



PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

FEBRUARY 2021
Active Management Environment

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The active management environment

Our work on active management addresses some shortfalls of the traditional analysis, which uses the median product to describe the active management universe as a whole.

These improvements and insights have allowed us to better understand product behavior and may allow for more informed selection in the future. [For first time readers, an introduction to our active management research and methodological details can be accessed by visiting http://www.verusinvestments.com/wp-content/uploads/2018/01/Active-Management-Supplemental.pdf](http://www.verusinvestments.com/wp-content/uploads/2018/01/Active-Management-Supplemental.pdf). For those familiar with the new approach, please read on.

- Even without skilled selection there are many cases where active management may help investors achieve better portfolio outcomes in risk and return terms.
- Those better portfolio outcomes may come from additional return or lower risk. Not all investors have the same definition of better outcomes, and the risk/return trade-offs vary by universe.
- Adding skilled selection to the process may add additional value in portfolio construction.
- Fees remain an important part of the active management conversation. Fees and survivorship bias should be taken into account when analyzing active universes.

Using median product (median manager) performance to decide whether active management is beneficial can be misleading. This new tool can help investors make more informed decisions.

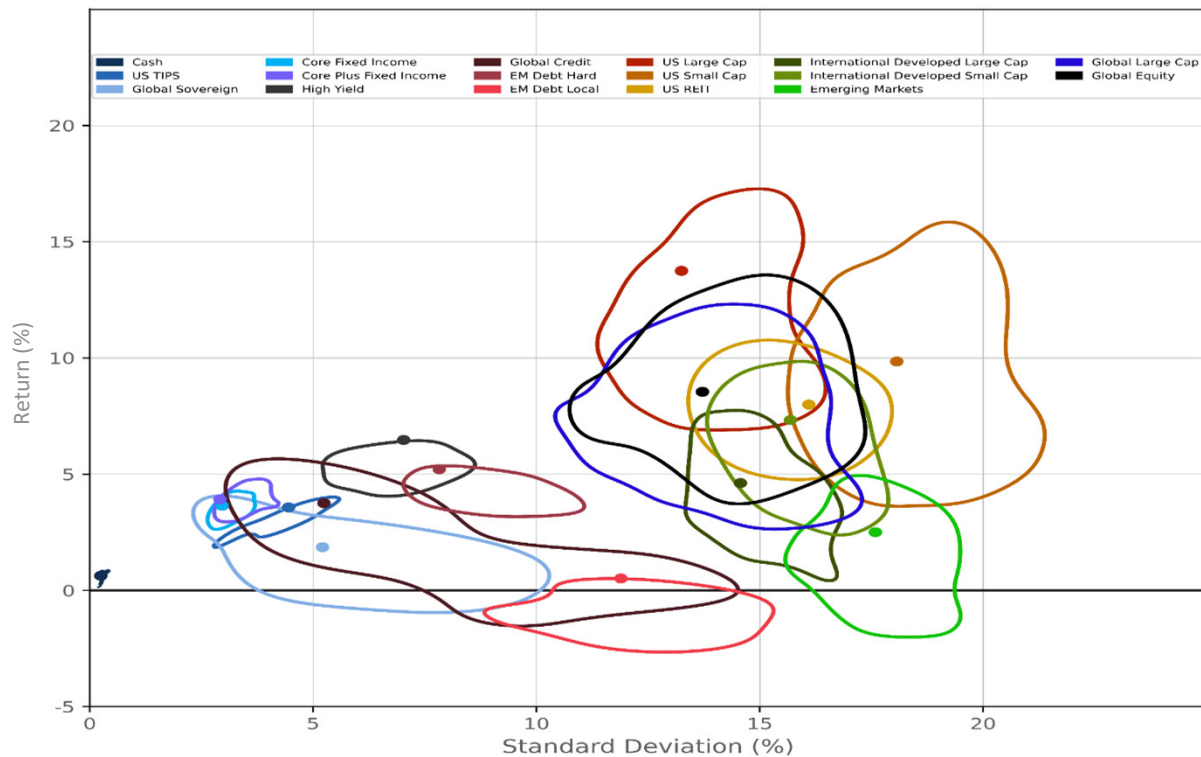
What changed for 2021?

- Equity markets experienced significant volatility in early 2020 due to the COVID-19 global economic slowdown, and businesses were affected in very different ways. For example, while the pandemic led to an unprecedented decline in energy demand and severe losses for the energy sector, an acceleration of online shopping habits provided a windfall for many online retailers. The large divide between winners and losers is evident in active management performance. In this 2021 release, readers will notice much greater return dispersion across each equity universe.
- The global equity active management universe has been added to this year's document. This addition is a reflection of our belief in the case for active global mandates, as well as increasing institutional demand.
- Most active universes in this analysis, during the timeframes examined, suggest that managers who took more risk than the benchmark were not compensated with additional return. Furthermore, in many asset classes there appeared to have been a negative relationship between risk and return (i.e. managers who chose to take more risk than their benchmark underperformed that benchmark, on average).
- Dispersion in certain alternative asset classes, including REITs, picked up markedly, as not all sectors were impacted equally by the fallout from COVID-19. This dispersion appears to have created opportunities for managers to generate alpha. Strategies with concentrated exposure to data center, industrial, and self-storage sectors materially outperformed, while those exposed to the pandemic-stricken office, hotel, and mall sectors faced significant headwinds in terms of benchmark-relative performance.

The true investment opportunity set

Investors often think of the investment opportunity set as a risk-return chart, in the form of single-point (dot) benchmark risk and return, and possibly single-point median product to represent active management. However, active management universes in each asset class often have wide distributions and this traditional analysis misses the true universe characteristics. Much of the risk-return surface between -3% and 17% return and between 1% and 22% volatility is covered by various asset class options, and many parts of this space are covered by multiple active management universes.

RISK-RETURN REGIONS ACROSS ASSET CLASSES: 10-YEAR RESULTS

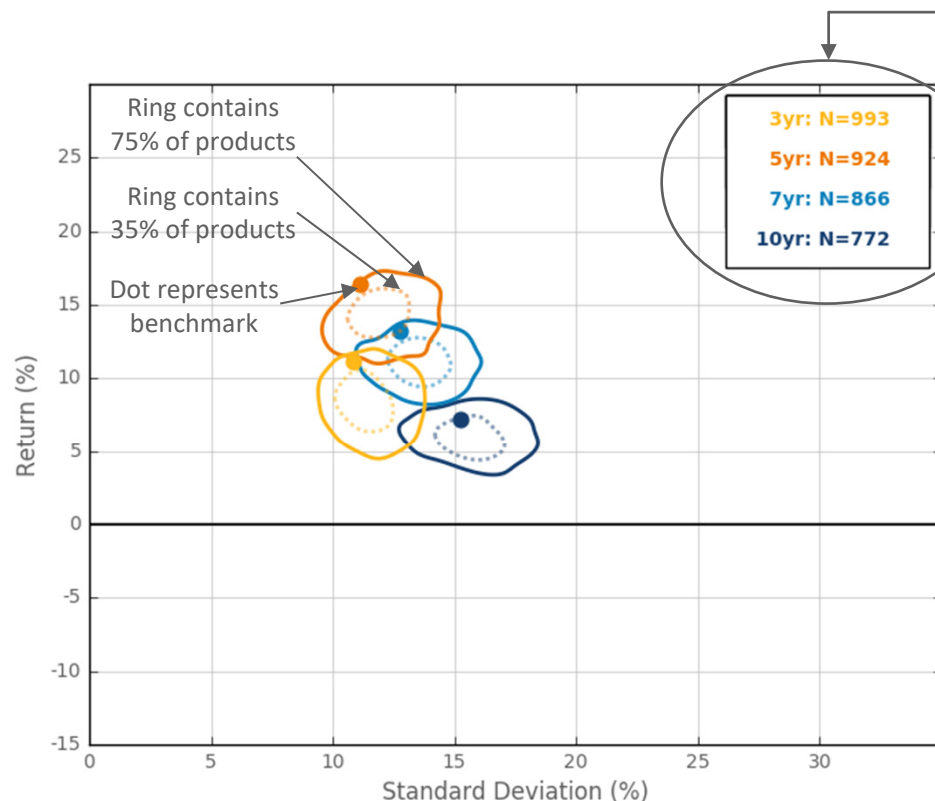


This represents 10-year product performance data and 75% contour areas.

Source: eVestment, Verus, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias.

How to read a universe chart

The movement of the universe, the change in shape and of size all provide information about product behavior.



The number of products included in the analysis provides insight into the robustness of the analysis.

The position of the benchmark relative to the universe may also change through time, representing dynamic structure changes.

Throughout this report each asset class universe chart is placed at the same position on the page, at the same size and with the scales of the axes identical. This allows for easy comparison between universes.

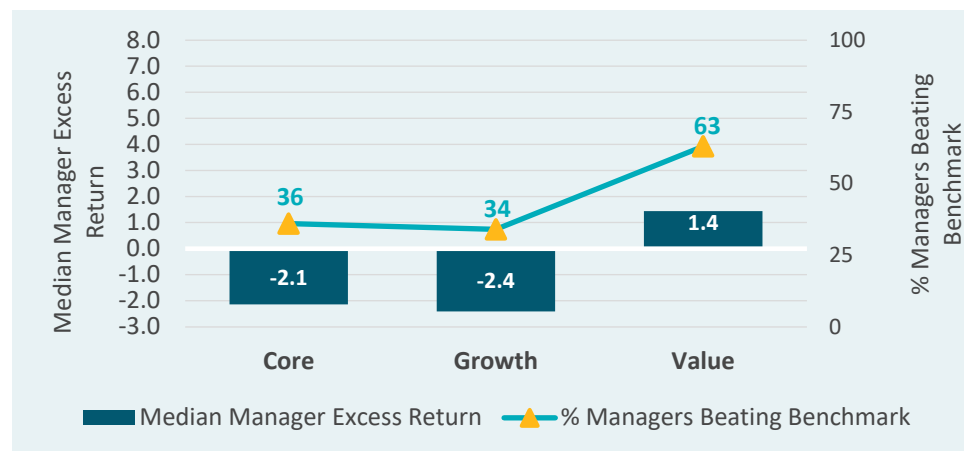
Asset class environments

Note: *Universes are defined at the broadest level. Products vary in terms of style and/or treatment of currency exposure. Equity universe include both value and growth styles. International universes may include both products that hedge currency exposure and products that do not hedge currency exposure.*

Equities – U.S. large cap

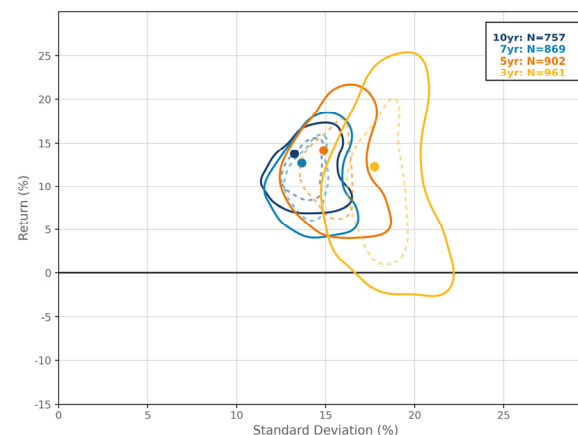
- Over longer time periods, the data suggest that U.S. large cap equity has been a reasonably efficient asset class. That said, over the most recent trailing three-year time period, active managers have been able to produce significantly improved results.
- Over three- and five-year trailing time periods, the data indicate that some managers have been able to generate superior returns at below-benchmark levels of volatility; however, most active products have simply increased exposure to volatility. Over longer trailing time periods, the relationship between increased volatility and achieving additional return does not appear to be a strong one.
- Year-to-date through September 30, 2020, the environment has been challenging for active large cap managers with 36% of core, 34% of growth, and 63% of value products surpassing their respective benchmarks, gross of fees. While growth continues to beat value on an absolute return basis, it is notable that the recent active management environment appears to have been more favorable to value managers.

ACTIVE PRODUCT PERFORMANCE YTD



Source: eVestment, as of 9/30/20, gross of fees

U.S. LARGE

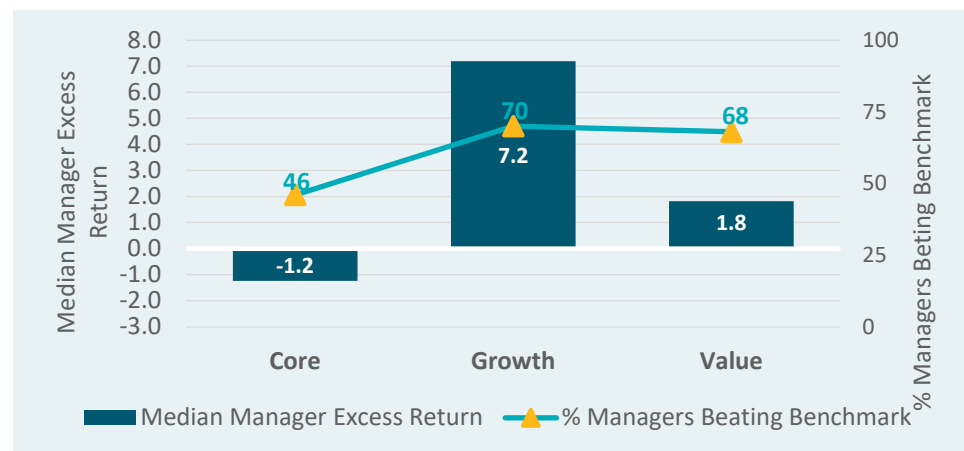


Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the S&P 500 Index

Equities – U.S. small cap

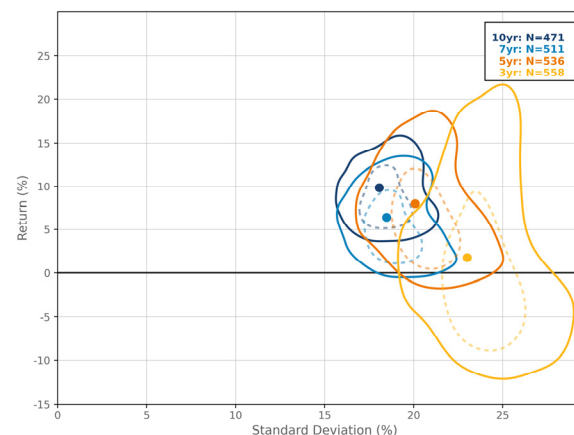
- In contrast to their larger-cap counterparts, the evidence suggests that U.S. small cap managers have been more successful in producing excess return over most time periods. In addition, on a risk-adjusted basis, these managers appear to have done so more efficiently than those in the U.S. large cap space.
- Similar to large cap, the data suggest that more recent trailing time periods (i.e., three-year and five-year) have been more conducive to active small cap manager outperformance.
- Year-to-date through September 30, 2020, the environment has generally been favorable for active small cap managers with 46% of core, 70% of growth, and 68% of value products surpassing their respective benchmarks (versus 55%, 68% and 73%, respectively, last year), gross of fees. In particular, the environment has been especially favorable for active management in small cap growth, with the median manager producing nearly 720 basis points (bps) of outperformance year-to-date.

ACTIVE PRODUCT PERFORMANCE YTD



Source: eVestment, as of 9/30/20, gross of fees

U.S. SMALL

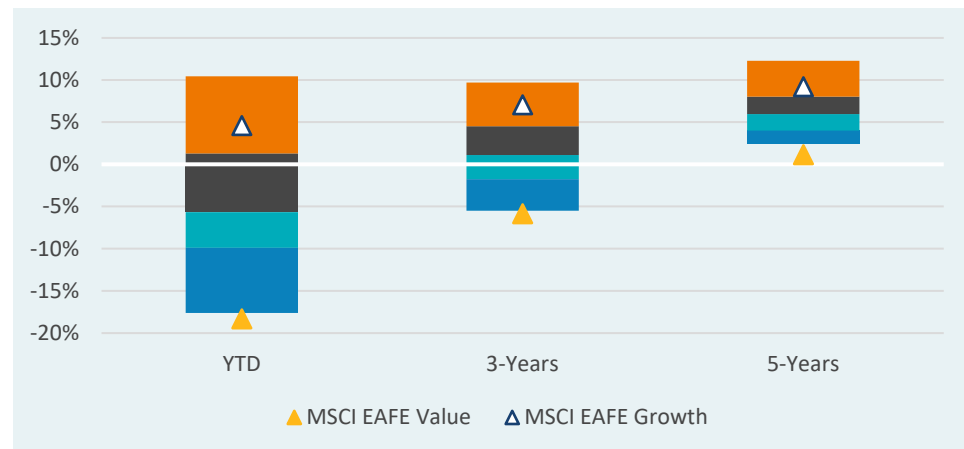


Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the Russell 2000 Index

Equities – International developed

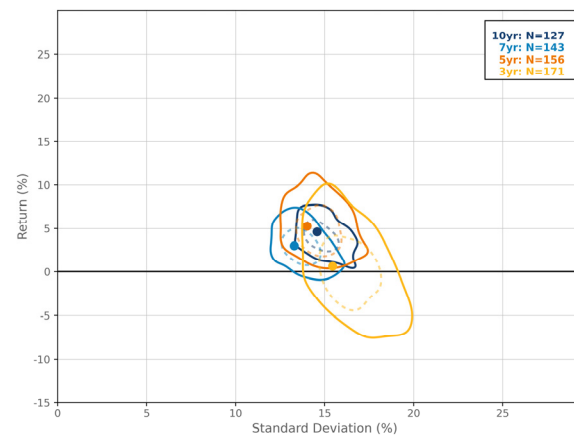
- Over most rolling periods, a significant portion of managers in the non-U.S. developed equity universe have added value relative to their respective benchmarks. The universe exhibited moderate dispersion of results through time, with wider dispersion over the past three years.
- The bottom right chart reflects a generally weak relationship between incremental risk-taking and incremental return among non-U.S. developed equity managers. Specifically, over the 7- and 10-year periods, managers that carried incremental risk relative to the benchmark were left generally uncompensated for that risk.
- During all trailing periods, but particularly the latest three years, a major contributor to the universe dispersion has been value vs. growth style dynamics. Year-to-date through September, the MSCI EAFE Growth Index outperformed the MSCI EAFE Value index by nearly 23%.

EAFE LARGE CAP UNIVERSE – VALUE AND GROWTH



Source: eVestment as of 9/30/20

INTERNATIONAL LARGE

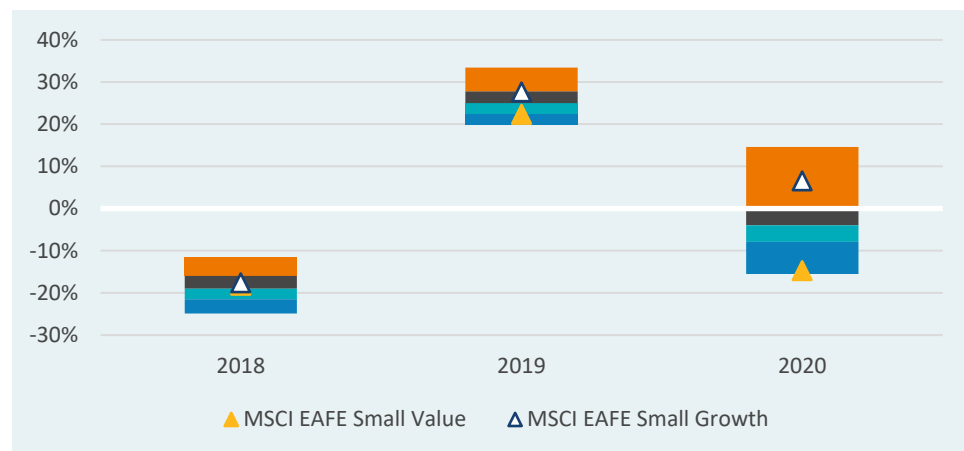


Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the MSCI EAFE Index

Equities – International developed small cap

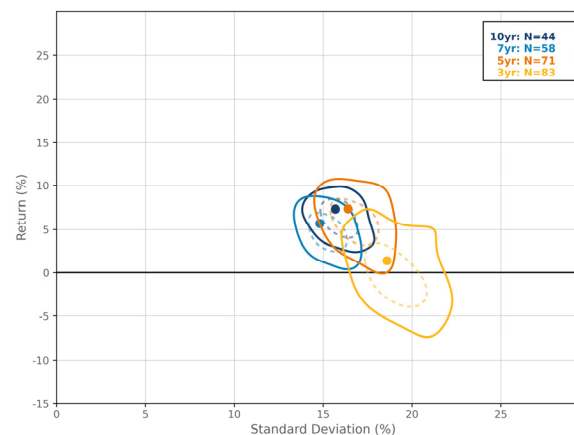
- During short and long time periods, active managers have struggled to add value in the international developed small cap space. The three-year period ending September 2020 saw an unprecedented range of return (including during the 2008-2009 Global Financial crisis), primarily reflecting high levels of volatility within the international small cap universe and a significant share of managers underperforming both on a relative and absolute sense.
- During the latest ten years, there appears to have been a negligible relationship between risk and return for international developed small cap managers. However, the past three years were marked by higher volatility overall. Managers with lower volatility tended to exhibit outperformance, while many managers with higher volatility underperformed.
- The broad range of returns over the past three years reflects the divergence of value and growth styles. This effect was particularly pronounced during 2020. Year-to-date, the international small cap growth benchmark exceeded the value benchmark by over 21%. In contrast, this value-growth divergence was almost nonexistent in 2018 and only 5.4% in 2019.

EAFE SMALL CAP UNIVERSE – VALUE AND GROWTH



Source: MSCI, eVestment, as of 9/30/20, gross of fees

INTERNATIONAL SMALL

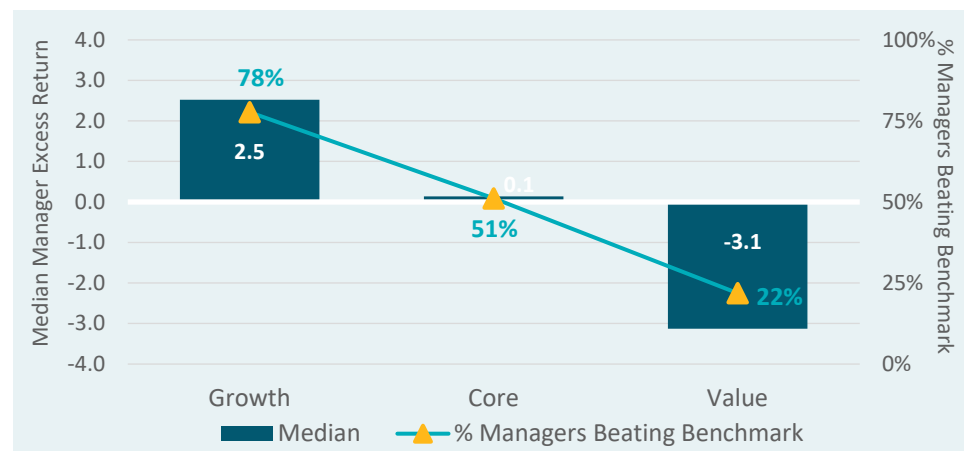


Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the MSCI EAFE Small Cap Index

Equities – Emerging markets

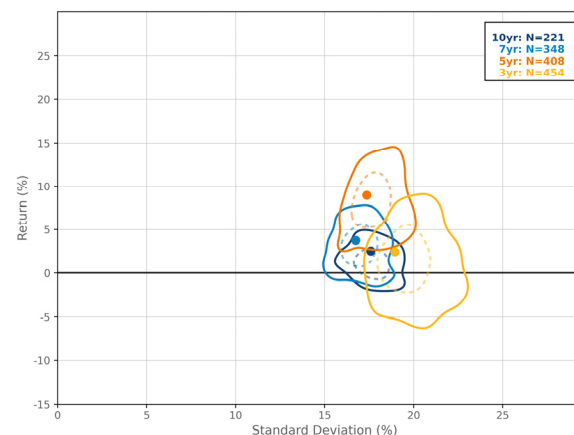
- Performance across the emerging markets universe is typically widely distributed, implying inefficiency and greater risk. Interestingly, in the more recent lookback periods, the distribution of emerging market managers is similar or less than other equity classes. With the exception of the latest five-year period, the past decade has seen the majority of managers in the emerging market universe produce returns less than 5% annually with a greater than 15% standard deviation.
- The recent period was characterized by much higher volatility experienced by emerging markets equity managers. In both 3-year and 5-year periods, a large proportion of the universe exhibited higher volatility than the benchmark. Longer periods show a more balanced distribution of standard deviation above and below the benchmark.
- In 2020, there existed a wide dispersion of results among emerging market strategies. The continued bifurcation of performance between growth and value stocks was a material contributor to this dispersion. As shown in the lower left chart, a majority of growth managers have delivered positive excess returns relative to the MSCI Emerging Markets Index over the past three years, whereas a majority of value managers lagged. Managers that describe their style as core saw mixed results, with about half of those strategies outperforming the benchmark.

ACTIVE PRODUCT 3-YEAR MEDIAN ANNUALIZED EXCESS RETURNS



Source: eVestment as of 9/30/20

EMERGING MARKETS

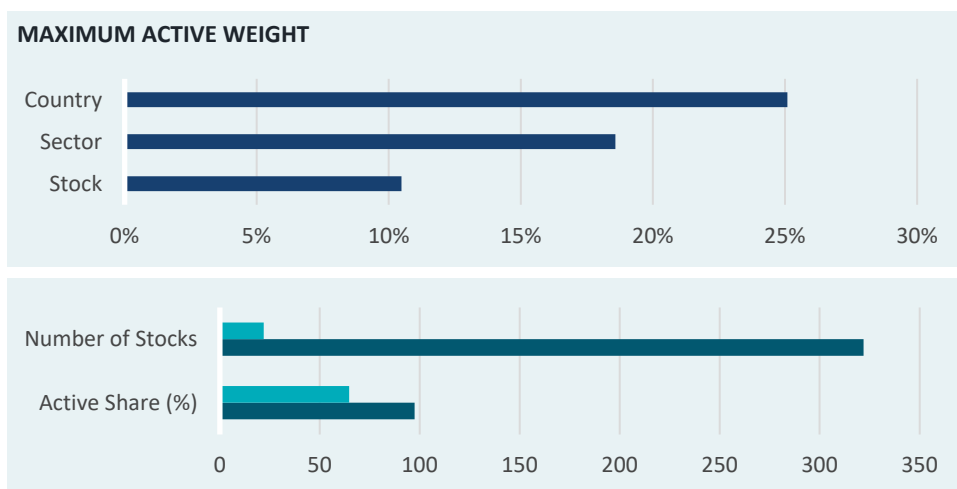


Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the MSCI Emerging Markets Index

Equities – Global

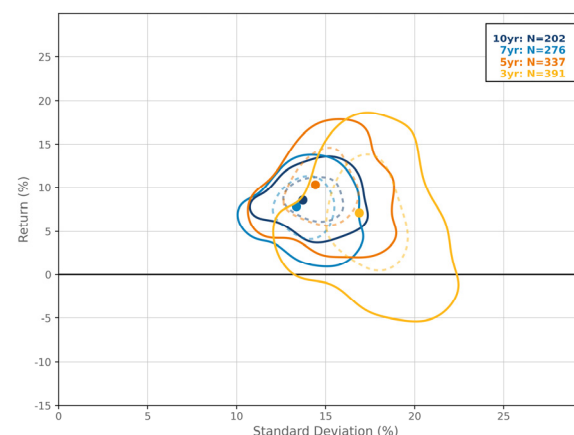
- During short and long time periods, the proportion of active managers adding value over the MSCI ACWI Index has been roughly equivalent to the proportion falling short of this benchmark. The latest three-year period has seen a nearly 25% dispersion of returns. Examining rolling one-year periods, the year ending September 30th showed the widest range of returns within the ten years covered by the chart on the bottom right.
- The relationship between risk and return seems negligible during both shorter and longer look-back periods. Compared to a longer look-back, the latest three-year period indicates a broader range of volatility with an equal proportion of the universe taking less risk than the benchmark or more risk. Over longer periods it appears that a greater proportion of the active management universe has been willing to take more risk than the benchmark.
- Global equity is the broadest traditional equity mandate and allows active managers multiple levers to pull to add value. The relatively wide range of excess return reflects multiple inefficiencies that can be exploited. Using holdings-based analysis of 253 active managers with the MSCI ACWI Index as their stated benchmark, we see managers willing to take significant active bets in country, sector, and stock positioning. Also, managers in this universe exhibit active share in a range from 65-97% and portfolio concentration that ranges from 22 to 322 stocks held.

GLOBAL EQUITY ACTIVE MANAGER CHARACTERISTICS



Source: Style Analytics, eVestment as of 9/30/20, active managers with MSCI ACWI benchmark

GLOBAL EQUITY

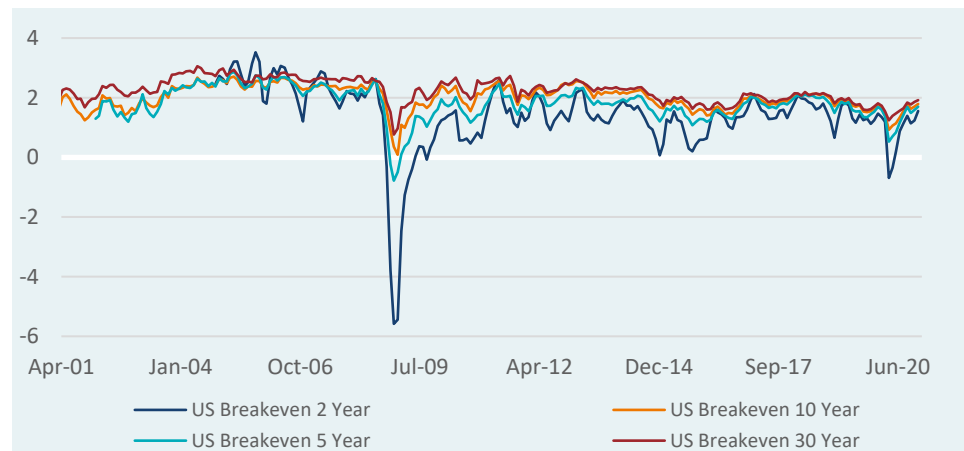


Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the MSCI ACWI Index

Fixed income – U.S. TIPS

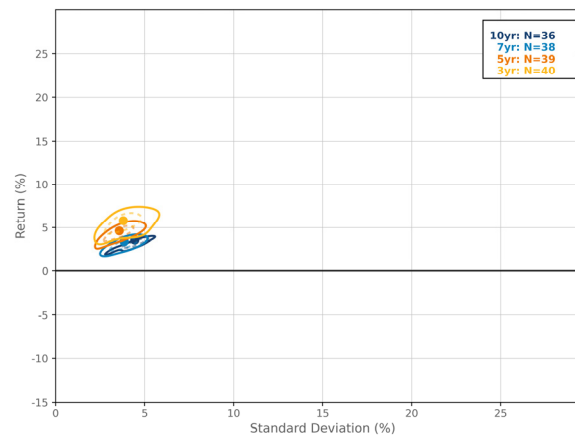
- The bottom right graph suggest that the U.S. TIPS market has been a relatively efficient asset class. Active products have generally produced minimal added value relative to the benchmark over the longer-term rolling seven- and ten-year periods. Over these periods, there appears to be very little dispersion in the asset class and only a modest upward tilt to the universe which suggests minimal compensation for managers that took extra risk relative to the benchmark.
- In the shorter three- and five-year periods, the modest upward tilt is also present, but there was greater return dispersion between managers as the COVID-19 related increase in volatility has presented more opportunities for active managers to add value over the benchmark.
- While the active management opportunity within U.S. TIPS appears very small, exposure to the asset class may still provide valuable diversification and risk management benefits, particularly for those looking for inflation protection.

U.S. BREAKEVEN INFLATION RATES



Source: Bloomberg, as of 11/30/20

U.S. TIPS

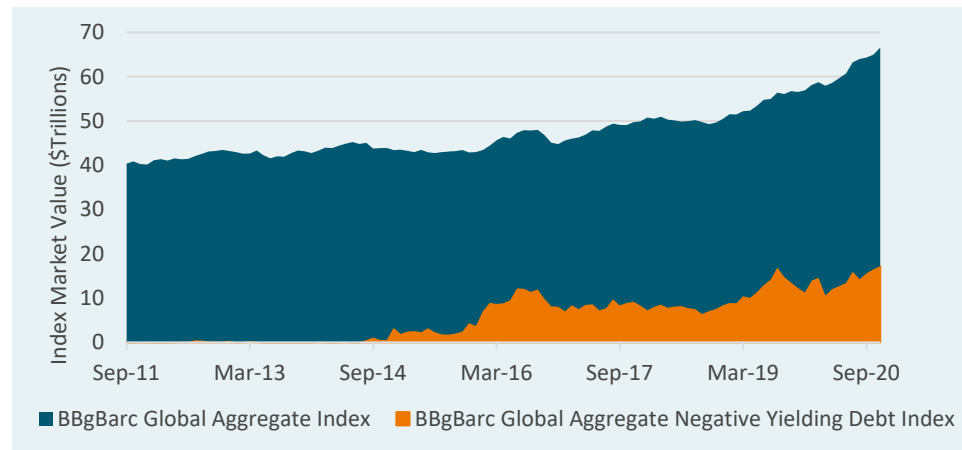


Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the BBgBarc U.S. TIPS Index

Fixed income – Global sovereign

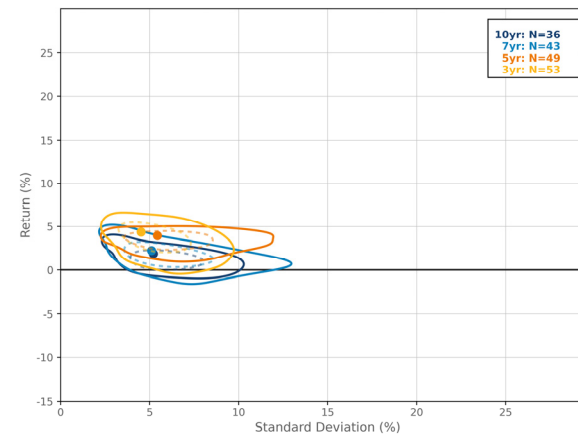
- The global sovereign universe is relatively heterogenous and currency exposures tend to have a large influence on returns. The bottom right chart demonstrates that the universe has historically shown a slightly negative relationship between risk and return, suggesting that higher-risk active products have often not been compensated for this higher volatility.
- Evidence suggests that dispersion of global sovereign active product returns has recently increased, possibly due to COVID-19-induced interest rate and currency volatility, recent commodity demand shocks, and continued trade tensions. This dispersion was reflected in a wider range of outcomes among active products during the three-year period. In the seven- and ten-year periods, returns demonstrated a tighter dispersion and those strategies taking on less risk than the benchmark had a much greater chance of outperformance.
- During 2020, global yields spiked briefly in March but continued to fall throughout the year as easy monetary policy persisted. Total negative yielding debt eclipsed the record \$17 trillion that was set in 2019, and now accounts for over 25% of the global investment grade market.

GLOBAL NEGATIVE-YIELDING DEBT OVER \$17 TRILLION



Source: Barclays, as of 11/30/20

GLOBAL SOVEREIGN

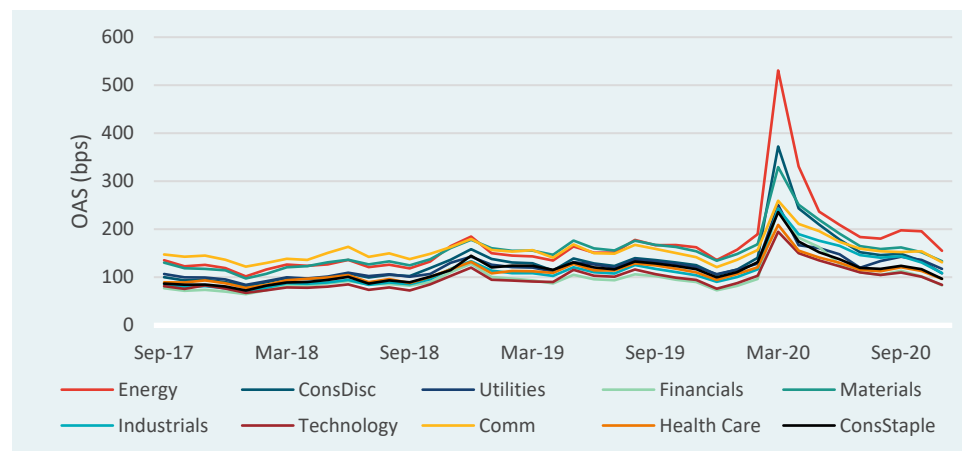


Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the FTSE WGBI

Fixed income – U.S. core

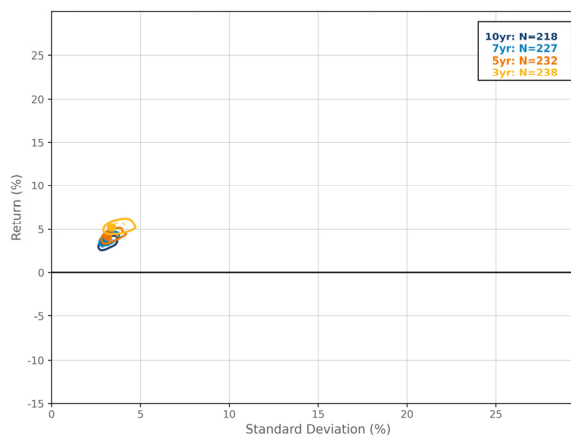
- Although there is little differentiation, over the five-, seven- and ten-year periods the slight upward slope to the data indicates active managers were compensated for taking additional risk over longer time horizons. Over the three-year period the positive risk/return relationship is less apparent as the relative dispersion of returns was consistent with longer time periods, but standard deviation dispersion increased significantly.
- During 2020, COVID-19-related economic shutdowns led to significant interest rate and credit volatility, which was particularly severe in energy and retail-related issues. While this volatility created alpha opportunities for active products, the core fixed income asset class has been highly efficient and showed little dispersion between active products and the benchmark during each lookback period.
- Despite limited product dispersion, we believe that some high caliber active U.S. core strategies do exist that are well-equipped to effectively manage liquidity more prudently in drawdowns, manage risks in difficult markets, and avoid idiosyncratic risks throughout various environments.

CORPORATE INVESTMENT GRADE SECTOR SPREADS



Source: Bloomberg, as of 11/30/20

U.S. CORE

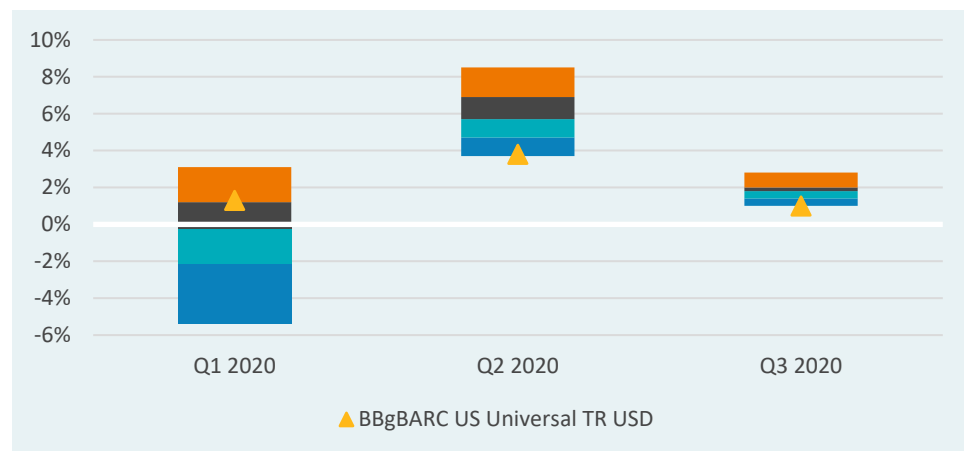


Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the BBgBarc U.S. Aggregate Index

Fixed income – U.S. core plus

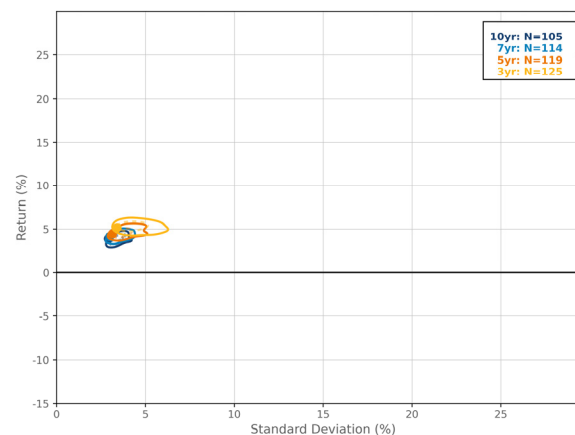
- A small percentage of managers in the core plus universe have demonstrated the ability to produce superior risk-adjusted returns over the long-term. Over the time periods shown, particularly longer-term, there was little dispersion between active products and the benchmark as the asset class appeared to be relatively efficient. Similar to the core universe, there does appear to be a slight upward tilt over the five-, seven- and ten-year periods indicating managers benefited from increased risk over longer time horizons.
- Over each time period, the benchmark appears at the far left of the universe charts, indicating that a large majority of the active core plus universe takes on more risk than the benchmark. This increased risk was apparent in 2020 as only 22% of the universe beat the Bloomberg Barclays US Universal benchmark during the risk-off environment of Q1. However, in the subsequent recovery, 91% and 96% of the universe was able to outperform the benchmark in Q2 and Q3 as riskier spread products outperformed U.S. government bonds.
- While there is little differentiation of returns among U.S. core plus strategies (similar to the U.S. core space), we believe quality active core plus strategies may be well-equipped to effectively manage liquidity more prudently in drawdowns, manage risks in difficult markets, and avoid idiosyncratic risks throughout various environments.

CORE PLUS UNIVERSE QUARTERLY PERFORMANCE



Source: eVestment, as of 9/30/20

CORE PLUS

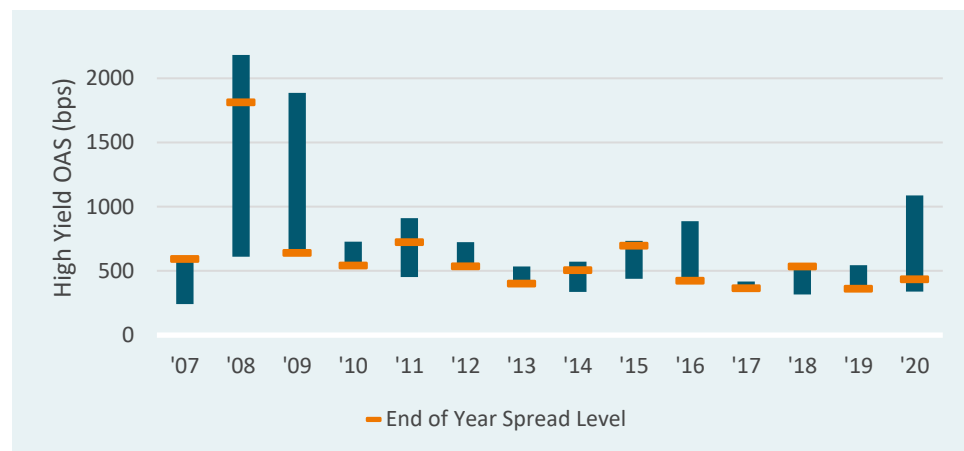


Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the BBgBarc U.S. Universal Index

Fixed income – U.S. high yield

- Active products in the high yield space have demonstrated greater dispersion around the benchmark compared to core and core plus products. Over the long and intermediate term, only a limited number of managers in the high yield universe have demonstrated the ability to add value relative to the benchmark. Over the recent 3-year period, there is some evidence that active managers have been able to capitalize on the increase in volatility.
- Over each rolling time period, there appears to be a weak relationship between risk and return as most managers were not compensated for bearing additional risk. The more recent period was characterized by a much larger distribution in standard deviation among active managers driven in part by the increased volatility high yield spreads experienced in 2020. Option adjusted spreads increased drastically during Q1, reaching 1,100 basis points, and then retreated after the Fed's unprecedented action in March and April.
- High yield bond market volatility is highly correlated to the economic business cycle. Avoiding idiosyncratic risks resulting from ratings downgrades or defaults is an important consideration for active management.

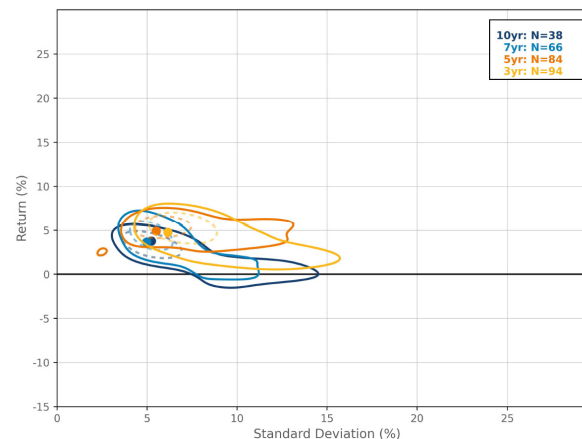
SPREADS



November 30th level shown for 2020

Source: Barclays, FRED, as of 11/30/20

U.S. HIGH YIELD

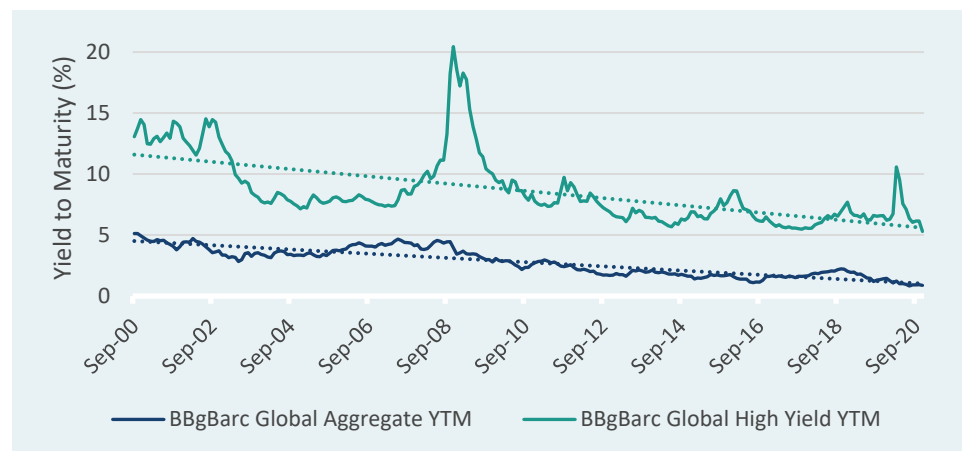


Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the BBgBarc U.S. Corporate High Yield Index

Fixed income – Global credit

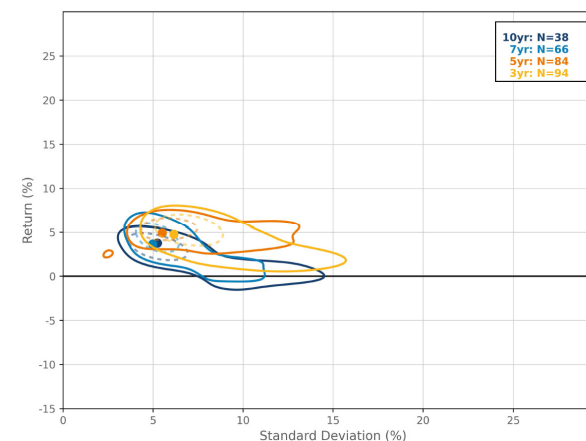
- Over the time periods examined, the global credit opportunity set has experienced a high degree of dispersion. Global credit products tend to show a wide distribution of outcomes relative to the benchmark, most likely due to a heterogeneous opportunity set across the active management universe. Over the long-term, few products have provided excess returns with lower volatility than the benchmark. More recently, as volatility has increased, there has been a slight positive correlation between additional risk taken and excess returns generated.
- Ultimately, for most periods, an inverse relationship between return and volatility is evident. We have found that active products that took on greater risk struggled to produce excess returns above the benchmark.
- Developed market interest rates remain low as global central banks continue to pursue accommodative monetary policy. In this low yield environment, currency movements have often outweighed the impacts of security selection. The active global credit universe features very diverse asset allocations, especially regarding credit quality and the use of emerging market corporate debt. During periods of heightened market volatility and wider spreads, products with flexible investment mandates often take on exposure to lower quality bonds to provide liquidity to the market with the goal of benefiting from spread normalization.

GLOBAL BOND MARKET YIELD TO MATURITY



Source: Barclays, as of 11/30/20

GLOBAL CREDIT



Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the BBgBarc Global Aggregate – Credit

Fixed income – Emerging market debt (hard currency)

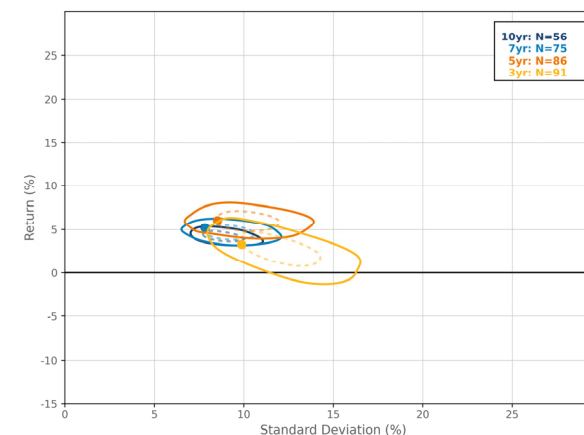
- Over the past three years, the universe of EMD hard currency strategies appears to have demonstrated a negative relationship between risk and return (i.e. managers that took more risk generally produced lower returns). Over longer periods, this relationship appears neutral to slightly negative, underscoring the importance of skillful security and currency selection and risk management.
- In more recent time periods, we continue to observe that managers have increased their use of risk but that has not necessarily been rewarded. We believe that the COVID-19-induced interest rate and currency volatility, recent commodity demand shocks, and continued trade tensions have contributed to the wide dispersions in the asset class. Over the long-term, we have observed that few managers that have been able to consistently beat the benchmark.
- Hard currency emerging market debt (EMD) strategies offer exposure to developed currency sovereign bonds (local currency exposure). Many hard currency strategies carry off-benchmark securities in an effort to add return, mitigate risk, or both. Off-benchmark exposures may include other emerging market-related sectors, such as quasi-sovereign, corporate credit, local currency debt, and emerging market currency. Given limited local currency exposure, hard currency strategies tend to have a smoother return profile versus local currency strategies.

EMBI SPREADS (HARD CURRENCY)



Source: Bloomberg, as of 12/16/20

EMERGING MARKET DEBT (HARD)



Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the JP Morgan EMBI Global Diversified Index

Fixed income – Emerging market debt (local currency)

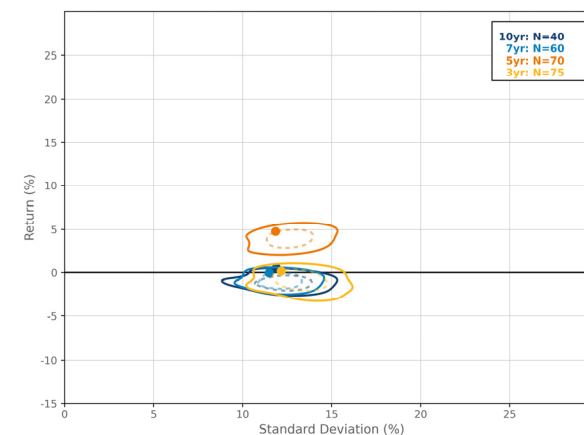
- Over the past three years, the universe of EMD local currency strategies appears to have demonstrated a neutral relationship between risk and return (i.e. managers that took more risk generally did not necessarily perform better than those that took on less risk). Over the 5-year period, however, we have observed a weak relationship between risk and return, most likely due to the risk-on nature during much of this time period. The benchmark has also performed quite well during each time period, proving difficult for active management in this asset class.
- Due in large part to emerging market currency headwinds, the EMD local asset class has experienced relatively low returns over the past decade. The universe has exhibited moderate dispersion over most rolling periods, where incremental risk taking has generally gone unrewarded.
- Emerging market local currency bonds provide differentiated fixed income exposure and are expected to deliver a higher risk-return profile than most other fixed income market segments. The unhedged currency component of local EMD can offer a diversification benefit but may also carry heightened volatility. This volatility is often caused by geopolitical developments, idiosyncratic country-specific events, investor sentiment, and other macroeconomic factors.

EMD LOCAL YIELD TO MATURITY



Source: Bloomberg, as of 11/30/20

EMERGING MARKET DEBT (LOCAL)



Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the JP Morgan GBI-EM Global Diversified Index

U.S. REITs

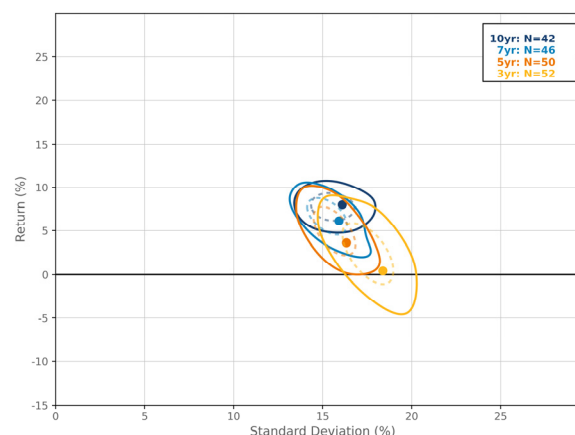
- In the last three, return dispersion among REIT strategies has been very high with alpha potential generally available through active management.
- Over most time periods, there has been a negative relationship between risk and return with lower risk strategies outperforming higher risk strategies. Over the longest time period shown (ten years), active strategies have added value primarily through the reduction of volatility rather than through excess returns.
- Sector dispersion within REITs has been incredibly wide as not every sector was hurt by COVID-19-related shutdowns. Data centers, self-storage, and industrial real estate have benefitted on average from increasing e-commerce trends and population migrations, while lockdowns and work-from-home orders have negatively impacted office, retail, and hospitality sectors. High sector dispersion should increase opportunities for actively managed strategies.

REIT SECTOR DISPERSION

Sector	YTD	1-year	Prem/Disc
Data Centers	23.0%	22.5%	31.8%
Self-Storage	11.0%	7.4%	22.4%
Industrial	9.0%	9.8%	31.4%
Residential	-22.2%	-26.2%	-2.5%
Healthcare	-24.2%	-29.0%	16.0%
Office	-42.5%	-40.8%	-36.5%
Strip Centers	-48.4%	-50.1%	-24.5%
Hotels	-49.5%	-45.5%	-23.4%
Regional Malls	-54.7%	-55.0%	-19.7%
US REIT Total	-22.0%	-24.0%	3.4%

Source: Heitman, as of 10/31/20

U.S. REITS



Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the Wilshire REIT Index

Commodities

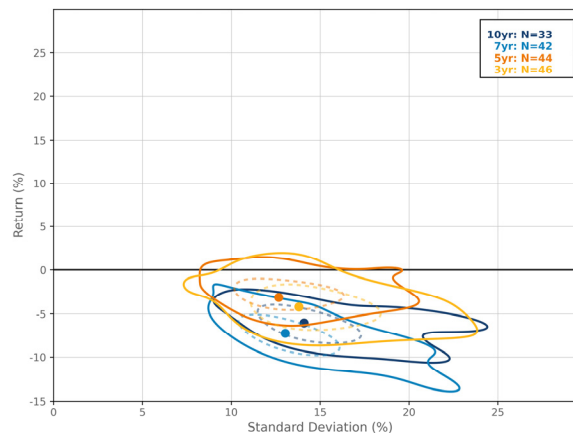
- Active management in the commodity space tends to exhibit high performance dispersion. This may be partly a reflection of the wide variety of strategies available. Strategies that look to mitigate negative roll yield and contango through term structure management have continued to add value over standard indexes, on average.
- Generally speaking, strategies that take on large amounts of additional risk over the benchmark have not been rewarded with additional return. This relationship has held true over each time period below.
- The roll yield component of returns was significantly negative in the first half of the year. While recovering off historic lows in the second half of the year, roll yield remains a significant headwind to commodities. Commodities have continued to underperform other major asset classes during 2020.

6-MONTH ANNUALIZED ROLL YIELD



Source: Standard & Poor's, as of 11/30/20

COMMODITIES



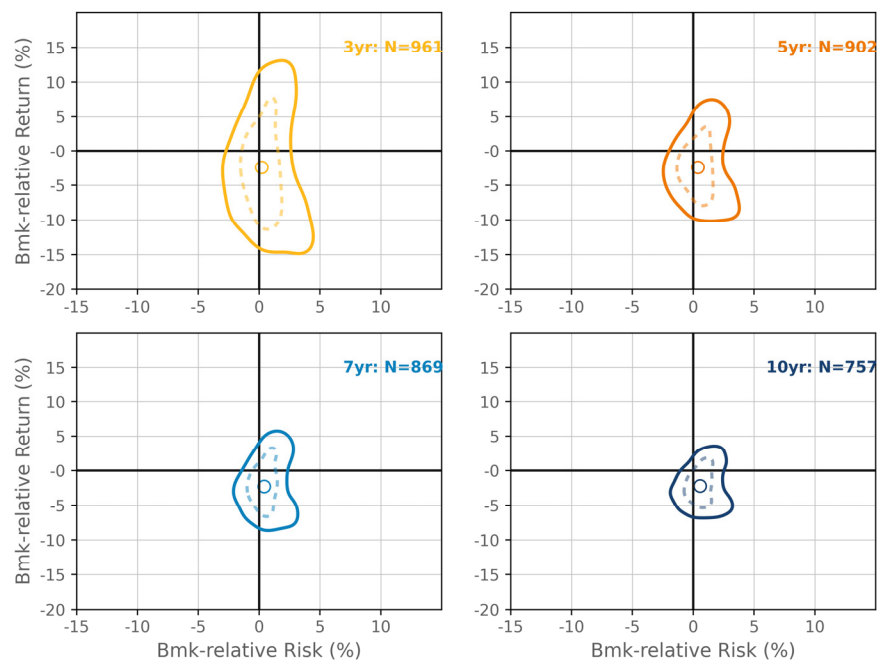
Source: eVestment, as of 9/30/20. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the Bloomberg Commodity Index

Appendix

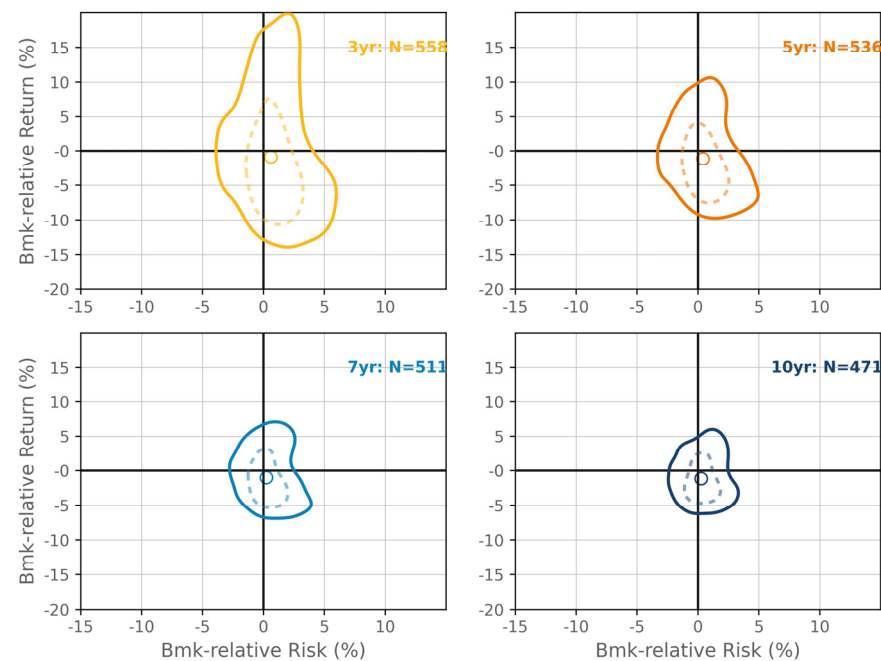
Supplementary Universe Charts

U.S. equity

U.S. LARGE CAP



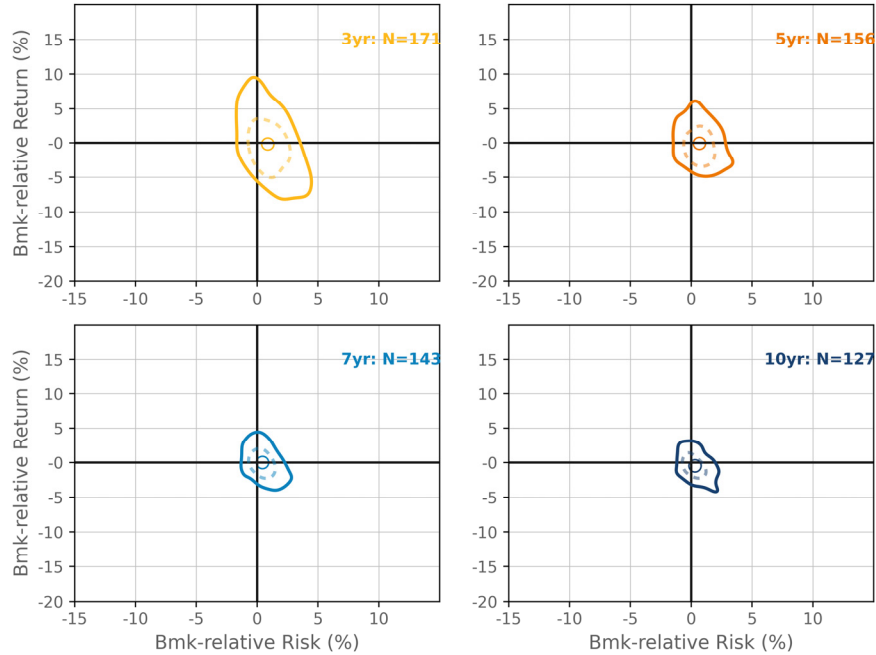
U.S. SMALL CAP



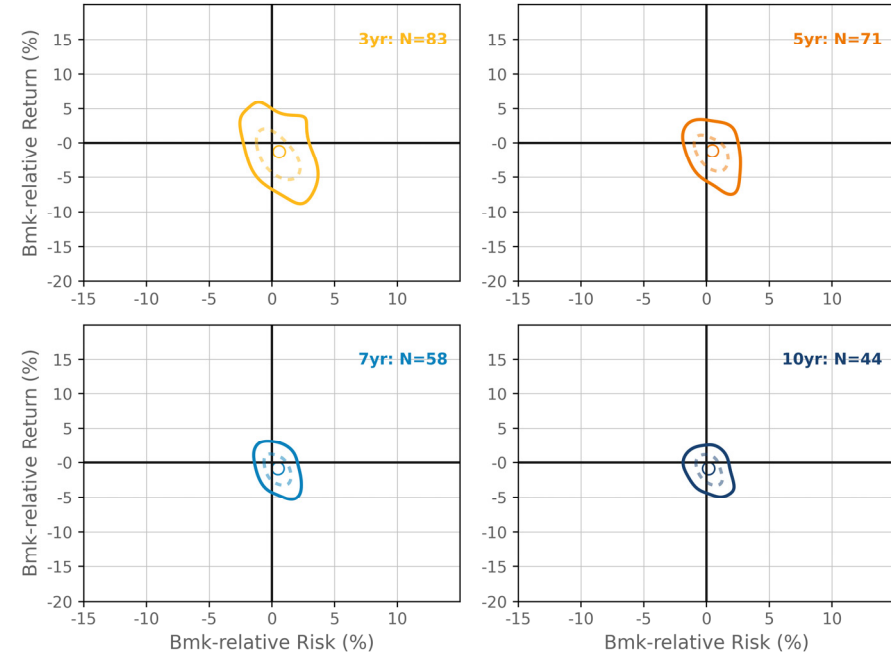
Source: eVestment, Verus, as of 9/30/20, center circle indicates median manager

International equity

INTERNATIONAL DEVELOPED



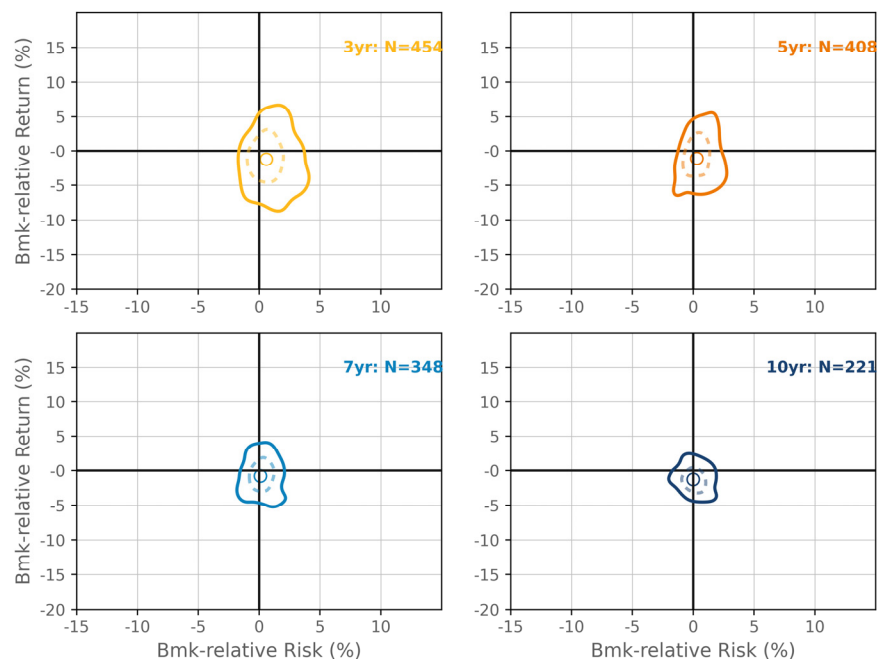
INTERNATIONAL DEVELOPED SMALL



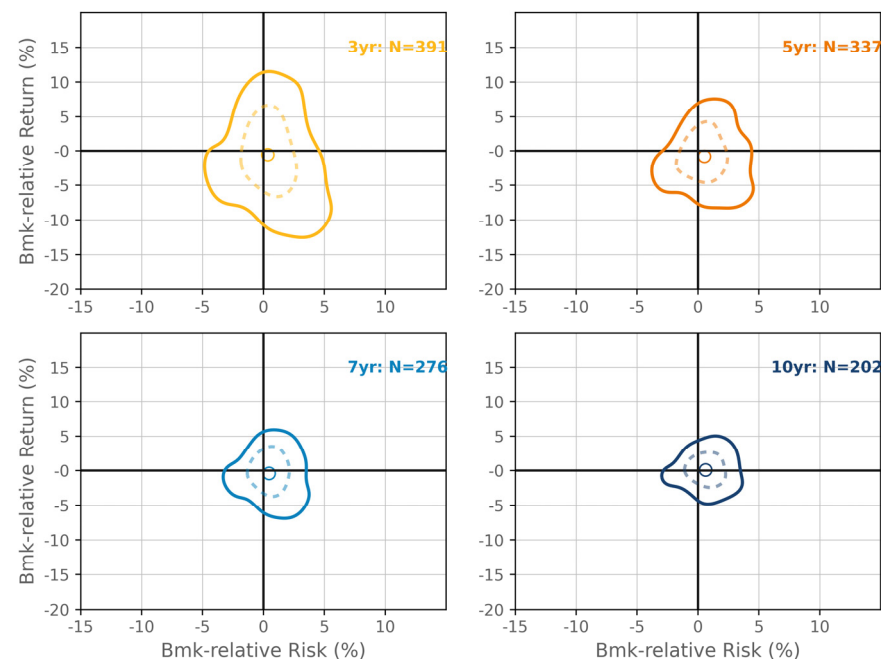
Source: eVestment, Verus, as of 9/30/20, center circle indicates median manager

Emerging market & global equity

EMERGING MARKETS



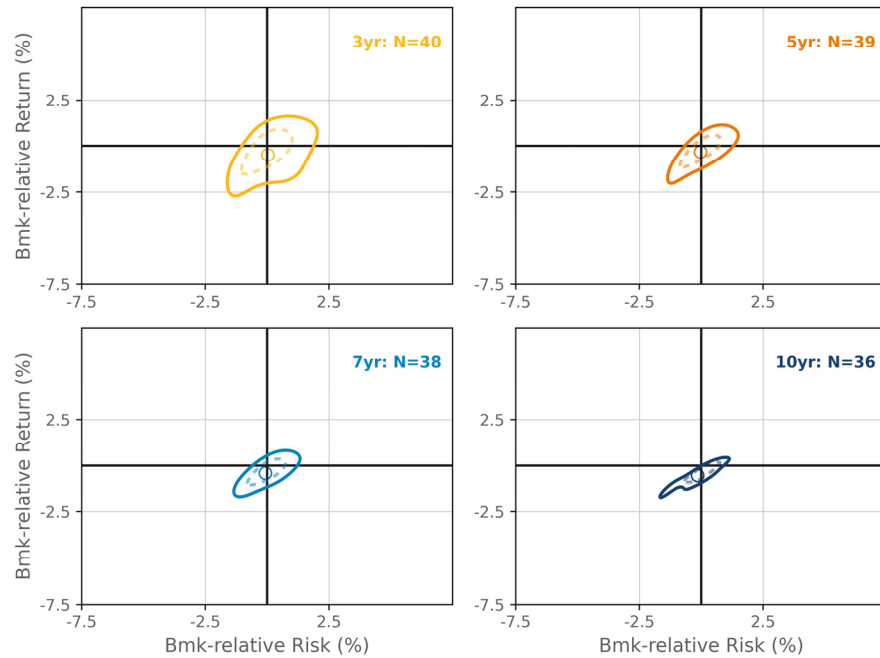
GLOBAL



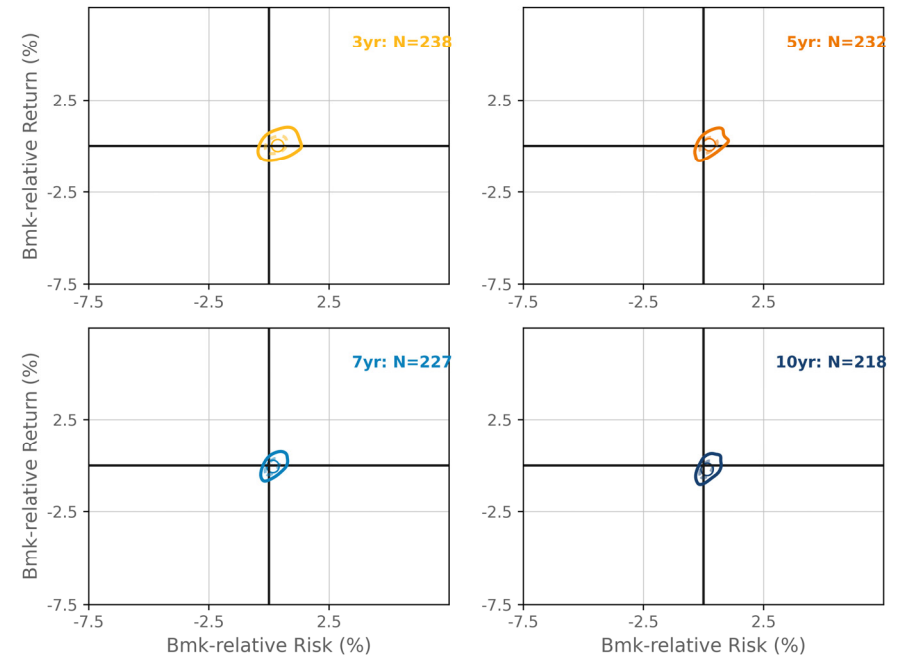
Source: eVestment, Verus, as of 9/30/20, center circle indicates median manager

U.S. fixed income

U.S. TIPS



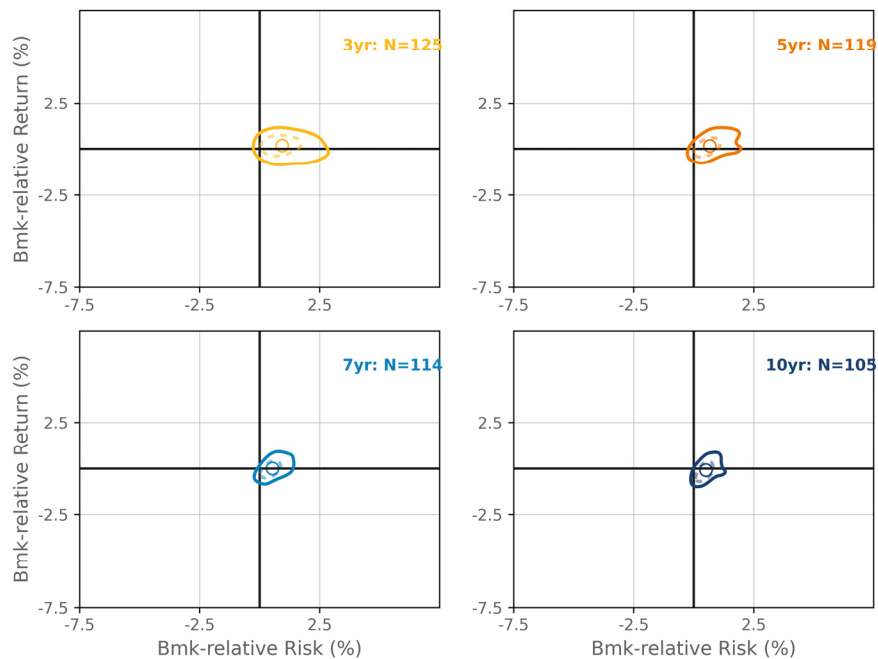
U.S. CORE



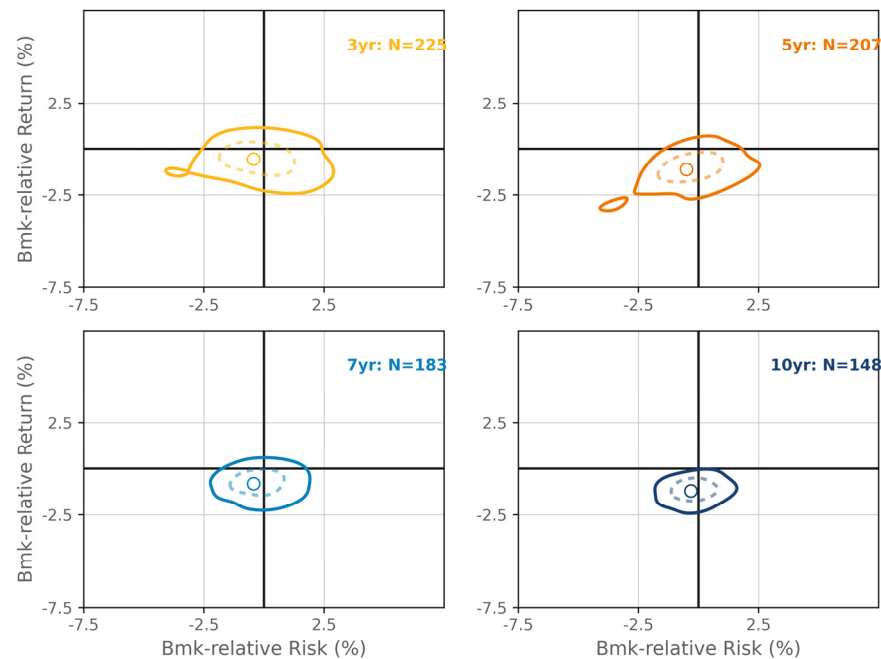
Source: eVestment, Verus, as of 9/30/20, center circle indicates median manager

U.S. credit

U.S. CORE PLUS



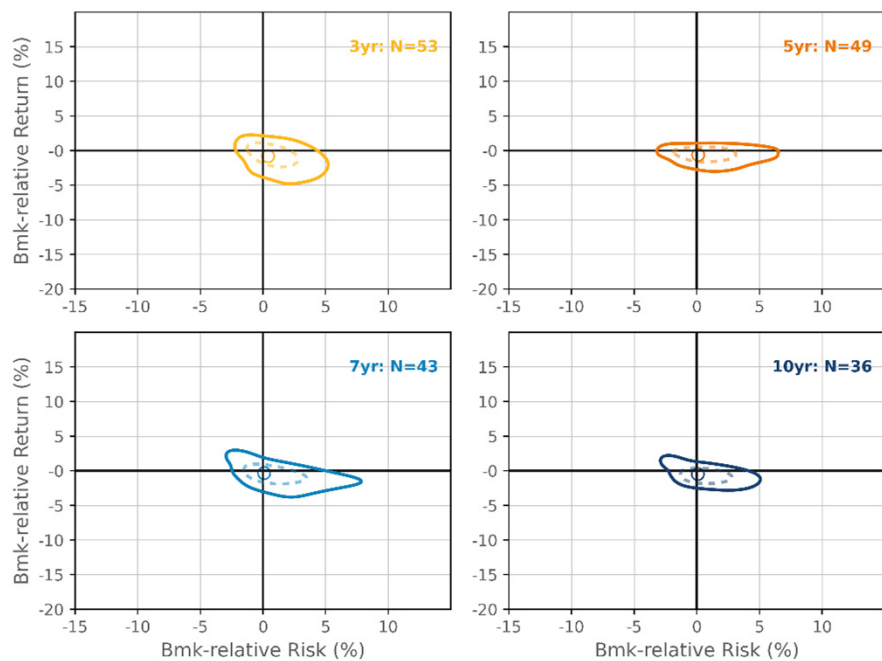
U.S. HIGH YIELD



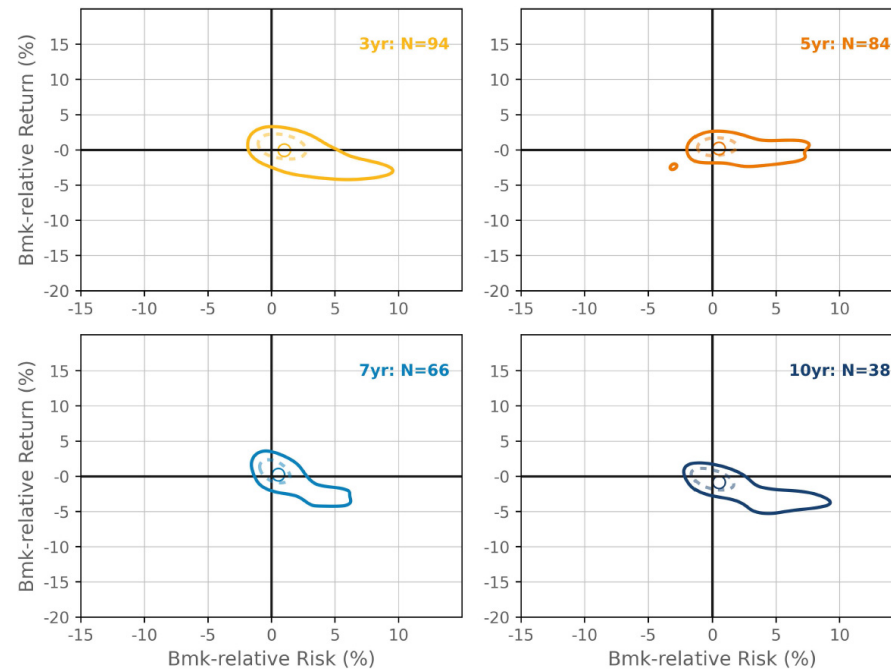
Source: eVestment, Verus, as of 9/30/20, center circle indicates median manager

Global fixed income

GLOBAL SOVEREIGN



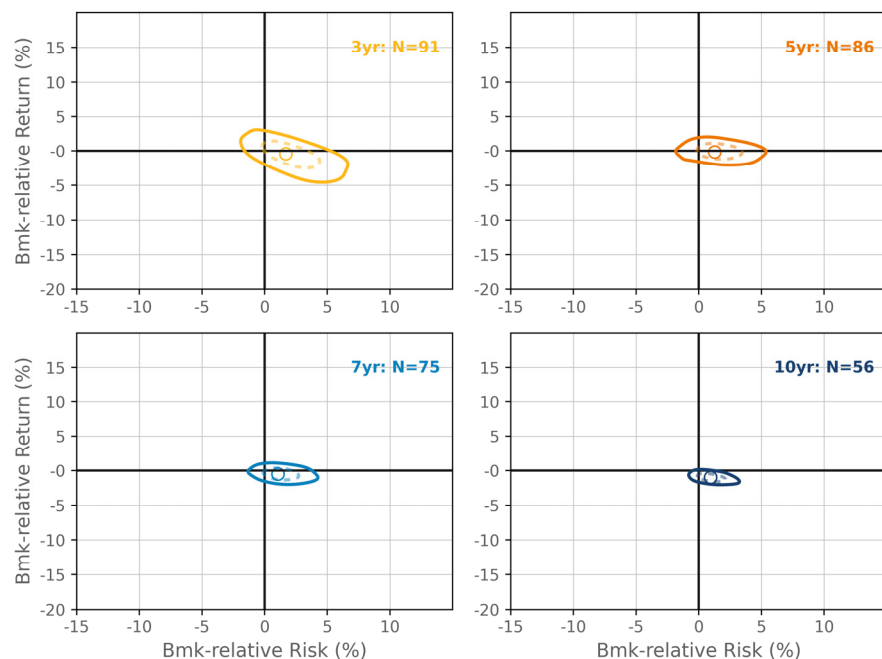
GLOBAL CREDIT



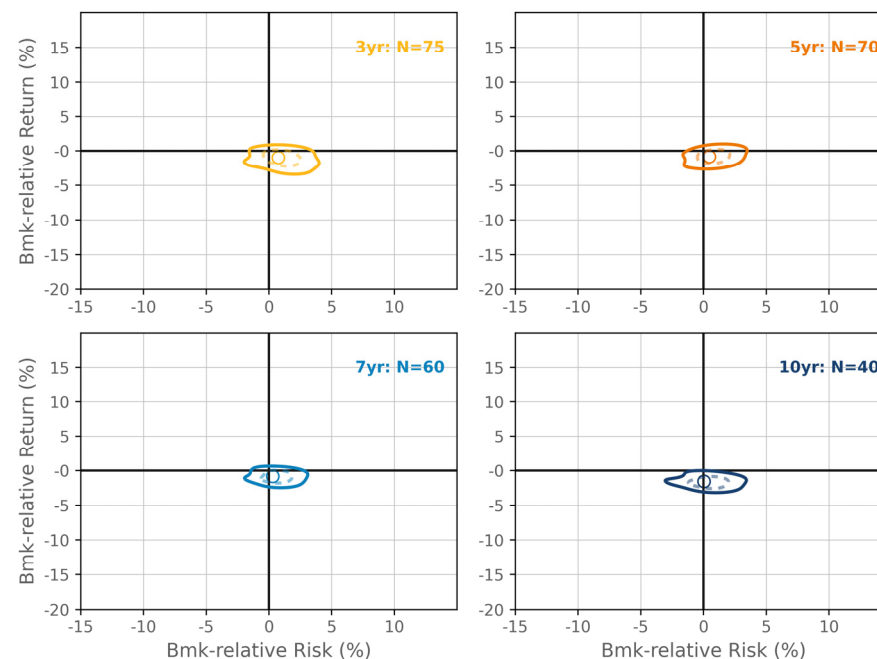
Source: eVestment, Verus, as of 9/30/20, center circle indicates median manager

Emerging market debt

EMERGING MARKET DEBT (HARD)



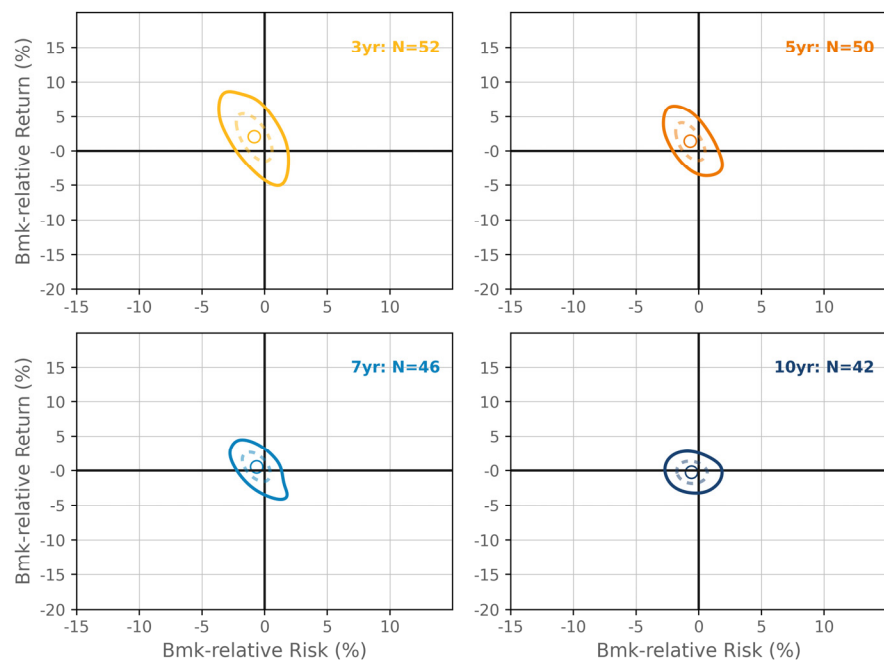
EMERGING MARKET DEBT (LOCAL)



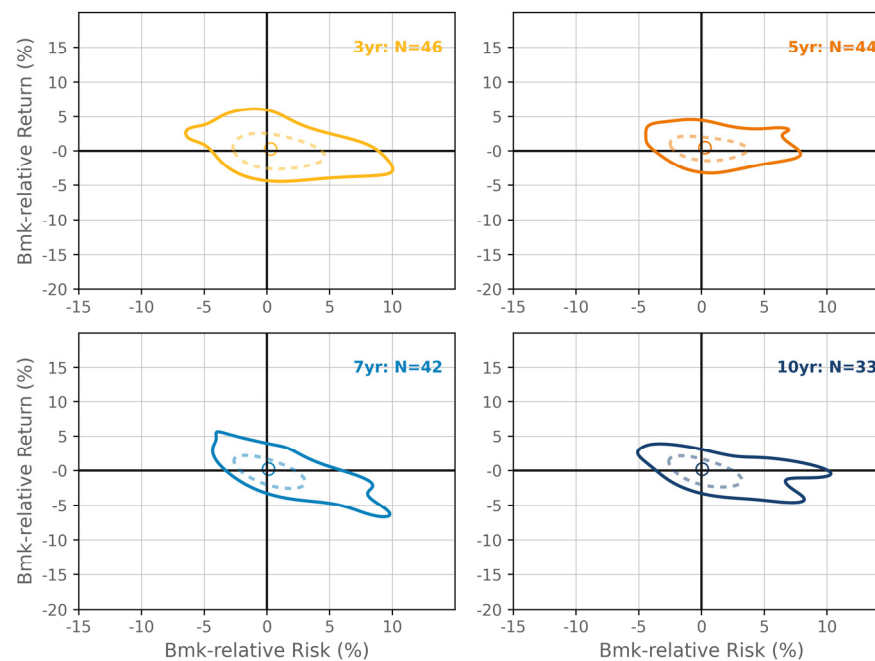
Source: eVestment, Verus, as of 9/30/20, center circle indicates median manager

Other

U.S. REITS



COMMODITIES



Source: eVestment, Verus, as of 9/30/20, center circle indicates median manager

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