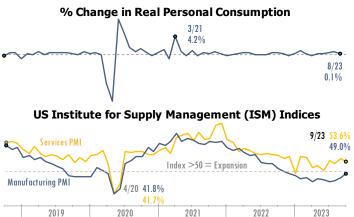


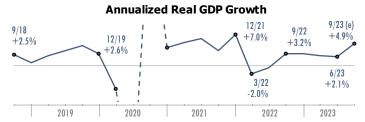
The US Economy: "Fed vs. Balance Sheet Bears"

Real economic growth in Q2 held steady at a 2.1% annualized pace, down slightly from Q1 (2.2%). A modest deceleration in consumer spending was mostly offset by an upturn in business inventory and other investment accounts.

Incremental data points to a strong third quarter, with personal consumption expenditures beating the estimates and business spending remaining relatively strong. The widely fol-

lowed "GDPNow" model published by the Atlanta Fed forecasts Q3 growth surging to a 4.9% pace as of press time. Consensus estimates are softer, as are other nowcast models, and GDP micro-forecasting models can swing widely based on





single new data points. Pundits on Wall Street are largely clinging to their expectations for recession, while pushing the timing out to mid-2024 and beyond.

Consumer spending has remained steady despite the impact of inflation and higher financing costs, with only 3 slightly negative months in the last 20. On the one hand, spending has been supported by record-low unemployment and upward pressure on wages. On the other hand, consumer credit has become more strained, and the personal savings rate has declined from its May peak.

Business financing may be of greater concern to the bears, particularly for companies with significant floating-rate exposure. Broadly speaking, business conditions for manufactur-

ers are improving, with the ISM Manufacturing PMI arresting its decline and posting 3 positive months through September. But fortunes are never spread evenly; all firms are feeling pressure on the balance sheet, but not all firms are participating in the growth surge. Many have not been successful in adapting to post-COVID realities and are not in industries buoyed by runaway federal spending. That sets the stage for restructurings and defaults, a central feature of most bear forecasts. So far, the bond market has shrugged off warnings from the Street – high yield credit spreads remain very narrow.

The Fed is concerned about financial strain from very tight monetary policy, but remains unconvinced that inflation is acceptably controlled. At their September meeting, FOMC participants expressed a strong consensus for one more rate hike in 2023, followed by modest rate cuts in 2024. Through this plan, the Fed seeks to maintain stable, positive real interest rates while reducing nominal rates as core inflation declines. Bears stress that the impact of higher rates on less wellpositioned businesses is cumulative, and that many will not survive an extended period of waiting and watching by policymakers. They also note externalities that could easily derail the fight against inflation, including rising energy prices, geopolitical conflict, and labor unrest.

Fair points, but Chairman Powell summarized the Fed's position thus: "It can be a miserable period to have inflation constantly coming back and the Fed coming in and having to tighten again and again. So the best thing we can do for everyone, we believe, is to restore price stability. I think now, today, we actually ... have the ability to be careful at this point and move carefully, and that's what we're planning to do." Who has it right, the Federal Reserve or Balance Sheet Bears? Most likely, both.

9/23 Survey of Fed Board Members & Bank Presidents

	Median		Range					
				Longer				Longer
	2023	2024	2025	Run	2023	2024	2025	Run
Change in Real GDP	2.1	1.5	1.8	1.8	1.9-2.2	1.2-1.8	1.6-2.0	1.7-2.0
Unemployment	3.8	4.1	4.1	4.0	3.9-3.9	3.9-4.4	3.9-4.3	3.8-4.3
PCE Inflation	3.3	2.5	2.2	2.0	3.2-3.4	2.3-2.7	2.0-2.3	n/a
Fed Funds Rate	5.6	5.1	3.9	2.5	5.4-5.6	4.6-5.4	3.4-4.9	2.5-3.3

Diffusion Index of Participant Risk Weightings

Growth			Unemployment			Inflation		
Downside	Balanced	——— Upside	Downside	Balanced	Upside	⊢ Downside	Balanced	Upsido

The US Bond Market

Fed hawks and bull investors proliferated in the first half of 2023. Q3 added a rare treat for market zoologists: a bear steepener (rates climb but more so at longer-dated maturities). The past two sightings (2009 and 2020) portended good fortune for pro-cyclical investors, marking renewed economic growth. On closer inspection, this is an uncommon specimen even among its ilk, a "quadruple bear inverted steepener." Though the comical name is not worth explaining, its relevance is. The last sighting was around 1980. After 2 years of freaking investors out, QBIS returned to its cave to hibernate for the subsequent 40-year bond bull market, peeking out just briefly during the Global Financial Crisis in 2008.



Bear steepening could impact defined benefit plans in particular because unexpected changes in the yield curve may result in unexpected profits or losses between the present value of liabilities and hedging assets. Many pension plans own excess duration in one part of the curve and are underweight exposure to another part of the curve due to practical concerns like liquidity, yield, and efficiency. Few expected the yield curve to be shaped in the manner it is today.

US Bond Index Returns				
Bloomberg Idx	<u>3Q23</u>			
Aggregate	-3.23%			
Short Gov't	1.13%			
Interm. Gov't	-0.78%			
Long Gov't	-11.79%			
TIPS	-2.60%			
Municipal	-3.95%			
Interm. Credit	-0.92%			
Long Credit	-7.23%			
High Yield	0.46%			
(CS) Lev. Loan	3.37%			
MBS	-4.05%			

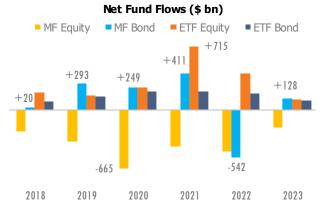
Anything with significant duration exposure performed poorly this quarter. High yield bonds managed to produce a positive return due to their yield advantage and muted action in credit spreads. Long duration government bonds posted a sharp loss. The yield on the 10-Year Treasury note peaked at 4.61% days before the quarter end, adding 80 bps to the key rate from end of Q2. Quantitative tightening may have contributed to this. T. Rowe Price expected QT to add 30 bps to the 10-year yield as \$900 billion of bond purchases unwound this year.

Yet, the majority of the move reflected a reluctant acceptance that the Fed is going to remain hawkish and continue to consider additional rate hikes rather than look to cut rates as soon as inflation appears under control. While this is true, the Fed is also transparent about where they expect rates to eventually land: near 2.5% in the "longer run." Even if that ambiguous time horizon were a full 5 years away, it would be difficult to justify the 10-year breaking through a 5% yield. A basic math check reveals that would impute an average yield of more than 7.5% in the immediate 5 years. Perhaps the bear steepener has already overstayed its welcome.

For much of the quarter, investors exhibited cautious optimism. Inflation continued its cooperative gradual decline. High yield spreads traded 20 bps tighter for most of the quarter compared to where they started and ended. Then the Fed hike in September, though expected, came accompanied by hawkish rhetoric from Chairman Powell, serving a fulcrum to the subsequent modest selloff. Despite the gloom that has descended upon markets since, US investors' biggest problem still appears to be that the economy is just too resilient to gently tip into a mild recession. This is not bad for bond investors, who might avoid most of the pain anticipated from higher financing rates imperiling companies with fragile balance sheets.

"...rising interest rates, bleaker economic outlook, weakening credit quality are setting the stage for speculative-grade downgrades and defaults..." reported Moody's last October. Despite this, investors may be unfairly dismissing a compelling opportunity to diversify increasingly equity-laden portfolios. The report had forecast a 4.8% non-financial corporate default rate that didn't materialize; S&P is now predicting a 4.5% speculative-grade default rate by June 2024.

Fixed income mutual fund flows (excluding money market funds) are net flat since the end of 2020. Money market funds have experienced roughly \$500 billion of organic growth since Q3 2022 as investors flock to attractive yields with little duration; they may regret lacking duration during the next flight to safety. Bond ETFs



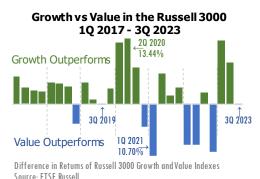
raised assets, but have not seen accelerated uptake. The asset class once most comfortable to retail investors has become alien and untrusted. Investors aged 21 to 42 are instead allocating more to alternatives (commodities, real estate, crypto-currency, and tangible assets) [Fortune]. While yields, credit spreads, and default rates may continue to increase, investors seem imprudently dismissive of bond funds based on a popularized outlook, failing to recognize the relative improvement a higher allocation to bonds could give portfolios that have drifted away from fixed income as a core fixture.

The US Stock Market

Despite solid performance in July, US stocks posted negative returns across the major benchmark indices for Q3 as a whole. Surging Treasury yields and a strong dollar challenged stocks, as concerns about inflation resurfaced. With yields moving up, rate-sensitive areas of the market (utilities and real estate) were hit hard.

The quarter saw a marked rotation from growth to value in the small cap space, especially in July and September. However, in large caps, an August spike in some tech names drove outperformance in growth to offset the other two months, and quarterly returns for large cap growth and value were the closest they have been since 2019.

US Stoc	US Stock Indices - Total Returns					
Largecap Stocks	3Q23	Midcap Stocks	3Q23			
S&P 500	-3.27%	S&P Midcap 400	-4.20%			
Russell 1000	-3.15%	Russell Midcap	-4.68%			
Growth	-3.13%	Growth	-5.22%			
Value	-3.16%	Value	-4.46%			
Broad Markets		Smallcap Stocks				
S&P 1500	-3.36%	S&P Smallcap 600	-4.93%			
Russell 3000	-3.25%	Russell 2000	-5.13%			
Growth	-3.34%	Growth	-7.32%			
Value	-3.15%	Value	-2.96%			



Energy significantly outpaced all other sectors. After Saudi Arabia announced a unilateral oil production cut of 1 million barrels/day, the resulting reduction in an already tight supply had oil prices nearing \$100/barrel by the end of September. Higher prices felt across the US economy added to inflation concerns, contributing to the market's quarterly losses. Communication services was the only other S&P 500 sector to post a positive return. Alphabet played a major role in the sector's success as investors focused on Q2 results that beat expectations rather than the looming antitrust trial.

The quarter was not without anomalies. In August, the Russell 1000 Telecommunications Index posted a surprisingly strong return of 10.2%, compared to a -0.4% return in the S&P 500 Communications Services Index. This outstripped

even the Russell 1000 and S&P 500 energy indices, which came in at 1.5% and 1.8% for the month, respectively. The shining (but brief) performance was largely attributable to Arista and Cisco, networking equipment providers that are two of the eight Russell 1000 Telecommunications constituents classified as tech stocks from an S&P perspective.

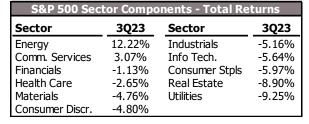
It continued to be a challenging environment for actively-managed strategies. The spread in performance between the best and worst sectors was again quite large at over 20% for the quarter. The influence of the market dominators (now referred

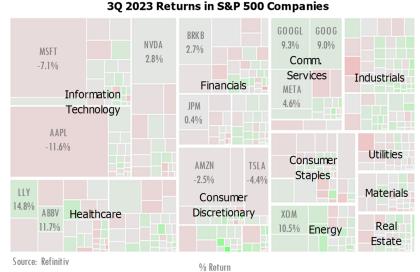
to as the Magnificent Seven) also diverged, with only Alphabet and Meta carrying their sector to the top of the table as the others were more (Apple and Microsoft) or less (Amazon, Tesla and Nvidia) a drag.

After achieving a record-setting \$3 trillion in market cap at the close of Q2, Apple experienced major selloffs in August and September. While the first appeared to be triggered by the company's report of a third straight quarter of declining sales, the second hit came as China banned

the use of iPhones at government agencies. China is a major market for Apple, representing about 19% of its overall revenue [Wall Street Journal].

Q3 EPS estimates for S&P 500 companies on an aggregate basis rose to -0.1% YoY from -0.4% YoY at the beginning of the quarter. If this materializes, it will be the fourth quarter in a row that the index has reported a decline. Consumer discretionary and communication services firms are again projected to experience the largest earnings growth, while energy and materials are expected to report the largest declines. (Despite the recent run-up, the average price for oil in 3Q 2023 is still below its average price in 3Q 2022.) Without the energy sector, earnings growth in the S&P 500 would be projected at 5.2% YoY [FactSet].





10 20

-30 -20 -10

International Markets

Stocks and bonds fell as the world continued to grapple with high inflation, rising energy prices and a weaker-than-expected recovery in China due to structural issues in the property sector. Global markets proved more resilient than expected in the first half of 2023, helped by lower energy prices and the reopening of China, but the growth outlook remains weak. While headline inflation has been falling, core inflation remains sticky driven by the services sector and tight labor markets.

Unhedged Foreig	Unhedged Foreign Markets Indices - Total Returns					
<u>Stocks</u>	3Q23	Bonds	3Q23			
MSCI ACWI ex-US	-3.77%	Global Aggregate	-3.59%			
EAFE (Developed)	-4.11%	Pan-Euro	-4.33%			
Emerging Markets	-2.93%	Asian-Pacific	-3.40%			
Europe	-4.96%	Eurodollar	-0.46%			
Japan	-1.59%	Euro-Yen	-4.82%			
China	-1.94%	Other Currencies	-4.51%			
Latin America	-4.75%					

Asia

China's second-quarter GDP expanded by 0.8%, a much slower pace than the first quarter's 2.2% growth. However, third-quarter data hints that the country's suffering economy may have turned the corner. Consumers started spending more freely, helping move inflation above zero in August after going into deflationary territory in July. Retail sales jumped more than expected; spending on activities such as eating out, going to the movies, and traveling drove a revival in growth earlier this year and continues to do so.

China				
Y/Y Statistics	6/2023	7/2023	8/2023	
Manufacturing PMI	49.0%	49.3%	49.7%	
Non-Manufacturing PMI	53.2%	51.5%	51.0%	
Industrial Output	4.4%	3.7%	4.5%	
Unemployment	5.2%	5.3%	5.2%	
Producer Price Index	-5.4%	-4.4%	-3.0%	
Consumer Price Index	0.0%	-0.3%	0.1%	
Retail Sales	3.1%	2.5%	4.6%	
Exports	-12.4%	-14.5%	-8.8%	
Imports	-6.8%	-12.4%	-7.3%	
Source: National Bureau of Statistics of China				

Labor market conditions appear to be improving, as the unemployment rate dropped for the first time since April. Youth unemployment among 16 to 24-year-olds, continues to be a sore spot. In June, it hit a record of 21.3%. Since then, the government stopped publishing the figures.

Industrial output accelerated in August, with the manufacturing PMI recording a fourth straight monthly improvement, but remaining in recessionary territory. The non-manufacturing PMI, which includes services and construction, has been declining since March.

In the latest sign of concern about the softening growth momentum, China's central bank lowered the amount of reserves commercial banks

must hold against deposits. The move followed several easing measures in recent weeks, like lowering mortgage rates and upfront payments for new home buyers, aimed at boosting home sales. However, there has been no improvement so far. New home starts in the first eight months of 2023 fell by almost a quarter from a year earlier and home prices continue to fall in major cities.

To make things worse for the real estate sector, staff at China Evergrande's wealth management unit was detained by the authorities, leading investors to sell off real estate shares. Then, the company suspended trading in the stock of its three publicly traded subsidiaries, bringing the markets further down. In the third quarter, the CSI 300 index realized a -3.98% return, another decline after the first quarter's -5.15%. Once China's top developer, Evergrande's problems surfaced in late 2021 after missing 2 offshore bond coupon payments of \$131 million. Since then, the company and a number of its peers have defaulted on other offshore debt obligations as home sales have slowed and sources of capital have dried up, triggering fears of a wider contagion that could spread to China's banks.

It is expected that economic activity may improve further as interest rate cuts and housing-related policies may eventually show a positive impact. However, given extremely high youth unemployment, only modest contribution from consumption, and shocks from the bursting of the real estate bubble, the recovery is still not guaranteed. Whether and how soon the suffering real estate market can stabilize will remain the biggest factor in the strength of the recovery, as the real estate sector, at one point, accounted for as much as a quarter of the country's GDP.

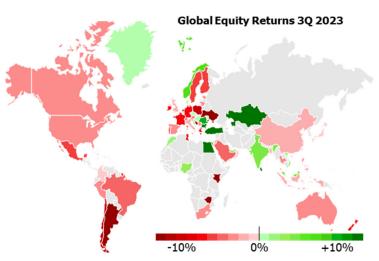
Japan's economy grew for a 3rd consecutive quarter in Q2, but economists expect that GDP will show a slowdown in Q3. As evidence, the BoJ maintained its ultra-loose policy and left rates unchanged as the quarter closed. Its policy statement released after the meeting said the BoJ would maintain short-term interest rates at -0.1% and cap the 10-year Japanese government bond yield around zero to continue stimulating the economy. Japan's monetary policy remains an outlier among major central banks which have raised rates over the last 2 years to control inflation. The resulting policy divergence has caused the yen to fall against the US dollar, weakening around 11% year-to-date near quarter end.

As the quarter closed, Prime Minister Kishida unveiled a new stimulus package expected to be completed in October to help ease the sting of higher prices and boost wages. It is expected to contain measures to protect consumers from cost-push inflation, encourage sustainable wage and income growth, stimulate domestic investment, and encourage infrastructure investment. This package represents a departure from prior packages, which tended to focus on cost cutting.

Americas

Canada's economy unexpectedly contracted 0.2% in Q2, and growth was expected to be flat in July. This allowed the central bank to hold up on further rate increases. The BoC had forecasted 1.5% annualized GDP growth, but the reading indicated that the economy may have already fallen into a modest recession. With its benchmark rate at a 22-year high of 5%, housing investment continued to fall. Led by a sharp drop in new construction and a decrease in renovation activity, this was the fifth consecutive quarterly decrease.

Mexico, Latin America's second largest economy, showed headline inflation at 4.4% in September, down from 4.6% in August. Banxico, Mexico's central bank, raised its economic growth forecasts for 2023 and 2024, but remained firm that a cut to the country's record-high interest rate



was not imminent. The central bank raised its 2023 growth forecast to 3.0%, up from 2.3% in its previous report. It also revised the 2024 growth forecast to 2.1%, up from 1.6%, pointing to Mexico's strong labor market and domestic spending as contributors to the country's economic resilience.

The Brazilian economy got off to a faster-than-expected start, supporting recent upgrades to full year GDP growth forecasts. Data has shown a much stronger economy since the start of the year, so much so that the central bank began an easing cycle in August. After keeping it unchanged for nearly a year to combat high inflation, Brazil lowered its key interest rate 100 basis points to 12.75%. The economy has been helped by the strength of its agriculture business and natural resources industries, and has benefited from household demand.

Europe

The eurozone economy is expected to show a contraction in the near-term as the dampening effect of the ECB's rate increases impact the economy. PMI rose to 47.1 in September coming off a 33-year low of 46.7 in August. However, the reading remains below 50, which indicates economic contraction. Recession fears have begun to rise again in Europe, similar to late 2022 into early 2023, but weakness is more broad-based this time rather than mostly in Germany due to high energy prices. Eurozone inflation fell to 5.2% in August, half of the peak level of 10.6% in October of last year.

The EU lowered its forecast for economic growth this year and for 2024, claiming inflation is weighing on consumer spending while higher rates are restricting the availability of credit needed for investment and purchases. The 20 countries that use the euro are expected to see growth of 0.8% in 2023, down from a projected 1.1% last spring. Growth projections for 2024 were lowered to 1.3%. A statement from the European Commission said, "Weakness in domestic demand, in particular consumption, shows that high and still increasing consumer prices for most goods and services are taking a heavier toll than expected." Despite low growth, unemployment is at record lows and wages are closing the gap of purchasing power lost to inflation as workers demand and get more.

Global policy tightening may have peaked in 2023, but major central banks have indicated that they will continue to keep interest rates as high as necessary to break inflation. The ECB increased its key interest rate to 4% this year, slowing the economies of most euro countries. Europe's largest economy, Germany, experienced a decline in demand for goods and services. In France, the services sector contracted more sharply in September than August as decreases in demand and new orders pressured Europe's second largest economy.



Long-dated eurozone bond yields rose late in the quarter as investors come to terms with the new "higher-for-longer" interest rate stance of the major global central banks. Germany's 10-year government bond yield rose to 2.79%, its highest level since July 2011. Italy's 10-year bond yield was up to 4.65%, hitting its highest since December 2022. The closely watched spread between Italian and German bonds was 1.85%, the widest gap since May. The spread between German and Italian 10-year government bonds is often seen as an indicator of the perceived risk and economic health of the Eurozone. A widening spread may be a precursor to an economic downturn.

Focus On: Active Management - Not Dead Yet

Every year, actively managed mutual funds lose market share to passive funds. Active strategies represent a majority 61%, but dwindling, share of global fund assets [Morningstar]. As of 1997, active mutual funds investing in US equities boasted assets seven-fold their passive peers. Despite a massive head start in this marathon, passive overtook active in 2019 and is now far in the lead 26.2 years later. Fueling this shift is the eagerness for simple, effective solutions, and the oversimplified truism that mutual funds tend to outperform their benchmark index gross of fees but underperform net of fees.

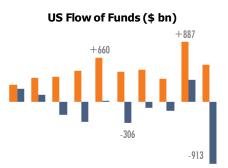
Truisms are hard to win against, being true and all, but how true is this pervasive belief?

Rationally, a higher expense ratio should provide the manager with more money to attract and retain top talent, fund technology and research budgets, and staff robust teams of analysts. Yet, there is no guarantee that money is spent wisely or strictly to benefit investors. Superbowl ads and Carrara marble aren't free.

And how much do expense ratios matter to the manager when assets under management might vary from \$1 million to \$1 trillion? Expense ratios impact investors directly but the AUM matters more to the manager's top line. This incentivizes fund families to gather and retain assets – taking risks while assets are low in order to attract investors, and becoming more conservative when they have more assets to lose. It is a system that naturally limits alpha generation.

Dissecting expense ratios is a dead end for empirical research. There are too many complicating factors. For example, a strategy with small AUM may be supported by resources paid for by other strategies under the same fund family. Instead, the more tractable question is when should you hire an active manager?

It depends.

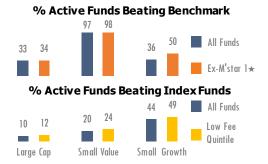




Improving the Odds of Success

As we disaggregate the investment universe into meaningful categories, evidence appears favoring the effectiveness of active management and active manager selection. For example, Saha and Rinaudo's 2015 article which showed that, in the 20-year trailing period, active US equity and fixed income funds lagged passive funds in these two categories net of fees. However, international equity active strategies outperformed. The authors ascribe this to market inefficiencies. They also show that large AUM funds outperformed smaller funds due to economies of scale, including associated lower fees.

Academic literature debates the merits of active management and seems unlikely to reach concrete consensus. A 2012 study by Blitz and Huij concluded that most of the outperformance of actively managed funds can be attributed to fund exposures to systematic factors, such as small market cap, value, and momentum. However, Berk and Binsbergen (2014) show the average manager is skilled, investors are able to identify and reward this skill, better funds collect higher aggregate fees, and fees correlate positively with future added value. Bird, Pellizzari and Yeung (2011) demonstrate that more aggressive managers, with larger active overweights, tend to derive more alpha through reduced downside market capture. Also, they determined value managers tend to generate significant alpha from market timing through tactical cash allocation.



A study by Neuberger Berman compares success rates (whether more or less than 50% of funds beat their benchmark after fees) across common investment categories (e.g., large cap value) from 1998 to 2018. Blind fund selection (including many high-cost retail "A" share classes) produces bleak results, far below 50% in most categories. After excluding funds with a 1-star rating from Morningstar, the success rates increased in many cases or, at worst, stayed the same – either owing to prudent due diligence or a bias against high fees. Though, repeated research from Morningstar shows that avoiding funds with high fees improves manager selection and the results differ (by category) compared to the impact of using Morningstar's ratings.

Success rates vary across categories and time, especially in the short term. For a given quarter, noise dominates over skill and success rate averages will approach 50% gross of fees. As the investment horizon stretches, noise becomes muted but the macroeconomic environment and factor risks become more influential. Measured over multiple market cycles, these too becomes muted and skill perseveres. Mining old data won't accurately predict the future, but it can highlight patterns that may be persistent and grounded in fundamentals. "History doesn't repeat itself, but it often rhymes" – Mark Twain.

To Find Alpha, Know Where to Look

We conducted an analysis of active strategies tracking 35 common indices. Our findings also demonstrate performance variation across categories, but are more flattering overall. Actively managed strategies in the eVestment database (which includes defunct funds) tracking MSCI EAFE Value generated 232 basis points of alpha on an annual basis, gross of fees, on average. With a median institutional fee of 82 bps, investors netted 1.5% per year. Even lower-alpha categories show promise with manager selection skill or a fee advantage.

The most dominant pattern observable is that less efficient universes tend to produce more alpha, even when only parts of the universe are less efficient. This argues for broader mandates like Russell 3000 over Russell 1000 or MSCI ACWI over S&P500, but not for MSCI EAFE over MSCI EAFE Value. Funds tracking Russell 3000 Growth suffered the most deterioration between the first and second decades of this century, while small cap value funds improved the most.

The magnitude of alpha generation possible is partly determined by the volatility of the index, the dispersion of security's returns within the index, and manager adherence to the index (which can be measured by tracking error). The categories' rankings in our study are relatively stable over time and the performance metric used to sort them.

Top & Bottom Performing Categories

Category	Benchmark Index	α	Fee
Int'l Equity	MSCI EAFE Value	2.32	0.82
US Small Cap	Russell 2000 Value	2.38	0.93
US Small Cap	Russell 2000	2.20	0.91
Global Equity	MSCI ACWI	2.03	0.81
EM Equity	MSCI EM	2.02	1.01
			:
US Core Bond	Bloomberg US Agg	0.53	0.60
US High Yield	Bloomberg US HY 2% Cap	0.55	0.63
US Large Cap	S&P 500	0.63	0.88
US Mid Cap	Russell Midcap	0.63	0.88
US Large Cap	Russell 1000 Growth	-0.07	0.72

 α is a 21-year gross-of-fee avg. (eVestment as of 3/31/23) Fees are institutional active fund medians (Morningstar)

Cautionary Tales

In practice, good fund selection is focused on avoiding bad decisions, not making perfect decisions. When presented with similar well-managed funds, there is no way for even a seasoned professional to determine which will post a higher return. As shown earlier, some manager selection skill can arise from operational due diligence and fees. In addition, one fund may fit the objectives of the investor more or serve as a better complement to their existing investments. Some things are within an investor's control, and lax control is likely to land a plan sponsor in pitfalls that can be obvious but easy to ignore.

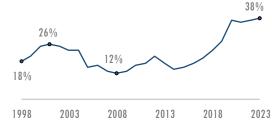
First, avoid overpaying. It is a direct drain on return. It is obvious that you overpaid if you spent fees on a vehicle (e.g., mutual fund share class) that is not the lowest expense ratio available to you for that strategy. This is not hard to avoid, but is complicated by the increasing availability of various vehicle types (e.g., collective investment trusts) and ongoing lack of transparency around recordkeeping revenue sharing credits or how much you are paying relative to other investors. Without conducting regular fee reviews, plan sponsors can easily end up missing out on a valuable opportunity to cut costs.

Second, don't assume that any passive fund you encounter will automatically perform in line with its benchmark index. That is another oversimplification that often works out to be the case but can be very wrong. Neuberger Berman finds that passive diversified emerging markets ETFs have lagged their benchmarks by 90 basis points per year, on average.

Third, adapt to seismic shifts in the fund landscape. Active managers in all categories have faced many tests. The ones that seem hardest for them to overcome are extended runs of concentrated performance, whether it is in single names, sectors, regions, or factors. Large cap growth funds, the laggards in our study, have faced concentrated markets twice in the past

2 decades. The first instance came during the internet bubble, but the Russell 1000 Growth index has grown far more top-heavy post-pandemic (over 40% if you combine Alphabet's two share classes).

In both cases, as either internet stocks of the Magnificent Seven skyrocketed, most of the managers prescient enough to overweight the winners on the way up trimmed or exited the positions as price targets were met or theses played out. Those on the wrong side of the trade generally covered or narrowed their underweights as the pain increased beyond their risk tolerance. In contrast, active EM strategies have fared better this past decade Russell 1000 Growth Top 10 Holdings Weight



as, aside from Russia invading the Ukraine, emerging markets become more like developed markets and amenable to skillful predictions. Investors can benefit greatly from paying attention and adapting to these trends in both where they choose to apply active management and how they screen or select actively managed investment strategies.

The Tortoise or the Hare?

In general, across all categories, finishing in the top decile each year tends to help a manager's long-term fund rank the most. Avoiding the bottom two deciles is almost as important. Also, managers that frequently place in the top 10% often place in the bottom 10%. This suggests targeting a moderate tracking error to trim off the tails, but the effect is not very large.

However, when examining individual categories, we see a much more interesting story. Actively managed S&P 500 funds that place in the lowest quintile on an annual basis are much less likely to achieve a high 20-year peer rank; yet, placing in the top decile annually has almost no correlation with long-term success. Instead, the second quartile achieves the most.

Managers tracking the Russell 2000 Value index who place in the second decile demonstrate the greatest long term success. Also, frequenting the lowest deciles does not seem to present much of a headwind to their long-term rank. So, in this category, investors may want to avoid strategies with modest tracking error and select those expressing higher conviction.

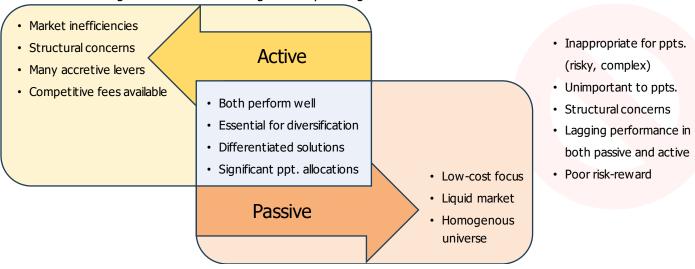
The difference between the S&P 500 and Russell 2000 Value results again highlight the importance of considering the unique characteristics of each investment category. It also demonstrates that even categories with more limited alpha generation potential can be successfully navigated with long-term compounding of modest but consistent outperformance.

Correlates to Higher Rank Correlates to Lower Rank Top 2 3 4 5 6 7 8 9 10 S&P 500 Target Moderate Tracking Error Russell 2000 Value Avoid Moderate Tracking Error Source: eVestment

Annual Decile Rank Correlation to 20-Year Rank

A, B, Both, or Neither

In the most commonly tread categories, investors may choose to hire a passive manager, active manager, both, or neither. It is important to be open to each of these options and re-evaluate the choice periodically. Not every category lends itself well to both passive and active fund management. While passive funds continue to extend their reach, large swaths of the market remain virtually untouched by passive management (e.g., high yield bonds) and new or less liquid regions and asset classes are becoming more accessible through actively managed funds.



Fee compression and wider vehicle availability have made active strategies more affordable. Phenomena like the "meme stocks" (e.g., GameStop, AMC, New Egg) prove that predictably terrible investments persist in supposedly efficient markets. And, 2023 is hinting at a possible turnaround in net flows. Active exchange traded fund ("ETF") net flows picked up relative to passive ETFs. Also, one-third of Morningstar's list of the top 15 flow-winning funds for the first half of 2023 were active mutual funds or active ETFs; for years, no active funds had appeared. Active managers are still kicking.

Bellwether Consulting LLC

PO Box 31, Millburn, NJ 07041

