

On the Markets



MICHAEL WILSON

Chief Investment Officer
Morgan Stanley Wealth Management
Morgan Stanley & Co.

Chief US Equity Strategist
Morgan Stanley & Co.

Don't Expect an Encore

In 2017 equity investors enjoyed one of the best years in history (see table, below). The absolute returns were remarkable in every major region, and rarely have we seen such breadth across sectors. This lined up with our view that the global economy was in the midst of its most synchronous expansion since the financial crisis. Though technology stocks dominated the headlines, investors didn't need to own any tech stocks to do well last year. Having said that, tech stocks did lead in every region and that could have implications for what to expect in 2018 and beyond.

Bonds did well, too, even though stronger-than-expected global economic growth is typically a headwind for fixed income securities. Seven-to-10-year US Treasuries returned a little more than 2%, and US investment grade fixed income was up 6.4% as credit spreads tightened to their lowest levels of this cycle. US high yield bonds earned a 7.5% return, but their relative performance disappointed later in the year. That was in line with our expectations given that we are in a classic late-cycle economy when high

Global Economic Expansion Delivered Strong Returns

2017 Total Return (% in US dollars)					
	S&P 500	MSCI All Country World	MSCI Emrg. Markets	MSCI Japan	MSCI Europe
Cons. Disc.	23.0	25.7	40.4	22.0	25.5
Cons. Staples	13.5	18.5	25.8	25.8	24.5
Energy	-1.0	7.6	21.7	46.2	20.7
Financials	22.2	24.7	33.2	15.3	28.4
Health Care	22.1	20.7	32.7	19.6	17.9
Industrials	21.0	25.9	26.3	30.8	32.0
Tech	38.8	42.3	61.0	42.7	36.6
Materials	23.8	30.2	34.2	33.4	35.8
Real Estate	10.8	18.5	50.0	7.5	26.6
Telecom	-1.3	8.6	17.5	11.4	16.4
Utilities	12.1	14.8	17.1	-0.2	24.4
Total	21.8	24.6	37.8	24.5	26.2

Source: FactSet as of Dec. 29, 2017

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yield starts to underperform both investment grade and equities. As such, we downgraded high yield last summer close to the highs and are now removing it completely from our asset allocation recommendations.

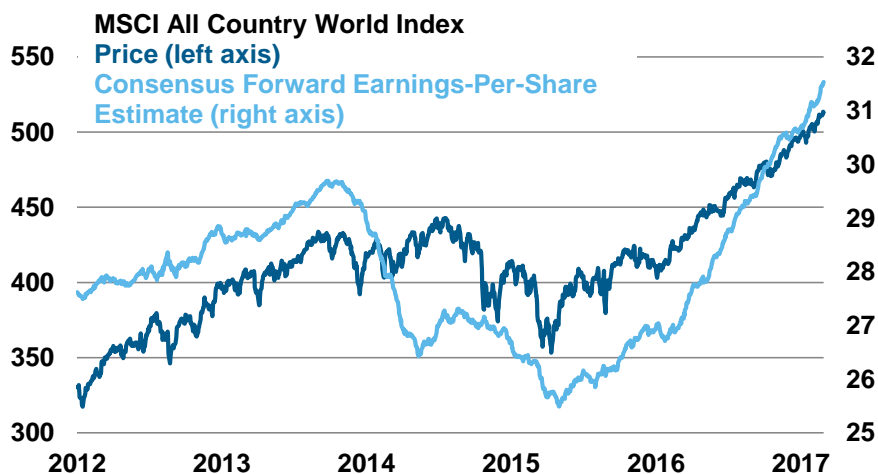
So what should we expect in 2018? To answer that, we first must take another look at 2017. A year ago, our out-of-consensus bullish outlook was based on accelerating earnings growth (top chart, right), very supportive financial conditions (bottom chart, right) and generally muted institutional and individual-investor sentiment and positioning. These conditions are either fading or no longer in place.

While we believe that US and non-US earnings are likely to increase further in 2018, the growth rate will likely peak in the first half. We also believe that financial conditions will tighten this year, and we can no longer say that investor sentiment and positioning is muted. In fact, there are now signs we have entered into the “euphoria” stage of this bull market—something we also forecasted in last year’s outlook.

This doesn’t necessarily mean the bull market is over, because this stage can last awhile. It does mean, however, that whatever upside is left is likely to be more speculative and thus higher risk and lower quality than what we had in 2017. To our surprise, we hear many strategists and commentators suggesting that the risk is lower because of the tax cut, and earnings are set to go up in 2018. However, the tax situation is a “known known” at this point and one of the reasons why US equities did so well in 2017.

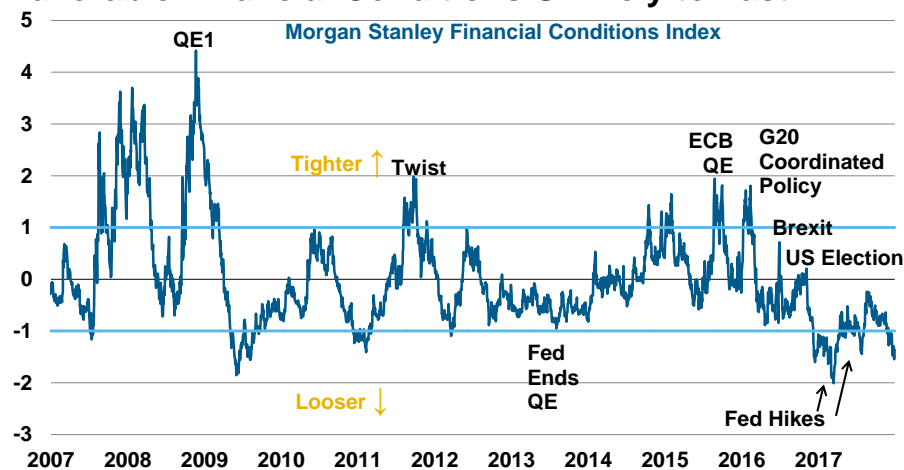
That said, be wary of comments that tax reform has not yet been priced in. Look at our simple gauge for determining how much of it is priced—the price/earnings multiple (P/E) for the top quintile of S&P 500 companies ranked by highest tax rates (top chart, page 3). Clearly, the market has been discounting a better chance of tax reform since late summer, making a sharp gain as it became a done deal in December. In other words, markets are discounting mechanisms—and what is

Earnings Powered Global Equities in 2017



Source: Bloomberg as of Dec. 29, 2017

Favorable Financial Conditions Unlikely to Last



Source: Bloomberg as of Dec. 28, 2017

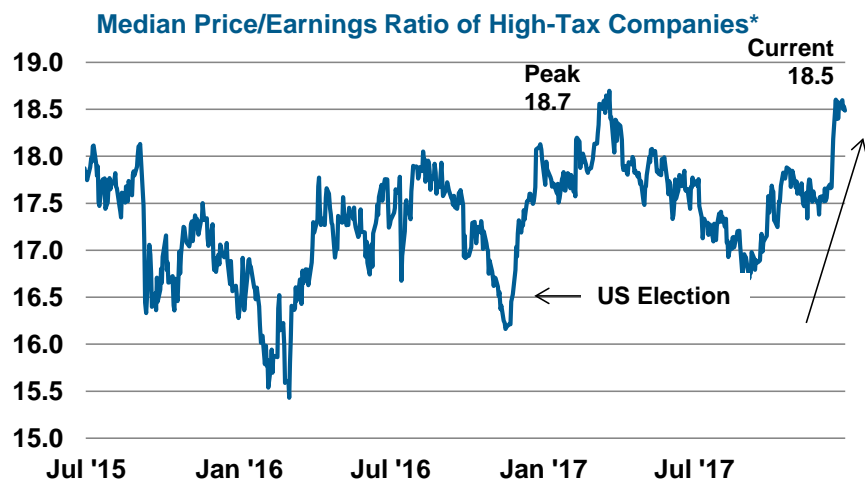
now obvious to everyone has been getting priced in during the past four months. Perhaps ironically, we find some comfort that our more muted outlook for this year is almost as out of consensus as our bullish view was at this time last year.

Passing the Baton

Tax reform is unique to the US, which largely explains why the S&P 500 has outperformed international equity indexes during the past few months after underperforming for most of the year. Even with the recent catch-up, US equities remain 2017’s laggard. Now that the tax changes appear to have been priced for the

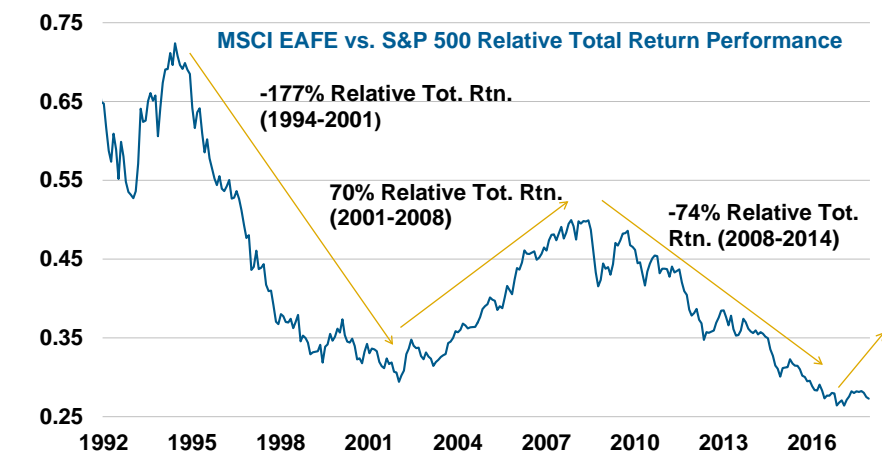
most part, we expect global markets, led by Europe and Japan, will do relatively better this year. The performance of the MSCI Europe Australasia and Far East Index (EAFE), which is dominated by Europe and Japan, has been abysmal relative to the US since the financial crisis (see middle chart, page 3). However, we think 2017 was the beginning of a reversal that could last for years. The chart also shows the MSCI EAFE and the US have traded in seven-to-eight-year cycles of relative underperformance and outperformance.

Beneficiaries of Tax Reform Have Already Revalued



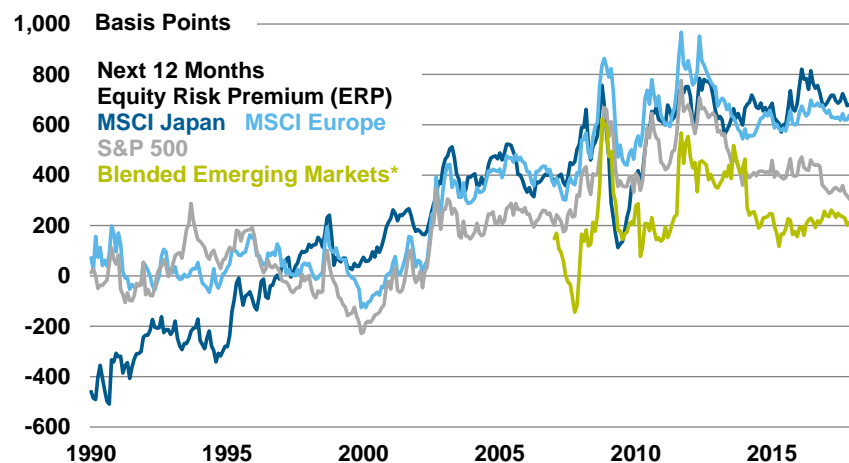
*Top quintile of S&P 500 companies when ranked by highest tax rates
Source: FactSet as of Dec. 29, 2017

International Stocks May Be Ready for a Reversal



Source: FactSet as of Dec. 29, 2017

Non-US Stocks Are Much Cheaper on an ERP Basis

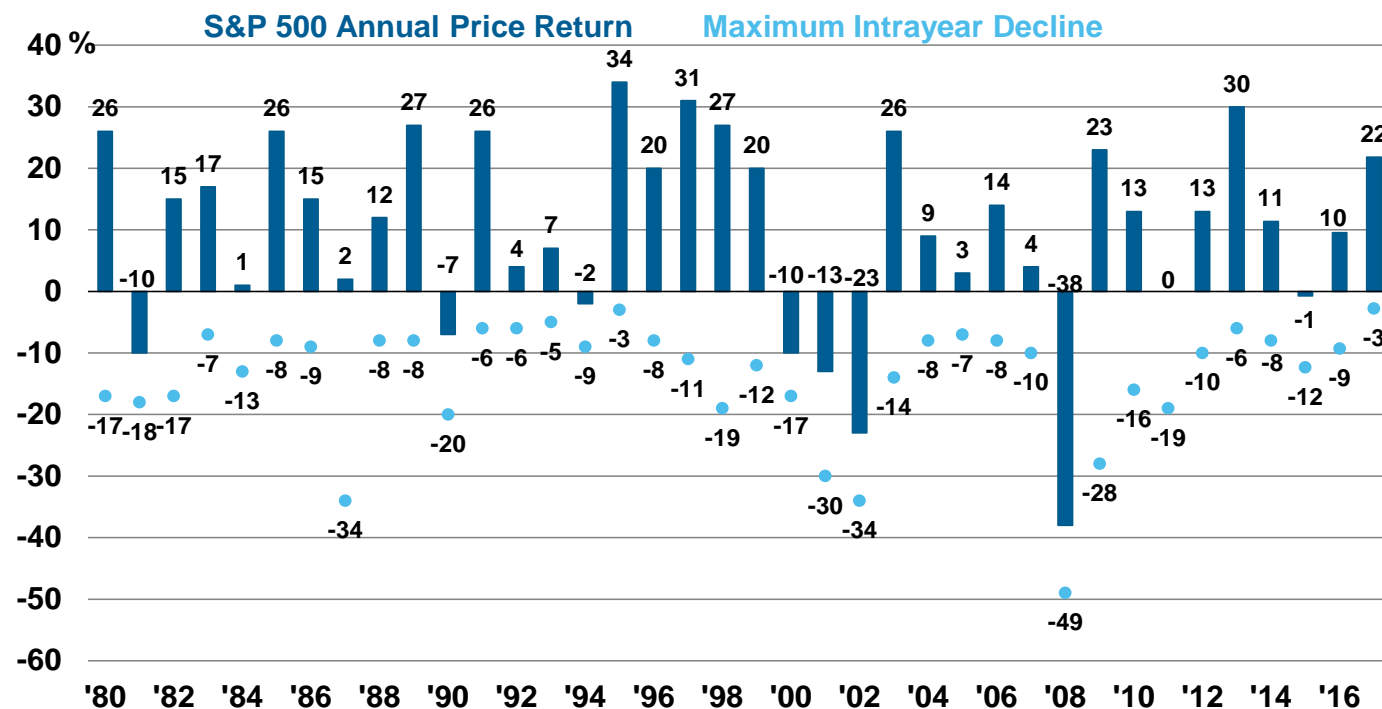


*India, China, Brazil and South Korea
Source: FactSet as of Dec. 29, 2017

After a long period of US dominance, we believe both Europe and Japan can outperform the US in 2018 and beyond due to the meaningfully lower valuations and potentially faster earnings growth, as these countries are much earlier in their economic recoveries from the financial crisis. Consider the equity risk premium (ERP), our preferred valuation metric for the US, Europe, Japan and the emerging markets (see bottom chart, left). As you can see, the US has the lowest ERP (highest valuation) of the developed markets because it is the furthest along in its economic recovery and normalization in monetary policy. While we do not expect ERPs in Europe and Japan to fall as far as in the US, they should close the gap as the European Central Bank and Bank of Japan begin to normalize monetary policy by tapering their Quantitative Easing programs. This was exactly what led to the rapid fall in the US ERP back in 2013 and 2014, which continued in 2017 as the market discounted the addition of fiscal policy support in the US—i.e., tax cuts.

As a result, we are increasing our allocation to European equities by 4% and to Japanese equities by 2% while reducing our allocation to US equities by 6%. Also, we are no longer recommending any currency hedge for Japanese equity positions, which is a change from our long-standing recommended 50% currency hedge. Recall that we removed our currency hedge guidance for Europe last April, which proved to be profitable as the euro rallied close to 10% against the US dollar in 2017. For 2018, we expect both currencies to rally against the dollar. Emerging market (EM) equities, the best-performing region of the past two years, is actually the most expensive market on our ERP metric—something that may surprise investors. This stems from the fact that EM interest rates are much higher than in the developed markets, offering investors a relatively more attractive alternative to equities. We believe that EM equities will do okay in 2018 but lag Europe, Japan and maybe even the US in the first half. Therefore, we are maintaining our modest 1% overweight.

Recent Drawdowns in the US Stock Market Have Been Modest



Source: Bloomberg as of Dec. 21, 2017

Finally, we are also reducing the high yield allocation to zero. We first reduced our long-standing overweight back in late June, shifting toward US small- and mid-cap (SMID) equities. Stocks tend to do better than high yield late in the economic cycle, and our change proved to be well-timed as doubts about tax reform were peaking and credit spreads were bottoming. Since then, SMID-cap equities are up some 10%, while high yield has returned only 1.6%. We think the time has come to reduce high yield completely, as late-cycle dynamics have become even more evident. While the tax cuts just enacted in the US may lead to better growth in the short term, they may also bring forth the excesses we typically see before a recession—which is something credit markets figure out before equities. We recommend taking the proceeds from high yield and putting them into short-term fixed income (two-year Treasuries, taxable bonds or municipal bonds rated at least AA).

It's important to point out that even though the US economic cycle is mature,

we do not expect a recession in 2018 (see page 6). However, we do think operating margins will peak this year even as net income increases due to lower tax rates. We want to emphasize that this is a much lower-quality rise in earnings than in the past few years when increases were the result of rising sales and profitability. We believe markets will recognize the difference via wider credit spreads and lower equity valuations—albeit on higher earnings. The result: Equities will continue to do better than high yield and lower-quality investment grade debt, perhaps meaningfully so in the first half. These changes and the current tactical asset allocation can be found in the Global Investment Committee's (GIC) *Tactical Asset Allocation Changes*, Jan. 3, 2018.

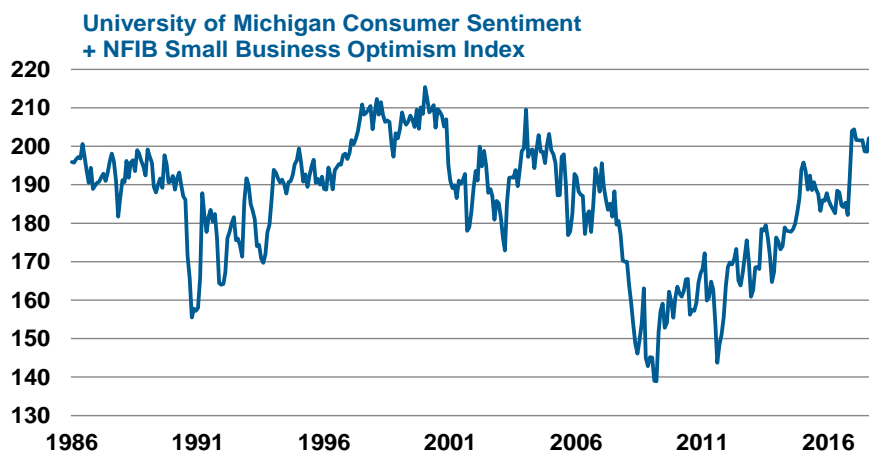
Normalization Means More Normal

While global equity and credit markets performed exceptionally well in 2017 in absolute terms, the risk-adjusted returns were even better considering the extraordinary breadth and low volatility.

Perhaps the best way to illustrate is to look at the total return for the S&P 500 for the past 38 years and the maximum correction in each of those years (see chart, above). As you can see, 2017 tied for the smallest correction—only 3%—in any one year during this period. That might seem surprising given the numerous geopolitical shocks, not to mention a still contentious political climate. To us, this just speaks to how powerful the synchronous global expansion has been and our view that the business cycle trumps politics. We also think investors underestimated the positive impact of stronger fiscal support on equity market valuations, given still-low interest rates (more on that below).

As monetary policy continues to normalize, financial conditions tighten and positive surprises wane, the markets should also normalize. In the chart's 38-year span, the average correction in a given year is 14%, with a median of 10%. Therefore, investors should be prepared for at least one, if not a few, 10% corrections in US and global equities during 2018.

Rising Consumer and Business Confidence Close to Record Highs and Could Help Propel Stocks



Source: Bloomberg as of Nov. 30, 2017

We also expect more narrow markets, which mean there will be more red boxes for 2018 in the matrix on page one, even if the regional indexes are all up on the year. As an aside, the three red boxes (US energy and telecom, and Japanese utilities) are likely to be green. Entering 2018, US energy stocks are one of our favorite investments. The same goes for credit markets, which have already started to show signs of narrowness in 2017. Finally, after two years of falling financial market volatility, we expect an inexorable rise in 2018 as both the fundamental and technical factors driving volatility begin to change. Specifically, earnings and economic data dispersion are likely to increase along with interest rate volatility as central banks tighten monetary policy.

The memory of the financial crisis remains fresh for many investors and is one reason they were so slow to embrace the rally of the past few years. In the US, at least, one could argue this has been the most disliked bull market in history given the magnitude of the move and the still-limited active participation by many individual and institutional investors. Since 2007, there has been a cumulative outflow from US equity mutual funds and exchange-traded funds (ETFs) of \$200 billion, while more than \$1.6 trillion has flowed into US bond funds—even with the lowest yields in generations. This means

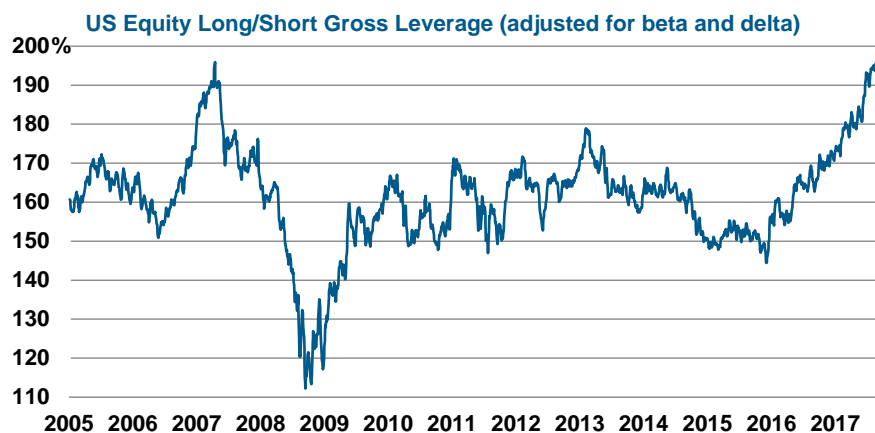
the recent surge in consumer and business confidence (see chart, above) could finally push investors into the euphoria stage of this cyclical bull market, which would put our bullish case for 3,000 on the S&P 500 this year in play (see Morgan Stanley & Co.'s *2018 Year Ahead Outlook*, "Attention! Road Ahead Narrows," Nov. 27, 2017). Institutional investors have also shown signs of capitulation as hedge funds have ramped up to their highest gross leverage in a decade (see chart, below).

That's not to say there aren't already signs of speculation in other markets: A DaVinci painting was estimated to bring \$100 million at auction, but reached \$450

million by the time the bidding ended. There is also rife speculation in high-end real estate, not to mention Bitcoin and other cryptocurrencies. We also see it in certain popular tech stocks both in the US and China, where the trades seem extended.

Despite the higher risks we foresee for credit and equity markets in 2018, normalization is a good thing from a longer-term perspective. Beyond just fear and scar tissue from the financial crisis, there were fundamental reasons why investors remained so skeptical during the past nine years. Lower real growth and inflation—also known as "secular stagnation"—drove capital to investments that do better in such a depressed world. Specifically, investors sought safety, quality, income and growth, which translated into bonds (US Treasuries and credit), large-cap dividend stocks and secular growth stocks, none of which need a booming economy or inflation to do well. Since many of these types of investments can be found in the US, it also led to a stronger dollar, leaving it overvalued at the end of 2016. Still, if the world is normalizing, we need a different investment strategy. Some of this has already started to play out; we see it in the broadening of returns to the other regions and more cyclical sectors that require faster economic growth and inflation to

Hedge Funds' Gross Leverage Is the Highest in a Decade, Indicating Extremely Positive Sentiment



Source: Morgan Stanley Prime Brokerage as of Dec. 14, 2017

work. The dollar has already felt the pressure of this capital moving overseas.

If it isn't clear from our comments, we want to emphasize our view that this shift is almost done from a cyclical perspective. We think it will be much tougher to make money in 2018 and 2019 than in 2016 and 2017, as the risk of a recession and outright bear market comes closer.

However, we also want to be clear that when the next recession and bear market arrive, it will likely look nothing like the 2008/2009 or 2001/2002 slumps, which were painful for investors. Instead, we are highly confident it will look much more like the garden-variety shallow recession

and bear market (down 20% to 25%) that are typical during *secular* bull markets.

As noted many times before, the GIC believes we entered a secular bull market for US equities in August 2011; other major regions joined in 2012 and, in 2016, so did the emerging markets. Since then, we have had a gradual global reflation. In a world still encumbered by too much debt, global reflation is exactly what is necessary to not only sustain it, but eventually reduce it. In fact, it's exactly what central bankers have been trying to achieve for the past eight years but without the help of fiscal support.

Instead, it took a decision by governments around the world to finally

pull the spending lever they rejected in the wake of the financial crisis; choosing instead to embrace fiscal austerity—a guaranteed path toward debt deflation when one is already overindebted. In the short run, this lever will ironically bring a cyclical peak closer, but it will ultimately usher in the second leg of the secular bull market once it is complete. Having this context will be critical to helping us avoid the next correction and take advantage of it, while others undoubtedly will believe another crash is at hand once it begins. The Global Investment Committee is prepared to help guide you, our clients, through this exciting time. ■

MS & Co. Economists: Tax Cuts Give US Economy a Modest Boost

In our estimation, the new tax bill will give the economy a modest boost. We have raised our 2018 GDP growth forecast to 2.7%, versus 2.5% in our previous forecast, and for 2019 our new forecast is 2.1%, versus the previous 1.9% estimate. The upward revision to 2018 growth is on top of the 0.2 percentage points of estimated impact already included in our year-ahead outlook baseline (see *On the Markets*, December 2017). This brings the bill's total impact on 2018 growth to a half of a percentage point.

Though the tax changes lift growth further in 2018 and 2019 compared with the previous baseline estimates, the shape of growth remains the same—much of the fiscal impulse is absorbed in 2018, then less so in 2019. As before, we expect growth to slow in the second half of next year due to the waning impact of the tax cuts, along with what is likely to be a more restrictive monetary policy.

One of the objectives of the tax bill is to spur business investment. We believe it will happen, but not until the second quarter of this year, as business investment sees a longer lag before the impact shows up in GDP (see chart). The positive impact on investment remains fairly constant at about 0.4 percentage points per quarter from the second half of 2018 through 2019. In contrast, the boost to consumption comes quickly in the first half of 2018 before trailing off.

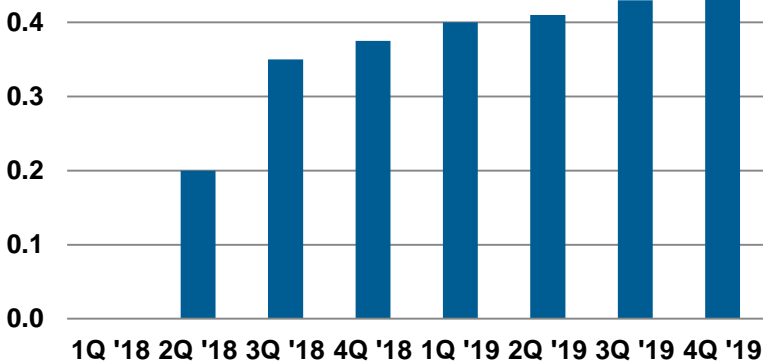
The flip side of the tax cuts is a wider budget deficit. In fiscal year (FY) 2017, which ended Sept. 30, the deficit was 3.5% of GDP. Now, we expect that number to jump to 4.2% in FY 2018 and 4.9% in FY 2019. That's an expansion of 0.7 percentage points per year and 0.6-to-1.0 percentage points wider than our prior estimate. While the majority of the revision is the result of a more front-loaded tax package that will be implemented earlier than expected, about 0.2 to 0.3 percentage points of the change reflect expectations for even larger spending on disaster relief and national defense as compared with our previous forecast.—

Ellen Zentner

Investment Spending Should Improve By the Second Half of 2018

0.6 Percentage Points

Estimated Policy Impact on Investment, Seasonally Adjusted Annual Rate



Source: Morgan Stanley Research as of Dec. 21, 2017

Can Active Management Continue to Improve?

LUCY YAN

Cross-Asset Strategist
Morgan Stanley Wealth Management

The active-versus-passive debate has been front and center for most of the past 10 years. Flows to passive investments have soared, while active management has largely fallen out of favor. According to Morningstar, \$1.2 trillion has gone into passive mutual funds and exchange-traded funds (ETFs) since 2007. This imbalance has been exacerbated by low-cost passive funds' strong returns relative to active funds, which tend to charge higher fees. Unique forces such as unconventional monetary policy, high equity correlations, low economic growth and low government spending all came together in a perfect storm that made it difficult for individual companies—and thus, stock pickers—to stand out.

CHANGING TREND. Now, the trend is changing. In a January 2017 report, *The Case for Active Management*, we argued

that many factors that led to exceptional passive outperformance had likely peaked and would turn in 2017, which has happened—and active managers' performance has begun to rebound (see chart). As of Nov. 30, 69% of US large-cap value managers beat their benchmarks versus 30% in 2016. Performance of large-cap core and large-cap growth managers also improved, although only 36% and 24% of them, respectively, beat their boogies (as of Nov. 30).

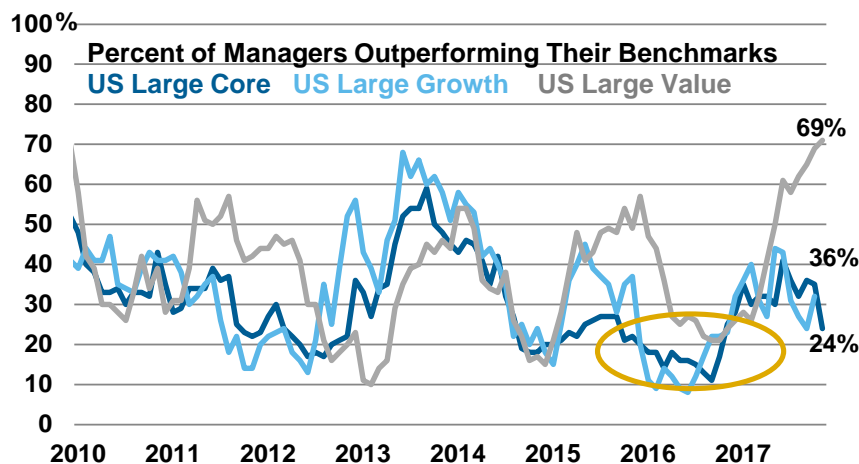
What happened? Equity correlations, a measure of how closely stocks trade with each other, have declined meaningfully in the past 12 months. That indicates share prices have moved more because of stock-specific factors than broad shifts in macroeconomic conditions. While correlations are unlikely to fall further from their sub-10% level—which has happened only twice since 1985 for brief periods of time—continued low correlations would be a tailwind for active

management as they improve the likelihood of effective security selection. At the same time, strong market breadth, represented by a large portion of global stocks posting positive returns, has also helped stock pickers who invest in companies outside their benchmarks. We believe this breadth can continue into 2018, supported by broad-based earnings gains and US small-cap outperformance, which will likely be boosted by lower US corporate income tax rates.

HIGHER VOLATILITY AHEAD. Last year we experienced one of the stock market's least volatile years, resulting in passive index funds posting handsome returns with minimal drawdowns, which proved to be a headwind for active managers. However, we believe active managers can expect more favorable conditions in 2018 as volatility is likely to rise on late-cycle risks and policy uncertainty. Outflows from actively managed funds to passive ETFs worked against active in 2017. Although outflows have moderated, inflows to passive funds are likely to continue to create difficulties for active management.

DOWNSIDE PROTECTION. One of the most important attributes of active management is downside protection. History suggests that active managers have meaningfully outperformed passive benchmarks when the S&P has posted large losses. Inevitably, blending the active and passive vehicles would create a portfolio that is cost-efficient and relatively insulated from market corrections. Our tactical active/passive framework uses an array of quantitative factors to identify periods favorable for active management, and recommends allocations to active and passive vehicles accordingly. Currently, the framework favors large-cap value, mid-cap and small-cap managers in the US for the next 12 months. Complementing our quantitative framework with skilled manager selection could substantially increase portfolio outperformance. ■

More Active Managers Have Begun to Beat Benchmarks



Source: Morningstar, Bloomberg, Morgan Stanley Prime Brokerage, Morgan Stanley Wealth Management GIC as of Nov. 30, 2017

ON THE MARKETS / FIXED INCOME

Bonds' Big Controversy— US Treasury Yields

LISA SHALETT

Head of Wealth Management Investment Resources
Head of Investment & Portfolio Strategies
Morgan Stanley Wealth Management

One of the biggest gifts investors got in 2017 was the unprecedented low volatility and a range-bound 10-year US Treasury yield. Certainly, fundamentals suggested otherwise: Economic growth accelerated, inflation expectations increased, unemployment fell to a 17-year low, the Federal Reserve hiked the federal funds rate by 75 basis points, consumer confidence hit a near-record high and US stocks reached all-time highs. Yet, the 10-year yield, now at 2.43%, is little changed.

DIFFERENTIALS AND INFLATION. The bond bulls have several explanations for this anomalous behavior. First, supply and demand has led to wide and near-record yield differentials between Treasuries and comparable-maturity German Bunds. For the past several years, government debt purchases by central banks swamped net new issuance in the developed markets.

That constrained the supply of high-quality bonds and made Treasuries attractive relative to Bunds (see chart).

Second, inflation has been disappointing, as the year-over-year gain in the Personal Consumption Expenditures Index fell to 1.4% in November from 1.9% in January 2017. The Fed's target for that metric is 2%. These figures have been affected by one-time factors, but slow wage growth, now an annualized 2.5%, also has weighed on nominal yields. What's more, dovish central bank rhetoric, an aging population and still-high debt have kept term premiums—the compensation to investors for future uncertainty—quite negative.

CONFLUENCE OF FACTORS. One of the more bullish forecasts comes from Matthew Hornbach, global rates strategist for Morgan Stanley & Co. He says that the 10-year yield will run no higher than 2.50% in 2018 and that the yield will decline to 1.95% by the year's end. We have a different view: Before the markets

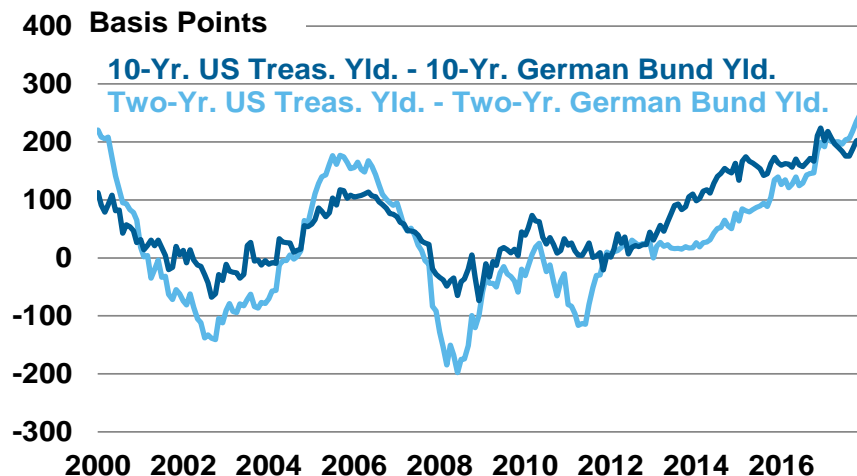
price such a recessionary scenario, volatility needs to rise along with yields, which need to discount the profound confluence of headwinds we see for bonds.

First, we expect a supply/demand shift. After three years of declining sovereign bond issuance in the developed markets, issuance is estimated to increase by 25% to 30% this year. Beyond that, the US deficit-financed tax package will increase Treasury issuance by an additional \$100 billion to \$150 billion and add \$1.0 trillion to \$1.4 trillion to US debt in the next 10 years. With a flattening yield curve, the US has an incentive to sell longer-duration bonds, which is apt to happen just as the Fed is liquidating similar securities.

Next, consider global dynamics. With economic growth and inflation in both Europe and Japan better than expected, pressure will build by the second half for the European Central Bank (ECB) to revisit its tapering program (the ECB's Quantitative Easing is currently scheduled to end in September) and for the Bank of Japan to set a new target interest rate. What's also critical is whether the ECB changes its policy of purchasing government bonds in proportion to the sizes of the countries' economies. Should the bank cease to buy Bunds, we see rates rising by at least 30 to 40 basis points. A third factor is that inflation and inflation expectations will likely reprice based on increased wages, tighter labor markets, higher oil prices, a stable US dollar and rising producer prices in the supply chains of both the US and China. We also see the tax changes as inflationary.

BRAND-NEW FED. A last and important factor is concerns about a brand-new Fed. Ever since the financial crisis, central bankers around the world have used dovish language to offset downside volatility in stocks. With a new chairman, board members who are ideologically hawkish and a stock market selling at nearly 20 times earnings, the central bank may want to once again use policy to address "irrational exuberance." ■

German Bunds Still Anchor US Treasury Yields

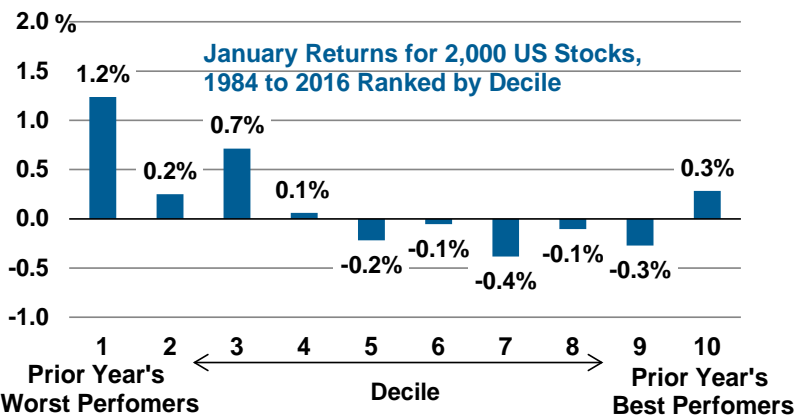


Source: Bloomberg as of Dec. 29, 2017

ON THE MARKETS / SHORT TAKES

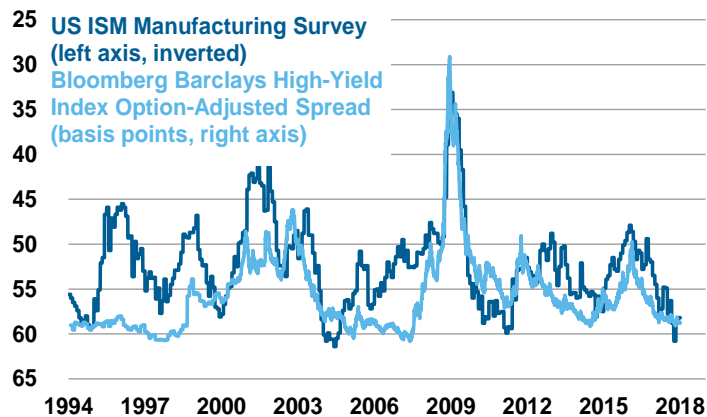
How Previous Year's Leaders and Laggards Arrive in the New Year

How do stocks that have been leaders or laggards in one calendar year typically perform in January of the following year? For each year, using data going back to 1984, we grouped our universe of 2,000 US stocks by performance and ranked them in deciles—the worst performers in the first decile and the best in the tenth. We then show each decile's median relative return in January of the following year (see chart). We found that the previous years' worst performers reversed course in the subsequent January and were the strongest relative performers, with a 1.2% median relative return. What's more, the 30-plus years of data show that the previous year's worst performers have tended to outperform around 70% of the time in January. Interestingly, the next three deciles also outperformed. On the other side, the prior year's best performers (decile 10) also tended to outperform in January as momentum factors continued to power this cohort.—*Rob Birns*



Source: Morgan Stanley Wealth Management Market Strategy as of Dec. 21, 2017

High Yield Spreads Closely Track Momentum in the Real Economy

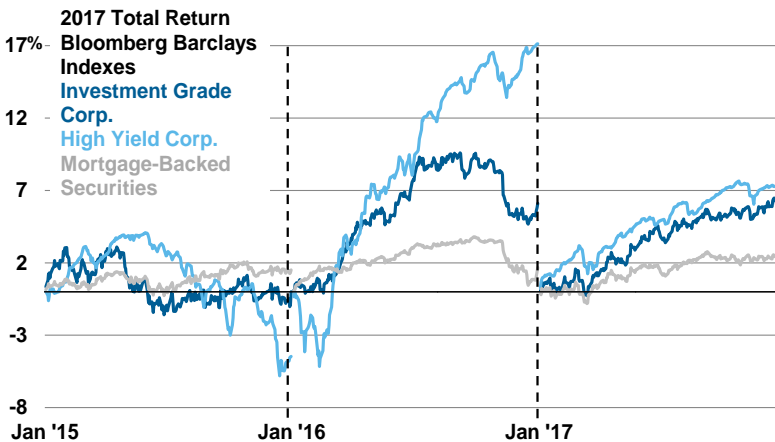


Source: Bloomberg as of Dec. 29, 2017

Investment strategists and portfolio managers have begun signaling caution on corporate credit in recent months, pointing to extended corporate leverage and the preponderance of BBB-rated issues in the investment grade universe. These concerns deserve close attention, as any softness in corporate credit may portend greater volatility and headwinds for other risky assets, particularly equities. Still, this watchfulness does not translate to outright-bearish views on equities; in late-cycle expansions, equities typically provide more favorable risk-adjusted returns than corporate credit. Moreover, historical precedents suggest credit spreads widen materially only in concert with a material deterioration in real economic activity, measured here with the ISM Manufacturing Survey (see chart). While growth's upward momentum may slow in 2018, Morgan Stanley & Co.'s economics team calls for a continuing solid expansion. This outlook suggests that any deeply negative signaling from credit spreads may be further in the future.—*Steve Edwards*

Spread Products Enjoyed Strong Returns and Low Market Volatility in 2017

For spread product—bonds that trade as a spread to comparable-maturity Treasuries—2017 was the second year in a row of strong returns (see chart). As measured by Bloomberg Barclays indexes, the total return was 6.41% for investment grade corporates, 7.50% for high yield and 2.47% for mortgage-backed securities. Spreads tightened across asset classes due to an improving economic backdrop and continued weak inflation. This also resulted in a low volatility of returns for income-generating assets, particularly in the investment grade and high yield space—3.4% and 1.9%, respectively, versus 4.3% and 5.2% in 2016. Volatility is expected to be higher this year because of tighter liquidity conditions, higher interest rates and slower earnings momentum. Though the spread product could still wind up positive, the road through 2018 is likely to be a bumpy one.—*Darren Bielawski*



Source: Bloomberg as of Dec. 29, 2017

ON THE MARKETS / GLOBAL

India's Multi-Trillion-Dollar Digital Opportunity

ANIL AGARWAL

Equity Analyst
Morgan Stanley & Co.

RIDHAM DESAI

Equity Strategist
Morgan Stanley & Co.

DERRICK Y. KAM

Economist
Morgan Stanley & Co.

PARAG GUPTA

Equity Analyst
Morgan Stanley & Co.

During the past seven years India has undertaken two major reforms. The first involved a combination of schemes to biometrically identify all Indian citizens (Aadhaar) and to promote broad financial inclusion (Jan Dhan). The second was the implementation of indirect tax reform this past July, which moved India from its former archaic and complicated tax system to a unified and completely digital goods and services tax (GST) regime. These two reforms have "digitized" India and 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.

In our view, this digitization drive opens up considerable investment

opportunity. We see shifts in economic activity starting next year that should eventually result in India being the world's third-largest economy with a \$6 trillion GDP, among the top-five equity markets with a market capitalization of \$6.1 trillion, and the country with the third-largest listed financial services sector with a market cap of \$1.8 trillion by fiscal-year 2027 (see table). We also expect India's consumer sectors to add about \$1.5 trillion to the current market cap of \$500 billion.

There are implications beyond India. The concomitant increase in e-commerce, consumption, financial products and investments will make India a significant market for global corporations. Most important, if India succeeds, it will become the template for other emerging nations. While increasing financial inclusion has been the policy objective across emerging nations, India can provide leadership with its unique model. Hence, it is important for corporations, investors and policymakers across the globe to observe India. There may be lessons for developed countries, too.

Of course, these forecasts have risks. The digital effort has its own risks beyond

the broader macroeconomic ones. While the current government is a major proponent of the digital economy, future leaders may not be so inclined and the next national election is in 2019. There is also a concern that Aadhaar infringes on privacy and the GST transition may not be as smooth as planned.

Setting the Stage

India's digital revolution began with the 2010 launch of Aadhaar, which is Hindi for "foundation." The project was ambitious, involving biometric identification of all India's 1.3 billion people. The project is nearly complete, with 1.2 billion Indians identifiable by either fingerprints or a retina scan. The scale and scope of this project is probably unmatched in world history. Application programming interfaces (APIs) have been developed using Aadhaar to launch payment systems that allow real-time customer-to-customer and customer-to-machine transactions with mobile phones. We estimate that India has about 800 million unique mobile phone users, and about 430 million of them—about a third of the population—have internet access. We believe that internet access will double in the next 10 years, and that 915 million Indians will be online by 2026.

Finally, the Jan Dhan initiative, launched in 2014, has essentially ensured that nearly every household in India has a bank account and people can access their accounts anywhere. Some 285 million accounts have been opened in the past three years.

The GST, with its ability to simplify India's complicated indirect taxation system and lift government revenues, has the potential to boost economic growth. The plan alters the management of government finances. Hitherto, tax collection in India was decentralized, while expenditures were centralized through the Planning Commission, which set spending priorities for the states. GST

India in the Context of the World

	Current Position	FY 2027 Estimated Position
Economy	Seventh largest on the basis of nominal GDP	Third largest on the basis of nominal GDP
Overall Market Capitalization	In the top 10, with 86% market cap/GDP ratio	In the top five, with 101% market cap/GDP ratio
Market Cap, Financials	15% market cap/GDP ratio vs. 22% for the G7 countries	31% market cap/GDP ratio, about US\$1.8 trillion
E-Commerce	Among bottom quartile of the top-15 e-commerce markets globally	Within top quartile of the current list of top-15 e-commerce markets globally

Source: Bloomberg, Reserve Bank of India, IMF, Morgan Stanley Research as of Sept. 26, 2017

places India's taxation in the hands of the central government, while the abolition of the Planning Commission in 2014 had already set the stage for decentralization of expenditures to the state governments.

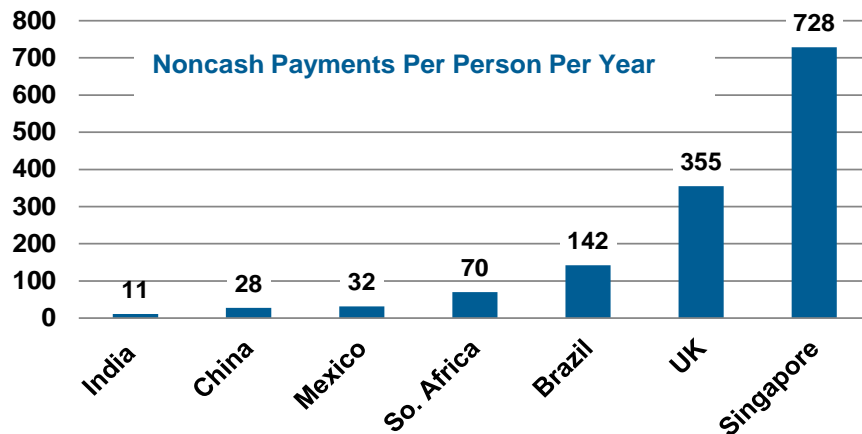
India's ratio of tax revenues to GDP is lower than average for the emerging markets, which is why the fiscal deficit has been relatively high. The GST implementation will likely improve tax compliance on both indirect and direct taxes even while the tax rates are in and of themselves revenue-neutral. We estimate that if the primary fiscal deficit stays at 1.2% of GDP (as compared with an average of 2.1% over the past five years and 1.6% in fiscal 2017, on our estimate), the ratio of public debt to GDP will fall to below 60% from the current 69% by fiscal 2027.

By our estimates, GST could lift medium-term profit growth. Warehousing costs, freight costs and inventory levels could decline. Together with a more efficient input tax credit system and the removal of interstate barriers, this should lead to improved profitability. In the next two to three years, large companies could also gain share from micro, small and medium enterprises (MSMEs), whose effective tax subsidy (if they do not pay taxes) is likely to vanish. That said, it is not all bad news for MSMEs. Their entry into the formal economy will enable them to obtain flow-based loans, eventually lifting their growth as well as India's ratio of aggregate credit to GDP.

Financial Sector Revolution

Historically, India's banks have catered to large companies and well-heeled individuals. However, this is changing. Regulations will force banks to lend to segments other than large corporations. Unlike in the past, future funding to large companies will be shared between banks and bond markets. From fiscal-year 2020 forward, any company with debt of greater than \$1.5 billion will be defined as a large corporation. These companies will have to meet 50% of incremental funding through the bond markets. This will force the banks to look for new avenues of growth.

India Has Lagged Materially in Digital Transactions



Source: NITI Aayog, Morgan Stanley Research as of Sept. 26, 2017

Technology is likely to significantly lower the cost of providing financial services and to help grow consumer credit by around a 17% compounded annual rate. Aadhaar and the associated electronic “know your customer” process have cut the cost of opening a deposit account by 90%. Using its digital infrastructure, one major bank opened more than a million accounts in one quarter, on top of an existing customer base of 8 million. With digitization, a bank can use its own data on individuals' transactions along with credit scores from bureaus to offer quick loans to individuals.

Strong Consumption

There are two major trends driving consumption in India. First is rising consumer credit penetration aided by digitization and the likely culture shift happening as a younger generation becomes less debt averse. Rising consumer credit, which we think will compound at 17% annually over the next decade, could add 20 basis points to annual real GDP growth. Second is a shift in consumption. Based on Consumer Price Index basket weights, food items account for 47% of Indian consumers' expenditures, which is one of the highest percentages globally. This likely reflects India's current level of low economic development. As per capita incomes rise, the share of expenditure is likely to shift toward nonfood

consumption, which should then grow faster than the economy as a whole.

E-Commerce Boom

We expect India to have in excess of 900 million internet users in 2026 and, with half of them shopping online, we believe India's e-commerce market could grow to \$200 billion by fiscal year 2027. This growth is being driven by a combination of rising internet penetration, a drop in data-access costs, a shift to smartphones and a flow of credit to consumer and micro enterprises.

From fiscal-year 2020, more than half of India's internet users will have five years or more in online experience. We think this will likely mark an inflection point in online shopping and expect 475 million online shoppers in fiscal-year 2027 and online spending of about 10% of per capita income, which should lead to an e-commerce boom.

Digital advances are likely to facilitate transactions, too. Now, cash on delivery accounts for as much as 60% of e-commerce sales. One of the reasons for this dependence on cash is the trust deficit that exists between customers and online merchants. However, with the push to increase digitization of payments, we believe credit/debit cards and payment wallets will gain ground, improving the online shopping experience. ■

ETFs: Efficient, but Increasingly Complex

Assets in exchange-traded funds (ETFs) have swelled some 450% in the past 10 years to \$3.4 trillion (as of Dec. 29). While such growth is a sign of a bubble to some, others point out that ETFs pale in comparison to the nearly \$16 trillion in mutual funds. So, what should investors focus on in this still-burgeoning space? “ETFs are an efficient and easy tool for asset allocation,” says Matthew Bartolini, head of SPDR Americas Research at State Street Global Advisors. “They can almost be used for anything.” Michael Jabara, head of the ETF research team at Morgan Stanley Wealth Management, believes that investors can expect to see proliferation in active and smart beta ETFs, which may present challenges. “Complexity is one of the biggest issues going forward,” he says. Bartolini and Jabara recently shared their views with Morgan Stanley Wealth Management’s Tara Kalwarski. The following is an edited version of their conversation.

TARA KALWARSKI (TK): How has the ETF market evolved over time?

MATTHEW BARTOLINI (MB): When ETFs were launched back in 1993, they were meant to allow investors to allocate capital in an efficient manner. It was a way to access broad equities, to trade intraday and to express market views in the most easily identifiable fashion. A lot of the genesis of this vehicle was brought out of the 1987 stock market crash, after which some of the Securities & Exchange Commission’s language indicated an interest in a stock market instrument that tracked the broad market.

The first ETFs were created from there, providing access to different asset classes for all. We’ve seen a transition over time to ETFs today that cover a great deal of esoteric asset classes—some illiquid, some liquid—thus allowing people to efficiently allocate capital up and down the portfolio.

TK: What has the advancement looked like here at Morgan Stanley Wealth Management?

MICHAEL JABARA (MJ): We’ve certainly seen tremendous growth in interest, both when you look at assets under management and more anecdotally at the types of questions that our research team receives. Interestingly, while the products have evolved over the years, a lot of our flows and questions are still centered on low-cost, traditional, beta-type offerings, such as ETFs that track broad benchmark indexes. So while it feels as though the products have moved past the 101 stage, in reality we’re still in the education stage.

TK: What do you anticipate for ETFs looking ahead?

MB: To Mike’s point, what we’ve seen probably over the last couple of years is a big shift toward low-cost, core ETFs—but that doesn’t just mean low-cost equities. We’ve seen flows into low-cost areas of the fixed income market beyond those that track the Bloomberg Barclays US Aggregate Bond Index. Investors use different components to create portfolios to meet their objectives, overweighting and underweighting different term structures within the credit space, as well as using duration management tools within the US Treasury space.

Fixed income is one of the biggest shifts we’ve seen. Fixed income ETFs are

consistently shattering the records they had set the year before, and will probably end the year with around \$130 billion in flows in the US alone. That’s because of three things. One is demographics. We are getting older as a population, and that requires more focus on stable, reliable income. Fixed income as a category is going to benefit from that. Another is the persistent need for yield in a low-rate environment—which is likely going to stay that way for a while. The last is the efficient usage of ETFs overall. The transfer of assets feature of fixed income ETFs make for a better sort of vehicle for large institutional investors.

TK: Are you concerned that institutional use of fixed-income ETFs might introduce additional risks to the market in the case of a spike in defaults, for example?

MB: It would be similar to the past when there have been hiccups. Fixed income ETFs, and specifically high yield ETFs, have been around for quite some time, and they’ve definitely matured in their exposure and how institutions and other investors are using them.

We had a high yield sell-off in the first half of November, and we saw high yield ETFs trade multiple times more than the previous day’s average. The ETF vehicle was able to facilitate that trading activity—trading at a discount, as you would expect when the market is using it as a price-discovery tool. So investors were able to express their views on the high yield market in an efficient manner while not having to touch the underlying bonds. One high yield bond ETF, for example, traded on a six-to-one ratio of secondary trades to primary trades. So for every \$6 that traded on the secondary, only \$1 hit the primary market—making it a really efficient trading mechanism.

TK: So you wouldn’t expect ETFs to heighten any potential market volatility?

MB: No. We see when spreads widen due to a systemic period or a systemic event, ETF volume picks up; it’s not the other way around. In November, the

widening was a result of idiosyncratic events, particularly with respect to telecom and retail earnings, and that widening was followed by a pick-up in ETF volume.

MJ: I agree. The ETF vehicle is an efficient way to get in and out of certain markets, especially high yield, as the high yield ETF becomes a lot more liquid than the underlying bonds that the fund owns.

TK: How has due diligence for ETFs changed over the years, and do you anticipate any changes going forward?

MJ: The biggest challenge is a lot of the new products are becoming more complex. More homework is required when looking at the underlying strategy. Then you have to determine whether the ETF is the right wrapper for that particular strategy.

We've seen more smart beta issuance, which requires different skills than, say, analyzing a traditional market-cap-weighted ETF—and actively managed ETFs are newer to the market. While the space is still relatively small at about \$45 billion, it is growing at a good clip. I believe we will continue to see actively managed ETF issuance and the category will continue to gain traction.

MB: The due-diligence process is increasingly going to look a lot like active manager due diligence. Why these factors? How does it work? What is the client's expectation during different risk markets? You'll probably see a delay in terms of approval or coverage until you get to a definable three- or five-year track record.

TK: When choosing between ETFs, how important are fees?

MB: Fees and costs, which include trading costs, are really important. Every basis point counts, especially in a low-return environment where a traditional bond ETF yields 2.5%. If you have a higher fee, that's going to eat into returns.

Additionally, equity valuations are quite high and return expectations should be lowered, so fees should be a really important part of portfolio construction. ETF share price matters, too. When you

have a nine-year-old bull market a lot of the ETFs continue to have increases in their price per share. What's happening now is, with digital-advice platforms and other low-minimum accounts being created, there's a preference for a lower share price, which allows for capital allocation of \$1,000 or \$5,000.

Investors looking for broad market exposure need to look at fees and share price and ask if this exposure is going to give them what they want from an asset-allocation perspective. The data show that asset allocation explains 90% of the variance in returns. If you're able to allocate between small cap, mid cap, large cap, emerging markets, developed markets and bonds in a cost-efficient manner and a low share price—that's a good strategy.

MJ: Matt nailed it, especially in anticipation of lower returns. Similar to the rest of the asset management industry, fee compression is real. I think that over the coming years, you'll continue to see fee compression with your traditional beta-type ETF offerings.

On the flip side, we have seen unique product launches whereby investors are really not that price sensitive. If a firm comes out with a new strategy that offers some value, there is still some pricing power in the ETF space. Then again, it might just be a function that that strategy is, say, cheaper than a similar strategy on the mutual-fund side.

Over long periods, [fees are] the one thing that you can control, and they can really impact returns over 10, 15 or 20 years. That said, when we do our analysis, we don't lead with the lowest-cost product. We want to make sure the exposure is correct, look at things like tracking error, liquidity, etc., and then fees come later. It doesn't do us any good to have a product that doesn't fit just because it's low cost.

TK: Has the ETF market gotten too big?

MB: We are constantly hearing that ETFs are distorting the market and that passive investing is leading to a road to

Marxism. I think that's just convenient for people to say and it isn't actually true when you look at the underlying data.

We hear that the investment into passive is distorting the active manager's ability to outperform. I would counter that with, one, the fact that 2017 has seen the largest amount of annual inflows into passive ETFs and, two, 2017 has been the best performance year since 2007 for active managers. You can't really have it both ways.

MJ: I tend to oversimplify things, but US equity market capitalization is about \$29 trillion as measured by the Russell 3000, whereas the US-listed ETF market is about \$3.4 trillion. Remember, that includes fixed income and other asset classes. The US equity market cap in the ETF space is about \$1.9 trillion. Is \$1.9 trillion driving close to \$30 trillion in assets under management? That, to me, is not the tail wagging the dog. However, in my view, there are certain sectors or industries or sub-industries where ETFs are pushing around the price of the underlying constituents.

TK: Are there any risks that investors should watch for?

MB: The biggest problem will be doing an appropriate due diligence for active ETFs, specifically if a strategy is the same one as in an existing mutual fund. How do you then make that allocation decision?

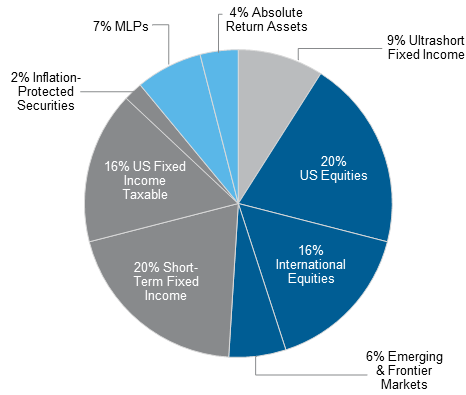
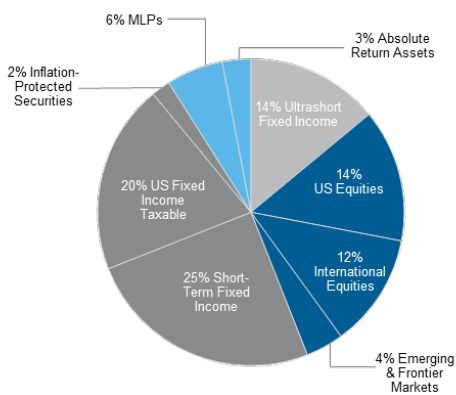
MJ: I'm a believer in actively managed ETFs. What we're also seeing more of at Morgan Stanley Wealth Management and will continue to see more of, I think, is ETFs in models. Furthermore, we may also see ETFs infiltrate 401(k) plans. ■

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

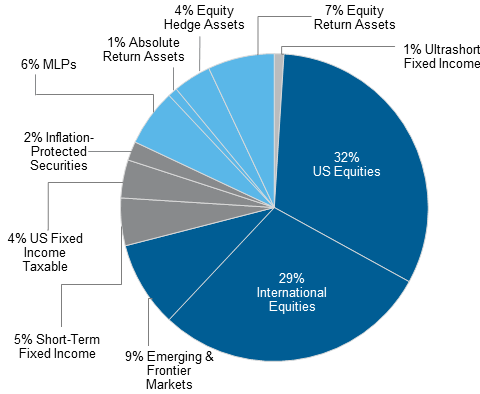
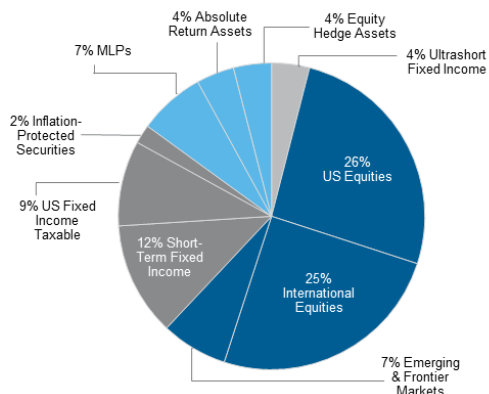
Global Investment Committee Tactical Asset Allocation

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.

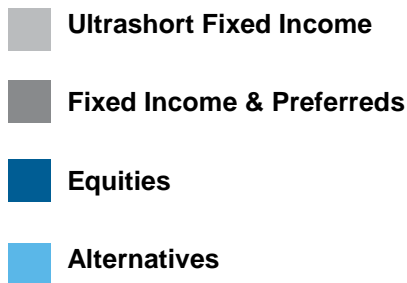
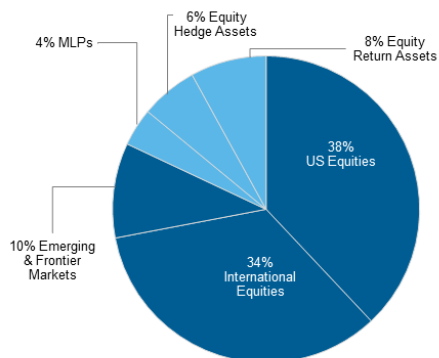
Wealth Conservation Income



Balanced Growth Market Growth

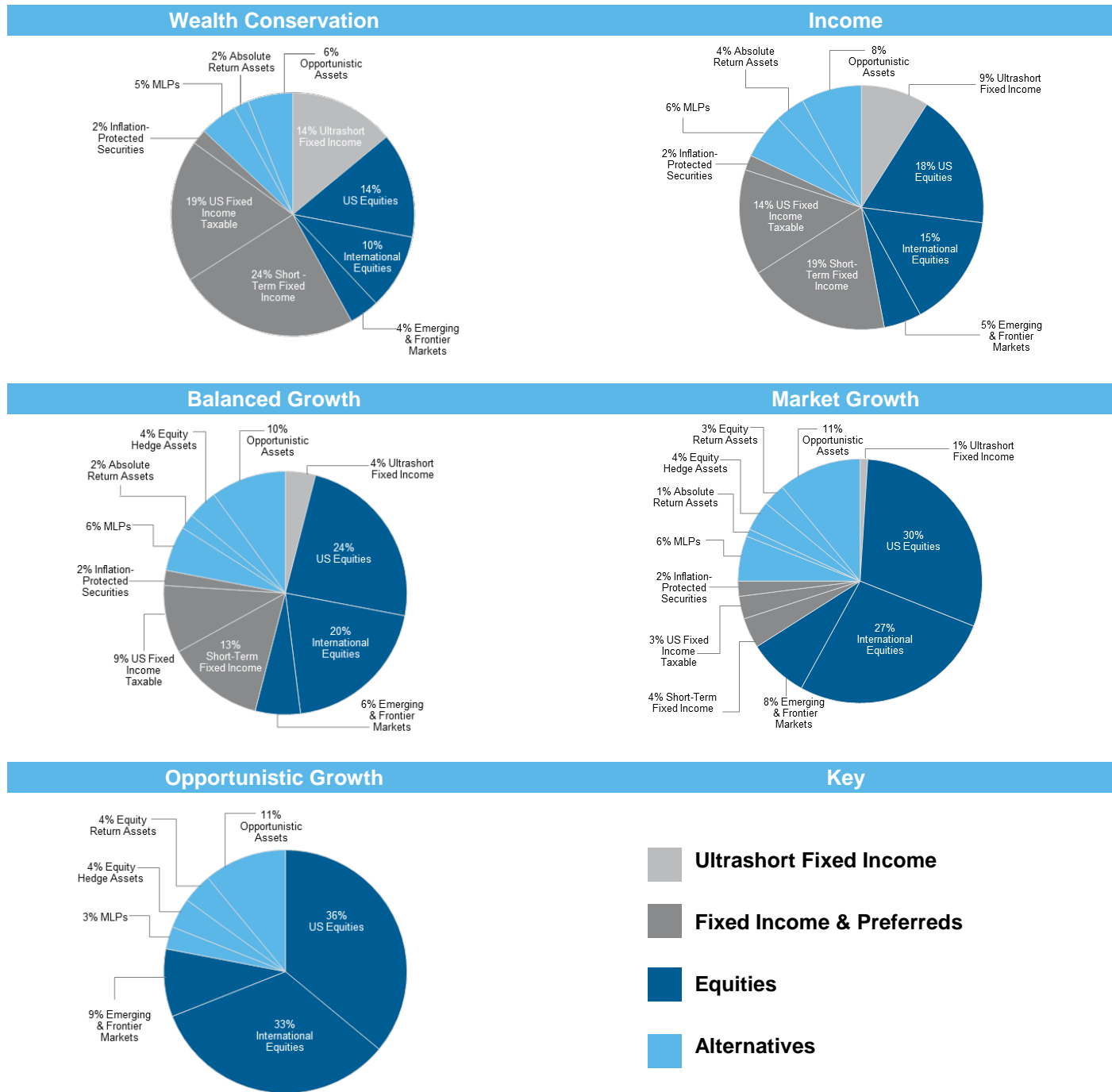


Opportunistic Growth Key



Source: Morgan Stanley Wealth Management GIC as of Jan. 3, 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.



Source: Morgan Stanley Wealth Management GIC as of Jan. 3, 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, leaving much less upside to our 2018 year-end target of 2,750.
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 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 Jan. 3, 2017

***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 other 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

The sole purpose of this material is to inform, and it in no way is intended to be an offer or solicitation to purchase or sell any security, other investment or service, or to attract any funds or deposits. Investments mentioned may not be suitable for all clients. Any product discussed herein may be purchased only after a client has carefully reviewed the offering memorandum and executed the subscription documents. Morgan Stanley Wealth Management has not considered the actual or desired investment objectives, goals, strategies, guidelines, or factual circumstances of any investor in any fund(s). Before making any investment, each investor should carefully consider the risks associated with the investment, as discussed in the applicable offering memorandum, and make a determination based upon their own particular circumstances, that the investment is consistent with their investment objectives and risk tolerance.

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

ON THE MARKETS

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.

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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.

ETF Investing

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.

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 economics.

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.

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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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