

On the Markets

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Punctuality Counts

As a father of two teenage sons, I always try to stress to them the things necessary for success, however mundane they may seem. For example, be prepared, persistent and diligent. Not exactly exciting stuff—but these are things one can control. They are also good habits that are almost always present in winners, no matter the field. There is one point I stress most frequently: Being early is on time, on time is late and late is unacceptable! Not only is tardiness rude, but it's a recipe for failure in the long term.

Not only is punctuality valuable in life, it's also a good investment practice—particularly for investors who don't need to worry about daily or monthly performance. Markets are dynamic discounting machines and, if you pay attention to what they are really saying, they are often their own best forecasters. In short, punctuality allows you to be early enough to catch the next move. Conversely, ignoring the markets' messages means you'll probably end up on time like everyone else, and too late to profit.

For those who follow our work closely, you know we try to be early. Sometimes it's painful in the short term, but in the end it can be profitable. Take our “early” call in April 2017 for the S&P 500 to reach 2,700 by the end of the year. We looked foolish for a while, but the index finished the year a little shy of that at 2,674. The same could be said about our less-bullish view this year, when we warned stock prices had gone too far in early January and then again in September. In July, we tactically lowered allocations to large-cap growth in favor of large-cap value. Both have declined in price since then; the Russell 1000 Growth Index is down 5.0% while the Russell 1000 Value Index has been more defensive, off 2.6%. We also made a tactical downgrade of small-caps last summer; note that, since July, the Russell 2000 Index has declined 11.2%.

We obviously don't get every call right (see our advice to overweight financials this year), but in order to profit from the next opportunity, one has to be willing to be early or else risk being late—and that can be unprofitable and even harmful. With many equity markets already having corrected significantly this year, we are now starting to look past the selloff for the next buying opportunity. While we're not quite there yet, we don't think we're more than 5% to 10% away from an excellent entry point in what we still think is a secular bull market. When the time comes, we believe we will likely be looking in areas others aren't—namely cyclical sectors and value stocks as opposed to the once-high-flying growth stocks. ■

Inflation—This Time It's For Real

CHETAN AHYA

Global Head of Economics and Chief Economist
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During the past five years, when framing the inflation outlook, consensus almost always forecast that inflation would eventually return to central banks' goals. Yet, most inflation forecasters were serially disappointed as inflation remained persistently low. Former Fed Chair Janet Yellen distilled their frustration when she called low inflation in the US a "mystery" just a little over a year ago, in September 2017.

However, since the 1.1% year-over-year trough in October 2017, G3 core inflation has risen to 1.4%—near the postcrisis high (see chart). We expect core inflation across the G3 to move higher, with a further rise in the US and a more pronounced uptick in the Euro Zone and Japan, decisively breaking out of the postcrisis doldrums. Why believe that this uptick in inflation is for real and can be sustained? Are we crying wolf? Two factors anchor our growing confidence in

our inflation outlook:

Wage growth is (finally) improving.

Wage growth in the G3 is seeing synchronous improvement and stands at multiyear highs across all three regions. We expect wage growth to rise further in the US and to remain well supported in Europe and Japan. In our view, wages are signaling that labor and other factors are starting to tighten materially. The confirmatory signal that resources in the economy are stretched increases our conviction that risks to inflation are no longer skewed to the downside.

The macro backdrop has changed.

The macro backdrop today is quite different from 2012 through 2016, which was characterized by deleveraging, a risk-averse private sector and below-trend aggregate demand. Nominal growth was sluggish, as reflected in lower returns expectations that depressed private capital spending. This made the economy a lot more susceptible to deflation versus inflation risks. Since 2017, the global

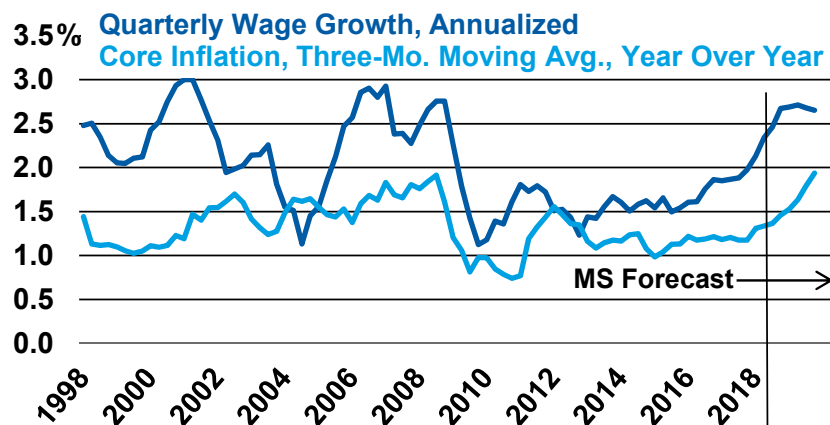
economy has moved beyond deleveraging, the private sector's risk appetite has improved and aggregate demand growth is now above trend. The clearest sign of change is the pickup in global capital spending. Even though 2017 marked the inflection point in the macro environment, the collective weight of idiosyncratic factors in areas like health care and telecom services meant that inflation didn't start to rise until October 2017.

CLOSER TO TARGETS. In our base case, above-trend growth continues to draw economic resources, pushing up capacity utilization and wage growth, which translate into higher inflation for core goods and services. In our view, G3 core inflation will rise closer to the respective central banks' goals, with a more pronounced uptick in the Euro Zone and Japan than in the US, which is already close to target. By 2019's fourth quarter, we expect annualized core inflation to be 2.2% in the US, 1.8% in the Euro Zone and 1.2% in Japan, up from the current 2.0%, 1.0% and 0.4%, respectively.

In fact, we think that the risks to the inflation outlook are skewed to the upside, particularly for the US. While most would take comfort from the fact that inflation expectations appear to be well anchored, work done by our US economics team actually suggests the opposite—low inflation expectation readings could predict higher inflation. Low inflation expectations no longer hold down inflation, and actually may boost the economy if policymakers respond by keeping policy looser than warranted, which then drives inflation up.

POLICY TIGHTENING. With inflation set to rise toward their goals, developed market central banks are likely to continue to tighten policy. Moreover, the strength in wage growth supports increasing confidence in the inflation outlook. This has shifted the trade-offs for the central banks, and also means that the bar for changing course on tightening is higher than earlier in the cycle. ■

G3 Core Inflation Set to Rise Above Postcrisis High



Note: We use average hourly earnings for the US, compensation per employee and total cash earnings for Japan. Forecasts for Japan wage growth are not official forecasts.

Source: Haver Analytics, Morgan Stanley & Co. Research as of Oct. 21, 2018

No Margin For Error

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As cost pressures rise and demand slows, we expect to see compression in corporate profit margins. Falling margins have negative implications for US equities, as the rate of change in operating margins is strongly correlated with stock prices—a trend we expect to continue.

Thus, margin compression does not bode well for stocks. For the third year in a row, consensus estimates embed margin expansion for earnings before interest and taxes (EBIT) in 2019, which gives us confidence that our call for compression is out of the consensus. Estimates are optimistic because they reflect sanguine company guidance on top-line growth and the ability to pass on costs to customers. Many investors we speak to believe that technology companies' elevated margins will remain resilient, keeping margins stable for the overall stock market. We disagree and argue that tech is more cyclical than many appreciate.

We compare our top-down views to 2019 consensus margin estimates and valuations to show where we're at odds with bottom-up consensus and the market. Transports, as well as subgroups in tech and consumer discretionary, stand out as having high margin risk but optimistic expectations and valuation levels—an unfavorable combination (see table). Conversely, food, beverage and tobacco have low margin risk but pessimistic expectations—a favorable combination. Health care is also in that low-risk group, but it is a highly idiosyncratic sector.

What are the macro drivers of margins?

- **Labor.** Amid a tight labor market, our economists expect average hourly earnings growth to increase materially to 3.3% in 2019, up from 2.8% currently. Our conversations with private equity firms indicate that a number of their portfolio companies face more significant wage pressure than the government data suggest. Amazon's recent decision to raise its minimum hourly wage to \$15 highlights the acceleration in income growth. It also points to the increasing political scrutiny that companies face related to worker compensation—a potential exogenous shock to labor costs.

- **Commodity prices.** Energy and broader commodity prices often surge as late-cycle demand squeezes, affecting companies exposed to fuel and certain raw material costs. Our Freight Transportation team expects a 5%-to-10% rise in cost inflation next year atop this year's 15% increase. The jump in spot prices for freight caught companies off guard this year, and they may not be out of the woods in 2019.

- **Interest rates.** Higher front-end interest rates may take time to flow through to interest coverage metrics, but elevated corporate leverage heightens risks.

- **Trade.** The US/China trade conflict continues to escalate. While the ultimate impact isn't clear, risks are not reflected in guidance and aren't adequately priced, in our view.

- **GDP growth.** From a demand perspective, we see downside ahead for peak-level purchasing managers indexes (PMIs), and our economists expect US GDP growth to moderate to 2.0% in 2019 from 3.0% in 2018 on a fourth-quarter-to-fourth-quarter basis, or 2.4% and 2.9% on an annualized basis

Why do margins matter for equity prices? Historically, margins have not been a reliable predictor of bear markets or recessions. However, the correlation between margins and equity prices has surged in recent years. As the end of the cycle approaches, we expect operating margins to remain a determining factor for equity prices.

Which Industry Groups Have the Most/Least Margin Risk?

High Risk	Moderate Risk	Low Risk
Materials	Capital Goods	Energy
Transportation	Consumer Services	Commercial Services
Autos & Components	Media	Food & Staples Retailing
Consumer Durables & Apparel	Retailing	Food, Beverage & Tobacco
Tech Hardware & Equipment	Household & Personal Products	Telecom Services
Semiconductors & Semi. Equipment	Utilities	Software & Services
		Health Care Equipment & Services
		Pharma, Biotech & Life Sciences

Source: Morgan Stanley & Co. Research, Morgan Stanley & Co. Quantitative Research as of Sept. 30, 2018

Margin estimates appear overly optimistic—and that's the issue.

According to consensus, 2019 will be the third consecutive year of margin expansion. We find that hard to believe. Margin estimates for the following calendar year are typically revised lower as the year goes on, but the decline in 2019 estimates has been relatively modest thus far—down just 0.7% from January through September versus the seven-year average 1.7% decline. The fact that Wall Street estimates build in margin expansion for every sector next year increases our confidence that we are out of consensus.

Optimistic estimates reflect constructive company guidance around margins, despite rising costs. We analyzed about 400 transcripts from the second-quarter earnings season to understand how companies are discussing cost pressures. Compensation, commodity and transportation costs were mentioned most frequently (see chart). Tariffs came up less often and were consistently discussed in a wait-and-see framework. About 45% of S&P 500 companies mentioned at least one cost headwind, and data show that this trend has been on the rise. Even so, companies anticipate a robust operating environment in 2019 and expect to pass costs along or simply absorb them.

Those discussing cost headwinds most broadly were consumer staples, materials,

consumer discretionary and industrial companies. Industrial and materials companies cited pass-through capability most frequently—about 50% of constituents in both sectors.

Where are the risks most significant?

Our goal is to identify groups where margin risk is high, but estimates and multiples still incorporate a sense of optimism (and vice versa). Transports, tech hardware, consumer durables, consumer services and retailing appear more exposed. Software seems to be priced for perfection, although margin risk is low. Food, beverage and tobacco, as well as pockets of health care, look less exposed.

How does our view on margins tie into our broader narrative? We've been vocal about our below-consensus view on 2019 earnings growth—5% in contrast with the consensus estimate of 10%. The Morgan Stanley Leading Earnings Indicator—a proxy for organic growth—points to a slowdown in earnings-per-share growth in the next 12 months. Our pessimistic view on margins is central to our out-of-consensus call for earnings-growth moderation in 2019. At the index level, we expect the US to underperform international developed market equities given these challenging earnings dynamics. At the sector level, we see more significant margin risk in pockets of tech and consumer discretionary—two sectors

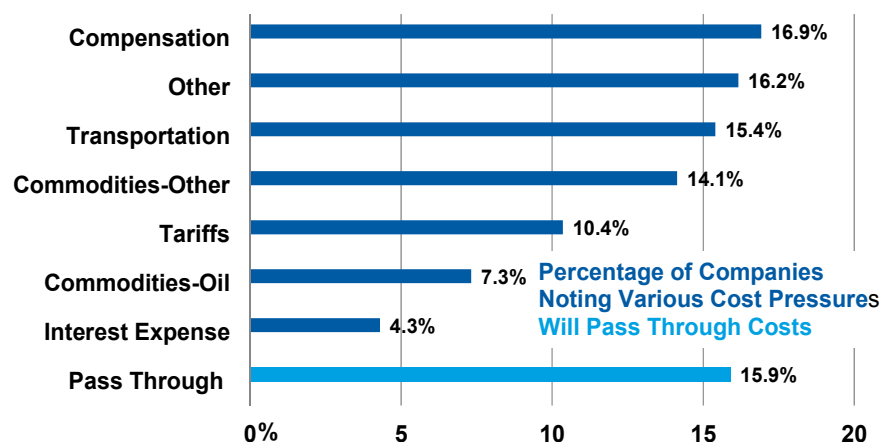
we are underweight.

Where we could be wrong? We may be overestimating the extent to which input costs rise in the next 12 months, or overestimating the impact of higher input costs on operating margins. The economic cycle could last longer than we expect, in which case demand would not soften next year or could even accelerate. Perhaps the market cares less about margins than we expect. There could be revenue surprises to the upside, creating operating leverage. Productivity growth may strengthen, allowing companies to absorb additional costs. Companies may find they can pass along costs with little impact on demand. Finally, tech margins could be resilient, driving benchmark-level margins higher.

We expect to hear pushback that tech margins will remain strong and can keep aggregate margins stable. First, tech may make up one-quarter of S&P 500 operating income, but it's not the only sector influencing aggregate margins. Ex-tech margins are also elevated and face downside. Second, tech is clearly exposed to cyclical drivers. Our analysis shows that semiconductors, which account for 22% of tech operating income, and tech hardware, about 31%, are among the industry groups most correlated to PMIs from both a margin and performance perspective.

We also contend that software, 47% of tech operating income, has cyclical exposure given its dependence on business confidence, capital spending, selling add-on modules and growth in users. Tech companies are not widely discussing tariff concerns, with just 3% of companies mentioning tariffs in second-quarter transcripts, but the sector is exposed to escalating trade tensions. We expect tech's free-cash-flow margins in particular to face pressure as capital spending picks up. The structural uptrend in capital spending that we foresee is bullish from a secular standpoint but is cyclically bearish, as it depletes cash flow in a late-cycle environment and is inflationary. ■

Wages, Transportation and Commodities Were Companies' Most Discussed Cost Pressures



Source: Haver Analytics, Morgan Stanley & Co. Research as of Oct. 11, 2018

Revisiting the Case for Indian Equities

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We view India as one of the most attractive long-term stories in emerging market (EM) equities. Morgan Stanley & Co. estimates India's GDP could more than double between 2015 and 2025, as India's strong demographics drive growth. Moreover, half of India's population of 1.2 billion is under 25, and the UN expects India will have added 124 million people to its working-age population in the same 10-year period. In sharp contrast, working-age populations in Japan and China are expected to decline. This leads us to believe Indian equities may be among the strongest performers globally over the next decade (see table).

DIGITAL TRANSFORMATION. Atop the demographics, the country is undergoing a

digital transformation characterized by broadening financial inclusion, increasing mobile penetration and an ambitious initiative to biometrically identify all Indian citizens. What's more, the country implemented tax reform last year, moving to a unified and completely digital goods and services tax. These reforms have brought the country to an inflection point in terms of economic growth, with a concomitant impact on stock returns, financial sector dynamics, consumption growth and e-commerce. Now the world's seventh-largest economy, based on nominal GDP, it is expected India will vault to third place by fiscal-year 2027.

The MS & Co India Equity Strategy team is cautiously optimistic on Indian equities in the next 12 months, and their research suggests a tactical buying

opportunity may even exist in light of the recent sell-off. They estimate 20% upside to their 12-month price target for the BSE Sensex Index in local-currency terms.

NEAR-TERM RISKS. However, there are many near-term risks, notably a strengthening dollar, rising oil prices, upcoming state elections and deepening investor aversion to EM equities. The recent liquidity crunch—which hit Indian nonbank financial companies and stoked investor fears after the recent default of shadow bank Infrastructure Leasing and Financial Services—added yet another concern, although the team views this risk as largely contained given the government's prompt intervention.

After September's sharp sell-off, the MSCI India Index was down about 5% for the year to date in local-currency terms. However, in US-dollar terms Indian equities have fared far worse, declining 18% for the year to date as the Indian rupee has depreciated substantially against the dollar over the same period. By comparison, the MSCI Emerging Markets Index has declined around 19% since the beginning of 2018.

FAIR-VALUE RUPEE. Looking ahead, rising oil prices could further put pressure on the rupee, but the team believes the recent depreciation has brought the currency to fair value against the dollar. In terms of valuation, today's 2.7 price/book ratio for the MSCI India Index has broken below the long-term average of 3.0, but it is still well above the historical lows of around 2.0.

While there are a variety of risks that could send stocks lower in the near term, long-term investors could maintain exposure to Indian stocks as part of an allocation to international equities, and look for further signs of rupee stabilization against the dollar to potentially add to the allocation. ■

MS & Co.'s Outlook for India: The Known Unknowns

		What is MS & Co.'s Expectation?
Growth	Earnings	Earnings growth is improving from below trend after persistently disappointing investors since 2010. Earnings may be better than what's priced in
	Guidance	Positive guidance for tech, autos, other discretionary consumption, private banks and industrials
	Loan Growth	Some acceleration in the corporate loan growth consistent with view on growth cycle
	Order Books	Likely to build visibly in the coming months, which would signal that capital spending is returning—and it is not fully priced into the market
Rates	CPI	Slight upside risk to inflation, but overall remains benign despite rising oil prices
	Monetary Policy	Rate hikes of 75 to 100 basis points for this cycle with 25 to 50 more in 2019. Market expects hikes, but there is no consensus around the number
Politics Policy	Elections	Next month's state elections may have only limited bearing on general elections though market reaction to results is expected
	Fiscal Spending	Fiscal deficit higher than government's target and previous fiscal year, which potentially adds inflation risk
Market	Domestic Flows	Equity flows are sustainable but can become challenged in a 20%+ correction
	Corporate Activity	Some increase in supply and M&A already priced in by market

Source: Morgan Stanley & Co. Research as of Oct. 9, 2018

Markets Tee Up Tax Swap Possibilities

JOHN DUGGAN

Closed-End Fund and ETF Strategist
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GRAY PERKINS

Closed-End Fund and ETF Strategist
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Hit by a combination of rising interest rates, risk aversion and widening discounts, municipal bond closed end funds (CEFs) offer opportunities for “tax swaps.” As equity markets continue to correct, many equity CEFs and exchange-traded funds (ETFs) may be eligible, too. Tax swaps involve the sale of one security/fund to capture a loss and the simultaneous purchase of another with generally similar objectives. The losses can offset gains realized in 2018 or going forward. By buying the replacement at a discount to net asset value (NAV), CEF investors have a chance to profit both from portfolio appreciation and narrowing of discounts, many of which are the largest in three years (see chart).

Importantly, tax swaps cannot violate the Internal Revenue Service’s “wash

sale” rules that may negate a write-off if an individual sells a security at a loss and then, within 30 days before or after the sale, buys a “substantially identical” stock or security. Tax strategies using ETFs or CEFs include swaps for other ETFs or CEFs, for portfolios of individual securities and for open-end mutual funds.

Closed-end bond funds. Most fixed income CEFs encountered headwinds in 2018 as investors assumed a risk-off posture in regard to both credit and interest rates. Despite more supportive NAVs, the broad municipal category and some sectors on the taxable side, notably senior loans, have experienced deeper declines due to disappointment around funds’ distributions. Muni funds, which often leverage in order to increase payouts, have been especially hard hit as higher short-term rates raised their borrowing costs.

As the largest sector by number of funds, national municipal CEFs offer investors seeking swaps the opportunity to maintain similar exposure. Preferred, high

yield bond and senior loan funds, likewise, should offer more replacement choices than most other sectors. The preferred CEF group has grown more diverse and includes funds with significant exposure to global issuers and fixed-to-floating-rate preferreds. For those seeking to capture a loss while altering an underlying portfolio mix, we suggest matching sales of dedicated sector CEFs with purchases of global income or multisector bond CEFs.

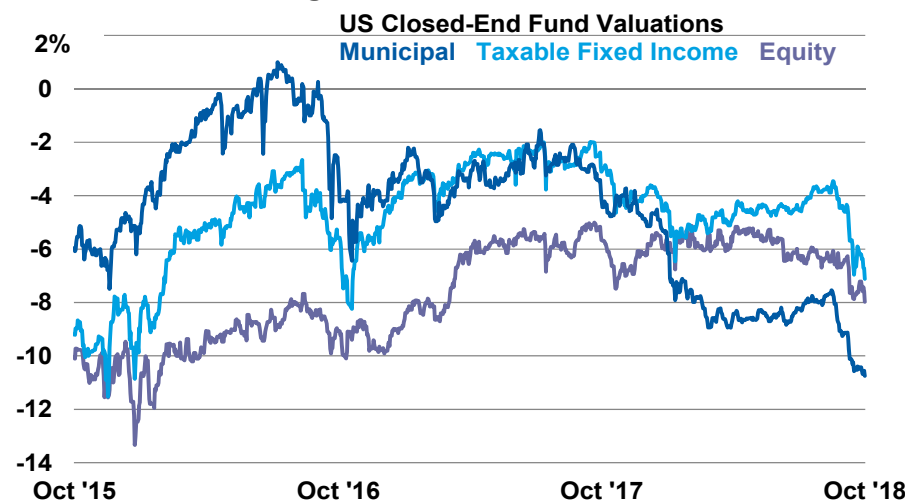
Closed-end equity funds. Having recently moved into negative territory for the year amid surging global market volatility, equity CEFs now include several sectors that are ripe for tax-loss activity. International funds, especially emerging market, stand out. Funds that invest in master limited partnerships have also fallen sharply in recent sessions and, despite extended partial recoveries from early 2016, are likely to be held by investors who purchased at higher levels.

Looking ahead, we have grown more selective on US option income funds and encourage investors to seek opportunities among international and global peers for more attractive valuations. We also favor select opportunities in dividend-oriented strategies, many of which provide appealing sector exposure and may offer partially defensive attributes, including moderate fixed income allocations for diversification or earnings enhancement.

Exchange-traded funds. Like CEFs, tax swaps on ETFs may also be structured to comply with the wash-sale rule.

Although there is not universal agreement, according to one interpretation of the rule, to be compliant two ETFs should not have individual positions that overlap by more than 70% on a weighted-average market-capitalization basis. This poses challenges, as swap opportunities within the same market segments may not satisfy the wash-sale rule. One way to overcome this obstacle is to look for opportunities that provide exposure to the same market segment, but diversify by geographical region. ■

Discount Widening Exacerbates CEF Price Declines



Is It Gold's Time to Shine?

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Investors have shrugged off a number of headwinds this year, including trade tensions, rising interest rates, slowing economic growth and central bank tightening, but recent market performance demonstrates greater volatility and the potential for a more significant equity market drawdown. Against this backdrop, the Global Investment Committee (GIC) cautions investors to become more defensive and has made a tactical call for an allocation of 3% to 5% to gold within diversified portfolios.

UNSTABLE CORRELATIONS. From an asset allocation perspective, gold's correlations with stocks and bonds are unstable and can be subject to big swings in sentiment during periods of crisis and fear. Consequently, the GIC does not typically allocate to the yellow metal as part of strategic asset allocations. Even so, in periods of large stock market declines, gold has usually acted as a hedge against

equities. In the S&P 500's 15-worst months since 1971, gold outperformed stocks 13 times and made gains in 10 of them (see chart). While October was not among the 15 worst, market volatility soared. Gold gained 1.9% while the S&P 500 lost 6.9%.

Here's another reason for a position in gold: The metal has an inverse correlation with the US dollar, with the gold price tending to rise when the greenback falls—and vice versa. The GIC holds the view that the dollar has peaked, and should the GIC's view materialize, gold should rise in value.

GOLD OVERSOLD. Although gold is often quoted and analyzed as a precious metal, it trades like a currency with strong inverse correlations to US real interest rates. Since its peak of nearly \$1,900 per ounce in 2011, gold collapsed to roughly \$1,050 by the end of 2015 as economic growth recovered, real interest rates stabilized, the dollar strengthened and US equities rallied. Since then, prices have

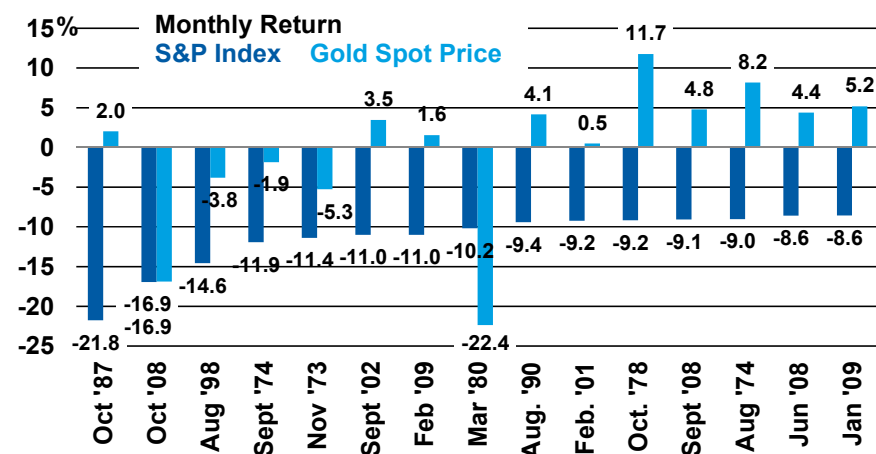
averaged \$1,338. Given gold's current price of \$1,231 (as of Oct. 29), the GIC views gold as oversold and the likely beneficiary of negative economic and market developments. This setup could present an opportunity for a rally to Morgan Stanley & Co.'s 2019 price target of \$1,300.

THREE WAYS TO INVEST. Investors can gain exposure to gold in a variety of ways, including purchasing gold bullion, gold-backed exchange-traded funds (ETFs) and gold-mining stocks. Each investment has advantages and disadvantages, and the decision to invest in one or the other is often based on investor preferences and risk/return profiles.

Gold bullion may be the most straightforward way to gain exposure to gold; however, it does not produce income and, in fact, there is often an annual cost associated with storage and insurance calculated as a percentage of the total value of the metal—possibly 0.75% to 1% per year, depending on the size of the holdings. While bullion is a pure play, it may not be the best way to implement a short-term allocation. Gold ETFs may be a better choice. The funds track the gold price, but there is no need to take physical possession of the metal. What's more, the annual expense ratio is 0.40%.

Gold mining stocks often move in the same direction as gold bullion and can also be viewed as a leveraged play on gold, as their prices often go up—and down—faster than the price of the metal. While the performance of gold mining companies depends on the price of gold, companies typically earn a profit from the spread between the price and the cost to mine it. Unlike physical gold, gold mining companies have the potential to provide a steady stream of income. However, as these are equity securities, gold mining stocks are also correlated with the broad equity market and may not offer the necessary diversification benefits, particularly during periods of market volatility. ■

Gold Returns in the S&P 500's Worst Months



Source: Bloomberg, FactSet, Morgan Stanley Wealth Management GIC as of Oct. 31, 2018

Private Credit Strategies to Capture the Next Downturn

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The ingredients for the next downturn in the credit cycle are evident: increased credit growth, deterioration in underwriting standards and rising interest rates. That's why alternative asset managers who specialize in investing in both distressed securities and opportunistic special situations are busy raising money. While a turn in the credit cycle should create a number of interesting distressed investments, it may not happen quickly; patience is the best approach to capitalize on these idiosyncratic and potentially widespread opportunities.

CYCLES OF DISTRESS. Independent of global financial crises, there have always been cycles of distress as a result of company mismanagement, overleveraged balance sheets and secular events. By

incorporating distressed and special-situation strategy allocations on a consistent basis, investors have earned attractive returns when compared with the liquid high yield market. In the three-, five-, 10- and 15-year periods ending March 31, 2018, the internal rates of return for these strategies have outperformed high yield bonds by an average of 275 basis points (see chart). In our view, this offers an appropriate illiquidity or return premium compared with investing in liquid debt. Moreover, investors should consider private distressed and special-situations investing as countercyclical to other private equity strategies in their portfolios, which have more recently exhibited higher valuations and levels of debt. If these private equity companies falter, the number of opportunities in distressed investing should grow.

Distressed and special-situations funds employ varied strategies. They may purchase debt of distressed companies and

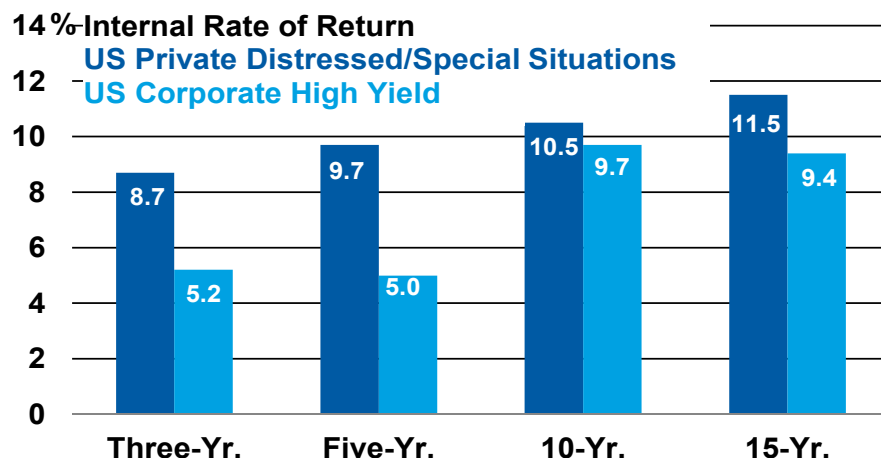
try to influence the restructuring to maximize returns or to ultimately gain ownership. Some may focus on companies that require capital to meet idiosyncratic needs as well as sectors that face gaps in capital availability, such as in energy. Some strategies may invest in bankrupt companies or in loans at significant discounts due to regulatory changes. Depending on the level of distress and complexity, these strategies can offer different return and risk characteristics.

COMBINED APPROACH. Understanding that it will be difficult to exactly predict when the cycle will turn, we have a bias toward opportunistic and special-situations strategies that may target a combination of stressed, capital-constrained companies or industries as well as pure-play distressed opportunities to capitalize on market dislocations should they arise. In the current low-default environment, these strategies are flexibly positioned to take advantage of a wider range of opportunities compared to a dedicated, distressed for-control-only fund.

The overall low default rate environment has not produced an abundance of distressed opportunities yet; however, we have witnessed episodic bouts of volatility in both default rates and prices in recent years. Should the pace of interest rates accelerate against the backdrop of record leverage, companies may find it increasingly difficult to service their debt. Those firms that have used the hospitable credit environment of recent years to shore up their finances may soon be exposed. Notably at risk are middle-market companies that may not have the management depth to overcome the challenges of a bloated capital structure.

While the ingredients for a ripe distressed environment are percolating, timing cycles is difficult. Therefore, investors should consider opportunistic private distressed and special-situations funds as a part of their overall allocations to private credit. ■

Private Distressed/Special Situations Funds Have Outperformed High Yield Bonds

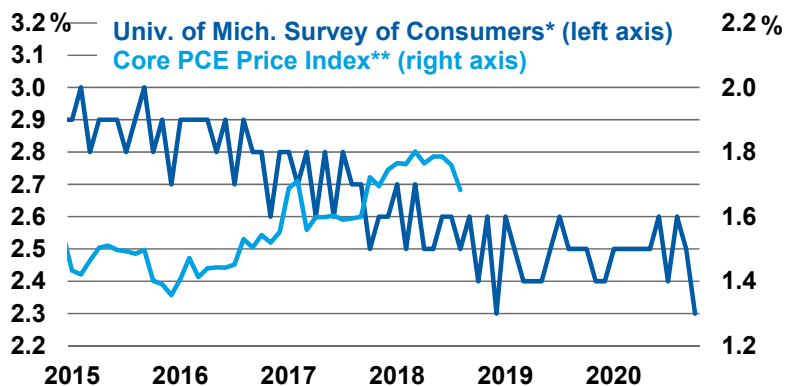


High yield is calculated on a public market-equivalent basis.

Source: Thomson One, Cambridge Associates LLC as of March 31, 2018

For Inflation Expectations, What's Down Is Up

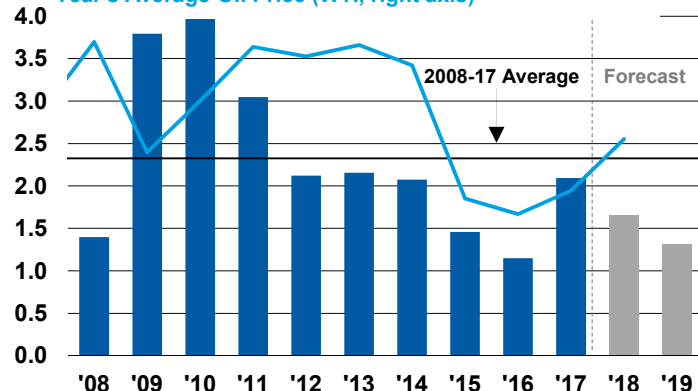
Economists have long worked under a consensus view that inflation expectations largely determine inflation. The consensus says in the last couple of decades improved monetary policy steadied inflation expectations, causing inflation itself to stabilize; however, inflation expectations have continued to move during this time, and those movements no longer positively predict inflation like they did in the 1970s and 1980s. In fact, consumers' low readings on inflation expectations now appear to predict high inflation, and vice versa (see chart). Why? Low inflation and low inflation expectations may boost the economy, either directly or by wrongly persuading monetary policymakers that inflation will be low. Thus they keep policy looser than they otherwise would, which then drives inflation higher. If inflation expectations are low, and particularly if those low readings seem to be influencing monetary policymakers, then expect high inflation.—*Jeremy J. Nalewaik*



*Five-to-10-year inflation expectations, lagged two years. **Two-yr. average change
Source: University of Michigan, Bureau of Economic Analysis as of Oct. 18, 2018

Why There's an Upside Risk in Oil Prices

4.5 OPEC Surplus Capacity, Million Barrels/Day (left axis)
Year's Average Oil Price (WTI, right axis)

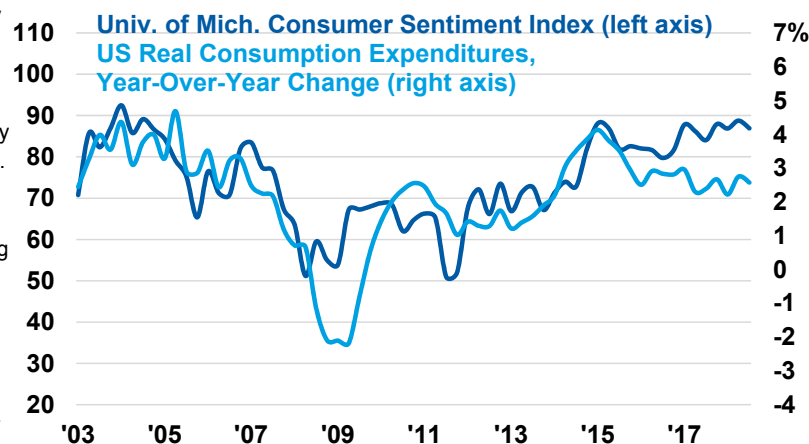


Source: Bloomberg, US Energy Information Administration, Morgan Stanley
Wealth Management GIC as of Sept. 28, 2018

Oil prices have broken out to the upside, with both West Texas Intermediate and Brent crude hitting multiyear highs in early October (see chart). Fundamentals could send the cost of crude higher, as OPEC decided not to increase its output target despite the reimposed sanctions on Iranian exports that become effective this month. Furthermore, production potential from fracking in the Permian Basin is increasingly constrained by pipeline bottlenecks. Historically, almost all recessions have coincided with elevated oil prices, which have acted as a knock-on damper for economic activity. This drag has translated into weak equity returns, too. Today, upside pressure on inflation from higher oil prices could threaten the Federal Reserve's gradual and measured pace of rate hikes. With risks skewed to the upside over the next three to six months, owning energy stocks could remain an effective hedge against further increases in oil prices.—*Aili Chen*

Consumer Sentiment and Consumption Are on Curiously Different Paths

The University of Michigan Consumer Sentiment Index, a widely followed measure of US consumer confidence, has generally provided valuable insight into the direction of real consumption and, in turn, economic growth. During this cycle of low interest rates, accommodative monetary policy and historically low equity market volatility, consumer sentiment approached decade highs. Typically, the relationship between consumer confidence and real consumption has been tight, but the two series began to diverge in late 2015, when the Federal Reserve began tightening and late-cycle economic dynamics moderated real consumption (see chart). This was true even as improving economic data, peaking corporate profits, fiscal stimulus and tax cuts supported consumer confidence. As these tailwinds weaken, we anticipate that consumer sentiment may soften, closing the gap again between sentiment and activity.—*Vibhor Dave and Chris Baxter*



Source: Bloomberg as of Sept. 28, 2018

Evolving Threats From Cyber to Space

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The dark side of globalization and innovation is new vulnerabilities and threats. Fighting these risks has led to significant increases in military spending, as well as greater need for private sector security. This excerpt is from the Oct. 16 AlphaCurrents, which explores these issues and builds a framework for investing in them.

The US has been the world's dominant military power since the end of the Cold War. This singular strength combined with a network of NATO allies created a unipolar world order that allowed peaceful global trade and economic development. This relatively tranquil period has ended. Now, a challenging new security environment is emerging with new theaters like cyber, technologies like drones, diffusion of tactics like terrorism,

espionage forms like election hacking and even a new great power rivalry.

WORLD'S TOP SPENDERS. US relative military spending has declined to 36% from 46% of the world's total since 1993. As for share of global military spending, US allies in the EU have fallen to 15% in 2017 from 30% in 1992. During the period of the Cold War peace dividend, global military spending was \$1.7 trillion in 2017, up from \$720 billion in 1992. The world's top military spenders are the US, the EU, China, Saudi Arabia, Russia, India and Japan—but the US is far ahead (see chart). The highest growth in military spending has come from East Asia, primarily China, which has risen about 8% annually for the past five years.

US defense spending's 4.2% annual growth outpaces the S&P 500's 2.5% top-line growth, and there is reason to believe this will continue. Expenditures have turned upward since 2016, reverting to the long-run trend with a new administration.

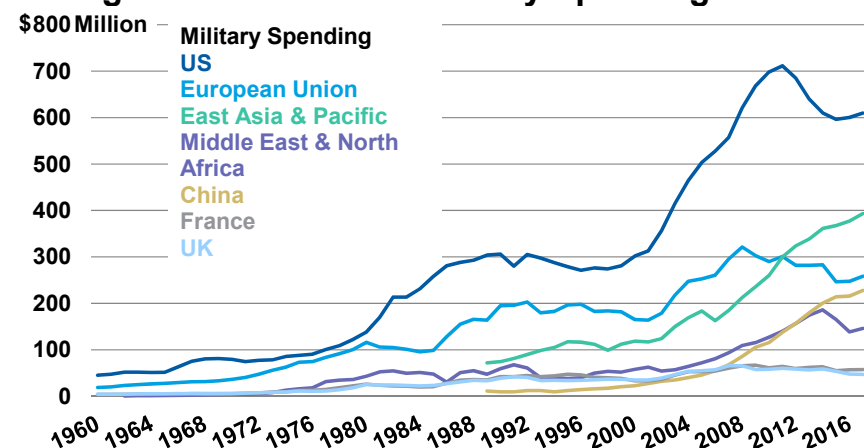
CHINA RISING. Military spending by countries in the Pacific has grown to 23% of the world total today from just 13% in 1992, driven primarily by China using newly created wealth to accelerate military development (see chart). Indeed, spending forecasts suggest that China may contest the US as the world's dominant military over the next decade.

The competition between the US and China for global hegemony will likely spur new growth in the defense industry. Projecting spending out to 2026, the US and China could be spending a combined \$2.3 trillion on defense. That's 35% more than the world in total currently spends..

EVOLVING THREATS. We find eight issues presenting particular challenges to global stability, including: cybersecurity; rising nation-state rivalry; proliferation of weapons of mass destruction; challenges in space, terrorism, drones and automation in weaponry; information warfare; and homeland security. Investors should focus on the threats that will require the largest spending, such as great power rivalry and those that are evolving fastest, such as cybersecurity.

CYBERSPACE VULNERABILITY. The importance and vulnerability of cyberspace will likely translate into both public and private spending. According to Symantec, there were 528 organizations hit by targeted cyberattacks globally in 2017 and the number of known attack groups is up 60% since 2015. The increased pace and sophistication of attacks have created a cybersecurity industry that has grown over 3% a year during the last three years to \$296 billion. We believe that this is just the tip of the iceberg as many companies underspend or cut back on cybersecurity when budgets tighten. Over time, those that continue to spend and secure their systems will benefit from the investment. Numerous companies have emerged to capture this growing market, with the average cybersecurity company growing sales by 15% annually for the past three years. ■

Strong Growth in Global Military Spending



Source: Stockholm International Peace Research Institute Yearbook: Armaments, Disarmament and International Security, Morgan Stanley Wealth Management as of 2017

How Yield Changes Affect Preferreds' Rate Risk

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The surge in interest rates that drove the yield on the 10-year US Treasury to 3.24% in early October has had the expected adverse impact on longer-maturity bonds. While the interest rate risk of a US Treasury security, which has predictable cash flows and cannot be called, is well understood, rate risk for fixed income instruments such as mortgage-backed securities and preferred stocks, is more complicated. Having already addressed the mortgage-backed sector (see *On the Markets*, March 2018), we now look at preferreds.

The origins of this bear market in rates traces back to summer 2016, when the 10-year US Treasury yield bottomed at a cycle low of 1.36%. Since then, in terms of price, the preferreds with fixed-for-life

rates have declined 11.0% in price and preferreds that start fixed but later convert to floating-rate securities fell 7.5% (as of Oct. 25). While these price declines have been partially offset by the preferreds' relatively high income, the erosion in market value over this period is notable.

IMPACT ON CASH FLOWS. Widening credit spreads have contributed somewhat to this weak performance in recent periods, but the largest factor has been the impact of higher yields on expected cash flows. Since the stream of cash flows produced by a preferred is largely dictated by when, if ever, an issuer decides to call a security, investors are faced with inherent uncertainty based on a wide range of potential outcomes regarding the timing and size of coupons, as well as the timing of a principal redemption, the occurrence of which is not guaranteed.

Between 2014 and 2017, issuers of preferred stock took advantage of low interest rates and tight credit spreads to

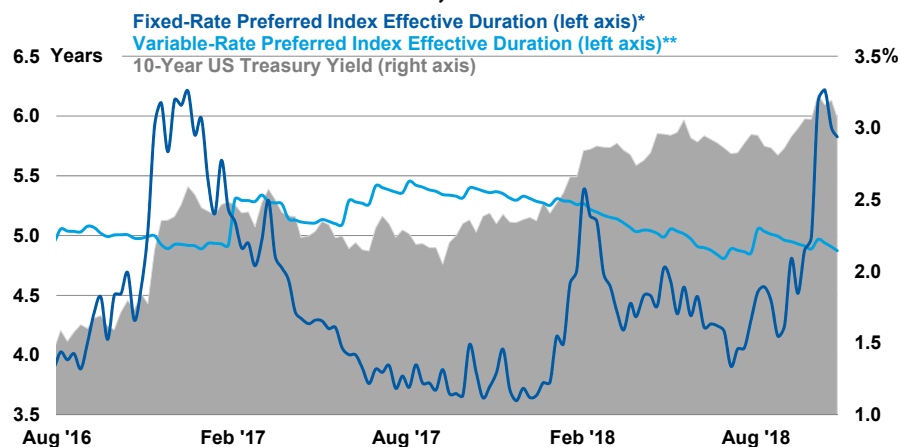
issue perpetual-maturity securities with historically low coupons, with some under 5%. These securities were issued with fixed-for-life or fixed-to-float coupon structures and had an initial first call date of five or 10 years from issuance. The upshot was that, at the beginning of 2018, a large portion of the asset class was priced at a premium to par.

BELOW PAR. When fixed income securities trade at a premium price, markets generally assume the duration is based on the first or next call date. That's because issuers may wish to exercise the call and issue replacements with lower interest rates. As a result of the rise in rates for the year to date, prices for a substantial number of preferreds have declined below par. That extended the duration considerably due to the increased likelihood the securities will not be called and may remain outstanding longer term—perhaps in perpetuity. This significantly changes the interest rate risk of the preferred shares.

The chart highlights this extension of duration for the fixed-rate preferred benchmark during the recent rise in interest rates to more than six years from four-and-a-half years. In contrast, fixed-to-float preferreds, which convert from a fixed coupon to a spread over Libor, have a more defensive risk profile because the variable-rate coupons adjust to future rate environments. This is evidenced by how the variable-rate benchmark has remained steady relative to the fixed-rate benchmark during this multiyear rise in rates.

FAVOR FIXED-TO-FLOAT. Given the market conditions at this time, we have a preference for fixed-to-floating-rate preferreds. As the Federal Reserve's hiking cycle reaches the later stages and interest rates peak, fixed-for-life preferreds may outperform. However, the more defensive interest rate profile of fixed-to-floating-rate securities mitigates downside risk relative to fixed-for-life comparables, even if the potential upside is reduced if there is a rally in rates. ■

Rising Interest Rates Dramatically Changes Duration For Fixed-Rate Preferreds, Less So for Variable Rate



*ICE BofAML Core Plus Fixed Rate Preferred Securities Index **ICE BofAML US Investment Grade Institutional Capital Securities Index
Source: Bloomberg as of Oct. 26, 2018

“Lower Prices Increase Future Returns”

While October’s wild market swings may have felt stomach-churning and sent some investors running for cover, Christopher Davis, portfolio manager and chairman of Davis Advisors, reminds investors that “market corrections are the norm, not the exception.” Following more than a decade of relatively calm markets, Davis expects that volatility is picking up, making selectivity matter a lot more. “We’re coming to the end of this period of an unnatural influence from central banks, which created a complete rising tide, lifting all boats. Going forward, fasten your seat belts.” He recently spoke with Michael Jabara, head of ETF and Closed-End Fund Research at Morgan Stanley Wealth Management. The following is an edited version of their conversation.

MICHAEL JABARA (MJ): Amid recent market activity, what are you telling investors?

CHRISTOPHER DAVIS (CD): I think the most important point is that this is normal. The period of low volatility that we had experienced is what is unusual. It is amazing to look at the headlines that come out: “Stocks Plunging,” “Markets Tumbling” and “Bloodbath in Stocks.” What happened in early October wasn’t even in the top-300 days of biggest percentage movers. In other words, on average over the past 90 years, there have been three or four days a year on which the market has moved down by a greater percentage.

We’ve been in a period of unusually low volatility, which breeds complacency. I think we forget that volatility and corrections are the norm. They are an unpleasant but regular part of the

landscape. On average, you could expect a 5% correction every 51 trading days. You could expect a 20% correction every 630 trading days.

We’ve gone more than 2,400 days without a 20% correction. You can interpret that data and say, “We are way overdue,” or you could say, “We would have said we were overdue when we were at 700 days, 800 days, 1,000 days.” So the most important thing is not to try to predict when these will occur, but rather to recognize that of course they will occur.

When they do, the media will overreact and use the language that I shared with you. As investors, we should welcome this—because volatility is when active management shines more. In an unusual way, this return to normalcy is something that we should welcome because active management can add more value.

MJ: What’s the backdrop for the current market?

CD: In the US, we’re in a period of low inflation, low interest rates, relatively full employment, fair valuations and moderate growth—a pretty good landscape—but there are negatives in the US, too. We have normalizing inflation, normalizing interest rates and a long-term deficit that’s going to have implications sooner or later. We have these unclear trade policies, and we’re in an environment where margins are unquestionably near peaks. When you put that together and ask where the opportunities in the US are, we say: Selectivity is key, and it’s going to be the theme over the next five to 10 years.

MJ: Where are you seeing the most attractive opportunities now?

CD: Selectivity is going to matter because the averages aren’t going to work

as well. If you can find wide-moat businesses with room for margin expansion and earnings growth—at a time when the average company could be facing falling margins because of higher labor costs, higher raw material costs and higher interest costs—those businesses are going to be differentiated. We also should be looking for out-of-favor businesses for what I would call “a return to classic value.”

In Europe, if the positives continue toward recovery, they’re following our road map but they’re way behind. They’re moving slowly, but we think the negatives—the demographics, the regulation and the lack of cohesion—are going to be sorely tested. Europe has a global orientation, and that is present in a lot of their best businesses. There is always an advantage for corporations with a global orientation.

So when we look for opportunities given that context, we look for premier multinational leaders with strong global growth prospects and avoid companies that have tepid growth tied solely to Europe. We look for companies where they are tarred with the European name or negativity but actually have economic fortunes that are more differentiated.

In the emerging markets, we see a lot of opportunities, due in part to strong earnings growth, powerful emerging middle classes and attractive valuations. Of course, currency risks are on the negative side, as well as political, economic and regulatory risks, which are idiosyncratic. They vary dramatically country by country, which, of course, raises the same thing on the opportunity side, which is that selectivity is going to be critical—not just in the individual companies but also in the individual countries.

Rapid-growing, attractively priced consumer service companies in the emerging markets are where we see opportunity. You want to be where the middle class is erupting. You don’t want to

be in the big state-owned and formerly state-owned enterprises. We also like industry-dominating businesses, and we are looking primarily in China, India and Brazil.

The last thing is just simply to say we always like looking at where the headlines are bad. That has drawn us to financial services in particular, as well as energy.

MJ: Speaking of bad headlines, what are your current thoughts on the US-China trade dispute?

CD: This is a great example of the headlines distorting the reality. Trade disputes are always bad, because once you introduce tariffs, you introduce friction—which basically means money is taken from businesses and consumers, and transferred over to the government.

So we start with the fact that there are negatives. However, the history is not written in terms of how this will play out long term. Is this a short-term tactic? Is it a long-term war? When you go through country by country and look at historical data, it is amazing how perspectives can get distorted.

Only 10 years ago, net exports from China were 9% of its GDP. Today, they are 2%. So in a sense, our perceptions of what is happening in the world or the way China works are outdated. China has transitioned from an export-led economy to a much more US model of a consumer-led economy.

We love bad headlines. We love the prices that they create. The volatility is tough, but boy, this is a great time when looking to select emerging markets, and within those markets, the companies that have really dominant growth franchises—that are not sensitive to these trade disputes and so on. When you can buy those at cheap multiples, that is a value investor's dream. That we really do see unfolding now in select emerging markets.

MJ: Going back to your bullish stance on financials, what do you think is in store for this sector?

CD: I think we're a few years into what is going to be a decade-long rotation. This rotation is really going to drive financials to where they should be and how they should be perceived—which is relatively safe, high dividend growth, high value, boring. This is not just a US theme; we're finding select opportunities in financials around the world.

Following the Great Depression in the 1930s, nobody wanted to own bank stocks for another 20 years, but after the first decade had gone by, the businesses themselves were performing quite well. Of course, the businesses do well because after something like the Depression or, in more recent terms, the financial crisis, you have less competition, more capital, more regulation and wider moats.

The first thing that changes is people start realizing that the businesses that survived are actually pretty good. So people start to say, "Well, the businesses are doing well." We're seeing that as earnings are coming out year after year; enormous earnings, rising dividends, great credit quality, fattening interest rate spreads, a lot of things moving the right way—except for one: Valuations remain at a 30% or 40% discount to the broad market.

We're now in this transition to what I would call the next decade of good performance, which will be driven by people coming to recognize that financials are boring, compounding machines. Not all financials. But, again, being selective and recognizing that they could be the next decade's dividend darlings.

MJ: Do you factor in deregulation?

CD: Financials were big beneficiaries of the recent tax code changes, but we should be careful about deregulation, because it can create a Wild West atmosphere. That's part of what led us to the financial crisis—short-term funding and other "financial innovations" that can be dangerous. A ramp-up of deregulation would probably be more dangerous than helpful, although

it certainly would make the stocks go up a lot in the short-term.

The Goldilocks world of "not too much, not too little" regulation is ideal, and I would say that is where we are now. We're in an environment where regulations are unlikely to get worse, and the likelihood is they are getting gradually better. These companies had to amass an enormous amount of capital for a decade. Now, they have built up their capital ratios. Now, we can gradually move into distribution mode. Not all at once, but I think we will see dividends for some of these companies rising 10% a year or so on average for the next five to seven years.

MJ: How are you mitigating risk in the current environment?

CD: When we think about risk, the first thing to recognize is what risk really boils down to for most people is the loss of purchasing power over time, or a diminishing in their quality of life. It isn't necessarily about volatility, which has a disastrous effect on investor behavior. When prices go down, the wiring in people is not to invest more, it's often to invest less. When prices go up, people get more excited. That is an old story and one of the most important risks out there.

The best world for investors is a world in which investors feel that markets are risky. People say, "That stock went from \$45 to \$30, it must be very risky," and this is where you should invert it. There's a simple truth: Lower prices increase future returns and decrease risk.

In a way, we should be rooting for more volatility. We should be rooting for that 20% correction that is so far overdue and is a normal part of the landscape. ■

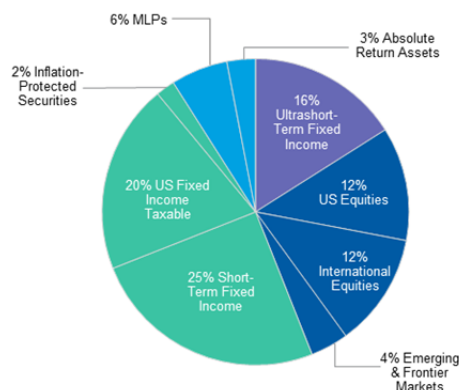
Christopher Davis is not an employee of Morgan Stanley Wealth Management. Opinions expressed by him are solely his own and may not necessarily reflect those of Morgan Stanley Wealth Management or its affiliates.

Global Investment Committee

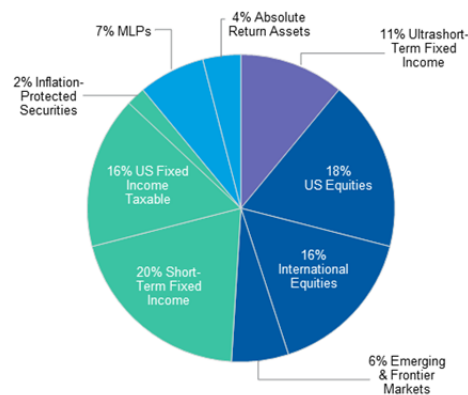
Tactical Asset Allocation

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.

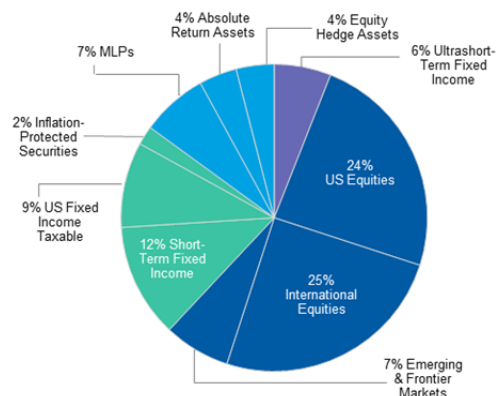
Wealth Conservation



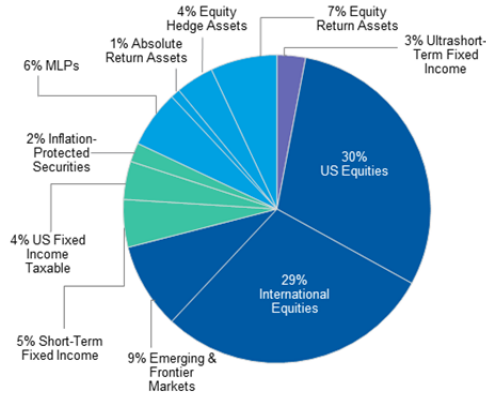
Income



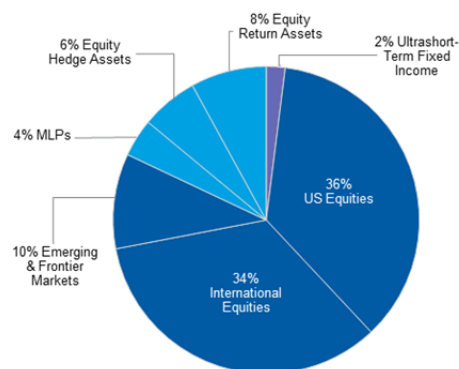
Balanced Growth



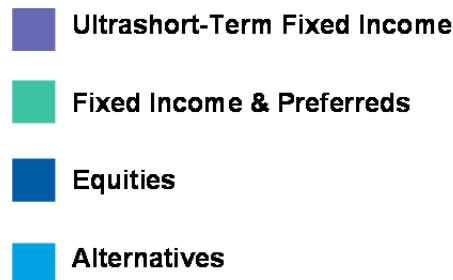
Market Growth



Opportunistic Growth



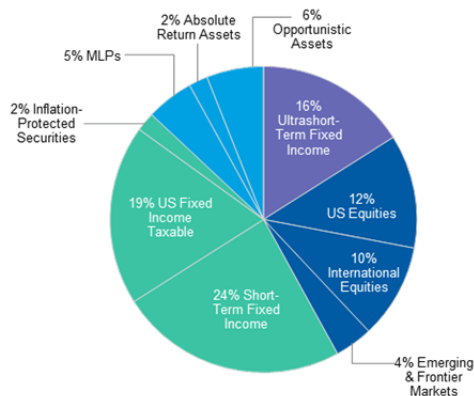
Key



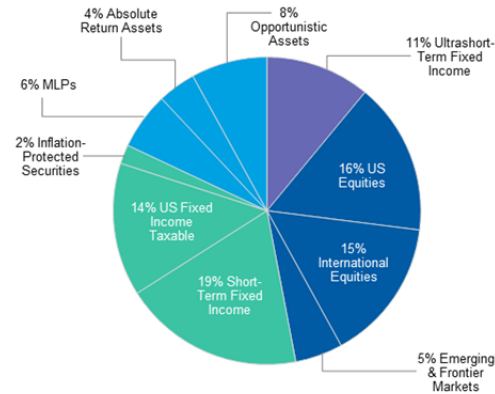
Source: Morgan Stanley Wealth Management GIC as of Oct. 31, 2018

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.

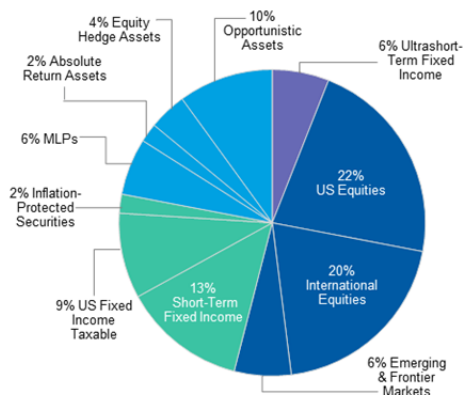
Wealth Conservation



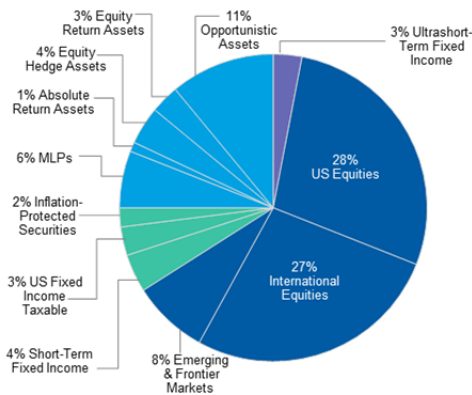
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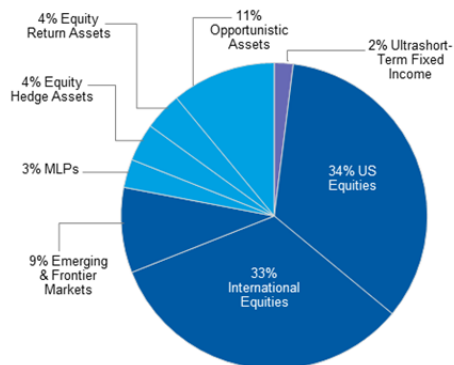
Balanced Growth



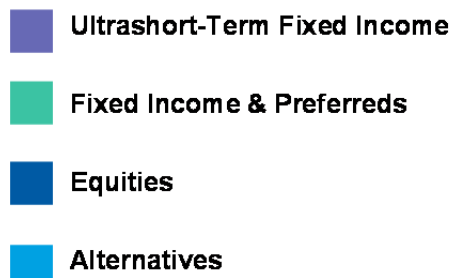
Market Growth



Opportunistic Growth



Key



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

Tactical Asset Allocation Reasoning

Global Equities		Relative Weight Within Equities
US	Equal Weight	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 progrowth 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 reduced positions in both and favor large-cap value stocks back in July and that has worked well. We would be aggressive buyers of the S&P 500 at 2,500 or lower.
International Equities (Developed Markets)	Overweight	We maintain constructive on Japanese and European equity markets in the long term. 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. Japan is in a secular bull market.
Emerging Markets	Overweight	Emerging market (EM) equities are underperforming 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 believe 2019 will be a better year.
Global Fixed Income		Relative Weight Within Fixed Income
US Investment Grade	Underweight	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.
International Investment Grade	Underweight	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.
Inflation-Protected Securities	Overweight	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.
High Yield	Underweight	We have zero exposure to high yield having reduced it completely in January. While credit spreads have likely reached a low for this cycle, they have been slow to rise. We think the risk of spreads widening have increased significantly with the rising risk of an earnings recession next year.
Alternative Investments		Relative Weight Within Alternative Investments
Real Estate/REITs	Underweight	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.
Master Limited Partnerships/Energy Infrastructure*	Overweight	Master limited partnerships (MLPs) have traded better since their capitulation in March around the FERC regulatory announcement. However, recent price action has been much worse than expected given their 8% to 10% yields. We stick with this group as a hybrid cyclical with defensive characteristics.
Hedged Strategies (Hedge Funds and Managed Futures)	Equal Weight	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.

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

***For more about the risks to Master Limited Partnerships (MLPs) and Duration, please see the Risk Considerations section beginning on page 17 of this report.**

Index Definitions

For index, indicator and survey definitions referenced in this report please visit the following:
<http://www.morganstanleyfa.com/public/projectfiles/id.pdf>

Risk Considerations

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 leveraging, 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 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 a commodity. In addition, the commodities markets are 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.

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