Global Treasuries	Bloomberg Global Tsy.	(7.6%)	(21.3%)	(7.1%)	(3.1%)	(1.8%)
Global Credit	Bloomberg Global Credit	(6.0%)	(20.8%)	(4.8%)	(1.7%)	0.7%
Global High Yield	Bloomberg Global HY	(2.7%)	(19.2%)	(3.3%)	(1.0%)	2.7%
Emerging Market	Bloomberg EM	(4.1%)	(20.5%)	(5.3%)	(1.6%)	1.4%

Current Yields & Duration

	Yield			Current Modified
Bond/Index	**9/30/22**	**12/31/21**	**12/31/20**	**Duration**
2-Year Treasury	4.22%	0.73%	0.13%	--
5-Year Treasury	4.06%	1.26%	0.36%	--
10-Year Treasury	3.83%	1.52%	0.93%	--
30-Year Treasury	3.79%	1.90%	1.65%	--
Bloomberg U.S. Aggregate Bond	4.75%	1.75%	1.12%	6.5
Bloomberg Investment Grade Credit	5.69%	2.33%	1.74%	7.4
Bloomberg Corporate High Yield	9.68%	4.21%	4.18%	3.9
Bloomberg Global Aggregate (xUS)	3.00%	1.07%	0.68%	7.1
JPM EMBI Global Diversified (local currency)	7.31%	5.72%	5.22%	4.8
JPM EM Diversified (US$ denomiated)	9.57%	5.27%	4.91%	5.8

The U.S. dollar posted its strongest quarter since 2016 during Q3, its fifth straight quarterly gain and capping off the strongest run for the Greenback in two decades. The ICE U.S. Dollar Index gained 7% for the quarter and 17% YTD, while the broader Bloomberg Dollar Spot Index gained 6% and 14%, respectively. Both indices finished Q3 at 20-year highs. Among major currency pairs this year, the dollar has gained 12% versus the Chinese yuan renminbi, 13% versus the Australian dollar, 16% versus the euro, 21% versus the British pound, and an astonishing 26% versus the Japanese yen. A stronger dollar will prove a headwind to U.S. multinationals, deflationary for U.S. consumers of imported goods, and inflationary for the rest of the world who face higher prices for energy and other trade denominated in dollars.

We have discussed the primary drivers for this dollar strength all year, but these factors have strengthened rather than weakened in recent months. First, the Federal Reserve has shifted policy dramatically towards a hyper-aggressive tightening of financial conditions to quell demand, engineer an economic slowdown, and ease inflationary pressures. Second, relative economic growth in the U.S. remains notably stronger than in virtually all other developed and emerging market countries, as Europe and the U.K. stand at the brink of recession and as China struggles through self-imposed re-opening challenges after Covid. And finally, the U.S. dollar is always viewed as a safe harbor during times of market turmoil, and the aggressive Fed and higher relative interest rate on Treasuries have only exacerbated demand for dollars.

While the U.S. currency has been through other periods of notable strength, perhaps the closest parallel dates to the mid 1980's when a Paul Volker-led Fed, seeking to tamp down similar runaway inflation, raised interest rates on a comparably aggressive path. The resulting 50% surge in value of the dollar versus the yen, the franc, pound, and the deutsch mark led to the 1985 Plaza Accord, a multilateral agreement among central banks to devalue the Greenback. Such an intervention feels much less likely today, as the world is much more fragmented and there seems to be an "every country for itself" mentality among governments and central bankers. While other central banks are also taking steps to raise interest rates and tighten financial conditions, the Fed is clearly out front. As evidence of this dichotomy, the markets are now pricing in a total of eighteen 25-basis point rate hikes by the Fed this year, while the Bank of Japan is reiterating its intention to keep its easy money policy largely intact.

Our BEC portfolios continue to experience a significantly negative impact from foreign currency this year. Our primary benchmark for international equities, the MSCI All-Country World Index (ex. U.S.), posted negative total returns of 4.9% for the quarter and 16.2% year to date in local currency terms, but the losses were a more significant 9.9% and 26.5%, respectively, in U.S. dollar terms. On a regional basis, our returns were negatively impacted by currency across all geographies, as developed Asia, Europe, and emerging markets have experienced performance drags from currency of 14.8%, 11.6%, and 6.4% respectively so far this year.

We remain unhedged to currency within our BEC portfolios, but given our strong overweight allocations to U.S. investments and underweights to foreign assets across all BEC strategies, we have significantly less foreign currency risk than our benchmarks.

Global Currency Market Recap

U.S. Dollar Appreciation/(Depreciation)	Q3	YTD	2021	2020	2019
vs. Euro	6.9%	16.2%	7.5%	(8.2%)	2.0%
vs. British Pound	9.3%	20.8%	1.6%	(2.9%)	(3.8%)
vs. Japanese Yen	6.6%	25.7%	11.6%	(5.0%)	(0.9%)
vs. Canadian Dollar	6.8%	8.7%	(0.8%)	(1.6%)	(5.0%)
vs. Australian Dollar	7.3%	12.9%	6.1%	(8.8%)	0.2%
vs. Brazilian Real	3.4%	(3.1%)	7.3%	29.2%	3.6%
vs. Indian Rupee	3.0%	9.2%	2.0%	2.4%	2.4%
vs. Chinese Yuan Renminbi	6.2%	12.0%	(2.7%)	(6.2%)	1.2%
Currency Indices					
U.S. Dollar Index	7.1%	17.2%	6.4%	(6.6%)	0.1%
Bloomberg Dollar Spot Index	6.1%	14.0%	4.7%	(5.4%)	(0.9%)
Fed Nominal Broad U.S. Dollar Index	5.4%	10.7%	3.4%	(2.7%)	(0.8%)
MSCI Emerging Market Currency Index	(4.6%)	(8.2%)	0.9%	3.3%	3.1%

Impact of Currency on International Equity Returns

	Total Return					
	Third Quarter		Year to Date		One Year	
Regional Indices	Local Currency	U.S. Dollar	Local Currency	U.S. Dollar	Local Currency	U.S. Dollar
S&P 500	- -	(4.9%)	- -	(23.9%)	- -	(15.5%)
S&P 1500	- -	(4.8%)	- -	(23.7%)	- -	(15.6%)
MSCI EAFE	(3.6%)	(9.4%)	(14.5%)	(27.1%)	(11.1%)	(25.1%)
MSCI ACWI	(4.9%)	(6.8%)	(21.7%)	(25.6%)	(16.2%)	(20.7%)
MSCI ACWI (ex. U.S.)	(4.9%)	(9.9%)	(16.2%)	(26.5%)	(13.9%)	(25.2%)
MSCI Europe	(4.1%)	(10.2%)	(17.2%)	(28.8%)	(11.8%)	(24.8%)
MSCI Pacific	(2.7%)	(8.1%)	(9.0%)	(23.8%)	(9.7%)	(25.9%)
MSCI EAFE Small Cap	(3.8%)	(9.8%)	(19.5%)	(32.1%)	(18.4%)	(32.1%)
MSCI Emerging Market	(8.2%)	(11.6%)	(20.8%)	(27.2%)	(21.5%)	(28.1%)

ETF market highlights for the third quarter included:

- U.S. listed ETFs attracted inflows of $110 billion during Q3 and $403 billion year to date, while mutual funds posted outflows of $196 billion and $601 billion, respectively.
- With total AUM of $5.7 trillion, ETFs now account for 27% of the U.S. listed fund market.
- Index funds (including mutual funds and ETFs) account for $9.7 trillion (or 46%) of the $21 trillion U.S. listed fund market. 95% of all ETF assets are passively rather than actively managed compared to just 28% of mutual fund assets.
- Including both mutual funds and ETFs, passive index funds generated $402 billion of net inflows this year, while actively-managed funds have experienced $600 billion of outflows.
- Including both ETFs and mutual funds, year-to-date inflows into equity funds ($41 billion), commodity funds ($27 billion), and alternatives funds ($53 billion) far surpassed those into taxable and municipal bond funds (-$272 billion).
- ETF categories with the strongest net inflows for Q3 included large cap blend ($37 billion), ultrashort bond ($14 billion), long government bond ($13 billion), large cap value ($11 billion), intermediate gov't bond ($11 billion), and foreign large cap blend ($10 billion).
- ETF categories with highest outflows in Q3 included focused commodities (-$10 billion), TIPS bond (-$4 billion), natural resources (-$4 billion), and European stock (-$4 billion).

% of Active Mutual Fund Managers Outperforming Their S&P or Barclays Index

For the periods ending 6/30/2022

Equity Fund Category	Relevant Index	1-year	3-Year	5-Year	10-Year	20-Year
Domestic Equity:						
Large Cap	S&P 500	45%	14%	16%	10%	5%
Mid Cap	S&P 400	46%	31%	42%	20%	6%
Small Cap	S&P 600	45%	20%	26%	9%	6%
Real Estate	S&P U.S. REITs	32%	54%	48%	27%	18%
International Equity:						
Intl. Equity	S&P 700	34%	21%	19%	11%	6%
Intl. Small Cap	S&P Developed Small Cap	40%	45%	38%	29%	13%
Emerging Market	S&P/IFCI Composite	23%	27%	17%	16%	4%

Fixed Income Fund Category		1-year	3-Year	5-Year	10-Year	15-Year
Gov't Long	Barclays Long Gov't	32%	21%	13%	20%	22%
Gov't Intermediate	Barclays Interm. Gov't	11%	20%	0%	12%	22%
Investment Grade Long	Barclays Long Govt/Credit	80%	60%	10%	11%	5%
High Yield	Barclays High Yield	59%	64%	37%	30%	18%
Global Income	Barclays Global Aggregate	53%	52%	40%	40%	42%
Emerging Market	Barclays Emerging Market	24%	18%	15%	2%	5%

Source: Standard & Poors Index Versus Active (SPIVA) Report, September 2022.

Growth of the U.S. Listed Exchange Traded Fund (ETF) Market

	2016	2017	2018	2019	2020	2021	YTD 2022	CAGR
# of U.S. Listed ETFs	**1,975**	**2,120**	**2,272**	**2,393**	**2,425**	**2,832**	**3,046**	**8%**
U.S. Listed ETF AUM by Asset Class ($B)								
U.S. Stock	$1,191	$1,569	$1,575	$2,143	$2,641	$3,717	$2,705	15%
Sector Stock	346	433	386	481	618	844	624	11%
International Stock	457	731	666	808	895	1,104	848	11%
Allocation/Balanced	10	12	12	14	20	27	21	14%
Taxable Bond	423	548	616	794	1,021	1,170	1,109	18%
Municipal Bond	24	30	36	48	64	82	86	25%
Alternatives	43	51	44	56	92	165	139	23%
Commodity/Other	61	67	64	83	144	137	129	14%
ETF AUM	**$2,555**	**$3,440**	**$3,400**	**$4,427**	**$5,495**	**$7,246**	**$5,661**	**15%**
U.S. Listed ETF Net Fund Flows by Asset Class, Year to Date ($B)								
U.S. Stock	$140	$143	$147	$135	$126	$385	$187	
Sector Stock	30	39	6	(2)	71	105	(19)	
International Stock	11	149	60	28	28	169	60	
Allocation/Balanced	1	2	1	0	2	5	0	
Taxable Bond	86	121	91	145	195	188	108	
Municipal Bond	6	6	7	10	14	21	14	
Alternatives	3	4	5	3	14	33	50	
Commodity	10	2	1	7	40	(5)	2	
ETF Net Fund Flows	**$289**	**$466**	**$318**	**$326**	**$492**	**$900**	**$403**	
U.S. Listed Fund AUM by Type ($B)								
US Listed ETFs	$2,555	$3,440	$3,400	$4,427	$5,495	$7,246	$5,661	15%
US Listed Mutual Funds	12,396	14,654	13,571	16,325	18,137	20,818	15,619	4%
Total Fund Assets	**$14,951**	**$18,094**	**$16,971**	**$20,752**	**$23,632**	**$28,064**	**$21,280**	**6%**
ETF Market Share	**17.1%**	**19.0%**	**20.0%**	**21.3%**	**23.3%**	**25.8%**	**26.6%**	
Top U.S. Listed ETF Sponsors by AUM ($B)								
Blackrock/iShares	$983	$1,351	$1,345	$1,718	$2,025	$2,471	$1,723	10%
Vanguard	612	855	856	1,148	1,509	2,069	1,722	20%
State Street/SPDRs	502	622	572	718	845	1,109	881	10%
Invesco/PowerShares	110	139	169	226	296	408	316	20%
Schwab	60	99	115	164	199	272	232	27%

Source: Morningstar Direct and Blue Edge Capital. ETF data includes ETFs and ETNs.

(1) Blue Edge Capital, LLC (BEC) is an independent investment management firm, registered under the Investment Advisers Act of 1940, serving private investors, family offices, foundations, and institutional investors. BEC employees own 100% of the firm.

(2) Investing in BEC Portfolios involves risks, including the potential for loss of capital. BEC's investment strategies are focused on investment in exchange traded funds (ETFs) that hold domestic and international equities, fixed income, real estate, commodities, precious metals, currencies, cash, and other instruments. BEC's investment strategy includes making tactical asset allocation decisions among asset classes with the goals of improving investment performance and managing risk through the economic cycle. Asset classes and proportional weighting in the BEC Portfolios may change at any time without notification based on the discretion of the BEC Investment Committee, which is responsible for all tactical asset allocation decisions for BEC's investment Portfolios.

(3) The returns generated by the BEC Portfolios are subject to numerous risks, including economic, social, and political uncertainty, market volatility, foreign currency exchange rate volatility, and tracking error versus an underlying index. ETFs that hold fixed income securities are also subject to default risk and interest rate risk of their underlying holdings. Investments in ETFs that own foreign assets may incur greater risks than domestic investments. The actual return performance of any ETF may deviate from the returns of the underlying index it is intended to replicate. There can be no assurance that the investment objectives of any Portfolio managed by BEC will be achieved. A complete list of returns for all BEC ETF holdings is available upon request.

(4) BEC began formally tracking the performance of its Global Portfolios as of January 1, 2011, its Traditional Portfolios as of January 1, 2017, and its ESG Portfolios as of July 1, 2018 (Equity and Balanced) and July 1, 2021 (Growth and Growth & Income). Portfolio composite returns for each portfolio are presented on a time-weighted, size-weighted total return basis using monthly portfolio valuations. The composite returns for each Portfolio presented herein include all eligible BEC accounts. To be eligible for inclusion in the BEC composite, an account must be fee paying, fully discretionary, and not part of a broker wrap program. All returns are expressed in U.S. Dollars and are presented net of all fees and expenses, including the fees of the underlying ETF sponsors. The returns reflect the reinvestment of all dividends and interest. As a result of technological enhancements to our performance reporting system, BEC began accruing dividends as of September 1, 2018, and accrued dividends are included in our portfolio composite performance as of that date. The return information presented herein is preliminary and has not been audited or otherwise verified by an independent accounting firm, and past performance of any BEC portfolio does not guarantee future results. For the launch date of the ESG portfolios (June 30, 2018), we used NAV pricing for the following ESG Portfolio holdings (tickers ESGU, JUST, ESML, ESGD, ESGE, and SUSB) to provide more accurate performance measurement.

(5) The data for portfolio turnover, current portfolio positioning, and return performance of individual asset classes within each BEC portfolio are based on a representative composite account that remained invested since inception. Asset class returns are presented net of the underlying ETF fees and all trading costs but before any BEC management fee, which is deducted from accumulated cash in the portfolio. The asset class benchmark for BEC global fixed income is a blended benchmark comprised of 80% Bloomberg U.S. Aggregate Bond Index and 20% Bloomberg Global Aggregate Bond Index (ex-U.S.), rebalanced monthly.

(6) The performance of each BEC Portfolio is tracked against one or more performance benchmarks, which have been selected as reasonable proxies for the investment strategy of that portfolio and which are provided for informational purposes only. These benchmarks are rebalanced on a monthly basis, and the actual tactical asset allocation of any BEC portfolio may differ significantly from the composition of its respective benchmark indices at any given time. These benchmarks, which are summarized in the following data table, are not directly investable and do not reflect the deduction of any investment management fee or transaction costs.

	Benchmark Component Weighting					
	MSCI ACWI	Russell 3000	MSCI ACWI (xUS)	Bloomberg U.S. Aggr. Bond	Bloomberg Global (xU.S.) Aggr. Bond	Bloomberg Commodity
Global Passive Benchmarks						
Global Equity	100.0%	--	--	0.0%	--	--
Global Growth	80.0%	--	--	20.0%	--	--
Global Balanced	65.0%	--	--	35.0%	--	--
Global Growth & Income	45.0%	--	--	55.0%	--	--
Global Style Benchmarks						
Global Equity	--	45.0%	45.0%	--	--	10.0%
Global Growth	--	37.0%	37.0%	13.0%	3.0%	10.0%
Global Balanced	--	30.0%	30.0%	24.0%	6.0%	10.0%
Global Growth & Income	--	20.0%	20.0%	40.0%	10.0%	10.0%
Traditional Benchmarks						
Traditional Equity	--	80.0%	20.0%	--	--	--
Traditional Growth	--	64.0%	16.0%	20.0%	--	--
Traditional Balanced	--	52.0%	13.0%	35.0%	--	--
Traditional Growth & Income	--	40.0%	10.0%	50.0%	--	--
ESG Benchmarks						
ESG Equity	--	70.0%	30.0%	--	--	--
ESG Growth	--	56.0%	24.0%	20.0%	--	--
ESG Balanced	--	50.0%	20.0%	30.0%	--	--
ESG Growth & Income	--	35.0%	15.0%	50.0%	--	--

(7) BEC charges an annual investment management fee on all managed accounts, and the firm's standard fee schedule is as follows: 0.75% on the first $5,000,000 of assets, 0.65% on the next $5,000,000, and 0.50% on assets over $10,000,000. Fees and minimums are negotiable, and some clients may pay less than the standard fee.

(8) The material provided herein is presented for informational purposes only and is based on information from a variety of sources that we consider reliable, including Standard & Poors, MSCI Barra, Morningstar, Alerion, Russell Investments, Goldman Sachs, J.P. Morgan, Deutsche Bank, Merrill Lynch, Charles Schwab, X-Rates.com, CNBC, Dow Jones, Tamarac, and Portfolio Center. BEC does not represent that the information is reliable or complete.

(9) The opinions expressed herein are current opinions as of the date appearing on this material only. All portfolio holdings are as of September 30, 2022.

(10) This report is neither an offer to sell nor a solicitation of an offer to buy any securities. Blue Edge Capital, LLC's most recent Forms ADV I, II, and III are available upon request to BEC or directly at the SEC website www.sec.gov.

(11) For more information, please visit our website (www.blueedgecap.com) or call us directly at (804) 673-7401.

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