Defense Wins Championships

Legendary college football coach Paul “Bear” Bryant is credited with the quote, “Offense sells tickets, but defense wins championships.” However, given the rule changes of the past several decades, it seems like the team with the best quarterback wins the championship these days, leaving old-school coaches shaking their heads. Lately, the equity market has felt the same way, with a few key stocks deciding the fate of the overall index.

Nevertheless, bad defense is a sure recipe for disaster in football, and there are definitely times when a good defense is required to win the game. For investors, we think one of those times is now. In June, we decided to focus more on defense by upgrading utilities and then followed that up by upgrading consumer staples and telecom, while downgrading tech a few weeks later. The rotation has been dramatic and one-sided, with only defensive sectors—utilities, telecom, health care, real estate and consumer staples—outperforming the S&P 500. The rate of change in the spread between the performances of the cyclical and defensive sectors since June has been dramatic. If that weren’t enough, the bond market continues to vote with its feet, with the 10-year US Treasury yield continuing to fall even as the US economy had its strongest quarter of economic growth in eight years.

Meanwhile, the S&P 500 is making all-time highs. Breakouts in the equity market led by defensively oriented sectors are rare. So, what’s the market’s real message? Should we follow the S&P 500 breakout to new highs and get incrementally bullish, or should we listen to the cautious message from the sector leadership and the bond market and remain more defensive in our positioning? We think the answer is a little of both. We have to respect the persistent strength of the US stock market indexes but think investors should continue to have more of a defensive and value tilt in their portfolios.

Escalating trade tensions have made US assets the new “safe haven,” propping up both US equity and bond markets, while the real message of slowing global growth is loud and clear below the surface. Obviously, it is possible this safe-haven momentum will continue, with President Trump unlikely to back off his tough trade talk going into the midterm elections. However, we don’t think a bet on that continued momentum is a good risk/reward proposition. Therefore, we remain biased toward large-cap value stocks in the US and toward international markets, which have already been hit this year and have priced in deterioration in growth.
The Markets vs. Newton

Looking at key debates for markets in 2018’s second half—the Federal Reserve, trade tensions, and the durability of the momentum in equities—Newton’s First Law provides a useful lens. First, the Fed: A few weeks back, we suggested that, while an unusually strong US second-quarter GDP report and a small downtick in inflation could rekindle talk of “Goldilocks,” investors should be skeptical, given that second-quarter growth may have been flattered by a significant pull-forward in demand. It didn’t quite turn out that way.

The number was better than expected, in that it was weaker (4.2% versus our 4.7% estimate), with less pull-forward in inventory than anticipated. US growth is still set to decelerate during the next 12 months, but the overall level will likely be better, and our economists have raised their 2018 US GDP forecast a notch to 2.9%. For the Fed, better growth should bring forward tightening, while falling spare capacity means a high bar for easing.

FED IN MOTION. The Fed is now operating under Newton’s First Law. It is in motion, and will stay in motion (raising rates and shrinking its balance sheet) until acted upon by an opposing force. We expect the Fed to hike rates in both September and December. No opposing force is on the horizon, given our growth and inflation forecasts and how easy financial conditions still are. Importantly, our interest rate strategists don’t think that this necessarily means higher 10-year rates, but they forecast higher two-year rates and a flatter curve as investors see near-term tightening posing greater risks to growth further out.

The First Law also seems to be working in trade policy. Investors are divided on this issue, and there are thoughtful cases for why trade tensions will de-escalate, but this is not our view. The US appears in motion toward enacting increasingly aggressive trade restrictions, and we believe tensions will continue to escalate until an opposing force emerges.

TRADE RHETORIC IMPACT. The administration’s trade rhetoric has coincided with an equity market near all-time highs, low volatility and a strong GDP reading. So far, the markets have given little to no indication that this is the wrong course of action—and we think trade rhetoric will continue to escalate until it finally faces greater market consequences.

Nowhere do Newton’s thoughts seem more appropriate than on momentum. As a factor in equities, it has been amazingly strong and, through April, the 12-month performance of US equity momentum was in the 86th percentile of all observations. Lately, momentum has been hit by opposing forces. For instance, the Nasdaq Composite Index has continued to climb, while the number of stocks making new highs has fallen (see chart).

OPPOSING FORCES. Those opposing forces include fundamentals and positioning. In US technology, several high-profile companies have failed to match high expectations. In European cyclicals, trade risk has weighed on a high-flying sector. Investor positioning and relative performance in momentum, both of which are at historical extremes, haven’t helped.

Bulls argue that the better relative growth of momentum-exposed stocks means the weakness will be short-lived. MS & Co.’s equity strategy analysts are more skeptical, and have been charting rotations toward value. Alix Guerrini, European quantitative analyst, recently closed his overweight on momentum and now favors defensive value and quality.

Momentum, after all, is tough to predict. In 1720, a famous investor bought stock in the hottest name of the day, the South Sea Company. It rose significantly. He sold. It rose even more, and he bought again. Momentum reversed, the shares cratered and his losses were immense. That investor, of course, was Sir Isaac Newton.
A protracted escalatory cycle is underway. The frequency, intensity and scope of trade measures have broadened out significantly in recent months. Reflecting this, our US public policy strategist, Michael Zezas, highlights that trade tensions are in a protracted escalatory cycle. We believe that a negotiated outcome would still be the endgame. However, reaching that would likely be a protracted process with fits and starts and could take several quarters.

Against this backdrop, investors have also been incrementally more concerned about the impact of trade tensions on global growth. The integration of supply chains both domestically and globally has meant that any trade measures are in a protracted escalatory cycle. We were therefore able to break down the final impact on growth into the following three broad components: the initial tariff impact, which refers to the direct decline in demand for exports and drag on gross value added of the affected sectors; the domestic supply chain impact, which refers to the knock-on effect to the domestic supply chain (i.e., weaker demand for domestic products and services of suppliers within the same industry and other industries); and the international supply chain impact, which refers to impacts on suppliers located in other countries and their own suppliers.

Given the uncertainty surrounding the eventual outcome and the fluidity of recent developments, we explored four scenarios. The first scenario covers the trade measures to date. Then, given the evolving developments, we also explore three escalatory scenarios that imply a further increase in tariffs by the US and an in-kind response from affected trade partners:

- **Status quo.** Tariffs that have been announced so far—25% on US steel and 10% on US aluminum imports, as well as 25% tariffs on $50 billion of goods imports from China and vice versa—are fully implemented. Our results reveal an impact of shaving nine basis points off global growth, which, in our view, would be manageable (see chart).

- **Escalation.** The US imposes a 10% tariff on $200 billion of goods imports from China and a 22.5% tariff on auto imports from Europe. China, in turn, imposes a 25% tariff on $80 billion of goods and Europe imposes a broad-based 7.5% tariff on all goods imported from the US. In this scenario, the impact on global growth would be more meaningful at 21 basis points.

- **Significant escalation.** The US imposes a 10% tariff on $500 billion of goods imports from China. Media reports say the US administration might consider implementing a 10% tariff on all imports from China. In this scenario, the impact on global growth, at 31 basis points, would be more material. China's growth is impacted by 67 basis points, while the US and Europe's growth are impacted by 34 basis points and 23 basis points, respectively.

### How Tariffs Could Impact Global Trade

<table>
<thead>
<tr>
<th>Percentage Points</th>
<th>International Supply Chain</th>
<th>Domestic Supply Chain</th>
<th>Initial Tariff Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status Quo</td>
<td>-0.0</td>
<td>-0.09</td>
<td>-0.21</td>
</tr>
<tr>
<td>Escalation</td>
<td>-0.1</td>
<td>-0.21</td>
<td>-0.31</td>
</tr>
<tr>
<td>Significant Escalation</td>
<td>-0.4</td>
<td>-0.31</td>
<td>-0.81</td>
</tr>
<tr>
<td>Full-Blown Escalation</td>
<td>-0.6</td>
<td>-0.8</td>
<td>-0.9</td>
</tr>
</tbody>
</table>

Source: Morgan Stanley & Co. Research estimates as of July 26, 2018
Full-blown escalation. Finally, we also consider a scenario in which the US moves to impose a broad-based 25% tariff on all imports from China and the EU, which respond in kind. This then results in an impact of 81 basis points on global growth. Under this scenario, China’s growth is impacted by 150 basis points, the US by 99 basis points and Europe by 74 basis points.

MANAGEABLE FOR NOW. The impact from the trade conflicts is manageable for now, but significant escalation will impart material downside to growth. In our midyear outlook, we expressed the view that global growth would moderate but remain above trend and that, with a maturing cycle, risks are skewed to the downside. Trade policy, US financial stability and China’s tightening, were identified as the key risks. Currently, global GDP growth is tracking in line with our base-case view of 3.9% for 2018. However, the risks have clearly risen. If the situation were to escalate further, it would impart meaningful downside risks to our growth forecasts.

A common thread of our simulation results is that the supply chain effect dominates—almost 80% of the eventual growth impact can be attributed to these spillover effects. Considering the scenario in which the US imposes a broad-based 25% tariff (full-blown escalation), we estimate that 23% of the total growth impact is accounted for by the initial tariff impact, 35% by the domestic supply chain effect and 42% by the international supply chain effect.

INDIRECT AND LONG-TERM IMPACT. While our analysis has captured the growth impact brought about by the supply chain effects, there are some indirect and longer-term effects that are still not captured. These include second-round effects on domestic demand, in particular sentiment and the attendant impact on corporate investment, hiring and household consumption. On the flip side, mitigating factors such as subsidies and monetary policy and fiscal policy responses could also partly offset the drag on GDP.

Given that the broadest tariffs are being implemented on China in the scenarios that we have considered, China therefore faces the largest drag on growth. However, even in the fourth scenario in which broad-based tariffs are implemented on both China and Europe, China still faces a larger growth impact relative to Europe, considering its larger industrial and manufacturing base and a greater relative dependence on exports to the US. The impact on the US stems from the effects from measures in response.

Outside this group, the economies that are closely integrated in the regional supply-chain networks of the US, China and the EU—such as Canada, Mexico, Taiwan, Korea and Switzerland—would take a significant hit as well. Russia and Norway also rank among the top countries affected due to their role as key suppliers of mining and quarrying products. Sectors such as mining and quarrying, electronics, wholesale trade, chemicals and chemical products and machinery and equipment would be the most impacted sectors in a scenario of a full-blown escalation. This suggests that the intermediate sectors are more exposed, again a reflection of the impact propagated by the supply-chain effects.

CONCERN FOR CENTRAL BANKS.

Trade tensions pose a conundrum for policymakers, particularly for central banks that have to balance rising inflationary pressures with demand destruction. At the current juncture, given the relatively modest impact from the measures that have been implemented to date, we do not expect any changes in policy relative to our base-case expectations. This has been corroborated in recent commentary by policymakers from the Federal Reserve and the European Central Bank, who said that the impact from trade measures would have to be meaningfully higher for them to take action.

If further tariffs are implemented, we would expect the Fed to first be more cautious about raising rates, particularly if financial conditions tighten. Meanwhile, policymakers in China could allow a modest rebound in broad credit growth to accommodate fiscal easing, with a continued boost to banks’ on-balance-sheet lending capability and slower pace of shadow bank tightening. Aside from the monetary policy response, policy tools such as export subsidies and fiscal policy, both automatic stabilizers and discretionary, could also kick in to support growth and mitigate the downside risks.

This article is an excerpt from a July 26 Morgan Stanley & Co. Global Economics report, “Global Supply Chain Impact: Who’s Most Exposed?”
Sometimes You Buy Even As Margins Are Squeezed

Rising tariffs, higher energy prices, elevated metals prices and labor shortages all impacted corporate margins during the first half of 2018. If these margin contractions are temporary, it may be a buying opportunity; if they are the beginning of a secular decline, the companies remain unattractive. How do you tell the difference?

To answer, we started with the second-quarter earnings of S&P 500 companies, and ranked them by the changes in their year-over-year profit margins (see chart). As expected, companies that suffered lower margins lagged in price performance behind those with stable and expanding margins. Further, the degree to which margins expanded or contracted seems important for year-to-date performance. The top quartile, companies with the strongest margin performance, was up 20%, while the bottom quartile was only up 5%. Many of these laggard companies have been hurt by higher costs for materials, energy, freight, tariffs and/or labor. However we believe, for high-quality companies, the margin contraction is temporary. For low-quality companies, it’s permanent. Again, though, how can you tell the difference?

**ECONOMIC MOATS.** While many companies face headwinds at times, the companies that can overcome them are quality companies with an economic moat around the business. For example, those that have pricing power can respond to adversity with pricing increases; those with economies of scale might be able to resuscitate their margins with cost cuts and market-share gains. High-quality companies whose margin contraction is caused by geopolitical forces, such as tariffs, or cost pressures, such as higher energy prices, often present a buying opportunity. That’s because in a few more quarters, margins and earnings will likely rebound to their natural state, and share prices are apt to respond.

**QUALITY REBOUNDS.** This year, quality companies “kept” more of the tax cuts; during the next year, we expect them to rebound from margin contractions. Earlier this year, we used operating margins and return on capital to identify quality companies that might keep more of the tax cut rather than compete it away. In fact, our high-tax, high-quality basket outperformed the high-tax, low-quality basket by nearly 1,400 basis points through July and by 535 basis points from March through July. Today we are using the same quality ratings to determine which companies will be able to pass along cost increases this year. Importantly, for our basket of high-quality companies, second-quarter margin contraction should be temporary, not permanent.

**SECULAR ISSUES.** Today our list has quality companies in many industries with contracting margins. If they are truly quality firms, we expect their competitive advantages to lead to a margin rebound during the next year and better returns. Still, in some industries, deteriorating quality has led to soft margins. We thus eliminate industries that have secular issues: e-commerce is threatening multiline retailers, and price conflicts are taking a toll on diversified telecom services.

We are left with a collection of industries for which margin compression is more likely to be temporary: chemicals, which face headwinds from oil prices; food products, which may be impacted by tariffs; commercial services and supplies, where higher freight rates are an issue; air freight and logistics, which suffer from labor shortages; and the media, which is contending with content-cost inflation. If we are right, we expect quality companies in these industries will improve their margins in the next year and move from the low-return quartile to the high-return quartile.

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### Changes in Margins Impacted Price Performance

**2018 Returns for Companies Ranked by Year-Over-Year Change in Second-Quarter Profit Margins**

<table>
<thead>
<tr>
<th>Quartile 1 (most margin contraction)*</th>
<th>Quartile 2</th>
<th>Quartile 3</th>
<th>Quartile 4 (most margin expansion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemicals, Food Products, Commercial Services &amp; Supplies, Air Freight &amp; Logistics, Media</td>
<td>20%</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>5%</td>
<td>5%</td>
<td>7%</td>
<td>20%</td>
</tr>
</tbody>
</table>

*Median change in margins: Quartile 1, -16%. Quartile 2, -3%, Quartile 3, +3%, Quartile 4, +22%

Source: FactSet as of July 31, 2018
INVESTING WITH IMPACT

LILY S. TRAGER
Investing With Impact Director
Morgan Stanley Wealth Management

To end poverty, protect the planet and ensure prosperity for all,” the United Nations General Assembly unanimously approved 17 sustainable development goals (SDGs) in 2015 (see table). Each of the SDGs was designed to be achieved by 2030 with coordinated contributions from both the public and private sectors.

Now, many companies aim to align with SDGs overtly through their sustainable corporate practices and also through the products and services they bring to market. Importantly, investing in companies that promote positive environmental and social outcomes does not mean sacrificing returns.

We believe companies that perform better on environmental, social and corporate governance practices, as well as those whose products and services create positive impact, may be better positioned to benefit from secular trends such as the transition to a lower-carbon economy and growing consumer preferences for higher-sustainability products. SDGs are consistent with our Investing with Impact Platform, which provides access to a comprehensive set of investment strategies, portfolios, tools and analysis to deliver holistic wealth management that generates market-rate financial returns alongside positive impact.

The first of 17 SDGs is to eliminate poverty. Specifically, the goal is to reduce the absolute global poverty rate to 3% by 2030—it was nearly 11% in 2013—and to eradicate extreme poverty everywhere.

According to the World Bank, an estimated 767 million people—largely in south Asia and sub-Saharan Africa—live on less than $1.90 a day, the international poverty line.

There are many measures of poverty globally. In 2014, more than 1 billion people lacked access to electricity and 2 billion didn’t have a basic bank account. Many were living just above the poverty line at risk of falling below it as a result of exogenous shocks like natural disasters—excessive rainfall or drought linked to climate change—or loss of a job or illness.

We focus on several strategies including companies, sectors and fund managers that we believe capture the spirit of SDG 1 to address the challenge of alleviating poverty. These include sectors sourced from the Morgan Stanley & Co. Sustainability Research team, as well as third-party asset managers on the Investing with Impact Platform.

Companies can help. Corporations are critical in reducing poverty and increasing wealth, both through their own sustainable corporate practices—employee wages, for example—as well as through their products and services, such as providing

### Sustainable Development Goals

| No Poverty. End poverty in all its forms everywhere |
| Zero Hunger. End hunger, achieve food security and improve nutrition and promote sustainable agriculture |
| Good Health and Well-Being. Ensure healthy lives and promote well-being for all at all ages |
| Quality Education. Ensure inclusive and quality education for all and promote lifelong learning |
| Gender Equality. Achieve gender equality and empower all women and girls |
| Clean Water and Sanitation. Ensure access to water and sanitation for all |
| Affordable and Clean Energy. Ensure access to affordable, reliable, sustainable and modern energy for all |
| Decent Work and Economic Growth. Promote inclusive and sustainable economic growth, employment and decent work for all |
| Industry, Innovation and Infrastructure. Build resilient infrastructure, promote sustainable industrialization and foster innovation |
| Reduced Inequalities. Reduce inequality within and among countries |
| Sustainable Cities and Communities. Make cities inclusive, safe, resilient and sustainable |
| Responsible Consumption and Production. Ensure sustainable consumption and production patterns |
| Climate Action. Take urgent action to combat climate change and its impacts |
| Life Below Water. Conserve and sustainably use the oceans, seas and marine resources |
| Life on Land. Sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss |
| Peace, Justice and Strong Institutions. Promote just, peaceful and inclusive societies |
| Partnerships for the Goals. Revitalize the global partnership for sustainable development |

Source: United Nations
people in rural areas access to savings accounts and mobile payment tools. The majority of asset managers on our Investing with Impact Platform, for instance, utilize a tool called “Shareholder Engagement” to increase dialogue with companies about various issues, including livable wages, the employee wage gap, product safety and even climate change, which have a disproportionately negative impact on the poor. These issues are systemically related to alleviating poverty globally as outlined in SDG 1.

**Third-party asset managers.** There are a number of asset managers focused on eradicating poverty as part of their investment process and shareholder engagement efforts. In terms of investment selection, these managers evaluate corporate sustainable practices and environmental, social and governance (ESG) criteria, as well as revenue derived from products and services that provide support toward SDG 1.

In a recent analysis we determined that more than 50% of the 140 mutual fund, exchange-traded fund and separately managed account strategies on our Investing with Impact Platform are aligned with at least one SDG; the top three are climate action, affordable clean energy and gender equality.

In line with SDG 1, there are a number of asset managers focused on eradicating poverty. One active manager, for instance, has mapped an ESG framework, which outlines relevant environmental, social and governance considerations for each company subsector, against the SDGs. For example, the strategies have holdings in banks and card issuers/payment network companies giving them coverage of SDG 1, as each of these companies is addressing poverty through financial inclusion initiatives. In addition, this manager has identified a number of other subsectors, such as retailers, autos, homebuilders, household and personal care products, that contribute to SDG 1 through strong job-creation potential in these sectors.

Following its quantitative approach to investing, another manager assesses SDG alignment using both company ESG scores and its proprietary Sustainable Impact Metrics, which measure revenue exposure to specified themes. As part of its portfolio optimization process, the manager assigns bonus weightings to companies with high alignment.

We expect to see more systematic alignment with SDGs across sustainable and impact investing strategies over time as demand continues to grow.
Blockchain Beliefs

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Blockchain may be the most emotionally charged record-keeping concept in history. That is, perhaps, the simplest way to describe blockchain, a technology that alters the means of bookkeeping. With that frame, the concept sounds a little more mundane. So, why do people take such passionate positions for or against the technology? The answer to this question requires an exploration of complex issues such as trust, transparency, vulnerability, risk and centralized authority.

A MEASURED APPROACH. Blockchain technology may become ubiquitous with time, but we take a more measured approach. In our view, blockchain’s adoption will be driven by economic incentives and will most likely prove lasting in markets where there is a trust deficit. Emerging markets seem like the most predisposed. Mass adoption, however, could be a decade or more away.

Trust lies at the center of the blockchain story. What makes it different than other accounting methods is its transparency. The record of activity is available to all and auditable back to the first transaction. The technology relies on a partially encrypted distributed ledger and a series of computers that validate transactions. Computers add blocks of transactions that track items or payments. Since others on the network have a copy of the ledger, prior entries are difficult to change without absorbing high costs to manipulate the chain.

TRANSPARENCY OVER TRUST. With blockchain, trust becomes obsolete by means of transparency. The publically distributed ledger means that the balance of every account is theoretically available for others to read. There is no need for trust, and therefore no need for clearinghouses and multiple banks confirming the balance and receipt of funds. By eliminating the need for intermediaries, blockchain could reduce the cost of payments. The trade-off for lower transaction costs is a loss of privacy through transparency of the ledger.

However, today’s trust-verification system evolved over centuries and has become fairly efficient. According to Morgan Stanley & Co., modern card networks can process 5,000 transactions per second. One bitcoin block, which averages about 2,020 transactions, takes 10 minutes. Bitcoin, as it stands now, cannot compete efficiently in low-value, high-volume transactions because of its slow processing speed. Where blockchain technology has proven useful in the payment industry is high-value, low-volume transactions, such as business-to-business payments.

CROSS-BORDER PAYMENTS. There may be further value in cross-border payments, where existing processes are expensive and slow. In countries with well-developed financial systems and a stable rule of law, current blockchain technology will have a hard time competing with the existing trust infrastructure. However, in countries without stable governments or financial systems, blockchain may offer an alternative solution to the trust deficit.

Outside of payments, other potential uses in finance may be more fruitful. For example, trade settlement is already a matter of public record. Exchanges identify and report the price and volume of a stock transaction. Blockchain technology could play a meaningful role in public market exchanges, and Australia is already looking to implement the technology.

SMART CONTRACTS. A corollary use to a payment system is smart contracts. A distributed ledger protects merchants from customers who are unable to pay. What ensures customers will receive the goods promised? Currently, customers rely on the merchant’s reputation and, in the last resort, recourse in court. Smart contracts are pieces of code that trigger the release of a good when money is received. If the customer does not receive the promised good or service, the money is not released.

Blockchain could also allow for a public record of all intellectual property rights. In the music industry, for example, there are organizations that keep records of which artists and labels own rights to which songs. These records do not always match up, and disputes arise. One immutable, public blockchain record of intellectual property rights would facilitate dispute resolution. When combined with smart contracts, such a public record could open up a whole new possibility of micropayments for things like news articles and television shows.

Our full report, “Blockchain Beliefs,” is in the July 19 issue of AlphaCurrents, a new publication on thematic investing.
Emerging Market Equities May Look Cheap, but …

Emerging market (EM) equities are hovering near bear-market territory, with the MSCI Emerging Markets Index off some 18% from its January high—a significant divergence from US stocks. Trade disputes, weaker commodity prices, tightening by developed market central banks and a stronger US dollar have weighed on sentiment and prices. On a price/earnings basis, EM equities trade at a one-third discount to the S&P 500. This discount is historically wide, and it has only been breached three other times in the past 10-plus years (see chart). While this makes EM stocks look cheap, we would caution that past returns have been mixed when buying at such discounts. What looks like a buying opportunity can really be the market pricing in a decline in earnings per share. Instead, look for a pickup in earnings per share and currency stabilization as signs of optimism on EM equities.—Matthew Brookman

Another Indicator Suggests Profit Margins May Be Under Pressure

The growing gap between the Federal Reserve Bank of Philadelphia’s Prices Paid and Prices Received Indexes suggests corporate profit margins may be coming under pressure (see chart). The difference between the Prices Paid Index, which measures the cost of raw materials used to produce finished goods, and the Prices Received Index, which captures what customers are willing to pay for goods and services, stands at its widest level in six years as the rising cost of raw materials has outpaced potential revenue increases. Even though tax cuts provided an immediate boost to corporate profits, relatively benign inflation suggests that corporations may face difficulty passing off the higher costs to customers, for whom real wage growth has stalled. Although the US economy continues to grow, the impact of the stronger dollar and the inflationary impact of the US-China trade dispute on commodity goods and raw materials threaten earnings growth going forward.—Chris Baxter

Savings Rate Revision Points Toward More Consumer Purchasing Power

The US Commerce Department recently revised the methodology for calculating the personal savings rate, which raised the rate to 6.8% from than previously reported 3.2% (see chart). This may have two implications. First, the already extended economic expansion may be prolonged as consumers leverage their savings to expand their credit balances. Coupled with nearly record-low unemployment rates, this opportunity could help to keep consumption at a steady pace—rather than face the decline normally associated with the end of an economic expansion. What’s more, a higher savings level strengthens household balance sheets and softens the impact of a recession. The current saving rate is notably higher than the saving rates observed ahead of the 2001 and 2008 downturns and can cushion consumer spending in periods of slowing economic activity.—Vibhor Dave
Alternative Mutual Funds May Fill a Portfolio Niche

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After a multiyear rally in global stocks and bonds, the Global Investment Committee (GIC) believes the returns from traditional asset classes and investment strategies are likely to be lower than what we have seen between 2009 and 2017. Additionally, these lower returns are likely to come with increased volatility and the potential for more drawdowns than we have witnessed in recent years. Specifically, the GIC expects a significant decline in returns for stocks and bonds, as well as an increase in volatility during the next seven years. With that in mind, we believe that “alternative” investments, which are not correlated to traditional stock and bonds, may enhance returns and reduce risk.

Throughout previous market cycles, most alternative investments were hedge funds and, to invest in them, individuals needed to be “qualified”— have at least $5 million in investments. Choices for nonqualified purchasers were limited. However, in the past 10 years, more mutual funds have pursued alternative strategies, making them available to a broad range of investors. According to Morningstar, total assets under management (AUM) for alternative mutual funds has gone to $182 billion on June 30 from $57 billion in 2009; at the same time, the number of funds has grown as well to 532 from 194.

**DAILY LIQUIDITY AND PRICING.** Like traditional mutual funds, alternative mutual funds provide daily liquidity and pricing, as well as regular reporting of their holdings. In contrast, most hedge funds have historically limited reporting of their holdings (see table). The mutual fund wrapper also brings the convenience of 1099 tax reporting as opposed to a Schedule K-1. The downside is that alternative mutual funds may have less flexibility with their trading strategies than what is available to hedge funds. By regulation, mutual funds must limit borrowing or leverage, segregate capital used to cover short positions, restrict investment in illiquid securities to 15% of total assets and provide daily liquidity and pricing.

In contrast, hedge funds are lightly regulated and are not bound by those restrictions. This regulatory framework may reduce the opportunities for alternative mutual funds compared with hedge funds, but it also provides strict oversight, transparency and liquidity to safeguard investor interests.

There are also large differences in fees. Most private hedge funds typically charge a 1.5%-to-2.0% annual management fee plus a performance fee, usually 15% to 20% of the profits. In contrast, alternative mutual funds only charge management fees and other expenses, which together

<table>
<thead>
<tr>
<th>Alternative Mutual Funds vs. Private Hedge Fund Offerings</th>
<th>Alternative Mutual Funds</th>
<th>Private Hedge Fund Offerings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment</strong></td>
<td>Varies by strategy</td>
<td>Varies by strategy</td>
</tr>
<tr>
<td><strong>Flexibility</strong></td>
<td>Limited flexibility</td>
<td>Greater flexibility</td>
</tr>
<tr>
<td><strong>Derivatives</strong></td>
<td>Limited ability to use</td>
<td>Greater ability to use</td>
</tr>
<tr>
<td><strong>Leverage</strong></td>
<td>Limited ability to use</td>
<td>Greater ability to use</td>
</tr>
<tr>
<td><strong>Transparency</strong></td>
<td>High</td>
<td>Generally low</td>
</tr>
<tr>
<td><strong>Liquidity</strong></td>
<td>Generally liquid securities</td>
<td>Generally liquid and less liquid securities</td>
</tr>
<tr>
<td><strong>Operations</strong></td>
<td>Low</td>
<td>High/private investor qualifications</td>
</tr>
<tr>
<td><strong>Fees</strong></td>
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<td>Typically management and performance fees</td>
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<td><strong>Tax Reporting</strong></td>
<td>IRS Form 1099</td>
<td>Typically IRS Form K-1</td>
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<td><strong>Redemptions</strong></td>
<td>Generally daily</td>
<td>Limited opportunity to redeem</td>
</tr>
<tr>
<td><strong>Regulatory</strong></td>
<td>1940 Act restrictions</td>
<td>Limited SEC oversight</td>
</tr>
<tr>
<td><strong>Diversification Requirements</strong></td>
<td>Position sizes, sector exposures</td>
<td>None, varies widely</td>
</tr>
</tbody>
</table>

Source: Morgan Stanley Wealth Management Global Investment Manager Analysis

Please refer to important information, disclosures and qualifications at the end of this material.
range between 1.0% and 2.0% annually. Unlike most hedge funds, managers of alternative mutual funds do not typically earn incentive fees.

PERFORMANCE ISSUES. The returns from alternative mutual funds have been lackluster at times since the financial crisis. However, private hedge funds have faced similar performance issues as the market environment has been more conducive for long-only strategies. A comparison of alternative mutual fund and hedge fund performance demonstrates the similarities in terms of returns, standard deviation and beta to equities on a strategy basis using both Morningstar and HFRI Indexes. We believe these results strengthen the argument for investors to consider alternative mutual funds in their asset allocation decisions. That said, manager selection will be a key determinant to success in investing in alternative mutual funds or hedge funds.

Like hedge funds, alternative mutual funds utilize various investment strategies and the objective evaluation of performance can be challenging as there is no single commonly accepted benchmark. As a result, we believe it is important to analyze alternative mutual fund performance relative to a respective hedge fund strategy index to try to make an “apples to apples” comparison when analyzing performance within benchmarks. ■

This article is excerpted from “Perspective Update: Alternative Mutual Funds,” July 10, 2018.
How Differences in Yields Impact Markets

The low interest rate environment that has persisted since the financial crisis has impacted financial markets profoundly. Easy monetary policies injected unprecedented liquidity into the system, suppressing interest rates and sending investors in search of higher yields. This cross-market fund flow has increasingly impacted broader asset class returns, in addition to the underlying fundamentals that drive returns of individual securities.

Throughout the recent economic expansion and the tightening in US monetary policy, investors have focused on the growing yield differentials between US Treasuries and Japanese government bonds (JGBs), at 278 basis points, and German Bunds, at 250 basis points, which stand near recent historical wides. Analysts have attributed constrained long-term US rates in part to Treasuries’ higher yields relative to their peers, which has increased demand and attracted an inflow of funds from foreign investors.

**IF GLOBAL RATES RISE.** Accordingly, as interest rates begin to increase globally, US rates will have scope to rise further. To wit, following reports in July that the Bank of Japan may consider changes to its yield-curve control program, the 10-year JGB yield doubled to 0.12%; the 10-year US Treasury note added 13 basis points in subsequent trading to retest the 3% level.

During the past few years, inflows to US assets have bolstered returns for domestic investors. At the same time, these factors have increased foreign investors’ currency-hedging costs.

**CURRENCY DEPRECIATION.** Economic theory postulates that in order to eliminate arbitrage opportunities between assets denominated in different currencies, investors buying assets in a foreign market with higher prevailing interest rates will see the value of the foreign currency depreciate to offset this yield advantage. While this relationship may not always hold in reality in short investment horizons due to exogenous factors, the impact of currency movements on returns remains an important consideration. Hedging costs can constitute a material component of potential return in the current environment, in which yields are still at historical lows yet rate differentials are at extremes.

**LEAVING BONDS.** In this context, US Treasuries and corporate bonds may appear less attractive to investors unwilling to assume currency risk. These investors may see their total returns eroded after factoring in the costs of hedging this exposure. For a Japanese investor, for example, a 10-year US Treasury yields little more than an equal-maturity Japanese government bond (see chart). Facing low yields both domestically as well as on a hedged basis in the US, foreign investors have increasingly turned their attention to other markets, as evidenced in fund flow data. While cumulative investment grade bond inflows totaled nearly $40 billion in 2017, flows through the first half of 2018 declined by foreign investors; additionally, the percentage of foreign-ownership of US corporate bonds, at approximately 30%, also began to decline through the start of the year. This dynamic has contributed to the relative weakness in investment grade spreads in 2018 as compared with 2017.

Markets have remained resilient in 2018 despite increased volatility on tighter financial conditions, geopolitical and trade tensions and diverging global economic data. As global investors weigh the potential return of investment opportunities, the costs of holding such investments remain equally relevant. Rising rates in the US have simultaneously increased the appeal of US fixed income assets while also driving some investors to other markets, ultimately impacting the returns of investors both foreign and domestic.

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**Currency Hedging Can Eat Up US Bonds’ Extra Yield**

![Source: Bloomberg of Aug. 23, 2018](chart.png)
Preparing for a New Sector Spectrum

The Global Industry Classification Standard (GICS), which is tracked by index providers including Standard & Poor’s and MSCI, will shuffle the deck later this month, adding a communication services sector and retiring the telecommunications sector. Also impacted are the consumer discretionary and information technology sectors, which will say goodbye to some constituents. Morgan Stanley Wealth Management Market Strategist Vijay Chandar led a discussion on the investment implications with team members Michael Jabara, head of ETF Research and Lucy Yan, cross-asset strategist. Matthew Bartolini, who heads SPDR America Research at State Street Global Advisors, also joined in. The following is an edited version of their conversation.

VIJAY CHANDAR (VC): Can you walk us through the changes that are going to occur later this month?

MATTHEW BARTOLINI (MB): The sector change is going to affect 10% of the S&P 500 market capitalization, which is pretty sizeable and impacts a lot of different security classifications.

Specifically, the current telecom sector is being reimagined and transformed into the communication services sector, which will include some consumer media and tech titans that use the internet as a medium to communicate with their end clients and also those that allow consumer-to-consumer facilitation of communication. In total, this change will impact 17 securities that are currently classified within consumer discretionary and six stocks from the technology sector.

When the GICS change was announced, investors were notified that it would happen on Sept. 28, at the end of the quarter, but that’s really referring to any sort of data licensing arrangement or data transmission; Sept. 21 is when investable S&P indexes are being rebalanced.

VC: Big picture, it’s important to note that the GICS classification will continue to have 11 sectors, unlike that move we had a couple of years ago when real estate was pulled out of financials and we went from 10 to 11 (see table, page 14). In terms of market impact and what to expect, can you explain what we saw when the last sector change happened and any takeaways to think about this time around.

MB: Back with financials and real estate, there wasn’t much of a market impact as a result of the size and scale. It was roughly 20 securities in the S&P 500 and only represented about 3% of the market cap.

With respect to any investment implications for this, these are some pretty noticeable names being removed from technology. If you hold an exchange-traded fund (ETF) tracking the consumer discretionary sector now, you have exposure to names now that you won’t after Sept. 21 as a result of the rebalance.

How big will this turnover or trading event be? Some sell-side estimates that we’ve seen are around $30 billion of two-way trading notional value—which sounds large—but put in context, it’s less than half of the larger annual mother-of-all rebalances of the Russell 1000 and 2000, which was near $70 billion this year. These are very large liquid names that have a significant amount of ownership, not only in index-based strategies but also through active management.

The 23 stocks that are being reclassified trade around $800 million a day on the secondary market, while the stocks within these sectors that are not being reclassified trade around $300 million a day. So, from our perspective, the investment implications are minimal.

VC: This move has also been pretty well telegraphed at this point. So while you could see flows pick up when the rebalancing happens, I don’t think it’s really going to be much of a surprise to too many folks. In terms of the mechanics of the implementation, what is State Street Global Advisors doing?

MB: We’re going to make adjustments within the ETFs that track tech and consumer discretionary, so that what we’re always following the index as would any true index manager providing precise beta exposure. Therefore, we’re going to rebalance the funds when the S&P indexes change, and in doing so, we’re going to weigh cost per exposure and use discretion in the days leading up to the change, leveraging some of the benefits of the ETF structure as well.

We potentially may trade on one or two days to mitigate tracking error, but still maintain a cost-efficient profile so investors can have access to the sectors and the beta exposure necessary up until the change and right after it.

One of the most common questions is: Will we have capital gain distributions as a result of the rebalancing? Our expectation at this time is that the ETFs will not have any capital gains distributions and part of that are the benefits of the ETF vehicle.

VC: Mike, can you share what the rest of the ETF industry is doing in anticipation of the GICS change?

MICHAEL JABARA (MJ): By our count there are 23 ETFs that are being meaningfully impacted. Vanguard, another
heavyweight in the US sector ETF market, has already begun making changes. For example, they moved impacted ETFs off of their traditional MSCI indexes and have begun to track transitional indexes. The transitional indexes allow Vanguard to implement these changes over a period of months rather than a day or a few days. Fidelity, a smaller player in US sector ETFs, is going to make the changes in accordance with the MSCI rebalancing in December. Another player that has some exposure is Invesco, which has not put out anything publically yet.

BlackRock, which obviously has a lot of ETF assets, is interestingly different than some of the other providers, as most of the firm’s US sector ETFs do not track GICS classifications, so they’re actually not making any changes immediately. That said, there may be some things to expect at the end of the year with those ETFs. The other piece of the puzzle, their global sector ETFs, will make changes in September.

VC: Lucy, how should investors think about the new communication services sector as it fits in with the new S&P 500?

LUCY YAN (LY): Traditionally, the telecom sector is regarded as a value play, but the new communication services sector is going to look more like growth instead of value, with around 70% of the holdings considered growth stocks. If you look at the projected valuation of the new sector, it’s trading at around 19 times forward price to earnings—similar to how the technology sector is trading now—versus the S&P 500’s current valuation of 17.5. Analysts’ long-term earnings growth estimates are expecting this sector to grow at about 19% annually.

How S&P 500 Sectors May Look After Reclassification

VC: The Global Investment Committee’s call has been to go more defensive, and as part of that we know a lot of people have looked at the telecom sector, but our house views wouldn’t necessarily view the communication services sector the same way. So if you’re looking to get more defensive, the communications sector is not the way to go.

These sector changes are certainly going to have impacts but mechanically we don’t think there’s going to be a huge impact to investors. Obviously, exposures will change and there will be flows associated with this, but we don’t think this is something to fear. Ultimately, based on precedent, we’re not necessarily looking for a huge market impact before or after the changes—but based on how impacted sectors will look going forward, investors should consider examining their sector exposures.

Matthew Bartolini is not an employee of Morgan Stanley Wealth Management. Opinions expressed by him are solely his own and may not necessarily reflect those of Morgan Stanley Wealth Management or its affiliates.
Global Investment Committee
Tactical Asset Allocation

The Global Investment Committee provides guidance on asset allocation decisions through its various models. The five models below are recommended for investors with up to $25 million in investable assets. They are based on an increasing scale of risk (expected volatility) and expected return.

### Wealth Conservation
- **6% MLPs**
- **3% Absolute Return Assets**
- **20% US Fixed Income Taxable**
- **25% Short-Term Fixed Income**
- **12% International Equities**
- **4% Emerging & Frontier Markets**

### Income
- **4% Absolute Return Assets**
- **7% MLPs**
- **16% US Fixed Income Taxable**
- **20% Short-Term Fixed Income**
- **16% International Equities**
- **6% Emerging & Frontier Markets**

### Balanced Growth
- **4% Absolute Return Assets**
- **4% Equity Hedge Assets**
- **6% Ultrashort-Term Fixed Income**
- **24% US Equities**
- **12% Short-Term Fixed Income**
- **25% International Equities**
- **7% Emerging & Frontier Markets**

### Market Growth
- **1% Absolute Return Assets**
- **4% Equity Hedge Assets**
- **7% Equity Return Assets**
- **30% US Equities**
- **1% Absolute Return Assets**
- **7% Equity Return Assets**
- **3% Ultrashort-Term Fixed Income**
- **25% International Equities**
- **9% Emerging & Frontier Markets**

### Opportunistic Growth
- **6% Equity Hedge Assets**
- **8% Equity Return Assets**
- **2% Ultrashort-Term Fixed Income**
- **36% US Equities**
- **34% International Equities**
- **10% Emerging & Frontier Markets**

### Key
- **Ultrashort-Term Fixed Income**
- **Fixed Income & Preferreds**
- **Equities**
- **Alternatives**

Source: Morgan Stanley Wealth Management GIC as of Aug. 31, 2018
The Global Investment Committee provides guidance on asset allocation decisions through its various models. The five models below are recommended for investors with over $25 million in investable assets. They are based on an increasing scale of risk (expected volatility) and expected return.

**Wealth Conservation**
- 2% Absolute Return Assets
- 6% Opportunistic Assets
- 15% Ultrashort-Term Fixed Income
- 19% US Fixed Income Taxable
- 24% Short-Term Fixed Income
- 5% MLPs
- 2% Inflation-Protected Securities

**Income**
- 4% Absolute Return Assets
- 9% Opportunistic Assets
- 14% US Fixed Income Taxable
- 19% Short-Term Fixed Income
- 15% International Equities
- 11% Ultrashort-Term Fixed Income
- 6% MLPs
- 2% Inflation-Protected Securities

**Balanced Growth**
- 4% Equity Hedge Assets
- 13% Opportunistic Assets
- 2% Absolute Return Assets
- 6% Ultrashort-Term Fixed Income
- 22% US Equities
- 9% US Fixed Income Taxable
- 1% Short-Term Fixed Income
- 6% Emerging & Frontier Markets

**Market Growth**
- 4% Equity Return Assets
- 11% Opportunistic Assets
- 1% Absolute Return Assets
- 6% MLPs
- 2% Inflation-Protected Securities
- 3% US Fixed Income Taxable
- 4% Short-Term Fixed Income
- 6% Emerging & Frontier Markets

**Opportunistic Growth**
- 4% Equity Return Assets
- 2% MLPs
- 3% Equity Hedge Assets
- 11% Opportunistic Assets
- 34% US Equities
- 31% International Equities
- 5% Emerging & Frontier Markets
- 2% Ultrashort-Term Fixed Income

**Key**
- Ultrashort-Term Fixed Income
- Fixed Income & Preferreds
- Equities
- Alternatives

Source: Morgan Stanley Wealth Management GIC as of Aug. 31, 2018
### Tactical Asset Allocation Reasoning

<table>
<thead>
<tr>
<th>Global Equities</th>
<th>Relative Weight Within Equities</th>
<th>Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>Equal Weight</td>
<td>US equities have done exceptionally well since the global financial crisis, but they are now in the latter stages of a cyclical bull market. While the acceleration of the Trump/Republican pro-growth agenda has created a booming economy and earnings outlook, it may also be sowing the seeds for the end of the cycle as the Fed is forced to raise rates and tighten policy in a more deliberate manner. With the exceptional run in growth and small-cap stocks, we recently reduced positions in both and favor large-cap value stocks.</td>
</tr>
<tr>
<td>International Equities (Developed Markets)</td>
<td>Overweight</td>
<td>We maintain a positive bias for Japanese and European equity markets. The populist movements around the world are now spreading to Italy, which may spur further fiscal support from Germany and France. This would be a potential positive catalyst but not likely to develop until September.</td>
</tr>
<tr>
<td>Emerging Markets</td>
<td>Overweight</td>
<td>Emerging market (EM) equities have been the strongest-performing region over the past 24 months but are underperforming so far in 2018. Some of this is simply the result of a market that needs to consolidate strong gains the past few years. However, it is also directly related to the Fed’s tightening campaign. We expect EM to find support not far from current levels and have a strong finish to the year.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Global Fixed Income</th>
<th>Relative Weight Within Fixed Income</th>
<th>Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Investment Grade</td>
<td>Underweight</td>
<td>We have recommended shorter-duration* (maturities) since March 2013, given the extremely low yields and potential capital losses associated with rising interest rates from such low levels. While interest rates have remained exceptionally low, US economic data have been very strong recently and the Fed is now raising rates at an accelerating pace. Adding some longer duration when 10-year US Treasury yields are above 3% makes sense.</td>
</tr>
<tr>
<td>International Investment Grade</td>
<td>Underweight</td>
<td>Yields are even lower outside the US, leaving very little value in international fixed income, particularly as the global economy begins to recover more broadly. While interest rates are likely to stay low, the offsetting diversification benefits do not warrant much, if any, position, in our view.</td>
</tr>
<tr>
<td>Inflation-Protected Securities</td>
<td>Overweight</td>
<td>With deflationary fears having become extreme in 2015 and early 2016, these securities still offer relative value in the context of our forecasted acceleration in global growth and our expectations for oil prices and the US dollar’s year-over-year rate of change to revert toward 0%. That view played out in 2016 and 2017 but has not yet run its course.</td>
</tr>
<tr>
<td>High Yield</td>
<td>Underweight</td>
<td>High yield has performed exceptionally well since early 2016 with the stabilization in oil prices and retrenchment by the weaker players. We recently took our remaining high yield positions to zero as we prepare for deterioration in quality of earnings in the US led by lower operating margins. Credit spreads have likely reached a low for this cycle.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alternative Investments</th>
<th>Relative Weight Within Alternative Investments</th>
<th>Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Estate/REITs</td>
<td>Underweight</td>
<td>Real estate investment trusts (REITs) have underperformed global equities since mid-2016 when interest rates bottomed. We think it is still too early to reconsider our underweight zero allocation given the further rise in rates we expect and deteriorating fundamentals for the industry. Non-US REITs should be favored relative to domestic REITs.</td>
</tr>
<tr>
<td>Master Limited Partnerships/Energy Infrastructure*</td>
<td>Overweight</td>
<td>Master limited partnerships (MLPs) have traded better since their capitulation in March around the FERC regulatory announcement. With oil prices much more stable and on an upward path, MLPs have garnered more interest given their 8% to 10% yields.</td>
</tr>
<tr>
<td>Hedged Strategies (Hedge Funds and Managed Futures)</td>
<td>Equal Weight</td>
<td>This asset category can provide uncorrelated exposure to traditional risk-asset markets. It tends to outperform when traditional asset categories are challenged by growth scares and/or interest rate volatility spikes. As volatility becomes more persistent in 2018, these strategies should do better than in recent years.</td>
</tr>
</tbody>
</table>

Source: Morgan Stanley Wealth Management GIC as of Aug. 31, 2018

*For more about the risks to Master Limited Partnerships (MLPs) and Duration, please see the Risk Considerations section beginning on page 18 of this report.*
Index Definitions

For index, indicator and survey definitions referenced in this report please visit the following:

Risk Considerations

Virtual Currency Products (Cryptocurrencies)

Buying, selling and using Bitcoin or other virtual currency products (cryptocurrencies) is highly speculative and may result in substantial losses in a short period of time.

This material is not a solicitation or recommendation to buy or sell, or an endorsement of, any security or other financial instrument including, without limitation, virtual currency products or to participate in any trading strategy related to them. Virtual currency and securities listed and/or over the counter derivatives or other financial instruments that derive their value from, have a price linkage to, have exposure to or result in a payment or distribution of virtual currency, are not currently available for custody, distribution, settlement, purchase or sale at or through Morgan Stanley Smith Barney LLC (“Morgan Stanley”). This is due to, among other factors, the potential high risk and volatility of virtual currency products and the fact that virtual currency remains an experimental concept that is not presently regulated or backed by any central bank worldwide and has no tangible intrinsic value.

This material has been prepared for informational purposes only, based on publicly available factual information. It does not provide individually tailored or general investment advice whatsoever. It has been prepared without regard to the individual financial circumstances and objectives of persons who receive it. Investors seeking to evaluate particular investments and strategies in virtual currency products must seek the advice of their independent advisors. The appropriateness of a particular investment or strategy will depend on an investor’s individual circumstances and objectives.

Alternative Investments

Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leverage, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; and Risks associated with the operations, personnel, and processes of the manager. Further, opinions regarding Alternative Investments expressed herein may differ from the opinions expressed by Morgan Stanley Wealth Management and/or other businesses/affiliates of Morgan Stanley Wealth Management.

Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing. Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank.

ETFs and Mutual Funds

An investment in an exchange-traded fund involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. Investing in an international ETF also involves certain risks and considerations not typically associated with investing in an ETF that invests in the securities of U.S. issues, such as political, currency, economic and market risks. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economics. ETFs investing in physical commodities and commodity or currency futures have special tax considerations. Physical commodities may be treated as collectibles subject to a maximum 28% long-term capital gains tax rates, while futures are marked-to-market and may be subject to a blended 60% long- and 40% short-term capital gains tax rate. Rolling futures positions may create taxable events. For specifics and a greater explanation of possible risks with ETFs, along with the ETF’s investment objectives, charges and expenses, please consult a copy of the ETF’s prospectus. Investing in sectors may be more volatile than diversifying across many industries. The investment return and principal value of
ETF investments will fluctuate, so an investor’s ETF shares (Creation Units), if or when sold, may be worth more or less than the original cost. ETFs are redeemable only in Creation Unit size through an Authorized Participant and are not individually redeemable from an ETF.

While mutual funds and ETFs may at times utilize nontraditional investment options and strategies, they should not be equated with unregistered privately offered alternative investments. Because of regulatory limitations, mutual funds and ETFs that seek alternative-like investment exposure must utilize a more limited investment universe. As a result, investment returns and portfolio characteristics of alternative mutual funds and ETFs may vary from traditional hedge funds pursuing similar investment objectives. Moreover, traditional hedge funds have limited liquidity with long “lock-up” periods allowing them to pursue investment strategies without having to factor in the need to meet client redemptions and ETFs trade on an exchange. On the other hand, mutual funds typically must meet daily client redemptions. This differing liquidity profile can have a material impact on the investment returns generated by a mutual or ETF pursuing an alternative investing strategy compared with a traditional hedge fund pursuing the same strategy. Nontraditional investment options and strategies are often employed by a portfolio manager to further a fund’s investment objective and to help offset market risks. However, these features may be complex, making it more difficult to understand the fund’s essential characteristics and risks, and how it will perform in different market environments and over various periods of time. They may also expose the fund to increased volatility and unanticipated risks particularly when used in complex combinations and/or accompanied by the use of borrowing or “leverage.”

Investors should carefully consider the investment objectives and risks as well as charges and expenses of an exchange-traded fund and mutual fund before investing. The prospectus contains this and other important information about the mutual fund. To obtain a prospectus, contact your Financial Advisor or visit the mutual fund company’s website. Please read the prospectus carefully before investing.

Hypothetical Performance

General: Hypothetical performance should not be considered a guarantee of future performance or a guarantee of achieving overall financial objectives. Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets.

Hypothetical performance results have inherent limitations. The performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation.

Despite the limitations of hypothetical performance, these hypothetical performance results may allow clients and Financial Advisors to obtain a sense of the risk / return trade-off of different asset allocation constructs.

Investing in the market entails the risk of market volatility. The value of all types of securities may increase or decrease over varying time periods.

This analysis does not purport to recommend or implement an investment strategy. Financial forecasts, rates of return, risk, inflation, and other assumptions may be used as the basis for illustrations in this analysis. They should not be considered a guarantee of future performance or a guarantee of achieving overall financial objectives. No analysis has the ability to accurately predict the future, eliminate risk or guarantee investment results. As investment returns, inflation, taxes, and other economic conditions vary from the assumptions used in this analysis, your actual results will vary (perhaps significantly) from those presented in this analysis.

The assumed return rates in this analysis are not reflective of any specific investment and do not include any fees or expenses that may be incurred by investing in specific products. The actual returns of a specific investment may be more or less than the returns used in this analysis. The return assumptions are based on hypothetical rates of return of securities indices, which serve as proxies for the asset classes. Moreover, different forecasts may choose different indices as a proxy for the same asset class, thus influencing the return of the asset class.

MLPs

Master Limited Partnerships (MLPs) are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk.

Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk.

The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund’s value.

MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV; and, as a result, the MLP fund’s after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

Duration

Duration, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. Generally, if interest rates rise, bond prices fall
and vice versa. Longer-term bonds carry a longer or higher duration than shorter-term bonds; as such, they would be affected by changing interest rates for a greater period of time if interest rates were to increase. Consequently, the price of a long-term bond would drop significantly as compared to the price of a short-term bond.

**International investing** entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economies.

**Investing in commodities** entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of the commodity. In addition, the commodities market is subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention.

**Physical precious metals** are non-regulated products. Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. If sold in a declining market, the price you receive may be less than your original investment. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be suitable for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor. The Securities Investor Protection Corporation (“SIPC”) provides certain protection for customers’ cash and securities in the event of a brokerage firm’s bankruptcy, other financial difficulties, or if customers’ assets are missing. SIPC insurance does not apply to precious metals or other commodities.

**Asset allocation and diversification** do not assure a profit or protect against loss in declining financial markets.

The returns on a portfolio consisting primarily of **environmental, social, and governance-aware investments (ESG)** may be lower or higher than a portfolio that is more diversified, or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client’s account will be managed as described herein.

**Managed futures** investments are speculative, involve a high degree of risk, use significant leverage, have limited liquidity and/or may be generally illiquid, may incur substantial charges, may subject investors to conflicts of interest, and are usually suitable only for the risk capital portion of an investor’s portfolio. Before investing in any partnership and in order to make an informed decision, investors should read the applicable prospectus and/or offering documents carefully for additional information, including charges, expenses, and risks. Managed futures investments are not intended to replace equities or fixed income securities but rather may act as a complement to these asset categories in a diversified portfolio.

**Hedge funds** may involve a high degree of risk, often engage in leveraging and other speculative investment practices that may increase the risk of investment loss, can be highly illiquid, are not required to provide periodic pricing or valuation information to investors, may involve complex tax structures and delays in distributing important tax information, are not subject to the same regulatory requirements as mutual funds, often charge high fees which may offset any trading profits, and in many cases the underlying investments are not transparent and are known only to the investment manager.

**Bonds** are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond’s maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or changes in the credit quality of the issuer. Bonds are subject to the credit risk of the issuer. This is the risk that the issuer might be unable to make interest and/or principal payments on a timely basis. Bonds are also subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate.

**Bonds rated below investment grade** may have speculative characteristics and present significant risks beyond those of other securities, including greater credit risk and price volatility in the secondary market. Investors should be careful to consider these risks alongside their individual circumstances, objectives and risk tolerance before investing in high-yield bonds. High-yield bonds should comprise only a limited portion of a balanced portfolio.

**Treasury Inflation Protection Securities** (TIPS) coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation.

**Ultrashort-term fixed income** asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

The majority of $25 and $1000 par **preferred securities** are “callable” meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per $25 or $1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price.
The initial interest rate on a floating-rate security may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security’s underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk.

The market value of convertible bonds and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield.

Some $25 or $1000 par preferred securities are QDI (Qualified Dividend Income) eligible. Information on QDI eligibility is obtained from third party sources. The dividend income on QDI eligible preferreds qualifies for a reduced tax rate. Many traditional ‘dividend paying’ perpetual preferred securities (traditional preferreds with no maturity date) are QDI eligible. In order to qualify for the preferential tax treatment all qualifying preferred securities must be held by investors for a minimum period – 91 days during a 180 day window period, beginning 90 days before the ex-dividend date.

Yields are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision.

Credit ratings are subject to change.

Principal is returned on a monthly basis over the life of a mortgage-backed security. Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. Yields and average lives are estimated based on prepayment assumptions and are subject to change based on actual prepayment of the mortgages in the underlying pools. The level of predictability of an MBS/CMO’s average life, and its market price, depends on the type of MBS/CMO class purchased and interest rate movements. In general, as interest rates fall, prepayment speeds are likely to increase, thus shortening the MBS/CMO’s average life and likely causing its market price to rise. Conversely, as interest rates rise, prepayment speeds are likely to decrease, thus lengthening average life and likely causing the MBS/CMO’s market price to fall. Some MBS/CMOs may have “original issue discount” (OID). OID occurs if the MBS/CMO’s original issue price is below its stated redemption price at maturity, and results in “imputed interest” that must be reported annually for tax purposes, resulting in a tax liability even though interest was not received. Investors are urged to consult their tax advisors for more information.

Investing in currency involves additional special risks such as credit, interest rate fluctuations, derivative investment risk, and domestic and foreign inflation rates, which can be volatile and may be less liquid than other securities and more sensitive to the effect of varied economic conditions. In addition, international investing entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economies.

Investing in foreign and emerging markets entails greater risks than those normally associated with domestic markets, such as political, currency, economic and market risks. These risks are magnified in frontier markets.

Equity securities may fluctuate in response to news on companies, industries, market conditions and general economic environment.

Investing in smaller companies involves greater risks not associated with investing in more established companies, such as business risk, significant stock price fluctuations and illiquidity.

Stocks of medium-sized companies entail special risks, such as limited product lines, markets, and financial resources, and greater market volatility than securities of larger, more-established companies.

Value investing does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.

Growth investing does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations.

REITs investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions.

Because of their narrow focus, sector investments tend to be more volatile than investments that diversify across many sectors and companies. Technology stocks may be especially volatile. Risks applicable to companies in the energy and natural resources sectors include commodity pricing risk, supply and demand risk, depletion risk and exploration risk.

Rebalancing does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. Investors should consult with their tax advisor before implementing such a strategy.

The indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment.

The indices selected by Morgan Stanley Wealth Management to measure performance are representative of broad asset classes. Morgan Stanley Smith Barney LLC retains the right to change representative indices at any time.

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