WEALTH MANAGEMENT

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GLOBAL INVESTMENT COMMITTEE / COMMENTARY

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On the Markets

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Listening Closely

Relationship experts say that misunderstandings are often the result of miscommunication or an inability to communicate effectively. Furthermore, these deficiencies are usually the result of one party failing to listen. I am sure we all have many examples in our lives where we failed to listen to the other side before speaking and it cost us dearly, or at least more than it should have. If we had only listened more closely, it would have ended better.

Over the years, I've found markets to be the same way. If I'd only listened more closely I would have seen it coming! As a result of learning this the hard way, I have developed an investment philosophy of "trust but verify." Specifically, trust your fundamental analysis and investment thesis but verify it by listening closely to what the market is saying.

Our outlook for 2018 is less bullish than the past year's outlook (see "Don't Expect an Encore," *On the Markets*, January 2018). This view is based on the fact that we have just experienced one of the best two-year periods in stock market history and therefore a lot of good news has already been discounted. Specifically, economic and earnings data were very strong and are expected to remain so. The problem with good news is that it gets people excited about the future when in fact the news may have already been priced in.

At the end of last year, investors became very excited about tax cuts and the impact they believed they would have on both economic and earnings growth. This excitement carried over into January when earnings estimates rose rapidly as analysts adjusted their forecasts to incorporate lower taxes. Stocks responded by rising rapidly, too. Then, stocks fell just as quickly at the end of the month and for the first several weeks of February. What happened? We think this is a classic case of investors forgetting the market does a good job of discounting the future.

Exhibit 1 (see page 2) shows that valuations of stocks, specifically the price/earnings (P/E) ratios rose last fall as expectations of a tax cut increased. That makes sense because stocks were anticipating a rise in earnings. Then, the day before the Senate passed the bill, P/Es peaked and began to fall ever so slightly. Again, that made sense because now the good news had been priced. However, as earnings estimates rose in January, P/E multiples rose again, which doesn't make sense because that's essentially double counting the tax cuts.

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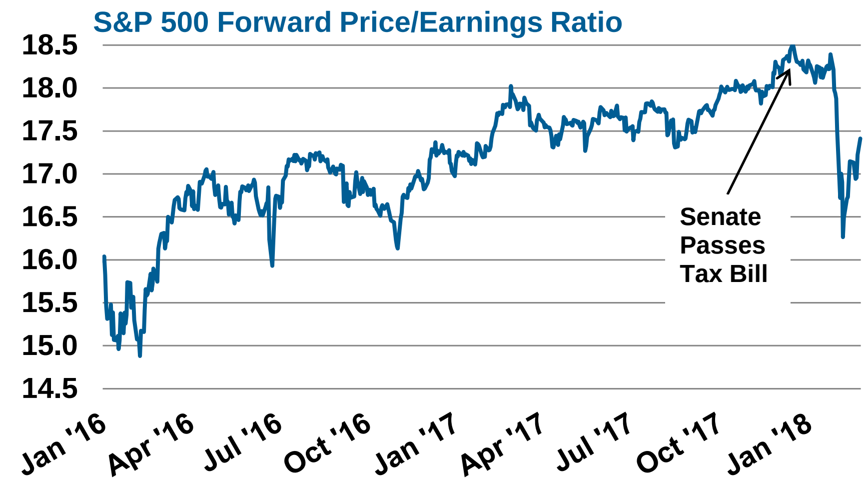
P/E Ratios Peaked the Day Before Tax Cuts Passed



Source: Bloomberg as of Feb. 26, 2018

Our call for US equities in 2018 is that earnings growth will be very strong, 15% or more. However, we think investors will pay lower valuations for those earnings because at the end of the day, tax cuts are a one-time boost to growth. They arguably result in lower-quality growth as compared to the growth of the past few years which came from rising revenues and profitability.

We are also cognizant that the synchronous nature of the recovery of the past several years may become less so this year. What's more, central banks are likely to reduce the extreme monetary policy accommodation they have been providing since the financial crisis. This means higher volatility and less predictable returns. While that doesn't mean the end of the bull market, it does mean returns will likely be lower this year and come with greater risk, particularly in the US where expectations and prices are the highest. This is why we shifted some of our equity allocations to international developed markets and out of US markets in early January.

But markets are global and intertwined and so foreign equity markets rose and fell rapidly in sync with the US. Going forward, we still think foreign equity markets will offer better returns than the US given the lower valuations which reflect lower expectations—a good thing when investing. In short, 2018 is playing out much like we expected but we would still like to verify it. So, we have created a checklist of things to watch:

● P/Es should contract. This is already happening and the S&P 500's P/E now sits close to our target of 17. This means US stocks are close to fair value today and should move in line with earnings, which are likely to continue to rise this year. Outside the US, P/Es still have room to expand, which is why we favor those regions. We especially like Europe and we recommend not hedging the currency risk given our view that the US dollar will remain weak (see page 5).

● Interest rate and currency volatility will lead the move higher in equity volatility. This, too, has happened and we expect these volatility measures to remain at higher levels than last year. As part of this changing dynamic, we expected at least one if not several 10% corrections this year. We just had our first. Get used to it because that is more normal than what we experienced in 2017.

● The breadth of the market should narrow which just means fewer stocks are participating in the rally. That is a sign of weakness much like increasing breadth a few years ago was a sign of strength, as we wrote at the time. Indeed, fewer stocks are doing well this year even though the equity market is up.

● Financial conditions should tighten this year, which includes a rise in credit spreads. This, too, is beginning and we suspect will continue throughout the year as the Federal Reserve, the European Central Bank and other central banks remove monetary policy accommodation. As another verification, high yield credit has underperformed this year, which aligns with our reduced allocation in early January.

● While earnings revisions and year-over-year growth have not yet rolled over, they are now at such high levels we think it is inevitable they will fall later this year. We will be watching this rate of change closely along with incremental operating margins, which are also apt to peak this year.

● Earnings estimate dispersion should widen as economic leading indicators and data surprises begin to soften and the global economic expansion becomes less synchronous. Ultimately, this means defensive stocks start to lead the market. To this end, we recently upgraded utilities in the US.

We will continue to monitor this checklist and other things to verify our thesis for 2018 and revise if necessary. Until then, we stand by our 2018 outlook for more modest returns—even negative for some asset classes—and higher volatility. ■

Regime Change

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Stock market corrections, defined as downward moves of more than 10% from index peaks, typically occur once in every rolling 12-month period. Ordinarily these episodes are not to be feared, especially by long-term investors who may use them as buying opportunities. Only 20% of the time are these corrections the harbinger of recession and a more prolonged cyclical bear market.

These typical sell-offs are usually catalyzed by growth scares, perceived shifts in monetary policy or geopolitical concerns. As a result, in these situations, we rely on asset-class diversification to cushion some of the blow as bond prices usually rise—and yields fall—while the dollar strengthens. Importantly, typical corrections do not require a strategic asset allocation response because they are short-lived. On the other hand, corrections accompanied by a widening of credit spreads, a flattening of the yield curve and major sell-offs in high-beta regions like the emerging markets are of more concern and may prompt an aggressive de-risking of portfolios. Under these circumstances, selling stocks for cash and bonds would be advised.

WHAT HAPPENNED? How do we interpret the current correction? Through one lens, looking at the S&P 500 performance, which currently has the index up about 1.5% for the year to date, it might appear that nothing much has happened and that it fits the model of a "typical" correction. To wit, recession warning signs are not flashing: Credit spreads are well behaved; the yield curve has steepened significantly; and economic data continue to improve from already strong levels just as corporate earnings estimates are being revised upward.

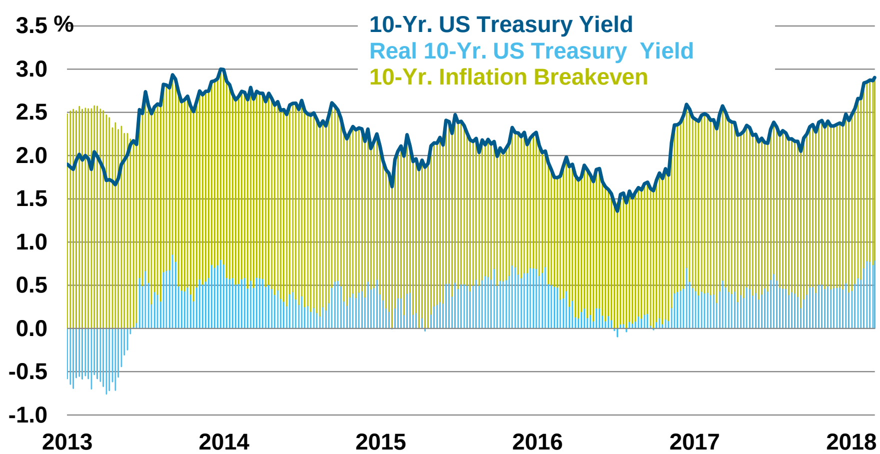
However, while the cumulative damage may feel modest thus far, we have just experienced a tectonic regime shift that signals the beginning of the end of this business cycle and prompts a review of our asset allocation. The difference this time is rooted in growth that, rather than weakening, might actually be running too hot—turbocharged by synchronous global forces and fiscal policy out of Washington that has been more aggressive than anticipated. The response in markets forces us to reconcile a unique combination of a weaker dollar, higher nominal yields and stocks stabilizing at lower valuation multiples.

INFLATION EXPECTATIONS. To explain this dynamic, some focus on a shift in inflation expectations as the driver of volatility. Recent data have given rise to concerns, with the initial shock being the swift acceleration in US average hourly wages in January to a 2.9% year-over-year rate. Building on that concern was January's CPI report, which delivered an upside surprise of a 0.5% month-over-month gain for headline CPI; the year-over-year readings were up 2.1% for headline and up 1.8% for core. Also contributing were higher import prices and rising commodity prices, effects of a weaker dollar. Inflationary pressures can also be seen in the rise in ISM manufacturing delivery times and consumer goods prices, which had long been subject to deflation.

Although we agree that inflation is normalizing toward the Federal Reserve's 2% target, it is not a new problem. To the contrary, the markets have been gradually repricing 10-year inflation expectations since mid-2017 and they are now at 2.1%, which is about where they were in 2014 (see chart). In fact, the rise in the 10-year inflation breakeven rate since Jan. 1 is only 13 basis points. Furthermore, an examination of term premiums, a measure of compensation for duration risk beyond real rates and inflation, shows little bond market anxiety that the Fed is behind the curve on inflation (see chart, page 4).

REAL RATES SHIFT. What has truly changed and catalyzed this regime shift are

Time to Focus on Real Interest Rates



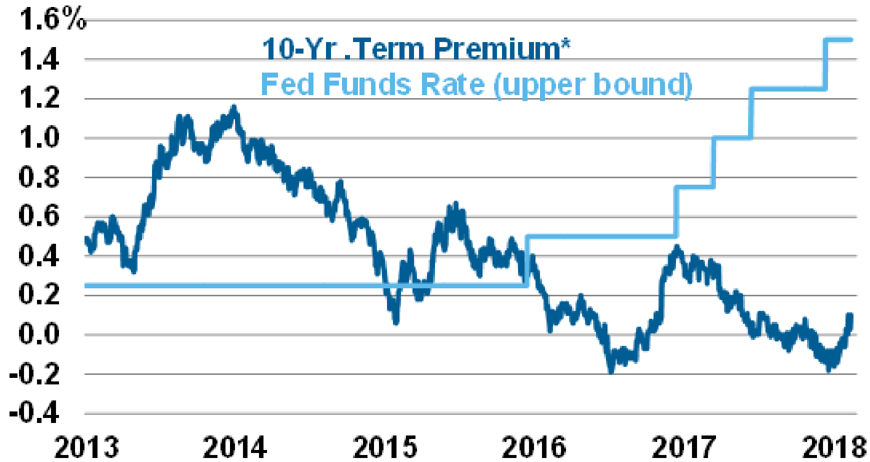
Source: Bloomberg as of Feb. 27, 2018

real rates, which account for at least one-half of the recent move up in nominal rates. For perspective, recall that the goal of Quantitative Easing (QE) and suppressing nominal rates was to produce negative real rates and deliver the ultimate stimulus to the economy. The 10-year real US Treasury rate fell to -1% before the Fed announced QE tapering in 2013 from more than 3% in 2008. What's more, it has remained in a tight zone of about 0.5% in the past five years—critical to low volatility and easy financial conditions. Now, however, we observe that the 10-year real rate bottomed in September and since has reached nearly 0.8%. That's the highest level since 2013 and suggests that financial conditions are tightening.

The acceleration in the real rates has come from both growth surprises and the upside from fiscal stimulus. Tax reform could add an estimated $1 trillion to $1.5 trillion to the budget deficit in the next 10 years, the recent budget bill could add another $400 billion in the next two years and Washington is talking about additional spending for infrastructure. The upshot: The fiscal deficit as a share of GDP could more than double to close to 6%.

RISING TREASURY ISSUANCE. That's not all. Issuance of Treasury securities, including Fed balance sheet normalization, may be over $4 trillion in the next decade, which is more than double prior expectations. This ends the "lower for longer" era and begins normalization of the business cycle and policy dynamics that should bring about higher real growth, higher inflation, higher rates and higher volatility. It also likely marks the beginning of the end of the market cycle, with an increase in the real cost of capital, rising inflation expectations and potentially, ultimately, a higher term premium, too. The implication is that stocks may continue to do well, but the market-leading sectors may shift. Most important, investors need to become more defensive, adding bond proxies as rates peak—starting with utilities. ■

Term Premium Suggests Bond Investors Are Not Nervous



*Morgan Stanley Term Premium DTSM 10-Year Index
Source: Bloomberg as of Feb. 23, 2018

More Bearish On the US Dollar

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Late last year, in our *2018 Year Ahead Outlook*, we established longer-term bearishness on the US dollar, largely due more to external than internal factors. Because the dollar is the global reserve currency and its capital markets are ample, it should trade inversely to demand for capital, which in turn is a function of risk sentiment. Demand for capital globally is rising due to strong capital spending, more expansionary fiscal policy and strong private demand. We expect this positive growth momentum to continue. As a result, robust demand for capital should continue, if not strengthen, leading to further dollar weakness.

Since then, the dollar continued to decline—the US Dollar Index (DXY) is down about 4%—and now we are even more bearish (see chart). We revised our dollar forecast lower, with the euro likely to appreciate to 1.25 in the first quarter of this year from the previous 1.20. It's already at 1.22. For the fourth quarter, our forecast is now 1.30 versus the previous 1.17. Our longer-range forecast for the DXY is 82 by the end of the year.

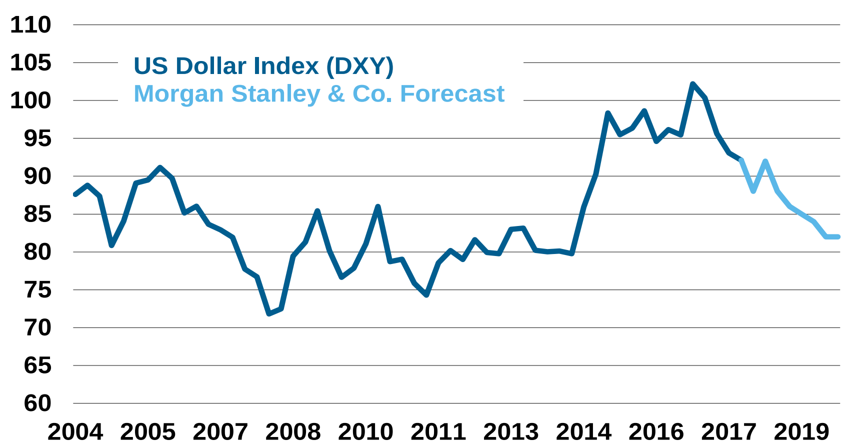
TWIN DEFICITS. The dollar's fall can also be tied to the US' expansionary fiscal policy and the fiscal and current account deficits, perhaps better-known as the "twin deficits." Forecasts from the Committee for a Responsible Federal Budget show that the fiscal deficit will continue to widen and reach more than 5% of GDP in fiscal-year 2019. In that case, either domestic savings will have to rise or the current account will have to fall further into deficit as foreign flows provide the necessary financing—taking place in an environment in which global liquidity is topping out and eventually set to fall. Thus, the US would have to absorb more global capital funding at a time when the supply of savings is becoming more scarce. There would be little political incentive to encourage increased domestic savings ahead of the mid-term election, given the possibility that it could affect currently solid growth.

This leaves the Federal Reserve with a tough choice. One option to address the possibility of a widening fiscal deficit would be to normalize policy more aggressively. The fiscal expansion in the context of a closed output gap and a tight labor market could be inflationary. Higher real rates may increase the attractiveness of savings, helping to narrow the savings/investment imbalance. However, this also has the effect of reducing private-sector demand while public capital demand is rising—a crowding-out effect. The other option is to maintain the status quo. Barring a rise in productivity growth or an exogenous increase in the trade balance (e.g., higher oil production), keeping rates low and supporting fiscal expansion plans may further widen the twin deficits.

LIQUIDITY CONCERNS. We believe currently supportive liquidity conditions are set to weaken over time. With current conditions still loose, the equity market may have reached a long-term top in valuations—but not necessarily in price. Volatility is likely to remain higher than previously seen, though equities may still rally a bit more. Later in this cycle liquidity conditions could become more constraining as central bank balance-sheet growth in the developed markets slows and eventually starts to decline. In addition, the excess savings from countries with a current account surplus should begin to draw down due to rising domestic demand. This tightening of liquidity conditions should be reflected in rising global bond yields, in line with equity markets already off their highs and bond yields trading at cyclical highs.

Should risk sell off materially, as liquidity conditions tighten too much and too quickly, the dollar would likely rally, provided that the impact is enough to weaken the outlook for growth and thus demand for capital. In the recessions of 1987, 2000 and 2008, the DXY rose by 24%, 8% and 25%, respectively. ■

MS & Co. Expects a Dollar Decline Through Year-End



Source: Bloomberg, Morgan Stanley & Co. Research as of Feb. 19, 2018

Defense Stocks Can Be Defensive

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The recent sharp stock market correction has been accompanied by rising real interest rates, which hit sectors such as consumer staples, utilities and telecomm—the so-called “bond proxies”—where investors often seek shelter. With prospects for higher interest rates and inflation, investors may need to find other defensive areas. To that end, we highlight aerospace and defense, which has a slightly lower beta than the S&P 500 and in-line dividend yield. Importantly, the sector enjoys strong fundamental tailwinds and tends to trade with aerospace and/or defense budget cycles rather than the maturing US economic cycle.

In the current expansion, the aerospace and defense sector has outperformed the market and other low-beta, higher-yielding defensive sectors. Since March 2009, it has gained 616% versus the S&P 500’s 313%, consumer staples’ 228% and utilities’174%. While these gains have elevated valuations, we believe there is fundamental support going forward. This stance was endorsed in the recent market sell-off when aerospace and defense outperformed the market, only falling 5.3% versus the S&P 500’s 10.1% drop.

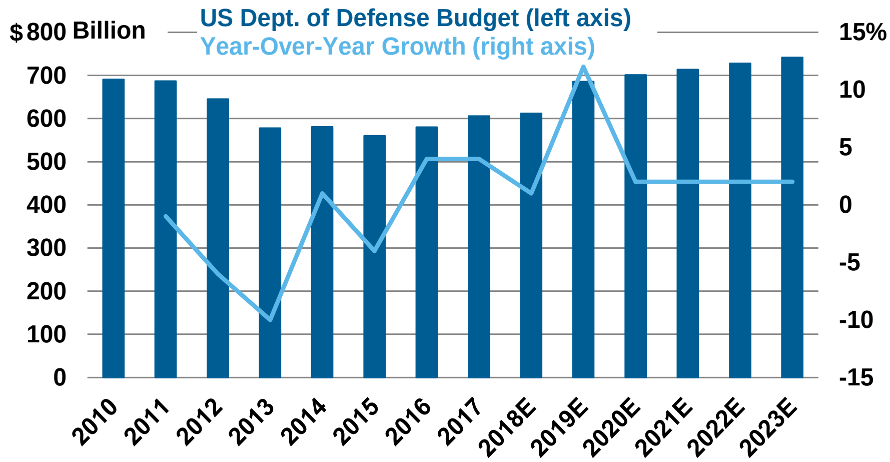
WIDE MOATS. Amid market volatility, investors have favored quality companies with wide moats that protect them from competition. This dynamic is likely to take center stage in the coming year as investors figure out which companies are able to keep their savings from tax cuts (see *On the Markets*, February 2018). Aerospace and defense companies screened favorably on quality metrics, given relatively concentrated industry construction and barriers to entry driven by high capital intensity, technology expertise and long-duration contracts. What’s more, many companies in the sector have recently announced increased share buybacks, dividend hikes and prefunding of future pension obligations. Investors have generally reacted well to this use of cash as it can improve future cash flows and earnings per share, making forward valuation metrics more attractive.

SPENDING OUTLOOK. We also see better fundamental demand, with spending set to inflect higher. Congress recently raised the budget caps, paving the way for a 10% step-up in Department of Defense spending into fiscal-year 2019, reversing the recent trend of negative to low-single-digit growth (see chart). Commercial aviation looks promising, too. In the near-term, manufacturers of commercial jets have been buoyed by 8% passenger growth in 2017, well above the 5.5% historical average. This trend is likely to persist as the International Air Transport Association estimates traffic will be up about 6% this year.

Longer term, Morgan Stanley & Co. analysts see the global airplane fleet at more than 45,000 jets by 2035 from about 23,000 today. What’s more, they expect about 40% of incremental demand filled by replacement aircraft, as older models are retired. While the outlook certainly is constructive here on Earth, the next frontier may be an even larger opportunity for long-term investors. Morgan Stanley & Co. analyst Adam Jonas forecasts a $1 trillion global space economy by 2040, and he sees aerospace and defense companies in the industry’s forefront.

GEOPOLITICAL CONSIDERATIONS. Equity market volatility has grabbed our attention recently, but it wasn’t long ago that North Korea, Iran and Russia dominated the headlines. While periods of geopolitical conflict tend to be negative for risk assets, the aerospace-and-defense sector to outperform, given its integral role in national security and defense. Within a portfolio context, the sector may also prove defensive in the case of rising geopolitical tensions, providing a useful hedge on nonfinancial or economic risk. Given improving fundamentals, lower beta and high dividends, we see aerospace and defense adding both offense and defense to a portfolio. ■

Pentagon Set for a Step-Up in Funding



Source: US Dept. of Defense as of February 2018

Thematic Investing Takes a Holistic Approach

SCOTT HELFSTEIN, PhD

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Say you're bullish on the prospects for self-driving vehicles. You can envision fleets of them ferrying passengers and goods in the not-that-distant future—but how could you invest in that idea? There's no one stock that's a pure play on the growth of that technology. The big automakers, for instance, are so large that the profits from this business, if realized, will make little impact on profits.

This is where thematic investing can help. Consider that autonomous vehicles sit at the intersection of autos, data analysis, artificial intelligence and alternative energy technology. Taking a holistic and unconstrained view opens up the possibility to generate returns from secondary and tertiary industries.

Themes identify and leverage long-term trends likely to impact society, businesses and markets. These trends are then refined into hypotheses about segments we believe are apt to succeed or lag in the face of change. The aim is to develop high-conviction set of ideas and translate those views into actionable advice.

Themes allow investors to make allocation decisions that are intuitive, straightforward and relatively easy to explain. If you believe that artificial intelligence and automation will revolutionize the industrial landscape, that helps identify a means of adding exposure to a portfolio. In short, thematics can help make decisions based on narratives that are intuitive as opposed to traditional asset allocation quantitative risk-return models.

HOW THEMES WORK. Traditional portfolio management uses diversification to balance risk and return. Thematic portfolios can augment diversified core portfolios with themes or "satellites" that offer investors the opportunity to change the risk-return characteristics of their holdings by focusing on ideas or trends rather than specific companies, sectors or styles. Each theme can incorporate a portfolio of assets with varying levels of exposure to the theme and market forces. This offers a blend of growth-focused allocation while managing portfolio concentration that could otherwise increase volatility.

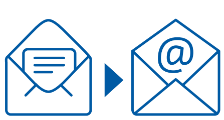
Themes also add an explicit forward-looking element into portfolios. Traditional asset allocation and portfolio tools have an inherent historical bias. Portfolio construction uses past performance to determine characteristics such as the sensitivity to market returns, volatility and correlations. In contrast, thematic investment is driven by trends and ideas first—an inherently forward-looking process.

IDENTIFYING THEMES. In our construct, themes have four defining characteristics (see chart). First, themes reflect structural or secular changes as opposed to cyclical change in the global political environment, economy and markets. Trends such as the expansion and contraction of the business cycle or tightening and loosening of monetary policy are of critical importance for investors, but are cyclical; they persist for a period of time and then revert. Themes, as recognized here, emphasize the change, progress, advancement or challenges that alter the way an economy or sector operates in a lasting fashion.

Consider the impact of the internal combustion engine, which appeared in the late 1800s. In 1904, Oldsmobile was the largest auto manufacturer, producing 5,508 cars. US auto production expanded rapidly

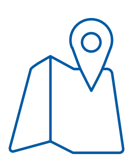
Thematic Investing's Four Defining Characteristics

Structural or secular shifts



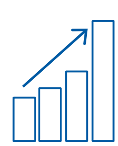
Themes emphasize the advancement or challenges that alter the way an economy or sector operates in a lasting fashion

Long-term investment horizon



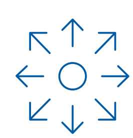
Emphasis on structural change means potential for multiyear outperformance

High-growth opportunity



Emphasizes themes with growth forecasted to exceed the global economy and other investment opportunities

Cross-sector construction



Themes focus on the concentric space between different market, technological and global trends

Source: Morgan Stanley Wealth Management after the introduction of the Ford Model T, and US production reached 485,000 by 1913. Auto penetration was still quite low relative to the gains between 1913 and 1929. The car would become ubiquitous, but there were significant ramifications for tertiary industries like travel and manufacturing. At the introduction of the auto, naysayers may have pointed to relatively slow adoption and penetration, but the technology was transformational, even if it took time.

LONG-TERM HORIZON. Second is the long-term nature of the investment horizon. Major structural shifts that altered the pathways or nature of business—such as the telephone, microchip or globalization—took years or decades to unlock new opportunities. While the investment horizons vary by themes, and market fluctuations may tactically make entry to or exit from a theme more or less attractive, an emphasis on structural change means that many themes may have multiyear outperformance.

The telephone, introduced in 1878, took 75 years to reach 100 million users. Mobile phones, launched in 1979, took 16 years to reach 100 million users and smartphones took just 16 years to get to 1 billion users. Diffusion and adoption of technology or transformative ideas takes time to permeate through society and for reconfigured industries to leverage the new tools. While the pace of adoption is quickening, many trends that redefine industries and create excess returns have multiyear time horizons.

HIGH GROWTH RATE. The third defining characteristic emphasizes themes with growth prospects forecasted to exceed the global economy and other investment opportunities. Themes focus on high growth sectors, technologies, segments, industries, companies or countries. Some opportunities may also identify instances where there is the possibility for a significant growth differential between leaders and laggards, which is common in areas like global trade and technology diffusion. Thus, growth potential could be higher on an absolute scale or aim to capture the spread relative to other slower-changing assets, but the emphasis is on growth potential.

There are segments of the market that have long outpaced the broader economy. For example, total private US employment rose 23.0% from 1979 to 1989, according to the Bureau of Labor Statistics. During that same decade, computer and data processing grew employee count by 181.9% and outpatient care swelled by 180.8%. S&P 500 revenue grew at a compounded rate of 3.2% in the 1990s, but health care revenue expanded at 12.7% and consumer discretionary at 5.2% in that same time. Since the end of the financial crisis in 2009, US GDP growth has averaged 2.0% and global GDP, 3.15%. During that same period, mobile advertising grew at 76.8% compounded annual rate, according to a report by the Internet Advertising Bureau and PWC.

While the OECD expects global GDP growth to improve modestly to 3.65% per year through 2020, social media advertising is likely to grow around 10% in the same period, according to a study from Forrester Research. According to respective industry estimates, annual revenues for the defense and aerospace sector are forecast to grow 5.6%, cybersecurity at 10%, personalized medicine in the low teens and artificial intelligence consistently north of 30%.

CROSSING SECTORS. A fourth defining element is a cross-sector, industry or asset-class emphasis. Often, as with self-driving vehicles, opportunities lie at the intersection of economic, scientific, social, technological, cultural or demographic change. Industry analysts try to identify the leading and lagging companies within the comparable sector universe, as opposed to conventional asset allocation, which emphasizes identifying best and worst within a class, among sectors or between asset classes.

There are two main risks with thematic investing. The first stems from building portfolios around concentrated risk. Should a technology or product fail to gain wide acceptance or quickly fade compared with more nimble competitors, the returns could fall short of expectations. This is the same risk that investors face anytime a portfolio is constructed around a discrete set of ideas, products or firms. There are two means of mitigating this risk. One goes back to the role of theme within the broader portfolio. Themes are intended to augment the potential return characteristics of a globally diversified portfolio as opposed to replacing the traditional portfolio construction process.

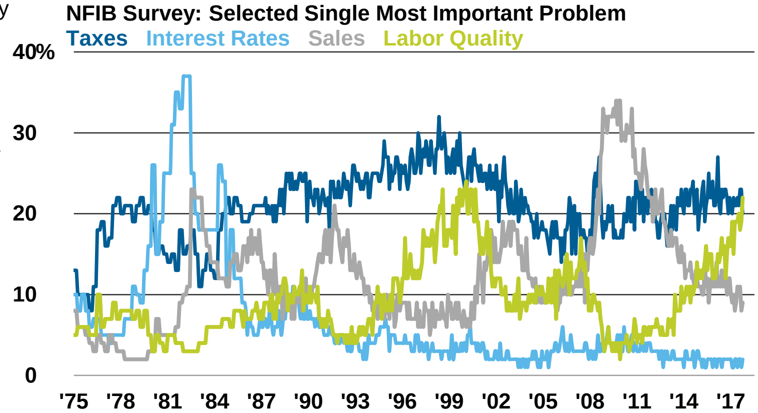
The second risk is entry price or premiums. Many themes are already garnering attention in financial markets. Even the forward-looking analysts that identified the potential breakthrough of autonomous vehicles had few choices. Public market investors could allocate to large auto companies for which electric was a small component, to makers of lithium batteries as part of diversified power conglomerates or to a pure-play firm focused solely on electric vehicles.

High-growth businesses almost always command higher multiples and premiums. Two elements help offset the risks associated with higher-priced and potentially higher-beta firms. First, finding firms and industries positioned to benefit from the second-order effects of major structural shifts can help mitigate the risk of excess concentration in expensive firms. This cannot necessarily be eliminated, but it can be managed. The second means relies on identifying structural shifts that generate high-growth opportunities relatively early in the transition or identifying parts of the global economy that benefit as shifts move through different developmental stages from start-up to mature company. ■

This article was excerpted from the Jan. 25, 2018 AlphaCurrents, *a new monthly publication from Wealth Management Investment Resources that aims to identify some of the most exciting investment opportunities in the public markets. Each issue will explore a new investable theme in detail or track emerging issues that could present unique long-term opportunities.*

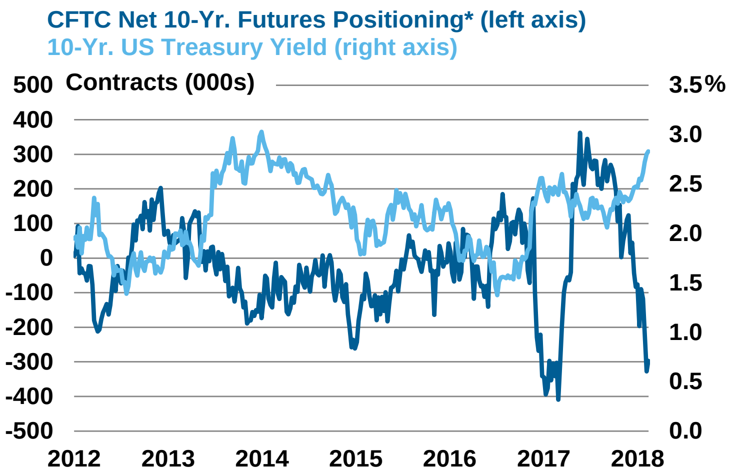
Labor Quality Emerges as No. 1 Concern for Small Business

The National Federation of Independent Business (NFIB) Survey measures changes in US small business sentiment. Since the survey's inception in 1973, taxes have eclipsed interest rates, sales and labor quality as the biggest concern 80% of the time (see chart). Based on January's data, 22% of members cited labor quality as their single-most important problem. This is only the third time that labor quality has topped taxes and the first time that it has topped the list. We believe a lack of qualified employees may drive companies to increase capital expenditures, particularly for technology, to solve for the mismatch in skills. Furthermore, a shortage of skilled workers is already leading to wage growth as competition for labor accelerates, which may, in turn, put upward pressure on inflation.—*Chris Baxter and Steve Edwards*



Source: National Federation of Independent Business as of Jan. 31, 2018

Positioning Puts Pressure on Interest Rates, Too

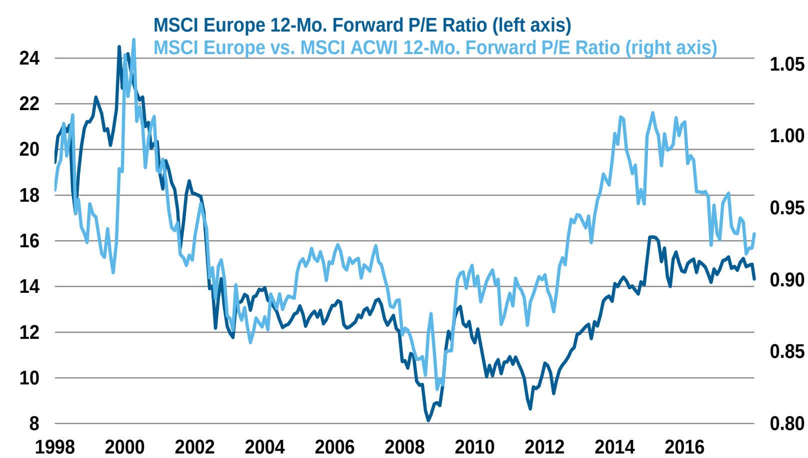


*Noncommercial
Source: Bloomberg as of Feb. 13, 2018

In addition to upward surprises from average hourly earnings and CPI data, improved growth expectations associated with tax reform and increasing US Treasury issuance to fund growing deficits, investor positioning has contributed to the recent rise in interest rates. Data from the Commodity Futures Trading Commission show near-record levels of short positions in Treasury futures contracts by hedge funds and other speculators. These positions anticipate higher interest rates and accentuate market moves driven by the aforementioned factors. To wit, Morgan Stanley & Co.'s interest rates strategists' indicators contend that this currently bearish momentum factor is the primary driver of higher yields in the near term. However, with inflation expectations repriced in the market, as evidenced by relatively stable breakeven rates, we believe yields should stabilize as sentiment starts to normalize.—*Darren Bielawski*

Fundamentals Remain Favorable Yet European Equities Lag

After a strong 2017, European stocks have lagged so far this year, falling roughly 2% in local-currency terms and underperforming global equities. This underperformance is likely driven by concerns around the impact that the strengthening euro could have on the economy and equity markets. Still, we believe Europe's economic and earnings fundamentals are sound. When looking at valuation, the MSCI Europe Index currently trades at a multiple of 14.3 times to its 12-month forward earnings. What's more, there has been minimal multiple expansion during the past three years, while global equity price/earnings ratios (P/Es) have moved higher. On a relative basis, Europe's 14.3 P/E compares favorably with global equities' 15.4 P/E, and represents close to a 10% discount (see chart). When comparing Europe's valuation with the S&P 500 Index, the difference is even more dramatic: European equities trade at more than a 15% discount.—*Joe Laetsch*



Source: Bloomberg as of Feb. 23, 2018

Mortgages Ride in the Market's Center Lane

SUZANNE LINDQUIST

Senior Fixed Income Strategist
Morgan Stanley Wealth Management

After a year of calm waters, investors have recently encountered rougher seas. The Goldilocks backdrop of 2017, which produced strong returns with minimal volatility across asset classes, has given way to a more challenging environment amid normalizing market conditions and tightening central bank policies. With this in mind, we look back to our analysis published in August 2015—four months prior to the beginning of the Federal Reserve's current interest rate tightening cycle. In updating the numbers, we still see that adding stability to portfolios helps navigate rougher seas; one way to achieve this is by reallocating exposure to asset classes that offer solid performance across varying market conditions and away from corporate credit.

MIDDLE OF THE PACK. While much attention is focused on sectors at the ends of the risk/return spectrum, assets such as agency mortgage-backed pass-through securities (MBS) have characteristics that consistently generate returns that fall right in the middle (see chart). MBS represent an ownership interest in a collection of residential mortgages with similar characteristics. Monthly principal and interest on the underlying mortgages are passed through to investors and guaranteed by the government-sponsored issuers. As relatively short-duration instruments without the issuer-specific risk associated with corporate credit, MBS have exhibited consistent performance in both healthy and weak markets. With them, investors get additional yield offered by the spread to comparable-maturity Treasuries without assuming material credit risk. In weaker environments, they are a relative safe

Mortgages' Returns Are Usually in the Middle of the Pack, Rarely at Market Extremes

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 YTD	10-Yrs. ('08-'17) Ann.
Long Treasuries 24.0%	High Yield 58.2%	CMBS 20.4%	Long Treasuries 29.9%	High Yield 15.8%	High Yield 7.4%	Long Treasuries 25.1%	Preferred 7.6%	High Yield 17.1%	Preferred 10.6%	T-Bills 0.2%	High Yield 8.0%
Interm. Treasuries 11.4%	CMBS 28.5%	High Yield 15.1%	Inflation-Linked 13.6%	Preferred 13.6%	Short Term 0.3%	Preferred 15.4%	Muni 3.3%	IG Corp 6.1%	Long Treasuries 8.5%	High Yield -0.3%	Long Treasuries 6.6%
Mortgages 8.5%	Preferred 20.1%	Preferred 13.7%	Muni 10.7%	IG Corp 9.8%	CMBS 0.2%	Muni 9.1%	Mortgages 1.5%	Inflation-Linked 4.7%	High Yield 7.5%	Short Term -0.6%	IG Corp 5.7%
Short Term 5.1%	IG Corp 18.7%	Long Treasuries 9.4%	IG Corp 8.1%	CMBS 9.7%	T-Bills 0.1%	IG Corp 7.5%	Securitized 1.5%	CMBS 3.3%	IG Corp 6.4%	Interm. Treasuries -1.2%	Preferred 5.0%
Securitized 4.6%	Muni 12.9%	IG Corp 9.0%	Interm. Treasuries 6.6%	Inflation-Linked 7.0%	Securitized -1.3%	Mortgages 6.1%	Interm. Treasuries 1.2%	Preferred 2.3%	Muni 5.4%	Muni -1.4%	CMBS 4.8%
T-Bills 1.8%	Inflation-Linked 11.4%	Securitized 6.5%	Mortgages 6.3%	Muni 6.8%	Interm. Treasuries -1.3%	Securitized 5.9%	Short Term 1.0%	Securitized 1.8%	CMBS 3.4%	Preferred -1.6%	Muni 4.5%
Inflation-Linked -2.4%	Securitized 7.8%	Inflation-Linked 6.3%	Securitized 6.2%	Long Treasuries 3.6%	Mortgages -1.5%	CMBS 3.9%	CMBS 1.0%	Mortgages 1.7%	Inflation-Linked 3.0%	CMBS -1.6%	Mortgages 3.9%
Muni -2.5%	Mortgages 5.7%	Mortgages 5.5%	CMBS 6.0%	Securitized 3.0%	IG Corp -1.5%	Inflation-Linked 3.6%	T-Bills 0.0%	Short Term 1.6%	Securitized 2.5%	Inflation-Linked -1.7%	Securitized 3.8%
IG Corp -4.9%	Short Term 4.6%	Interm. Treasuries 5.3%	High Yield 5.0%	Mortgages 2.6%	Muni -2.6%	Interm. Treasuries 2.6%	IG Corp -0.7%	Long Treasuries 1.3%	Mortgages 2.5%	Securitized -1.7%	Inflation-Linked 3.5%
CMBS -20.5%	T-Bills 0.2%	Short Term 4.1%	Preferred 4.1%	Short Term 2.2%	Preferred -3.7%	High Yield 2.5%	Long Treasuries -1.2%	Interm. Treasuries 1.1%	Short Term 1.3%	Mortgages -1.8%	Interm. Treasuries 2.7%
Preferred -25.2%	Interm. Treasuries -1.4%	Muni 2.4%	Short Term 3.1%	Interm. Treasuries 1.7%	Inflation-Linked -8.6%	Short Term 1.4%	Inflation-Linked -1.4%	T-Bills 0.3%	Interm. Treasuries 1.1%	IG Corp -2.5%	Short Term 2.5%
High Yield -26.2%	Long Treasuries -12.9%	T-Bills 0.1%	T-Bills 0.1%	T-Bills 0.1%	Long Treasuries -12.7%	T-Bills 0.0%	High Yield -4.5%	Muni 0.2%	T-Bills 0.8%	Long Treasuries -6.5%	T-Bills 0.3%

Source: FactSet, Bloomberg as of Feb. 21, 2018. Indexes used include: Bloomberg Barclays US Corporate High Yield for High Yield, ICE BofAML Fixed Rate Preferred Securities for Preferred, Bloomberg Barclays US TIPS for Inflation-Linked, Bloomberg Barclays US Corporate for IG Corp., Bloomberg Barclays Municipals for Muni, Bloomberg Barclays CMBS for CMBS, Bloomberg Barclays US Gov/Credit Float Adj. 1-5Y for Short Term, Bloomberg Barclays Securitized for Securitized, Bloomberg Barclays US Mortgage-Backed Securities for Mortgages, Bloomberg Barclays Long Term Treasury for Long Treasuries, Bloomberg Barclays Intermediate Treasury for Intermediate Treasuries and Citi 3M T-Bill for T-Bills haven given their high liquidity and stable cash flows. Exposure to consumers further diversifies portfolios, which can frequently be dominated by corporate credit assets given higher expected returns.

As depicted in the chart, mortgages have ranked in the middle of the sample fixed income universe in six of the past 10 years. This time period includes a housing bubble, ensuing Quantitative Easing by central bank policies and the more recent stint of economic growth and reduction of monetary accommodation. For the year to date (through Jan. 31), MBS have been impacted by the rise in interest rates, the steepening of the yield curve and the implications of Federal Reserve balance sheet reform. Total return is negative, but MBS still outperformed investment grade corporates and long-duration Treasuries. This result is comparable to 2013 and 2016, two periods also marked by interest rate volatility—the primary risk facing investors. MBS performance also remained solid in 2017 following the start of the gradual reduction in the balance sheet of the Federal Reserve, the largest individual holder of MBS securities.

MORE FLAVORS OF MBS. While the above analysis applies to US agency MBS, investment managers utilize other mortgage securities for further diversification and to seek risk-adjusted returns. In addition to commercial mortgage-backed securities (CMBS), the Fannie Mae delegated underwriting and servicing program provides investor access to the multifamily mortgage market. It also while offers investors structural defenses against prepayment and extension risk through call protection and balloon maturities. The broader mortgage market has also evolved following the 2008 housing crisis to include new products such as credit risk transfers (CRT), which offer incremental yield to compensate investors for assuming credit risk on the underlying loans. CRT transaction volumes are growing in both the primary and secondary market, supported by strong underwriting standards and positive housing market fundamentals, while further diversifying portfolios through direct exposure to consumers.

With the Fed now further along in its rate-hiking cycle and soon to be joined by tighter monetary policy in Europe and Japan, we continue to believe a strategic allocation to MBS can add value to a broader portfolio throughout the cycle. While past performance is no guarantee of future results, we expect the combination of incremental yield of MBS over Treasuries, increased liquidity and lack of issuer-specific risk versus corporate bonds will likely generate middle-of-the-road fixed income market returns in the years to come. ■

Not Your Father's Closed-End Bond Funds

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Historically, the perception of taxable closed-end bond funds on the part of many investors has been one of across-the-board interest rate sensitivity. This may stem from a combination of widespread use of leverage, a recollection of past portfolio characteristics or simply a tendency to lump them in with their long-duration municipal counterparts.

To be sure, it is important to be mindful of rate risk in any income vehicle, and CEF investors should view all their holdings with suitable caution. However, it is also necessary to be aware of changes that have occurred in CEFs. In fact, in aggregate and over time, the taxable bond CEF universe has evolved into more of a credit story—mainly a below-investment-grade ones—than an interest rate play.

NEW FUND COMPONENT. Key to this evolution has been the initial public offering (IPO) process by which the CEF market continually renews itself. Unlike the muni cohort, the increasingly diverse taxable fixed income segment has added category-altering levels of short-or moderate-duration components. That's because fund IPOs have responded to investor demand and yield availability during the long bull market in bonds and remarkable run of global credit growth.

In the past two decades, one of the most important developments has been the emergence of floating-rate senior loan funds. Out of approximately 160 taxable bond CEFs prior to mid-1998, only one concentrated on floating-rate loans, which generally have credit ratings of BB or below. Today's market includes 22 dedicated loan funds and an additional 10 that we categorize as high yield/senior loan hybrid. Furthermore, many multi-sector and global income funds now incorporate senior loans.

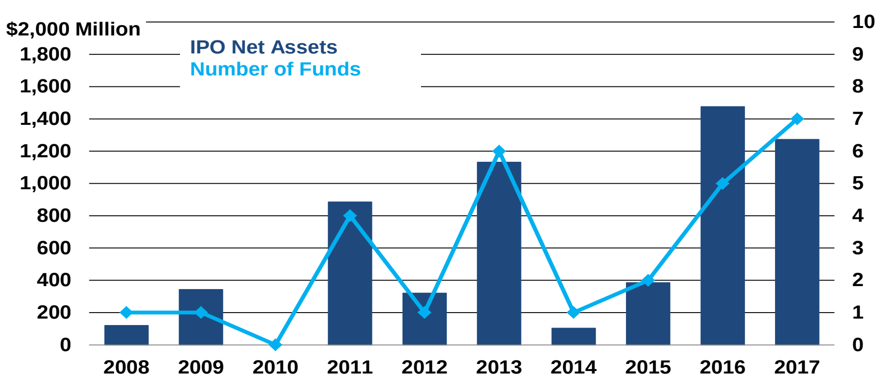
TERM TRUSTS. Term trust closed-end funds, which, unlike the perpetual ones, have fixed termination dates, have also changed. Average stated time to termination from inception for taxable bond components outstanding has declined to 8.4 years from approximately 10 years in 1998, and trusts incepted since 2015 have come to market with average "time to termination" of only 6.5 years. Of the 29 taxable fixed income term trusts outstanding, 17 have remaining terms of five years or less. In addition to their shorter terms, today's varieties are also more likely to hold moderate-duration high yield bonds than longer-duration agency mortgage-backed securities and US Treasury bonds.

We believe the taxable bond CEF net asset value (NAV) total return over the most recent nearly uninterrupted 100-basis point increase in 10-year US Treasury yields (Sept. 30, 2016 through Dec. 15, 2016) is consistent with the CEF market's gradual makeover. Despite the move up in rates, fund NAVs only fell by one basis point on an unweighted-average basis, as positive results from credit-oriented, multisector and convertible offerings offset rate-related losses.

RATE RISK. That said, interest rate risk remains a factor. During that 100-basis-point climb in yield, NAVs of preferred issues and investment grade bond funds were hit hard and, at times, emerging markets and other international bond portfolios lost value, too. Price discounts to NAV, either temporary or long-lasting, may also widen amid market stress, thereby curbing investors' total-return experience. Along with an awareness of valuation dynamics and other CEF-related factors, it's also critical to know whether one's holdings tilt more toward credit or interest rate risk. ■

IPOS for Taxable Closed-End Bond Funds Tilted Toward Less Rate Sensitivity and More Credit Risk

Issuance of Moderate-Duration Term Trust and Senior-Loan-Related Closed-End Funds



Note: Moderate-duration term trusts are all taxable fixed income term trust closed-end funds with termination dates that are eight years or less from inception. Senior-loan-related funds include senior loans, high yield/senior loan hybrid funds and funds from other categories with significant ongoing senior loan exposure.
Source: Closed-End Fund Association, Morgan Stanley CEF Research as of Feb. 26, 2018

Finding Ideas That May Drive Tomorrow's Growth

Given the sometimes disruptive change technology induces, new secular themes—and with them, investment opportunities—emerge every day. As a portfolio manager at Invesco, Erik Voss focuses on those ideas that have the potential to drive the growth of tomorrow. "We've left the PC era, we're in the last third of this smartphone rollout era and we're heading into this cloud-AI era," he says, "but what is the next decade going to look like?" Voss recently spoke with Morgan Stanley Wealth Management's Tara Kalwarski about the biggest changes that he believes will impact consumers around the world and the industries that are poised to benefit. The following is an edited version of their conversation.

TARA KALWARSKI (TK): Why do you believe the current economic environment calls for a more forward-looking investment approach?

ERIK VOSS (EV): Growth around the world is challenged by both aging workforces and poor productivity. In the US, for example, baby boomers are retiring in high numbers and causing a deceleration in payroll growth—a trend that's going to continue for the next five to seven years. Productivity is going to have to make up for that in order to maintain flat economic growth, but with fairly subdued productivity growth in the US, we expect slow economic growth.

When we assess companies that have the potential to grow in this type of environment, we find that it's the big market-share takers, as well as technologies causing significant disruption across every sector—like e-commerce, media consumption, travel, drug discovery and so on. Other trends that are still early but important have to do with artificial intelligence (AI), big data and cloud computing, all of which have broad implications across sectors.

TK: Can you highlight some of the themes that you are focused on?

EV: It's still early in e-commerce. Only about 11% of commerce is now online, and we believe that can grow to 30%. Why? Well nearly two-thirds of retail spending is in areas that have yet to see significant online penetration, such as food and food services, auto and auto parts, furniture and appliances. We believe all of these will ultimately shift more online.

Another trend is the penetration of the smartphone, which has been and will continue to be a significant driver of growth across different industries. In the 1990s, we were thinking about putting a computer on every desktop. Now we're seeing half the world's population with a computer device in their hand.

In the US, people have gone from spending 20 minutes a day on their smartphones in 2008, to spending more than five hours today. Fifteen percent or more of that time is spent on social networking sites and other big media companies; another 17% is spent in general entertainment—movies and TV shows and the like, and 15% is spent on video games. That's a place investors should focus on.

TK: How big is the opportunity?

EV: The size of the video-game market is now about $118 billion, projected to grow to $150 billion in the next five years. In this slow-growth economy, with areas that are not going to grow or are going to decline, video games is going to be one of the fastest growing areas.

There are two things going on. The first is that, in the past, a video-game console system is launched, and by the end of the six-to-seven-year cycle, you'd have 120 million to 150 million units globally. The video-game companies would then focus on making games, packaging them and hoping for sales. So a lot of the profits came at the end of the cycle.

Now, because people play video games on their smartphones, and smartphones have grown to 3 billion units globally, the total addressable market has exploded.

Europe's Premier Soccer League has been around for about 25 years, now with about $4.8 billion in annual revenue. The NBA has been around 75 years and does about $5.8 billion in revenue per year. When Nintendo launched Pokemon Go, it was annualized at a rate of $6 billion within six weeks. That has since fallen to around $1 billion, but it's a free game and has a gigantic addressable market.

The second thing is that the business model for these companies has changed. Typically the developer would go straight to manufacturing a disk, bring it to retail distribution and that gets them to the consumer. Now anywhere between 30% and 50% of all video-game sales are online and that number is projected to go to 70% and closer to 100% in some cases. The developer can then have a direct relationship with the consumer. The developer can now introduce features in real time and keep going back and selling new weapons or new maps or new adventures on a much more recurring basis.

What's more, a whole new industry called e-sports has developed out of this model. That new arena is not only a driver for video games and smartphones; it is disrupting traditional sports audiences and revenues as well.

TK: How do you see e-sports disrupting traditional sports?

EV: It is being driven by the millennials, whose time spent watching e-sports games is astronomical. For example, in 2016, the NHL had 74 million viewers during an average season, the NBA had 125 million and the NFL had 299 million. In 2017, 194 million people watched—not played, but watched—e-sports. Those numbers are projected to grow by 2020 to more than 300 million people watching these games. This has implications for advertising dollars, and we're also seeing sports networks being established to take advantage of that.

A video game company we own has sold 12 teams for one of their game's e-sports leagues, for anywhere from $15 million to $20 million—and they didn't sell to startups or private equity, but to people who own actual sports teams in major US cities. Buyers include the owners of the New York Mets, L.A. Rams, Denver Nuggets, New England Patriots, Miami Heat, Philadelphia Flyers and Texas Rangers. These sports team owners are investing in this because they see viewership shifting and these leagues as a next opportunity. Expect to see global e-sports leagues.

TK: Baby boomers and Gen-Xers didn't grow up playing video games to the extent that millennials have. Is this investment theme underappreciated because of the younger audience?

EV: People are blown away by how big this industry is and, frankly, that it even is an industry. There are college scholarships at 40 schools around the US for people who are playing games online.

Amazon has a network called Twitch, and some of the video-game companies are making their own networks, to be able to broadcast and bring people in to watch these e-sports games. Some of the people playing these games that are aired on YouTube or Twitch are making $2 million to $4 million a year by being good at the games, being entertaining—and then collecting advertising against these skills.

As the NFL's ratings have fallen in the past several years, dollars are going to go to other places and some of the big-platform internet conglomerates are putting money here in a significant way.

Just to put some statistics around it, and this a niche part of the population, males in the 21-to-35 age group are spending more time watching e-sports than they are watching NHL hockey and as much time as they spend watching Major League Baseball. The sport that's losing share in this demographic is professional football, which has less viewership among this population than, say, among the Gen-Xers and the baby boomers. It's a real generational difference.

Another interesting statistic is that 10-to-35-year olds are 80% of the viewers of the e-sports out there—definitely that younger end of the population—and the millennial population is the largest population in the world.

TK: What are the risks when investing in a disruptive world?

EV: One of the big risks we see with investing in opportunities is that if you own a company that suddenly is thought to not be able to maintain its competitive advantage over the next five to 10 years, then things are going to get complicated for that company.

In the current environment, it is increasingly difficult and dangerous to have companies that don't have a secure moat around them. That's why, for us, the universe of investable companies seems to be getting smaller and smaller.

TK: How do you know when an idea presents an investment opportunity, especially when considering those in the early stages versus those that may or may not have room to run?

EV: So many of the things we talk about are early in their cycles. We are past the steepest part of the S-curve in smartphone penetration and almost fully penetrated in developed markets, but the emerging markets are still early.

The opportunity is about the next 35% of the world's population to come online. The best way to take full advantage of the trends we've yet to see is to underweight hardware and focus on the benefits everyone's going to have as we get more access to broadband connections.

We have strong connectivity now almost everywhere, and that's going to only get better over the next five years. Equally important is that we have large databases that we can analyze, meaning we're starting to see AI applications and cloud computing ramp up relatively significantly.

We know a lot of the enterprise computer power is going to end up in the cloud. It's up to about 15% today but a majority of that will go into the cloud over the next 10 years. Almost all advertising globally is going to go digital in nature over the next decade or so.

Many of the major metros around the world and a lot of suburban areas in the US are going to have fleets of autonomous cars. That's going to have implications for auto and truck transportation, and logistics companies. I think e-commerce is going to be growing much bigger, maybe in double digits, over the next decade, but that AI will power the analytics and drive a lot of decisions there.

AI is a nebulous concept because software is always getting smarter, but what we're seeing now is a step function because of the massive computer power and that bandwidth. If programs are able to learn from themselves, the implications are enormous. Machine learning is experiencing this explosive wave; they were good at perceiving and reasoning, but now they're strong in learning and abstract thinking.

Throw a definable challenge at these things—like self-driving, facial recognition or clinical studies—and we're going to see a lot of innovation. I think drug discovery is ripe for disruption now. Deep learning is sweeping through the

$6.5 trillion health care industry, with some studies highlighting up to 60% of the diagnostics as being thrown into AI-assisted platforms. ■

Erik Voss 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.

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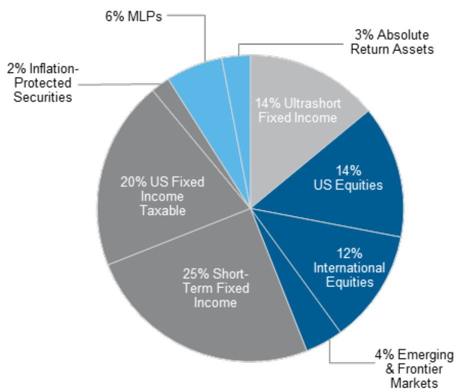
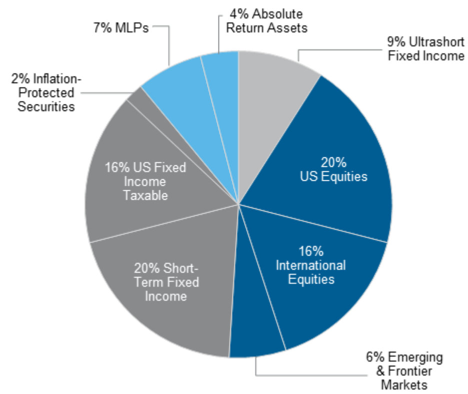
Global Investment Committee Tactical Asset Allocation

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.

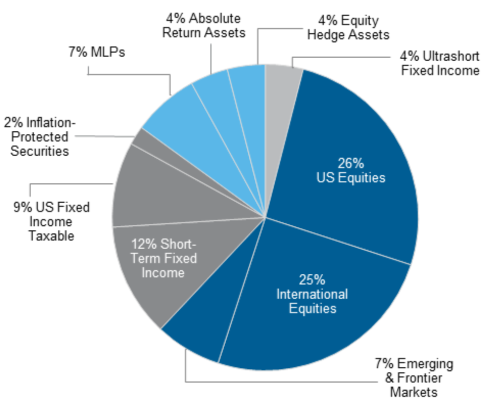
Wealth Conservation



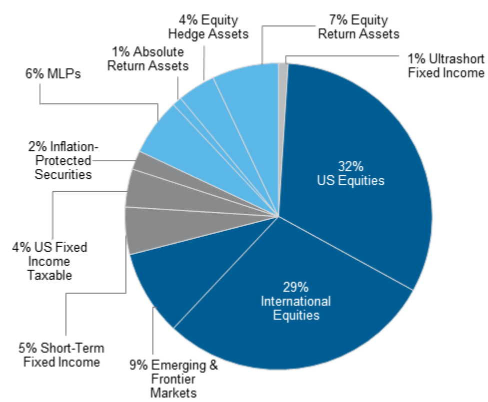
Income



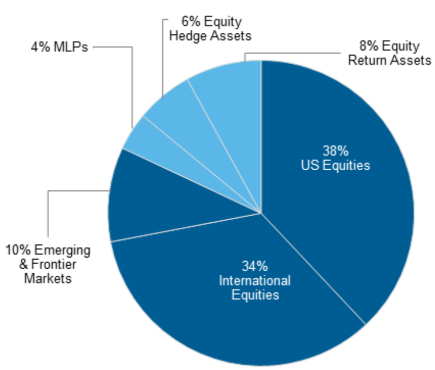
Balanced Growth



Market Growth



Opportunistic Growth



Key

Ultrashort Fixed Income

Fixed Income & Preferreds

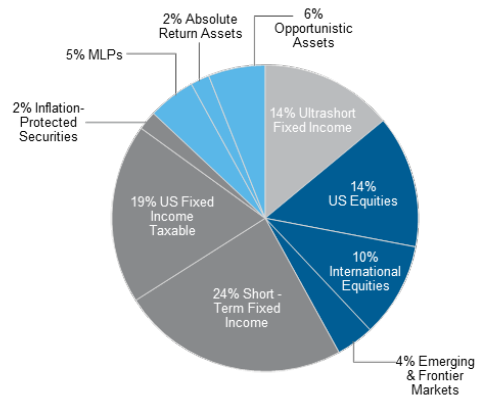
Equities

Alternatives

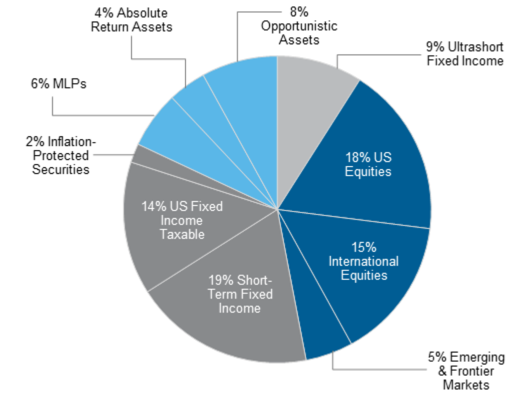
Source: Morgan Stanley Wealth Management GIC as of Feb. 28, 2018

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



Income



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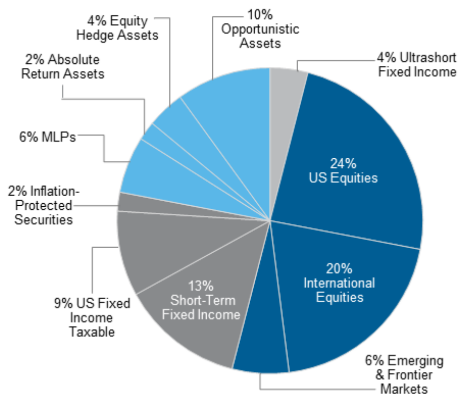
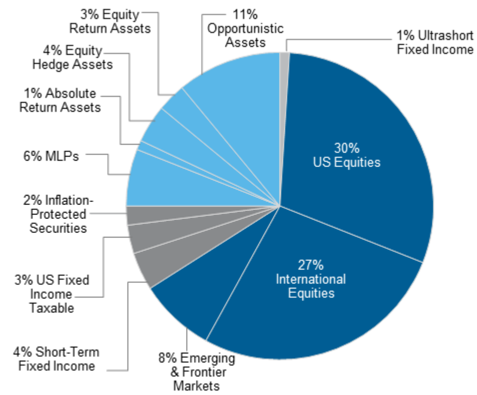
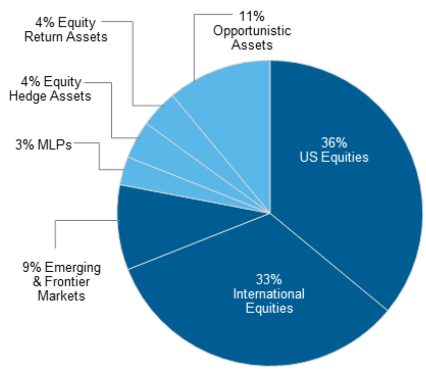


Market Growth



Opportunistic Growth



Key

- Ultrashort Fixed Income
- Fixed Income & Preferreds
- Equities
- Alternatives

Source: Morgan Stanley Wealth Management GIC as of Feb. 28, 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 helped us achieve our 2,700 price target for the S&P 500 earlier than expected, it ironically brings the end of the cycle closer. In addition, sentiment is much more bullish than it was a year ago.
International Equities (Developed Markets)	Overweight	We maintain a positive bias for Japanese and European equity markets. The populist movements around the world are likely to drive more fiscal policy action in both regions, which is necessary for the central banks to exit their extraordinary monetary policies.
Emerging Markets	Overweight	Emerging market (EM) equities have been the best region over the past 24 months and for the year to date. With the US dollar appearing to have made a cyclical top, global growth and earnings accelerating, and financial conditions remaining loose, we think EM equities will continue to keep up with global equity markets but are unlikely to lead as strongly.
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, recent US economic data have been very strong recently and the Fed is now raising rates at an accelerating pace. Combined with our expectation for the European Central Bank to taper its bond purchases later in 2018 and the Bank of Japan likely to raise its yield target, higher interest rates are likely this year.
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 back toward 0%. That view played out in 2016 and 2017 but has not yet run its course.
High Yield	Underweight	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 lower-quality earnings in the US led by lower operating margins. Credit spreads have likely bottomed for this cycle.
Alternative Investments	**Relative Weight Within Alternative Investments**	
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) rebounded sharply from a devastating 2015 but, with oil's slide, performed poorly in 2017. With oil prices recovering again and a more favorable regulatory environment, MLPs should provide a reliable and attractive yield relative to high yield. The Trump presidency should also be supportive for fracking activity and pipeline construction, both of which should lead to an acceleration in dividend growth.
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 Feb. 28, 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:
http://www.morganstanleyfa.com/public/projectfiles/id.pdf

Risk Considerations

Alternative Investments

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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 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.

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.

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.

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.

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.

Interest on municipal bonds is generally exempt from federal income tax; however, some bonds may be subject to the alternative minimum tax (AMT). Typically, state tax-exemption applies if securities are issued within one's state of residence and, if applicable, local tax-exemption applies if securities are issued within one's city of residence.

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.

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.

CEFs

Credit quality is a measure of a bond issuer's creditworthiness, or ability to repay interest and principal to bondholders in a timely manner. The credit ratings shown are based on each fund's security rating as provided by Standard & Poor's, Moody's and/or Fitch, as applicable. Credit ratings are issued by the rating agencies for the underlying securities in the fund and not the fund itself, and the credit quality of the securities in the fund does not represent the stability or safety of the fund. Credit ratings shown range from AAA, being the highest, to D, being the lowest based on S&P and Fitch's classification (the equivalent of Aaa and C, respectively, by Moody's). Ratings of BBB or higher by S&P and Fitch (Baa or higher by Moody's) are considered to be investment grade-quality securities. If two or more of the agencies have assigned different ratings to a security, the highest rating is applied. Securities that are not rated by all three agencies are listed as "NR."

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.**

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.

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

Besides the general risk of holding securities that may decline in value, **closed-end funds** may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance, and potential leverage. Some funds also invest in foreign securities, which may involve currency risk.

Companies paying **dividends** can reduce or cut payouts at any time.

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.

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

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.

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.

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.

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