Insights
Market Outlook

June 2020

2020 ETF Midyear Market Outlook
The Great Reset

Michael Arone, CFA
Chief Investment Strategist, US SPDR Business

Matthew Bartolini, CFA
Head of SPDR Americas Research, State Street Global Advisors

The past several months have been consumed by COVID-19. The global pandemic has literally and figuratively infected every aspect of our daily life. It has left a permanent imprint on the way we think about our health, finances, politics and social interactions. COVID-19 has not only changed the way we live, work and play, but it has exposed fragile cracks in today's global economy while simultaneously unveiling some durable strengths that lie beyond the pandemic's reach.

In time, human resiliency, ingenuity and focus will conquer the COVID-19 pandemic. However, it has already altered the course of history. Regrettably, there is no return to normal. Similar to past crises and pandemics, we'll experience a tricky transition to a new environment. As the first half of 2020 concludes and the second half begins, the great reset is firmly underway. For investors, this rebirth presents both big risks and considerable opportunities.

The pandemic's powerful impacts stretch well beyond the health challenges. Despite mounting job losses, plummeting corporate profits and disastrous economic data, miraculously, markets have rallied sharply since hitting their lows on March 23. Massive fiscal and monetary policy responses have aided the unexpected rebound in risk assets. Typically reliable inputs into the investment decision-making process have been rendered useless by COVID-19, leaving many investors baffled. The highly anticipated US election has become an afterthought in the wake of the pandemic.

In the short term, market sentiment has been bolstered by the reopening of the global economy, optimism regarding potential health solutions to COVID-19 and a firm commitment from policymakers to do whatever it takes. But, make no mistake about it, this temporary reprieve from fundamentals driving asset prices will likely end soon.

As 2020 grinds on, investors will be forced to reconcile the rally in risk assets with the deterioration in fundamentals. Without an economic recovery (regardless of which letter of the alphabet it most resembles), a breakthrough on corporate profits and a reversal of job losses, it will be difficult for risk assets to continue their momentum. And as November's US election draws closer, political headlines will again take center stage, likely generating further market-moving volatility.

Adding to this challenging environment, interest rates at extreme lows make it nearly impossible for investors to generate much-needed income by using traditionally low-risk investments. Adopting a total return mindset while thoughtfully investing alongside a deep-pocketed buyer like the Federal Reserve that doesn't care about prices or crumbling fundamentals may provide fixed income investors some comfort.

Investors with courage, capital and conviction should look beyond the turmoil created by the COVID-19 outbreak during the first half of 2020. Life as we know it has changed forever. However, this new environment also presents opportunities for innovative businesses to adapt and potentially thrive in the post-pandemic environment. Looking beyond the borders of the United States and further down the market capitalization spectrum may also reveal some interesting relative value opportunities.

As economies reopen and we look ahead to better days, investors should consider the following three themes when building portfolios in the post-pandemic environment:

- Focus on Innovation
- Pursue Total Return
- Look for Relative Value Opportunities

Theme 1 — Focus on Innovation

Target market segments poised to help shape a post-pandemic future

The COVID-19 pandemic has created a new trend line for our society. Amid enormous suffering and loss, social norms have been upended and the global world order has been materially changed in less than six months. Longer term, second derivative — or butterfly — effects of the pandemic have the potential to materially change technological, medical, social, manufacturing, policy and geopolitical trends. Not just for this generation, but for generations to come.

Given the global effort to improve testing, create treatments, find vaccines and practice social distancing, we hope that the apex of the curve is behind us. As reopening and rebuilding begin, new industries will be created and current ones will work to adjust to a new sociological paradigm. This inflection point may present opportunities that are not currently well represented in traditional market exposures.

Innovation Inflection Point

Technological innovation will be at the forefront of reshaping our way of life. It will touch every industry and be the catalyst for new ones. We are likely to see demand for advanced medicine, improved structural health care processes, and remote access capabilities to support reduced-contact interactions. There is likely to be a tectonic shift in our daily routines and how we consume media. Digital payments will become more standard, while video games, streaming networks, virtual reality, social media and interactive home workout equipment will likely move from being "discretionary" items to "staples" in the future.

While the potential for innovation will be broad-based, these four themes in a post-COVID-19 world may be the most transcendent.

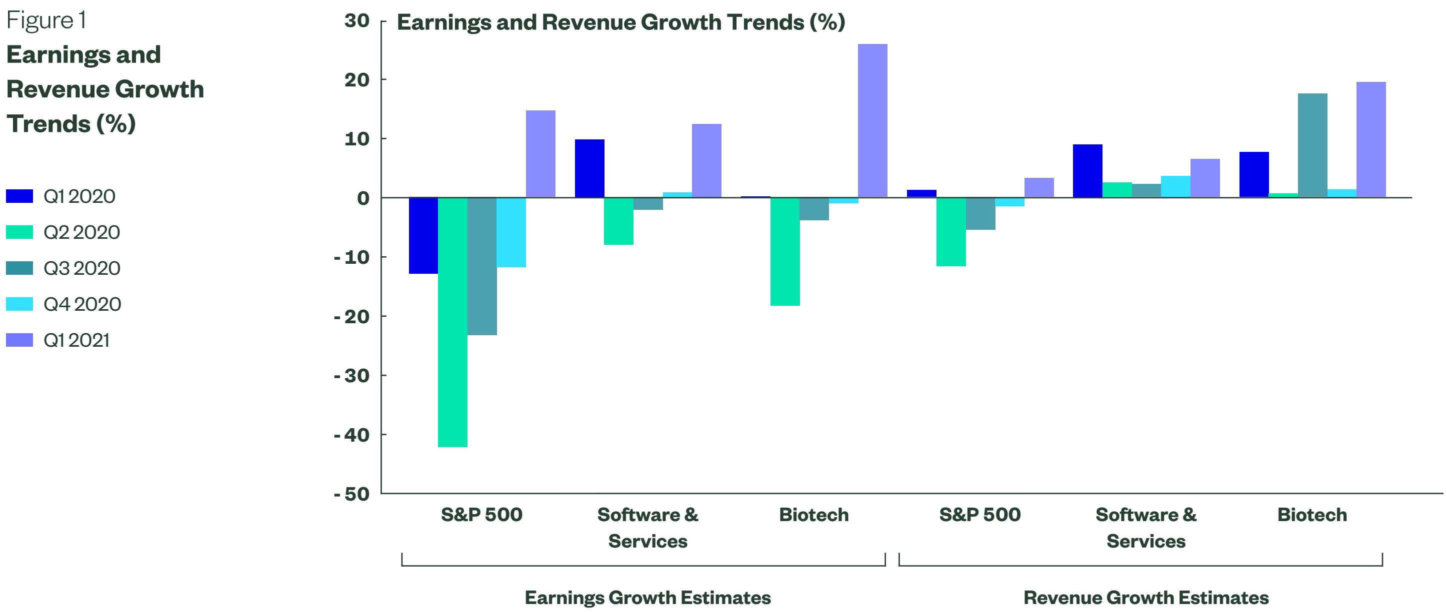
Software Solutions to Support Daily Life

Remote access, cloud storage and internet-based solutions were strong secular trends before COVID-19. During the pandemic, however, the use of internet[1]- and software[2]-based solutions significantly increased for some platforms, and IDC expects that even with a decline in spending on IT solutions, the persistent need for storage will fuel an 18% post-COVID-19 annual growth rate of installed storage capacity through 2024.[3]

A more digitally connected world, however, will require software in order to function. We see software as the backbone of our new society, just as the highway-building public works project coincided with the broad-based adoption of the automobile and transformed post-World War II America. As a result, software and software services firms are likely to benefit from this seismic shift in corporate and consumer behavior across a variety of dimensions: video conferencing, e-learning, telehealth, project and document management, closed system social communication tools, cloud technologies, digital payments and cyber security.

This generation-defining shift is one reason why earnings for software firms are expected to grow at 18% per annum over the next three to five years — compared with a 10% growth rate for the broader market. And, software firms are not expected to see material declines throughout the rest of 2020 and 2021. In fact, as shown in Figure 1, while the S&P 500® is projected to have negative sales growth over the remaining three quarters of this year, software and services firms are projected to continue to grow their top line each quarter. Valuations are a bit above their long-term average for the industry,[4] but with a lack of growth in our current environment, the premium for a growth industry with the potential to reshape society is warranted.

Figure 1
Earnings and Revenue Growth Trends (%)



Source: FactSet as of 05/18/2020. Fundamentals are as of the date indicated and are subject to change. Estimates are based on consensus analyst estimates for firms within the S&P 500 Index, S&P Software & Services Select Industry, and S&P Biotech Select Industry Index.

Advanced Health Care to Respond to Pandemics

Biotechnology stocks have traditionally offered higher growth potential as a result of their ability to create lifesaving medicine or advanced treatments to improve the quality of life. Given this profile, coming out of this period of uncertainty, biotech is one potential bright spot for three reasons:

- **Solutions:** One fifth of the industry is working on critical COVID-19 health solutions, including treatments, vaccines and antibody testing[5]

- **Growth:** In the wake of massive downside growth for the broader market, as shown above, 2020 earnings growth is projected to remain positive for biotech relative to the S&P 500 (1% vs. -20.5%) with the 3–5-year outlook nearly double the market rate (19% versus 10%)[6]

- **Innovation:** An estimated 30 to 35 biotech companies, raising about $3.5 billion in capital,[7] are expected to go public this year — evidence of biotech companies being less impacted by any consumer demand-shock, as their products and services have a longer lifecycle (i.e., firms that are pre-revenue and in clinical trials)

Beyond the current need for advanced medicine, an aging population, the need for cancer treatments and genetic therapies, and new technologies to improve the efficiency of what has now been exposed as a susceptible global health care system may act as additional tailwinds for the industry. And with the pandemic response likely to be a US presidential campaign topic, funding for research will gain more attention. The last tailwind for biotech is that valuations are slightly below their long-term median, based on our four-factor composite metric,[8] as shown in Figure 2.

Figure 2
Biotech Valuations

Source: FactSet as of 05/18/2020. Fundamentals are as of the date indicated, are subject to change and are based on firms within the S&P Biotech Select Industry Index. Data range for median calculation is September 2011–May 2020.

Cyber/Future Security to Defend Against Global Risks

The COVID-19 crisis has also resembled a global security event for many as a result of domestic and international travel bans, compromised video-hosting platforms and a near-total transition to digital payments. While many uncertainties loom large, a shift toward virtual goods, services and employment for a myriad of industries will undeniably increase the economic implications of unfettered cybercrime and cyberterrorism. Accenture estimates that $5.2 trillion globally will be at risk of cyberattacks from 2019 to 2023.[9] But we may not have to wait that long, as the FBI's Internet Crime Complaint Center (IC3) saw daily cyber complaints increase from 1,000 to almost 4,000 a day during the pandemic.[10]

Additionally, traditional cybersecurity protections are likely to also lose efficacy with application and use-cases expanding significantly, prompting opportunities for specialized innovation and development in this space. Lastly, the second-order effects of COVID-19 may result in an even greater increase in nontraditional defense spending than what had been previously anticipated. Tightening security restrictions at borders, airports, train terminals and sporting events — similar to what occurred during the years following the 9/11 terrorist attacks — may lead to more tracing/scanning technology, drone usage and facial recognition technologies.

Intelligent Infrastructure for a Digitally Connected but Physically Distanced World

Home networks, improved power grids, robotics/automation to replace physical labor, safety equipment for nonremote jobs, as well as automated transport systems are all likely innovations to support the systematic change in how we will work, live and travel. These trends will compound the growth already expected for "smart cities," where global spending was already estimated at $124 billion in 2020 — a 19% increase over 2019's figure.[11]

Legislative efforts may accelerate the trend toward more smart devices or "the internet of things," a market where global spending is already likely to reach $1.1 trillion by 2022.[12] Congress has discussed a $760 billion package[13] as part of a recovery proposal, in which portions of the money would be spent rebuilding roads, bridges and transit networks, in addition to investing in water and sewer infrastructure and broadband internet. Infrastructure bills have long been discussed but never enacted. Perhaps the COVID-19 pandemic will provide the reason to act, spurring investment in a new world of connectivity.

Implementation Ideas

When targeting thematic trends where idiosyncratic or firm-specific risk can be elevated, since not all firms innovate successfully, a diversified investment approach that is non-market-cap weighted is optimal. These non-market-cap-weighted funds may allow investors to participate in one of these generational themes without shouldering sizable single-stock risk.

To target the broad-based innovation impacting a variety of industries throughout the economy, consider:

KOMP SPDR S&P Kensho New Economies Composite ETF

To overlay specific thematic exposures covering segments and trends, consider:

XSW SPDR S&P Software & Services ETF
XBI SPDR S&P Biotech ETF
FITE SPDR S&P Kensho Future Security ETF
SIMS SPDR S&P Kensho Intelligent Structures ETF

Theme 2 — Pursue Total Return

Low rates and extraordinary monetary policy complicate the search for income

Low rates from stimulus measures in response to COVID-19 have upended the risk/return paradigm for certain credit-sensitive instruments — creating income-oriented opportunities that may be worth the risk even though volatility remains high. As a result, investors now need to balance defense, income and capital appreciation in the hunt for a sufficient total return.

The Impact of Low Rates and Crisis Policy Tools

At the start of 2020, the US 10-year Treasury yield was 1.92%. Following the severe risk-off moves, a 150 basis point rate cut from the Federal Reserve (Fed) and their alphabet soup of lending facilities, the 10-year now resides in the 0.70% range — a level it has traded around since early April. By any measure, 0.70% yield for the 10-year is expensive. Our preferred measure is the current yield difference to an exponential 36-month moving average, and the current yield level is 67% below that metric.[14]

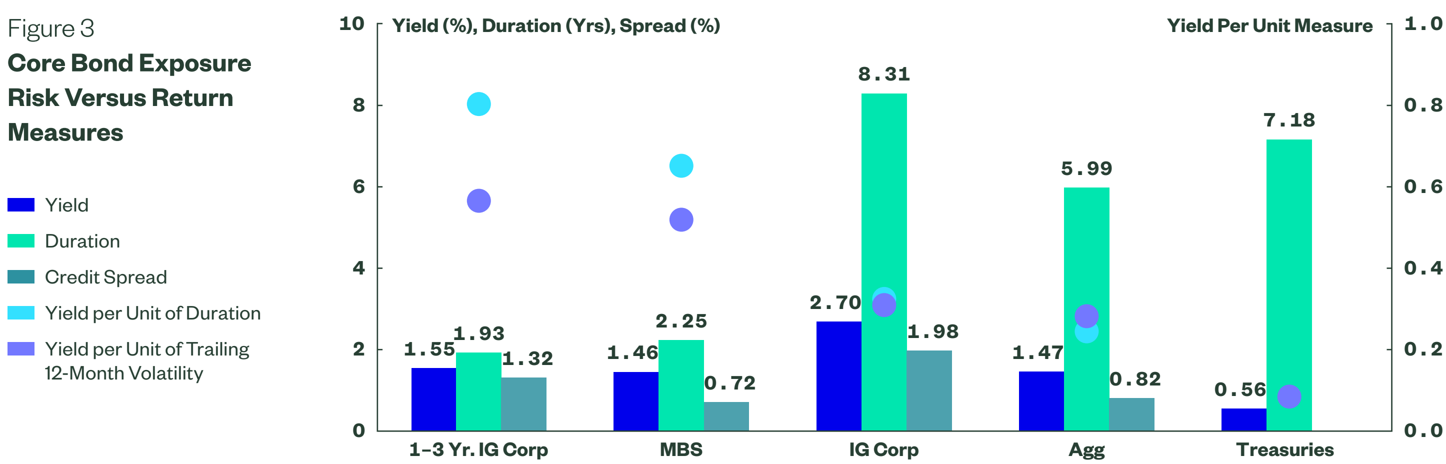
All of this indicates little upside in Treasuries, as duration remains extended and the probability of yields declining significantly again is questionable, as Fed Chair Powell has come out strongly against negative rates.[15] In addition, the yield curve may steepen over the coming months, reflecting the significant amount the US Treasury is planning to borrow to fund the stimulus in response to the pandemic. We have already seen the curve widen to a degree,[16] even though the Fed has bought $1.5 trillion in Treasuries over the nine weeks since the crisis began.[17]

Of course, core bonds are meant to seek income and provide ballast to the equity side of the portfolio. In today's core portfolios, overweighting two segments (mortgage-backed securities (MBS) and short-term corporates) may help provide higher income than Treasuries while still offering balance from a risk/return perspective.

Don't Fight the Fed

The old Wall Street mantra of "Don't fight the Fed" refers to the notion that investors can do well by investing in a way that aligns with the Fed's current monetary policies rather than against them.[18] In addition to Treasuries, the Fed is also purchasing agency MBS as part of its unlimited quantitative easing (QE).[19] Beyond having a large, constant buyer that will likely support a steady "bid" on the asset class, MBS have a structurally unique yield per unit of risk exposure, as shown in Figure 3, that may prove beneficial for investors seeking to balance rate and credit risk in the hunt for yield in this uncertain environment.

Figure 3
Core Bond Exposure Risk Versus Return Measures



Source: Bloomberg Finance L.P., as of 05/18/2020. **Past performance is not a guarantee of future results.** Figures shown are based on index data and do not assume any fees. Treasuries: Bloomberg Barclays US Treasury Index, MBS: Bloomberg Barclays US MBS Index, Agg: Bloomberg Barclays US Aggregate Bond Index, IG Corp.: Bloomberg Barclays US Corporate Bond Index. 1–3 Corp.: Bloomberg Barclays US Corporate 1–3 Yr. Index.

Another part of the Fed's stimulus arsenal is purchasing individual bonds of US investment-grade-rated firms with a maturity of five years or less, as well as broad corporate bond ETFs. Under this program, roughly $220 billion of short-term corporate bonds could be bought.[20] The Fed's supportive bid for short-term corporate bonds will likely put a ceiling on how high spreads could widen. As a result, allocating alongside the Fed and overweighting the short-term segment may be a way to balance yield — yield per unit of duration is higher than the Agg, as shown in Figure 3 — as well as credit risks within a portfolio's corporate exposure, particularly if future stressors emerge and the size of the program increases with Chair Powell's "no-limits" approach to the Fed's COVID-19 response.[21]

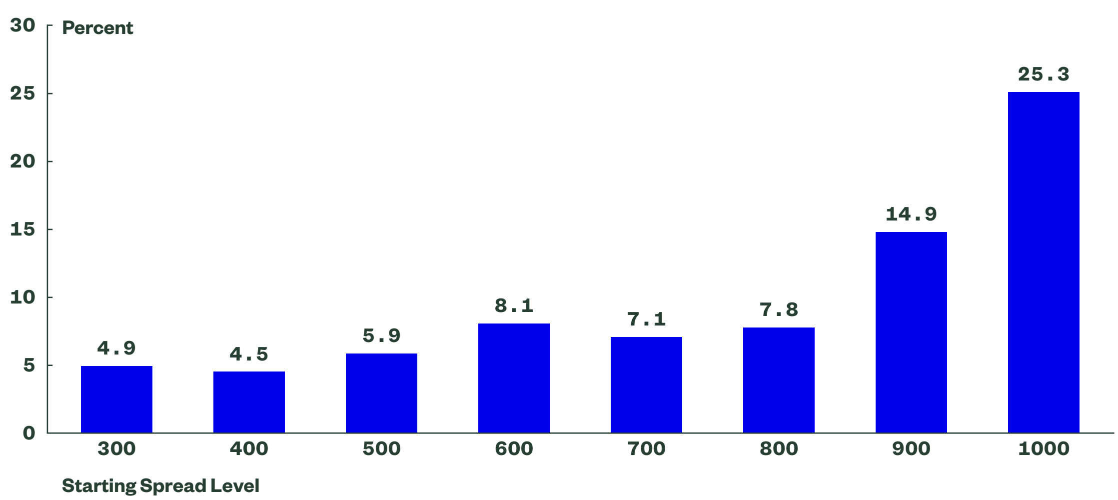
Risk Dynamics Altered for High Yield

The Fed's lending programs also include the provision to buy high yield debt that was previously rated investment grade (IG) prior to March 22 and high yield ETFs. With these actions, the Fed may be aiming to target a specific spread level to limit panic-driven selloffs and add support, similar to how the Bank of Japan's specific yield curve target supports capital formation and lending markets. As a result, the Fed's new lending programs have transformed once risky bonds, such as corporates, fallen angels and even junk bond ETFs, into risky bonds that are now implicitly backed by the Fed.

Income-starved investors, such as pensioners, retirees and savers, don't have many low-risk options to generate much-needed income in their portfolios. As of right now, the traditional standard 60/40 portfolio yields a paltry 1.98% — the lowest yield on record — and nearly 30% below the long-term median.[22]

However, there are deteriorating fundamentals in credit markets.[23] So, investors may be forced to hold their noses when purchasing previously risky segments of the bond market, such as corporates, fallen angels and junk bonds. This is never a comfortable starting position for any investment decision. But the Fed, a deep-pocketed buyer of these risky bonds, doesn't care about price or crumbling fundamentals. And as shown in Figure 4, some of the strongest returns for high yield come when spreads are at this wide of a level (current spread is ~780 basis points[24]), indicating potential upside if the historical trend continues and a recovery takes shape. As far as the downside, the Fed is implicitly providing a ceiling.

Figure 4
Subsequent Average 12-Month Return (%) — May 2000 to May 2020



Source: Bloomberg Finance L.P., based on spread levels and subsequent returns for the ICE BoFA US High Yield Index. Daily frequency was used to evaluate spreads and returns from May 2000 to May 2020. **Past performance is not a guarantee of future results**. Figures shown are based on index data and do not assume any fees.

There will be winners and losers at the individual bond level, but the broad asset class should benefit from the policy actions and provide both the income and total return necessary to improve the yield profile on portfolios.

Hybrids in the Driver's Seat

Convertible issuance is on pace to break records, with $40.5 billion in bonds coming to market (annualizing $108.8 billion in 2020 vs. $58.1 billion in 2019).[25] Firms are issuing more convertible debt as a result of customized financing terms that make convertibles attractive (i.e., lower coupons) at a time when straight debt spreads are elevated and corporate balance sheet management is vital to shore up liquidity needs.

New issuance that is further out of the money has lower deltas and larger premiums. With new issuance replacing older convertible debt with high deltas and low premiums, broad-based intermediate convertible securities have a balanced mix of bond- and stock-like characteristics. The average stock delta (the sensitivity of the convertible bond to the underlying stock) and the premium to parity (the value of the underlying equity if the convertible is converted) are close to their long-term averages.[26]

Convertibles, at 3.39%, currently yield more than IG corporates.[27] Further, convertibles' bond-like properties have mitigated severe downside moves relative to equities — as they typically do.[28] This has led convertibles to outperform stocks by 8.4% in 2020.[29] Meanwhile, convertibles' equity-like traits have allowed them to participate in the recovery more than straight credit has — outperforming investment-grade and high yield credit since the bottom of the market by 15% and 12%, respectively.[30] This profile may be beneficial for generating sufficient total return from both a coupon and capital appreciation standpoint, while positioning portfolios for a potential recovery that may feature periods of aftershocks of idiosyncratic volatility.

Implementation Ideas:

With interest rates at extreme lows, it is nearly impossible for investors to generate much-needed income using traditionally low-risk investments. These funds may help investors thoughtfully invest alongside the Fed and pursue total return.

To balance income and play defense, target traditional sectors with *explicit* Fed support, such as MBS and short-duration corporates, and consider:

SPMB SPDR Portfolio Mortgage Backed Bond ETF
SPSB SPDR Portfolio Short Term Corporate Bond ETF

To pursue higher levels of income that now may be worth the risk, focus on high yield corporates that have *implicit* Fed support, and consider:

SPHY SPDR Portfolio High Yield Bond ETF

To straddle the line between income and total return potential, consider:

CWB SPDR Bloomberg Barclays Convertible Securities ETF

Theme 3 — Look for Relative Value Opportunities

Chaotic markets can create deviations from the norm across asset classes

The future remains profoundly uncertain, as we are still dealing with the first-order effects of the COVID-19 pandemic. And while uncertainty may prompt investors to take a defensive, high-quality approach in their portfolio's core, relative value opportunities may emerge that can be expressed peripherally.

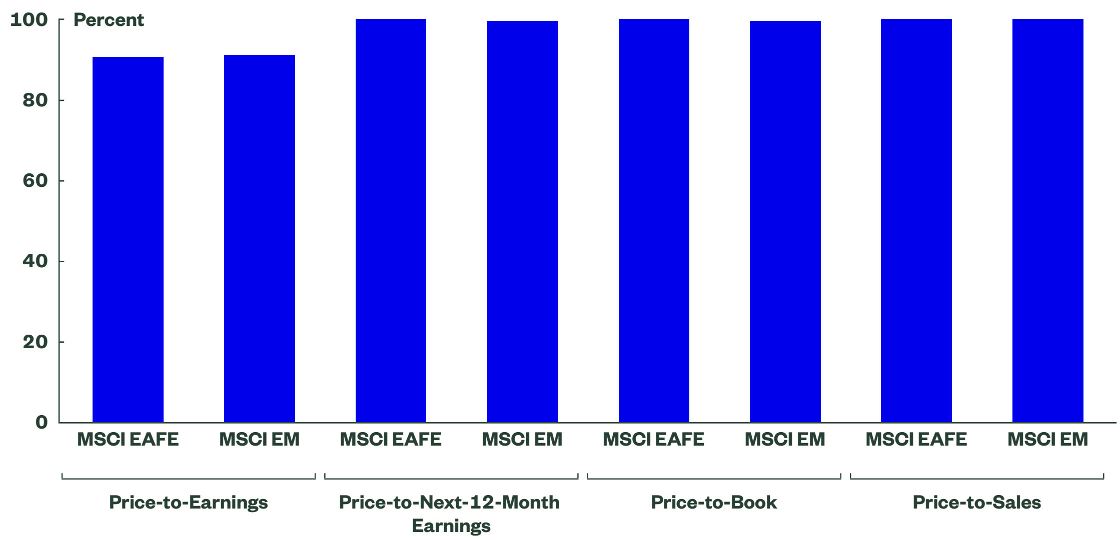
Trim the Home Bias

The pandemic has intensified the behavioral tendency of home bias — when investors favor domestic equities and ignore the potential benefits of diversifying into foreign equities.

Outflows into non-US focused ETFs are at their worst point for any three-month period ever, with $34 billion coming out over the past 12 weeks. Meanwhile, inflows into US-focused strategies have increased, leading to a differential well above the historical 90th percentile.[31] Commodity Futures Trading Commissions' futures positioning data for asset managers reveals a similar trend. In 12 of the past 16 weeks, positioning has been reduced for emerging markets exposures, while managers have added to their US futures longs.[32]

That positioning is a byproduct of non-US exposures underperforming the US for 25 consecutive months[33] — the fourth-longest stretch ever. This underperformance has also strengthened the valuation case. Multiples are more attractive outside the US, with developed ex-US and emerging market exposures both trading in the top 90th percentile — some in the 100th — across four valuation metrics relative to their 15-year history, as shown in Figure 5.[34]

Figure 5
Current Percentile Relative to S&P 500® Versus 15-Year History



Source: FactSet as of 05/15/2020. Fundamentals are as of date indicated and are subject to change. The higher the percentile, the more attractive it is relative to the S&P 500.

Trimming portfolios' home bias by adding more foreign exposure is a contrarian call, but it could be an opportunity if the regime cycle changes and valuations become too cheap to ignore.

Watch China's Rebound

It appears that Asia Pacific, led by China, may rebound more quickly from the pandemic than Europe will. As the epicenter of the early COVID-19 outbreaks, China's cases peaked in late February. And while the economic contraction[35] was severe, recent data suggests an uptick in activity[36] that could be a glimpse of what a global recovery may look like.

China is now outpacing broad US and EAFE benchmarks year-to-date, as well as outpacing them over the past one-, three-, and six-month periods. And based on a composite of momentum, China ranks first among major nations.[37] However, even with those strong returns, valuations for China equities are not stretched. Each metric measured ranks above the 50th percentile relative to the US.[38]

Trade tensions pose a risk to this opportunity. However, given China's global export presence, those risks could be offset by any uptick in demand from more nations starting to reopen. China, therefore, could be another venue to trim any home bias.

Seek Value in the Middle

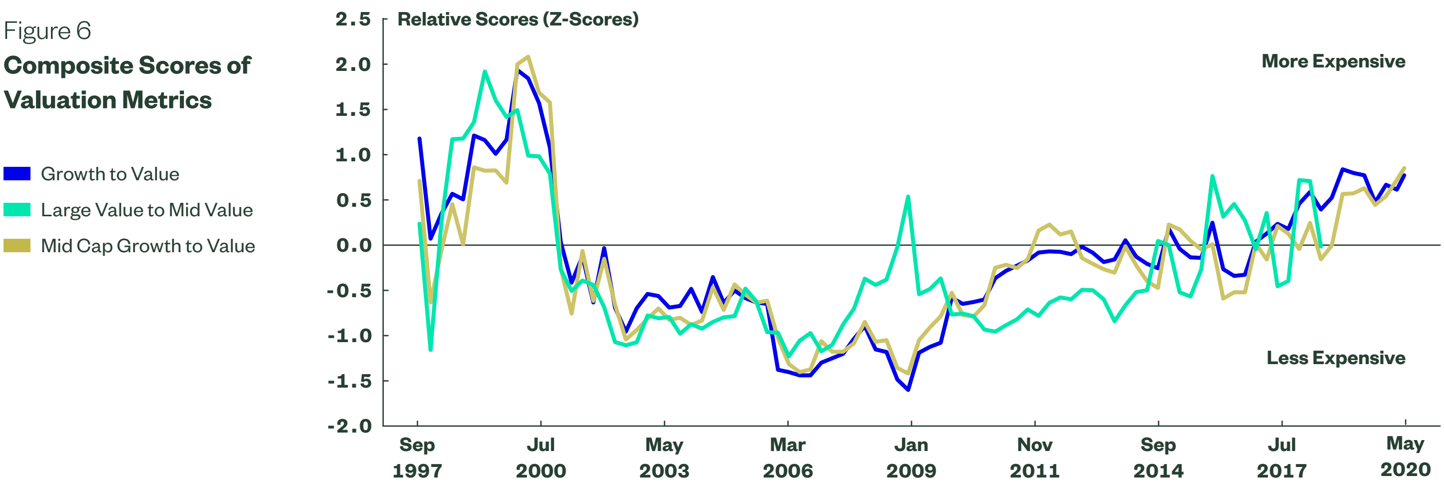
Large over small, growth over value. Those are the trades that have worked — not just this year, but over the past few years. Large high-growth firms have grown in importance, and returns have followed. This disparity in performance has been particularly acute lately, however. If the year ended today, growth would outperform value by the greatest margin of any year since 1998.[39] This strong performance has also led to heightened valuations. And this may present a relative value opportunity, as academic factor analysis has indicated that growth is at its most expensive level relative to value ever.

Framing this debate under more implementable aspects, however, leads to analyzing valuations of different long-only style exposures. Using a five-valuation composite[40] to compare the valuations of large-, mid-, and small-cap core, growth and value exposures,[41] we found that:

- Large cap is more expensive than mid and small caps
- Growth is more expensive than value broadly
- Growth is expensive relative to value within large and mid caps, but not in small caps
- Large-cap value is more expensive than mid-cap value
- Mid-cap value is attractive relative to small-cap value

Plotted in Figure 6, a higher Z-Score indicates that the asset in the numerator of the ratio is more expensive. As shown, based on our research of basic long-only style exposures, mid-cap value may be a more ideal opportunistic allocation for those seeking a value revival.

Figure 6
Composite Scores of Valuation Metrics



Source: Bloomberg Finance L.P. as of 05/15/2020. Fundamentals are as of date indicated and are subject to change.

Swap TIPS for Nominal Treasuries

Inflation through traditional price index measures will likely rise, driven by low base effects in the short term, but it will be tame — if not weaker — against the deflationary headwinds of deleveraging, technology and an aging global demographic. Near term, however, this presents a relative value opportunity for Treasury Inflation-Protected Securities (TIPS) over nominal Treasuries.

While this crisis is unprecedented, the policy responses are similar to those during prior risk events, and insights can be gleaned from the past. Following the Global Financial Crisis (GFC), inflation began increasing as a result of the stimulus measures — averaging 2.4% from 2009 until 2012 — after a demand-driven deflation shock that started in 2008. As a result, after the GFC, TIPS began to outpace nominal US Treasuries. From mid-2009 through 2012, TIPS outperformed nominals in 60% of the months by an average of 30 basis points.[42] One could reasonably expect the same trend today — given the price tag of the monetary and fiscal stimulus designed to fuel an economic rebound.

US five-year breakeven inflation rates are currently low, at 80 basis points.[43] If a recovery takes shape, inflation will likely surpass that level, possibly leading to stronger relative returns for TIPS. And with Fed Chair Powell saying that there is "no limit" to what the central bank can do with its lending programs,[44] policymakers may allow inflation to run above target before dialing it back down.

Consider Gold

With manufacturing and industrial production experiencing nosedives this year, potential remains for a near-term cyclical rebound. A global restructuring of supply chains, with a current focus on reshoring, may weigh on the outlook for broad commodities. Potential stimulus through infrastructure and capital investment may be critical to support cyclical commodities, such as industrial metals and energy, while trade deals and disputes will remain a focus in the agricultural sector.

In this environment, gold may continue to be commodities' main outlier. The biggest macro factors for the price of gold may remain in the metal's favor: continued heightened risk regime, lower-for-longer real rates and the potential for further fiscal spending weakening the outlook for key reserve currencies — particularly the US dollar. And strong demand for gold from the investment sector driven by these dynamics may continue to offset softness in gold's cyclical demand (i.e., jewelry). As gold has historically provided key return and diversification benefits during periods of market stress — more so than traditional commodities[45] — investors may want to consider a heightened relative allocation.

Implementation Ideas

Although economic uncertainty and rocky growth projections may indicate taking a defensive, high-quality approach in the larger parts of a portfolio, relative value opportunities could emerge amid ongoing volatility. These funds may help investors strike a balance.

Whether looking for core US exposures or trimming a core's home bias with strategies that seek to track indexes that blend low-volatility, quality and value exposures, consider:

QUS SPDR MSCI USA StrategicFactors ETF
QEFA SPDR MSCI EAFE StrategicFactors ETF

For opportunistic allocations in asset classes and markets, consider:

GXC SPDR S&P China ETF
MDYV SPDR S&P 400 Mid Cap Value ETF
SPIP SPDR Portfolio TIPS ETF
GLD® SPDR® Gold Shares®
GLDM℠ SPDR® Gold MiniShares℠

Endnotes

1 "*The Virus Changed the Way We Internet*", New York Times, April 7, 2020.

2 "*Zoom, Microsoft Teams usage are rocketing during coronavirus pandemic, new data show*", MarketWatch, 04/01/2020.

3 International Data Corporation, 05/13/2020.

4 Current Price-to-book, Price-to-Earnings, Price-to-Next-Twelve-Month-Earnings, and Price-to-Book for the S&P Software & Services Select Industry Index were analyzed relative to their historical valuations from 2011, as of 05/15/2020 per FactSet based on SPDR Americas Research calculations.

5 Bloomberg Finance L.P., calculations by SPDR Americas Research as of 05/15/2020 based on the constituents of the S&P Biotech Select Industry Index.

6 FactSet as of 05/15/2020.

7 Bloomberg Finance L.P. as of 04/30/2020, calculations by SPDR Americas Research.

8 Current Price-to-book, Price-to-Earnings, Price-to-Next-Twelve-Month-Earnings, and Price-to-Book for the S&P Biotech Select Industry Index were analyzed relative to their historical valuations from 2011, as of 05/15/2020 per FactSet based on SPDR Americas Research calculations. The average is across all four metrics reflects a 6% discount.

9 The Cost of Cybercrime, AccentureSecurity, 2019.

10 "*FBI says cybercrime reports quadrupled during COVID-19 pandemic*", ZDNet.com 04/18/2020.

11 International Data Corporation, 02/04/2020.

12 Statista 04/23/2020.

13 "*Lawmakers look to infrastructure spending to help economy recover from coronavirus*", Washington Post 04/01/2020.

14 The exponential moving average yield is 2.19%, per Bloomberg Finance L.P.; calculations by SPDR Americas Research, as of 05/18/2020.

15 "Fed Chair Powell: The US won't have negative interest rates", CBS News 05/18/2020.

16 The spread between the 30- and 5-year yield has widened by 50 basis points from the start of the year, and the difference between the 10- and 2-year yield is 20 basis points wider as well, per Bloomberg Finance L.P., as of 05/18/2020.

17 Bloomberg Finance L.P., as of 05/18/2020.

18 What is the Meaning of 'Don't Fight the Fed'? thebalance.com.

19 "Fed Unveils Unlimited QE and Aid for Businesses, States", Bloomberg 03/23/2020.

20 The program is the Federal Reserve Secondary Market Corporate Credit Facility (SMCCF) and has $25 billion of capital allocated by the US Treasury. The Fed can, however, lend roughly 10 times what it holds in collateral for non-government securities, meaning the size of the program could be as large as $250 billion. Calculations based on removing any active, non-US focused corporate bond ETFs, then applying a 20% constraint to the current asset levels.

21 CBS, *60 Minutes,* 05/17/2020.

22 Based upon a standard 60/40% blend of the yields for the MSCI ACWI Index and the Bloomberg Barclays US Aggregate Index per Bloomberg Finance L.P. as of 05/18/2020; calculations by SPDR Americas Research. The long-term median yield is 2.68%.

23 Moody's expects the global default rate to climb to 10.4% at the end of 2020 and to edge higher to 10.7% by the end of April 2021, April Default Report Moody's Credit Research 5/11/2020, and there have 1,800 downgrades for North American issuers so far through May 2020; this is more than the last two years combined per Bloomberg Finance L.P. as of 05/18/2020.

24 Based on the trailing 30-day average spread for the ICE US BoFA US High Yield Index as of 05/18/2020.

25 Barclays May 2020.

26 Current stock delta for the Bloomberg Barclays U.S. Convertibles Liquid Bond Index is 62, versus long-term average (since 2003) of 61. Current premium is 31, versus long-term average (since 2003) of 33.

27 The lesser of the yield to worst, yield to maturity, and current yield for the Bloomberg Barclays U.S. Convertibles Liquid Bond Index as per industry convention to assess the yield on convertibles per Barclays as of 05/18/2020.

28 FactSet, as of 05/18/2020 based on the standard deviation of monthly returns (11.03% versus 14.29%) from 4/2010 to 4/2020 and the max drawdown (-16.33% versus -20.90%) during that period for the Bloomberg Barclays Liquid Convertible Bond Index and the Russell 3000 Index, respectively.

29 Return difference between the Bloomberg Barclays U.S. Convertibles Liquid Bond Index and the Russell 3000 Index as of 05/18/2020 per Bloomberg Finance L.P.

30 Return difference between the Bloomberg Barclays U.S. Convertibles Liquid Bond Index and the Bloomberg Barclays US Corporate Index and ICE BoFA US High Yield from 03/23/2020 to 05/18/2020 per Bloomberg Finance L.P.

31 Bloomberg Finance L.P., as of 05/18/2020, calculations by SPDR Americas Research with monthly flow data from 2013 to 2020. The net differential is currently $70 billion.

32 CFTC, Bloomberg Finance L.P. as of 05/15/2020.

33 Bloomberg Finance L.P. as of 05/15/2020. Based on 1-year trailing returns.

34 Price-to-Sales, Price-to-Earnings, Price-to-Next-Twelve-month Earnings, and Price to Book based on data from FactSet as of 05/15/2020, calculations by SPDR Americas Research.

35 China manufacturing PMI fell to an all-time low of 35.7 in February and rebounded to above 50 in both March and April, per Bloomberg Finance L.P. as of 04/30/2020.

36 China manufacturing PMI rebounded to above 50 in both March and April, and economists forecast positive GDP growth for every remaining quarter in 2020 per Bloomberg Finance L.P. as of 04/30/2020.

37 A 3-1, 6-1, and 12-1 momentum score was utilized and ranked against major nations, such as the US, Japan, Germany, France, Canada, Russia, Brazil, and India.

38 Price-to-Sales, Price-to-Earnings, Price-to-Next-12-Month Earnings, and Price-to-Book based on data from FactSet as of 05/15/2020, calculations by SPDR Americas Research based on 15 years of data.

39 S&P 500 Growth is outperforming S&P 500 Value by 19%, only bested by the 28% in 1998.

40 Price-to-sales, Price-to-Earnings, Price-to-Next-12-Month-Earnings, Price-to-Book, and Enterprise value-to-EBITDA.

41 Large cap as defined by S&P 500 Index, Mid Cap as defined as S&P 400 Index, and Small Cap as defined as S&P 600 Index. To determine large versus mid and large versus small, ratios of the fundamental metrics for Large Core, Large Value, Large Growth were compared with Mid Core, Mid Value, Mid Growth as well as Small Core, Small Value, Small Growth, respectively. To determine growth versus value, ratios of the fundamental metrics for Large Value, Mid Value, and Small Value were compared with Large Growth, Mid Growth, and Small Growth. Ratios were normalized by calculating a Z score for each. To calculate a composite score, every fundamental metric's Z score was averaged together. If plotting above zero, the factor is expensive; if below, it is cheap.

42 Bloomberg Finance L.P. as of 05/15/2020, calculations by SPDR Americas Research.

43 Bloomberg Finance L.P. as of 05/15/2020.

44 CBS, *60 Minutes,* May 17, 2020.

45 Gold's trailing 10 year correlation to 60/40 stock-bond portfolio is 0.17, lower than both the BCOM and GSCI indices, which have a correlation of 0.56 and 0.59 respectively. Source: Bloomberg, State Street Global Advisors. Data from 5/31/2010 to 5/31/2020. BCOM = Bloomberg Commodity Total Return Index. GSCI = S&P GSCI Total Return Index. 60/40 Portfolio represented by 60% MSCI World Index and 40% Bloomberg Barclays US Aggregate Total Return Index. **Past performance is not a guarantee of future results.**

Glossary

Basis Point (bps)
A unit of measure for interest rates, investment performance, pricing of investment services and other percentages in finance. One basis point is equal to one-hundredth of 1 percent, or 0.01%.

Bloomberg Barclays U.S. Aggregate Bond Index
A benchmark that provides a measure of the performance of the US dollar denominated investment grade bond market. The "Agg" includes investment-grade government bonds, investment-grade corporate bonds, mortgage pass through securities, commercial mortgage backed securities and asset backed securities that are publicly for sale in the US.

Bloomberg Barclays U.S. Convertibles Liquid Bond Index
An Index designed to represent the market of U.S. convertible securities, such as convertible bonds and convertible preferred stock. Convertible bonds are bonds that can be exchanged, at the option of the holder or issuer, for a specific number of shares of the issuer's equity securities. Convertible preferred stock is preferred stock that includes an option for the holder to convert to common stock.

Bloomberg Barclays US Corporate Bond Index
A fixed-income benchmark that measures the investment-grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

Bloomberg Barclays U.S. 1–3 Year Corporate Bond Index
A benchmark designed to measure the performance of the short-term U.S. corporate bond market. It includes publicly issued US dollar-denominated and investment-grade corporate issues that have a remaining maturity of greater than or equal to one year and less than three years.

Bloomberg Barclays US MBS Index
A benchmark designed to measure the performance of the US agency mortgage pass-through segment of the U.S. investment grade bond market. The term "U.S. agency mortgage pass-through security" refers to a category of pass-through securities backed by pools of mortgages and issued by US. government-sponsored agencies.

Bloomberg Barclays US Treasury Bond Index
A benchmark of US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury. Treasury bills are excluded by the maturity constraint, but are part of a separate Short Treasury Index.

Drawdown
A specific decline in the stock market during a specific time period that is measured in percentage terms as a peak-to-trough move.

EBITDA, or Earnings Before Interest, Taxes, Depreciation and Amortization
An approximate measure of a corporation's operating cash flow that is used to analyze and compare profitability between companies and industries because it eliminates the effects of financing and accounting decisions.

Enterprise Value Multiple
The relationship between the value of the total enterprise, including cash and debt to EBITDA (Earnings before interest, taxes, depreciation and amortization).

ICE BoFA US High Yield Index
An Index that tracks the performance of US dollar denominated below investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have a below investment grade rating (based on an average of Moody's, S&P and Fitch), at least 18 months to final maturity at the time of issuance, at least one year remaining term to final maturity as of the rebalancing date, a fixed coupon schedule and a minimum amount outstanding of $250 million.

MSCI ACWI Index, or MSCI All Country World Index
A free-float weighted global equity index that includes companies in 23 emerging market countries and 23 developed market countries and is designed to be a proxy for most of the investable equities universe around the world.

Mortgage Backed Securities
Pooled securities that are backed by mortgage loans. Agency mortgage backed securities refer to securities backed by pools of mortgages issued by US government-sponsored enterprises such as Government National Mortgage Association (GNMA), Federal National Mortgage Association (FNMA) and Federal Home Loan Mortgage Corporation (FHLMC).

PMI, or Purchasing Managers Index
An indicator of the economic health of the manufacturing sector. The PMI is based on five major indicators: new orders, inventory levels, production, supplier deliveries and the employment environment.

Price-to-Sales
Share price divided by per share revenue.

Price-to-Earnings
Share price divided by earnings per share. Lower numbers indicate an ability to access greater amounts of earnings per dollar invested. A higher number indicates that a company's stock is over-valued.

Price-to-Book Ratio, or P/B Ratio
A valuation metric that compares a company's current share price against its book value, or the value of all its assets minus intangible assets and liabilities. The P/B is a ratio of investor sentiment on the value of a stock to its actual value according to the Generally Accepted Accounting Principles (GAAP). A high P/B means either that investors have overvalued the company, or that its accountants have undervalued it.

Russell 3000® Index
A capitalization-weighted equities benchmark that is designed to be reflect the entire US stock market. The index measures performance of the 3,000 US public companies and represents about 98% of the market cap of US stocks. It is a composite index that combines the Russell 1000® Index of large-cap US stocks as well as the Russell 2000® Index of small-cap US stocks.

S&P MidCap 400 Index
Provides investors with a benchmark for mid-sized companies. The index covers over 7% of the US equity market, and seeks to remain an accurate measure of mid-sized companies, reflecting the risk and return characteristics of the broader mid-cap universe on an on-going basis.

S&P 500® Index
A popular benchmark for U.S. large-cap equities that includes 500 companies from leading industries and captures approximately 80% coverage of available market capitalization.

S&P SmallCap 600 Index
Market capitalization-weighted measure of the performance of small cap equities within the United States, with constituents required to demonstrate profitability prior to gaining initial inclusion.

S&P Biotech Select Industry Index
The S&P Biotechnology Select Industry Index is a modified equal-weighted index that represents the biotechnology sub-industry portion of the S&P Total Markets Index.

S&P Software & Services Select Industry Index
S&P Software & Services Select Industry® Index is a modified equal-weighted index that represents the software sub-industry portion of the S&P Total Stock Market Index.

Standard Deviation
A statistical measure of volatility that quantifies the historical dispersion of a security, fund or index around an average. Investors use standard deviation to measure expected risk or volatility, and a higher standard deviation means the security has tended to show higher volatility or price swings in the past. As an example, for a normally distributed return series, about two-thirds of the time returns will be within 1 standard deviation of the average return.

Yield Curve
A graph or line that plots the interest rates or yields of bonds with similar credit quality but different durations, typically from shortest to longest duration. When the yield curve is said to be "flat," it means the difference in yields between bonds with shorter and longer durations is relatively narrow. When the yield curve is said to be "steep," it means the difference in yields between bonds with shorter and longer durations is relatively wide.

vulnerable to changes in the economy. Other risks associated with convertible bond investments include: Call risk which is the risk that bond issuers may repay securities with higher coupon or interest rates before the security's maturity date; liquidity risk which is the risk that certain types of investments may not be possible to sell the investment at any particular time or at an acceptable price; and investments in derivatives, which can be more sensitive to sudden fluctuations in interest rates or market prices, potential illiquidity of the markets, as well as potential loss of principal.

Investments in **mortgage securities** are subject to prepayment risk, which can limit the potential for gain during a declining interest rate environment and increase the potential for loss in a rising interest rate environment. The mortgage industry can also be significantly affected by regulatory changes, interest rate movements, home mortgage demand, refinancing activity, and residential delinquency trends.

Passively managed funds hold a range of securities that, in the aggregate, approximates the full Index in terms of key risk factors and other characteristics. This may cause the fund to experience tracking errors relative to performance of the index.

Increase in real interest rates can cause the price of **inflation-protected debt securities** to decrease. Interest payments on inflation-protected debt securities can be unpredictable.

Equity securities may fluctuate in value in response to the activities of individual companies and general market and economic conditions. Funds investing in a single sector may be subject to more volatility than funds investing in a diverse group of sectors.

Foreign (non-US) securities may be subject to greater political, economic, environmental, credit and information risks. Foreign securities may be subject to higher volatility than US securities, due to varying degrees of regulation and limited liquidity. These risks are magnified in emerging markets.

A **"value" style** of investing emphasizes undervalued companies with characteristics for improved valuations. This style of investing is subject to the risk that the valuations never improve or that the returns on "value" equity securities are less than returns on other styles of investing or the overall stock market.

A **quality style** of investing emphasizes companies with high returns, stable earnings, and low financial leverage. This style of investing is subject to the risk that the past performance of these companies does not continue or that the returns on "quality" equity securities are less than returns on other styles of investing or the overall stock market

Although subject to the risks of common stocks, low volatility stocks are seen as having a lower risk profile than the overall markets. However, a fund that invests in **low volatility stocks** may not produce investment exposure that has lower variability to changes in such stocks' price levels.

Investments in **mid-sized companies** may involve greater risks than those in larger, better known companies, but may be less volatile than investments in smaller companies.

KENSHO® is a registered service mark of Kensho Technologies Inc. ("Kensho"), and all Kensho financial indices in the Kensho New Economies® family and such indices' corresponding service marks have been licensed by the Licensee in connection with the SPDR S&P Kensho Intelligent Structures ETF, SPDR S&P Kensho Smart Mobility ETF, SPDR S&P Kensho Future Security ETF, SPDR S&P Kensho Clean Power ETF, SPDR S&P Kensho Final Frontiers ETF and SPDR S&P Kensho New Economies Composite ETF (collectively, the "SPDR ETFs"). The SPDR ETFs are not marketed, sold, or sponsored by Kensho, Kensho's affiliates, or Kensho's third party licensors.

Kensho is not an investment adviser or broker-dealer and Kensho makes no representation regarding the advisability of investing in any investment fund, other investment vehicle, security or other financial product regardless of whether or not it is based on, derived from, or included as a constituent of any Kensho New Economies® family index. Kensho bears no responsibility or liability for any business decision, input, recommendation, or action taken based on Kensho indices or any products based on, derived from, or included as a constituent of any such index. All referenced names and trademarks are the property of their respective owners.

The funds or securities referred to herein are not sponsored, endorsed, or promoted by MSCI, and MSCI bears no liability with respect to any such funds or securities or any index on which such funds or securities are based. The Prospectus contains a more detailed description of the limited relationship MSCI has with SSGA Funds Management, Inc and any related funds.

BLOOMBERG®, a trademark and service mark of Bloomberg Finance L.P. and its affiliates, and BARCLAYS®, a trademark and service mark of Barclays Bank Plc, have each been licensed for use in connection with the listing and trading of the SPDR Bloomberg Barclays ETFs.

Investing in commodities entails significant risk and is not appropriate for all investors.

Important Information Relating to SPDR® Gold Trust ("GLD®") and SPDR® Gold MiniShares℠ Trust ("GLDM℠ "):

The SPDR Gold Trust ("GLD") and the World Gold Trust have each filed a registration statement (including a prospectus) with the Securities and Exchange Commission ("SEC") for GLD and GLDM, respectively. Before you invest, you should read the prospectus in the registration statement and other documents each Fund has filed with the SEC for more complete information about each Fund and these offerings. Please see each Fund's prospectus for a more detailed discussion of the risks of investing in each Fund's shares. The GLD prospectus is available by clicking here and the GLDM prospectus is available by clicking here. You may get these documents for free by visiting EDGAR on the SEC website at sec.gov or by visiting spdrgoldshares.com. Alternatively, the Funds or any authorized participant will arrange to send you the prospectus if you request it by calling 866.320.4053.

None of the Funds is an investment company registered under the Investment Company Act of 1940 (the "1940 Act"). As a result, shareholders of each Fund do not have the protections associated with ownership of shares in an investment company registered under the 1940 Act. GLD and GLDM are not subject to regulation under the Commodity Exchange Act of 1936 (the "CEA"). As a result, shareholders of each of GLD and GLDM do not have the protections afforded by the CEA.

The values of GLD shares and GLDM shares relate directly to the value of the gold held by each Fund (less its expenses), respectively. Fluctuations in the price of gold could materially and adversely affect an investment in the shares. The price received upon the sale of the shares, which trade at market price, may be more or less than the value of the gold represented by them.

None of the Funds generate any income, and as each Fund regularly sells gold to pay for its ongoing expenses, the amount of gold represented by each Fund share will decline over time to that extent.

The World Gold Council name and logo are a registered trademark and used with the permission of the World Gold Council pursuant to a license agreement. The World Gold Council is not responsible for the content of, and is not liable for the use of or reliance on, this material. World Gold Council is an affiliate of the Sponsor of each of GLD and GLDM.

GLD® is a registered trademark of World Gold Trust Services, LLC used with the permission of World Gold Trust Services, LLC. MiniShares℠ and GLDM℠ are service marks of WGC USA Asset Management Company, LLC used with the permission of WGC USA Asset Management Company, LLC.

For more information, please contact the Marketing Agent for GLD and GLDM. **State Street Global Advisors Funds Distributors, LLC,** One Iron Street, Boston, MA, 02210; T: +1 866 320 4053 spdrgoldshares.com.

Standard & Poor's®, S&P® and SPDR® are registered trademarks of Standard & Poor's Financial Services LLC (S&P); Dow Jones is a registered trademark of Dow Jones Trademark Holding LLC (Dow Jones); and these trademarks have been licensed for use by S&P Dow Jones Indices LLC (SPDJI) and sublicensed for certain purposes by State Street Corporation. State Street Corporation's financial products are not sponsored, endorsed, sold or promoted by SPDJI, Dow Jones, S&P, their respective affiliates and third party licensors and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability in relation thereto, including for any errors, omissions, or interruptions of any index.

Distributor: State Street Global Advisors Funds Distributors, LLC, member FINRA, SIPC, an indirect wholly owned subsidiary of State Street Corporation. References to State Street may include State Street Corporation and its affiliates.

Before investing, consider the funds' investment objectives, risks, charges and expenses. To obtain a prospectus or summary prospectus which contains this and other information, call 1-866-787-2257 or visit spdrs.com. Read it carefully.

ID222904-3102268.1.2.AM.RTL 0520
Exp. Date: 05/31/2021

Not FDIC Insured
No Bank Guarantee
May Lose Value