On the Markets

MICHAEL WILSON

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

Chief US Equity Strategist
Morgan Stanley & Co.

Sticking With It

"Nothing in this world can take the place of persistence. Talent will not; nothing is more common than unsuccessful men (or women) with talent. Genius will not; unrewarded genius is almost a proverb. Education will not; the world is full of educated derelicts. Persistence and determination alone are omnipotent."—Calvin Coolidge

My wife showed me this quotation from the 30th president some 10 years ago, and it now sits on my desk at work and at home. However, motivational quotations are only useful if you actually put them into practice. Investment strategies are generally the same—useful to the extent they are actually used. This year, some of those strategies have been challenged by higher volatility and changing correlations between stocks and bonds. Rather than diversifying one another, stocks and bonds have become positively correlated—they go up and down together.

With the 10-year US Treasury yield rising more rapidly and piercing 3% for the first time since 2011, stocks have started to struggle in a way investors haven't had to face in a long time. Even strong earnings results haven't been able to boost most stocks into positive territory. Why? Because rising interest rates have reached a point at which they have become a constraint on valuations. Anyone who has read my essays over the years knows that valuations are the key margin of safety when investing, and they matter the most when they are at extremes.

While our more sanguine outlook for US equities was far out of consensus back in January, our views on the peaking rate of change in earnings growth and profit margins, combined with tightening financial conditions, are becoming more prevalent within the investment community. That's a good thing because it means the market has already priced in many of these potential risks. We have been steadfast in using valuation this year as both a constraint on the upside and as a support on the downside—and we are sticking with it.

The bottom line: With earnings reports strong and many of the risks mentioned above now being acknowledged rather than ignored, we think global equities are looking much more attractive than they were at the end of January when investors were in a state of euphoria. In terms of the S&P 500 as a proxy for global equity markets, we see it as attractive at 2,600 and unattractive at 2,900, a level that we think we will see this year. ■

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Looking for Market Leadership

MICHAEL WILSON

Chief Investment Officer
Morgan Stanley Wealth Management
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Chief US Equity Strategist
Morgan Stanley & Co.

As expected, 2018 has proven difficult. US equity returns are near zero for the year to date, and higher volatility has made it feel even worse. What's more, this market is in need of leadership.

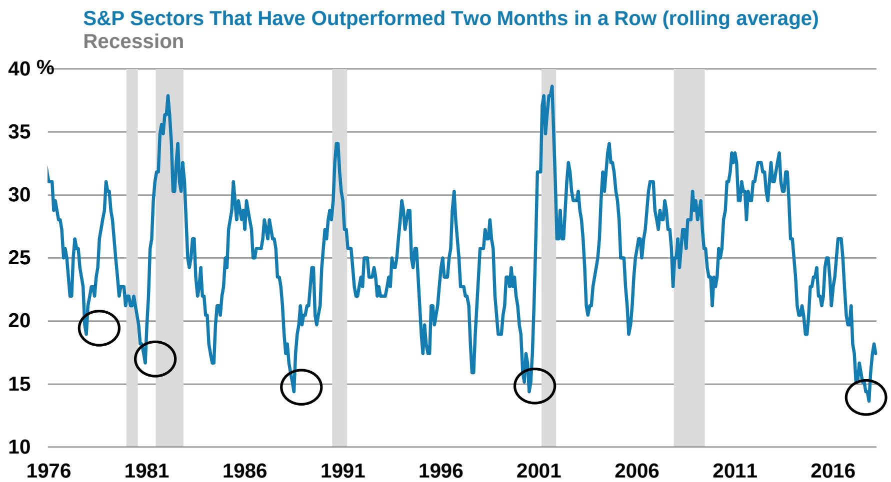
The lack of leadership is at multicycle extremes as measured by the number of S&P 500 sectors that have outperformed two months in a row (see chart). In several prior cycles, the low has occurred late in the economic cycle, followed by more defensive leadership.

If, as we expect, the market retests its January high by midsummer, we would expect more persistent leadership to develop. At that point a more deliberately defensive posture would be warranted. Until then, we remain cyclically geared, albeit less so than in 2017. Financials, industrials and energy are our overweights and real estate investment trusts, consumer staples, consumer discretionary and telecomm are our underweights. Much of this view is based on our outlook for the 10-year US Treasury yield to move into the 3.10%-to-3.25% zone before retreating toward 2.50% later in the year.

More Trouble for Retail?

At first glance, it looks like the retailing industry group has outperformed the S&P 500 so far this year. Look closer, and you'll see the group is an eclectic mix combining two online behemoths with more traditional bricks-and-mortar retailers, which have struggled to recover since the S&P 500 topped in late January. We think the market recognizes this and is discounting valuations for the traditional players given the structural challenges they still face. Earnings jumped 15% this year, but most of the growth is due to tax reform, not fundamental business improvement. Indeed, cash flow has grown only between 2% and 3%. While this is similar to the broader S&P 500, we believe traditional retailers are more vulnerable than the average sector to the negative second-order effects from tax reform, namely price competition and rising costs, especially for labor.

Lack of Leadership Has Reached Multicycle Extremes



Source: Morgan Stanley Research as of March 30, 2018

The Unwind

We have been energy bulls since August. That worked well initially. Then, energy stumbled, made another run in January, then washed out in February and March. We think this was the final capitulation for energy just as technology stocks were making all-time highs.

We downgraded tech to equal weight on Feb. 5, driven by deterioration in the semiconductor cycle that was masked by both demand for handsets and crypto-mining chips, combined with a one-time surge in autos to replaced vehicles lost in last fall's hurricanes. We also believed that double-ordering—customers placing multiple orders only to cancel them later—was prevalent. In fact, the survey conducted by Morgan Stanley & Co.'s semiconductor research team suggests double ordering is rampant. Chipmakers are starting to lower their forecasts, too.

While semiconductors account for only 15% of tech's market cap, they have generated an outsized portion of the sector's performance in the past two years. It will be difficult for tech to outperform this year if semiconductors are in a down cycle, which is why we are equal weight. Next, the flows leaving the sector will need to go somewhere, and we think energy offers cyclical characteristics that tech money likes, combined with some defensive qualities. Finally, due to years of negative real interest rates, many of the traditional defensive/stable sectors may not act as such this cycle.

Energy is not often thought of as defensive or stable. However, with oil prices breaking higher, and oil companies exhibiting more capital discipline and relatively high yields in many cases, it's well positioned to play its classic late-cycle role with a defensive kicker. ■

Get Traditional In Technology

AILI CHEN

Cross-Asset Strategist
Morgan Stanley Wealth Management

Technology stocks outperformed the broad market by an annualized 6.7% between 2014 and 2017, but now concerns are growing about whether this star sector is tarnished. There's a public backlash about how some companies treat user data, which has led to discussion of tighter regulations. Many also ask, what if earnings growth fails to meet sky-high expectations? All of this has collectively sparked a sell-off in the sector, especially in the stocks of a few high-flying tech companies, and this weakness questions tech's market leadership.

CONTINUED OUTPERFORMANCE. Does this suggest a dramatic rotation toward other sectors? Historically, it is not unusual for market leaders to experience such a downturn and continue to outperform. However, given the late-cycle backdrop and somewhat elevated market valuations following tech's exceptional performance in 2017, it is possible that this is the beginning of a rotation away from previous leaders. On the other hand, despite recent weakness, tech has outperformed since the January market peak, and earnings growth for the sector continues to be remarkable; since early 2016, tech sector earnings have significantly outpaced that of the broad market, at 33% versus 14%, respectively. Importantly, the sector's valuation, at 18.4 times the next 12 months'earnings, is not excessive.

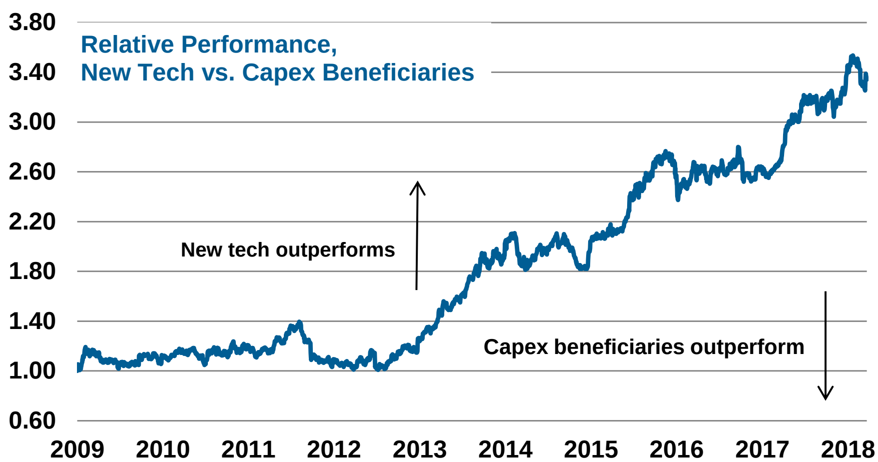
Michael Wilson, Morgan Stanley & Co.'s US equity strategist, is equal weight tech and believes the late-cycle environment should contribute to increased dispersion within the sector. Indeed, while the most well-known tech companies have high growth expectations and rich valuations, the sector as a whole is far more diverse in business models than people expect, and it includes not only growth but also value and high-dividend stocks. We would expect a change in market leadership within technology toward other components of the sector.

MORE TRADITIONAL. Since 2013, much of the outperformance of the technology sector can be attributed to the outstanding returns of "new tech"—secular disrupters with large, scalable platforms that benefit from network effects and fast-growing software firms in cloud computing and software as a service. Recent volatility in the sector has been concentrated among these stocks, whose valuations have reached extreme levels. Unlike new tech, traditional hardware and software companies, which are levered to rising levels of capital expenditure and are thus" capex beneficiaries," lagged in recent years alongside historically low levels of investment in this cycle's long secular-stagnation phase (see chart).

We prefer capex beneficiaries to the new tech darlings. As highlighted in last year's *Special Report* "The Capex Conundrum and Productivity Paradox," we believe that we are entering a period of sustained, higher investment in which technology moves toward industrial-focused innovations that enable cross-platform integration, automation and artificial intelligence. In contrast, the technological innovations of the past decades have focused on consumer experiences.

With this move toward industrial applications, we believe that between now and 2023 real capital spending growth will increase to an annualized 4.7%, which is the long-term average between 1930 and 2016, up from the 2.0% average between the 2009 and 2016 cycles. We expect this sustained shift toward higher investment could support tech's capex beneficiaries, which also exhibit defensive late-cycle qualities. For more details, please see the April issue of *Topics in Portfolio Construction.* ■

A Move to Capex Beneficiaries May Be in the Works



Note: Baskets are based on those provided by Morgan Stanley & Co. on April 3, 2018. The capex beneficiaries basket has been modified to include only stocks in the technology sector.
Source: FactSet, Morgan Stanley & Co., Morgan Stanley Wealth Management GIC as of April 25, 2018

Revisiting Our Bullish Case for Europe

LISA SHALETT

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

Since last summer, European equities have underperformed the MSCI World Index by nearly 12%, in the region's worst nine-month period since 2003. In early January, the Global Investment Committee (GIC) overweighted European equities while trimming back US equities—a call that so far has proven frustrating. However, because we also recommended removing currency hedges, US investors ended the first quarter in the black.

Our logic was that US equities were fully valued and possibly faced headwinds such as higher inflation, higher interest rates and a more aggressive Federal Reserve. In contrast, Europe had extremely attractive valuation, estimated 12-month earnings growth of nearly 30% year over year and a more dovish central bank.

European stocks failed to gain in proportion to rising earnings forecasts and, in fact, earnings were revised downward due to the euro's 20% gain versus the dollar. At the same time, near-record-high purchasing managers' indexes reset expectations—and economic surprises collapsed. Finally, rhetoric on global trade heated up and market volatility spiked.

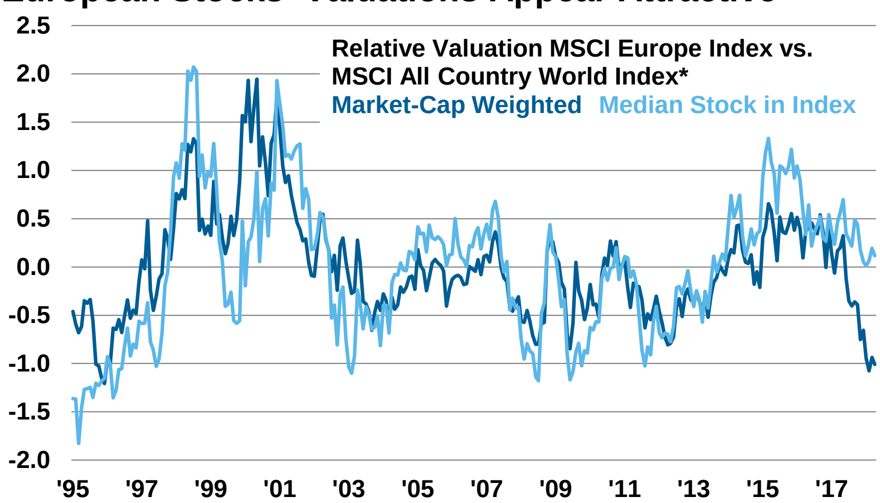
ROBUST EXPANSION. Still, we believe that our case is solid. The European economic expansion remains robust and is still in its early stages. Although purchasing managers' surveys have rolled over from near all-time highs, they remain solidly above 55—a reading that suggests real GDP growth of well over 2%. Importantly, unlike the US and China, where corporate margins have surpassed the prior-cycle peaks, Europe's overall economic activity remains at nearly half that of 2006 and corporate profit margins are nearly 20% below prior highs. This suggests ample potential for further profit gains. What's more, Europe is the only G4 economy where joblessness is back to long-run averages and not at trough levels.

While the euro's appreciation has created a headwind for earnings, the stronger currency helps dampen inflation. Indeed, aggregate headline CPI readings are still hovering at only 1.4%, which is well below the European Central Bank's (ECB) 2% target. This is critical as euro strength and benign inflation may allow a dovish ECB to slow normalization. In fact, expectations for policy rate hikes have drifted into mid-2019.

COMPELLING VALUATION. Valuation in Europe remains exceptionally compelling on both an absolute and a relative basis. Versus its own history, the MSCI Europe Index, trading at 14.1 times 12-month forward earnings, is only slightly above its 30-year average price/earnings ratio—even though interest rates on average are a little more than 1%. The index's 2.8% dividend yield is higher than the historical average. Perhaps even more compelling from the perspective of building portfolios are comparisons with other regions. Based on a proprietary MS & Co. blend of nine valuation metrics, the MSCI Europe Index is at a 20-year relative-valuation low, while the median European stock is at a five-year low (see chart). With the peak of US earnings revisions also passing, we expect Europe's relative revisions trends to improve.

Finally, there's sentiment and positioning. Europe-centric funds have seen accelerating outflows since January and hedge fund net exposure to Europe is at an 18-month low. We believe some of this negativity lingers because of concerns about trade wars, as Europe is the region most correlated to global trade. In our view, slowing in China and/or more turmoil in the emerging markets could end up working to Europe's benefit. Now, with trade rhetoric turning toward more constructive bilateral negotiations, the possibility of a successful conclusion to the latest round of NAFTA talks and a cooling of the US/China trade skirmishes, we see positive catalysts on the horizon. ■

European Stocks' Valuations Appear Attractive



*Based on a blend of nine valuation metrics
Source: Morgan Stanley & Co. as of April 12, 2018

Asia's Financial Acceleration

JONATHAN GARNER
Chief Asia and Emerging Market Strategist
Morgan Stanley Asia Ltd+.

DANIEL K. BLAKE
Equity Strategist
Morgan Stanley Australia Ltd.+

We believe Asia is poised for a phase of rapid financial sector development as deepening intraregional ties in trade and investment, rising wealth and advancing technology platforms allow the region's share of financial assets to catch up to its share of the global economy. This will require further enabling reforms, but the process is already underway and the implications of success are profound.

In our base case, Asia will dominate growth in global equity market capitalization during the next 10 years. It will also see a rapid deepening of intraregional bank lending, currency trading, the interest rate market and the credit markets. This growth of local-to-local flows and market development will buoy Asia's financial sector and hence economic resilience during global economic downturns.

Asia may be the global leader in manufacturing and trade, but it is the least financially integrated and developed of the world's major economic regions. Intraregional bank lending and portfolio capital flows (both debt and equity) in Asia substantially lag the size and shares of GDP seen in North America and Europe. Currently, there are more capital flows between other regions and Asia, both inbound and outbound, than flows within Asia. Explaining and compounding this dilemma, Asia's long-term savings markets—including pension systems, insurance schemes and mutual fund complexes—are underdeveloped, while its sovereign wealth funds are large in a global context.

MOVING TOWARD CENTER STAGE. During the next 10 years, we think Asia will move toward center stage in global financial market significance, driven by accelerating regional financial integration and market deepening (see table). These twin themes have significant market, sector and stock-level implications. China's contribution to this acceleration is already becoming evident through initiatives like the One Belt, One Road and Stock Connect programs. At the same time, Japan's exit from deflation promises to reawaken dormant domestic interest in securities products, while its government has ambitious plans for Tokyo to play a leading role in global and regional financial market development. What's more, other countries in the region have a part to play, particularly those where urbanization, household formation and technological adoption are proceeding most rapidly, such as India and Indonesia.

Four drivers in particular are working to accelerate this next phase of the region's broader economic development:

Rising income and wealth. In part, this is coming naturally from rising investor wealth and sophistication as economic development takes place, leading to an increased supply of savings as well as equity and bond market issuance.

Deepening trade and foreign direct investment (FDI) links. Academic literature highlights that regional financial integration has followed pathways established through FDI and the goods/services trade. Asia has ever more highly connected supply chains and increasingly deep intraregional FDI links, which should facilitate greater regional capital market investment.

Financial sector policy reform. Broad development focus on the financial sector across the region has seen reforms to make legal, tax and institutional frameworks more conducive to development. These include reforms to encourage savings in pensions, mutual funds and life insurance products. In addition, they include

Our Key Projections for Asia's Financial Sector in 2027

Equity Market Cap	• Asia to account for 56% of global growth through 2027, led by China/Hong Kong • Region with the largest equity market, garnering a $56 trillion market cap
Bank Loans	• Asia ex Japan lending to double to $51 trillion • Local banks to take a larger share of the market
Insurance Assets	• Top-five Asian markets to grow to $20 trillion, a 12% compound annual growth rate, through 2027 • China to account for 50% of assets versus 32% in 2016
Government Bond Market	• Asia ex Japan market to grow to $10 trillion from $4 trillion currently, becoming as large in aggregate as the Japanese government bond market
Offshore Corporate Credit Market	• Substantial growth from Asia ex Japan universe of $1 trillion currently, with local investors further increasing dominance in demand
Mutual Fund Assets	• To grow to $13.2 trillion from $5.6 trillion, increasing global share to at least 20% from 15%

Source: Morgan Stanley Research as of March 11, 2018 products. In addition, they include exchange/regulator activity, such as the recently announced link-up between Bursa Malaysia and Singapore Exchange. Most recently, China has committed to allowing foreign firms to take majority stakes in domestic financial institutions for the first time.

Technological advances. A number of technological changes are working to fast-track financial development and integration, with clear examples being the move toward electronic (and mobile) banking and investment across China and the Digital India initiative.

DEEPER MARKETS. Financial integration and market deepening can help drive productivity growth by establishing best practices for market functions, building more efficient corporate capital structures and reducing precautionary household savings. Deeper intraregional financial integration should increase the stickiness of foreign ownership in interest rate, credit and currency markets and lower outsized volatility during episodes of heightened risk aversion. We think this process makes extreme market and economic dislocations such as the 1997-1998 Asian financial crisis much less likely.

The region should experience an increase in the quantum of funding from local sources and a decline in cost of equity and cost of debt premiums to global peers. This has already been occurring in corporate-credit securities markets, where we estimate Asian investors now account for close to 80% of the demand for new issues versus just 46% in 2007. The same process can help Asia ex Japan markets, which currently have a 5% higher return on equity in aggregate than global equities, narrow their long-standing valuation discount. They could have a potential reduction of as much as 150 basis points in cost of equity in the next 10 years.

CHINA AND JAPAN IN COMPETITION. There are parallels here with the recent integration and deepening of European markets. However, the process may be shallower and less smooth, not least because China and Japan are in competition for leadership of the process. The size of the opportunity will depend on how countries liberalize market access for financial services and capital controls. For the 10-year horizon of this report, we do expect that Chinese capital account controls will be liberalized further, with a better than 50% probability that full convertibility is achieved. We expect pan-regional securitization and derivatives markets to develop relatively slowly, but see significant scope for larger and more regionally diversified equity and debt capital markets.

MARKET CAP DOUBLES. Looking out a decade, we expect Asia's equity market cap to double in size, becoming the number-one region globally. Given what we believe to be conservative nominal GDP growth and equity market deepening forecasts, we see Asia's market capitalization doubling to $56 trillion during the next 10 years. This process would see Asia generate more than half (56%) of world market cap growth, followed by North America (US and Canada) at 29% and the EU at 11%. On these baseline forecasts, Asia would overtake North America as the largest equity market region.

Specifically, China/Hong Kong is likely to be the largest source of this growth and, by 2027, on our estimates would be close to the current US market cap at an estimated $30 trillion, reflecting the success of achieving high-income status. China/Hong Kong IPO and secondary equity market issuance volumes have already been larger than the US each year since 2014. India is likely to grow fastest in terms of market cap of the major markets, and we expect it to become a more than $6 trillion market. We also expect major opportunities to arise in markets such as Indonesia, Japan and South Korea.

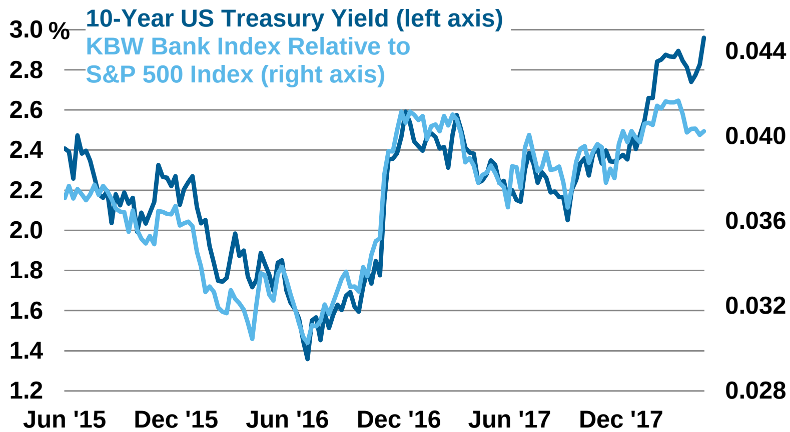
BANK LENDING DOMINANT. Bank loans in Asia ex Japan have grown at a compound annual growth rate (CAGR) of 13% since 2007 and totaled $26 trillion in the first half of 2017. While China was the biggest driver of this increase, other parts of Asia also grew materially. We expect a continued high single-digit CAGR in loan growth in Asia, to around $51 trillion by 2027. Within this growth, two factors stand out: Local banks are getting stronger and, in most markets, foreign bank share has almost halved in the past 10 years. This decline is likely to continue given local banks' strength in domestic funding. Asian banks are also becoming the big providers of cross-border lending, which has led to a significant reduction in the volatility of foreign currency flows in Asia. We expect this trend to continue, supporting more resilience in financial systems and hence economic growth.

We also expect growth in government bond markets, expecting that the Asia ex Japan government bond universe will grow to around $10 trillion by 2027 from $4 trillion today. That would make the Asia ex Japan bond market as large over this period as our projection for the Japanese government bond market. Deeper intraregional financial integration should increase the stickiness of foreign ownership, moderating the volatility seen in local rates and currency markets during episodes of heightened risk aversion, in our view. ■

This article was excerpted from a Morgan Stanley Blue Paper, "Asia's Financial Acceleration—Moving Centre Stage," *March 11, 2018.*

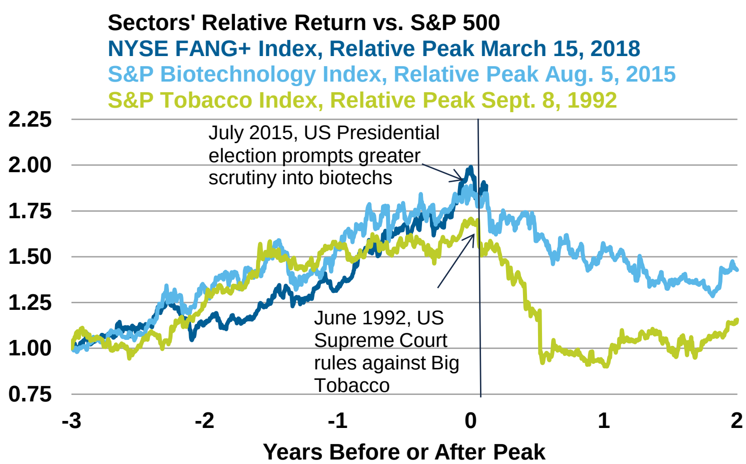
Late in the Cycle, Bank Stocks Have Room for a Catch-Up Trade

For much of the past three years, bank stocks have taken their cues from interest rates—and the correlation between moves in the 10-year US Treasury yield and the relative performance of bank stocks was quite strong (see chart). However, in recent weeks, this relationship has broken down. Interest rates are pushing against five-year highs, yet bank stocks have underperformed. Why? Banks sold off around first-quarter earnings reports despite posting strong results, as investors appear concerned that banks might fall victim to late-cycle pressures. Bank stocks historically have been early-cycle leaders and late-cycle laggards. While we acknowledge that late-cycle pressures are emerging, bank earnings should remain strong through the rest of 2018. Given attractive valuations—many large-cap banks trade at 10-to-12 times forward 12-month earnings—we see room for a catch-up trade to play out in the near term as rates move higher.—*Vijay Chandar*



Source: Bloomberg as of April 20, 2018

Regulatory Concerns Hit Biotech and Tobacco Stocks. Will They Hurt Tech, Too?

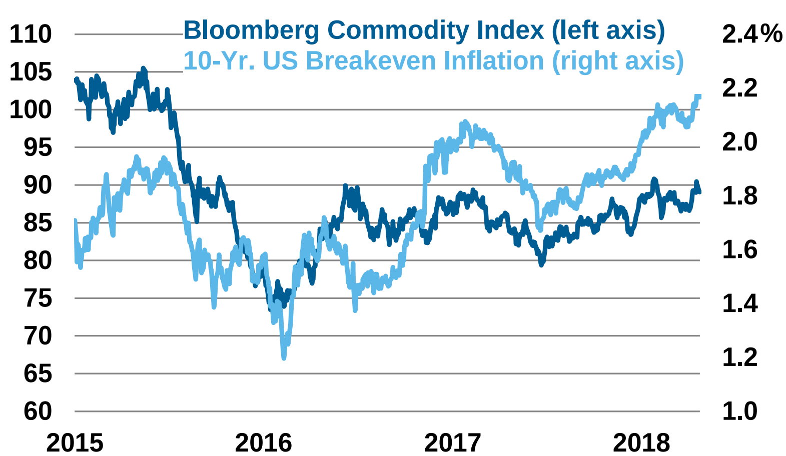


Source: Bloomberg as of April 26, 2018

Regulatory concerns may threaten the technology sector's market leadership. In concert with broader equity markets, technology shares have pulled back from January's all-time high. While forward-earnings estimates continue to rise, investors have marked down tech valuations. Higher interest rates partially explain this adjustment, but the sector also faces the specter of more expansive regulation. Although Facebook's Mark Zuckerberg ably navigated Congress' recent inquiry into data security, the tech sector's pervasiveness and limited competition may invite further calls for regulation. Two other industries that faced similar scrutiny, tobacco in the early 1990s and biotechnology in 2015, lagged the broader market following regulatory changes (see chart). With tech accounting for nearly 25% of total S&P 500 market capitalization, any headwinds for the sector may drag on the broader equity market.—*Steve Edwards and Chris Baxter*

Rising Commodity Prices Put Pressure on Inflation and Interest Rates

After reaching lows on April 2, interest rates have risen across the yield curve. The 10-year US Treasury yield even breached 3.0% on April 24. Much of the rise is attributed to widening breakevens, or the spread between yields on nominal Treasuries and TIPS; a widening spread reflects increasing inflation expectations, which negatively impact nominal Treasuries but not their inflation-protected counterparts. While inflation data have firmed, as evidenced by March's 2.1% year-over-year increase in core CPI, the recent move is due to upward pressure on commodity prices (see chart). West Texas Intermediate oil, at $68 a barrel, is at its highest since 2014, while Saudi Arabia is reportedly targeting oil prices of $80 to $100. Metals also support the inflation narrative. Aluminum gained as much as 28% last month. Whether rising prices flow through to consumers or negatively impact corporate margins, commodity price inflation distinguishes 2018's market conditions from those of 2017.—*Darren Bielawski*



Source: Bloomberg as of April 24, 2018

Infrastructure: Laying an Investment Foundation

ELLEN ZENTNER
Chief US Economist
Morgan Stanley & Co.

MICHAEL D. ZEZAS, CFA
Strategist
Morgan Stanley & Co.

We're inspired by the quote, commonly attributed to Winston Churchill, that "Americans will always do the right thing ... after exhausting all other options." While we do not see the administration's current infrastructure plan passing this year, we think that there's a gravitational pull toward a public-policy-driven upward shift in infrastructure spending. However, we believe this could be a main policy topic in the midterm elections for both parties, and see an opening for policy progress in 2019.

BIPARTISAN AGREEMENT. The infrastructure proposals from the administration and the Democratic Party have areas of overlap, and there's bipartisan agreement on many ideas. The main difference is the total amount of federal spending. While the administration seeks $200 billion of federal funding to hypothetically catalyze a total investment of $1.5 trillion, the Democratic plans contain $1 trillion in direct federal spending. We believe that the policy debate is likely to coalesce around our base case of $1 trillion in additional spending in the next 10 years.

There's little question that infrastructure funding is urgent. A confluence of forces is likely to take this well-trodden subject from the shadows of "one day we'll need to do this" to a potentially dominant US investment theme toward the back half of 2018 and into 2019.

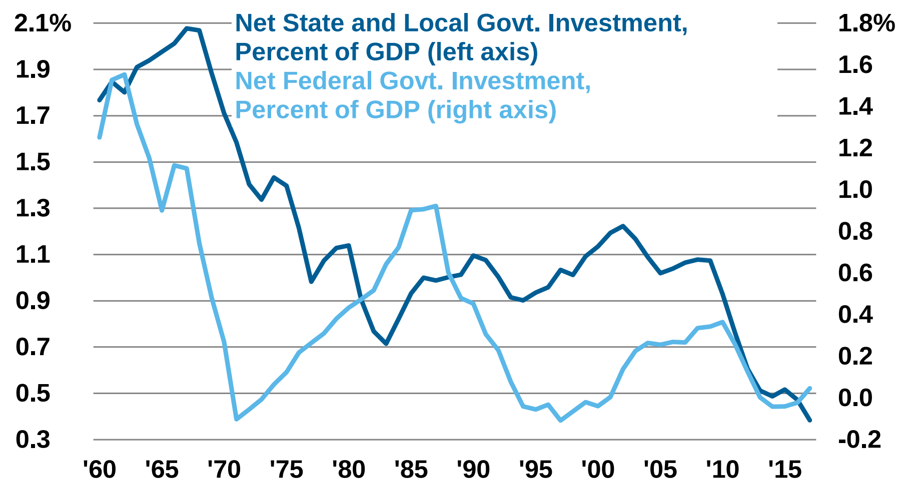
POOR GRADES. Start with the poor condition of transportation assets. In 2017, the American Society of Civil Engineers graded the nation's roads and bridges D and C+, respectively. The group estimated that one out of five highway miles is in poor condition, with a $420 billion repair backlog that is expanding rapidly, and an $836 billion backlog of highway and bridge capital needs. More than one in eight bridges were functionally obsolete in 2016. The Intelligent Transportation Society estimates US cumulative infrastructure needs at $4.6 trillion through 2025, and only about 55% of those needs have funding. This leaves a $2.1 trillion infrastructure funding gap, with more than $1.1 trillion in highways and bridges.

The substandard ratings are not surprising given the age of the nation's infrastructure assets. Across the spectrum, the average age of government fixed assets has increased markedly in the past two decades. The average age of highways and streets in 2016 was 29.0 years versus 22.9 in 1997. Indeed, net investment (gross investment less depreciation costs) has been extraordinarily low across all levels of government, even turning negative at the federal level in the past few years.

TRANSPORTATION DEMAND. It's not just a matter of catching up. We see increased demand for transportation. We expect strong and continued growth in miles traveled in the US, in part because connected and automated technology will reduce the marginal per-mile cost of transport. We forecast a 70% expansion in US miles traveled by 2040, to just over 5 trillion miles, up from 3 trillion today. This means increased usage of our highways, roads and bridges.

Infrastructure has national security considerations, too. Inadequate transport infrastructure not only impacts the nation's long-term growth and global competitiveness, but also poses a national security risk, particularly given the rapid adoption of new technologies, such as applied artificial intelligence in transport.

At the State, Local and Federal Levels, Net Government Investment Has Been Extraordinarily Low



Source: Bureau of Economic Analysis, Morgan Stanley Research as of April 9, 2018

Economics

Broad examination reveals that government investment has been running below trend since 2010 (see chart, page 8). To size it up, by the end of 2017 the hole in investment had grown to $185 billion—but it is a much bigger issue. The underinvestment from the past seven years has added up to nearly $950 billion. Drilling down to get at the shortfall more specifically in infrastructure investment, we look at the "economic affairs" category of government spending by function, which includes transportation highways, air, water, transit and railroad, space and "other economic affairs." This, too, underscores the persistent pattern of underspending.

Our economics team has framed three scenarios to gauge the impact of infrastructure spending on GDP. While the wide ranges of outcomes underscore the uncertainty in estimating the impact of different types of government spending, most estimates of the output multiplier for infrastructure investment are significantly higher compared with other fiscal interventions. Indeed, some estimates point to a multiplier as high as 2.0; that is, each fiscal dollar increases gross output by two dollars. Here's how we see the impact of infrastructure spending on GDP, jobs, private investment and real disposable income 10 years hence:

Base Case: "Patch Up America." Infrastructure spending returns to its longer-run average share of GDP. A $1.1 trillion package raises GDP growth by 0.2 percentage points in the first year and 0.1 percentage point on average over the entire program. It adds 715,000 jobs, increases average annual real private investment growth by 0.2 percentage points, but has only minimal impact on growth in real disposable income.

Bull Case: "Rebuild America." Infrastructure spending overshoots its longer-run average share of GDP to make up for past shortfalls. A $2.4 trillion package raises GDP growth by 0.5 percentage points in the first year. For the entire program, the spending plan raises average annual GDP by 0.2 percentage points, adds 1,680,000 jobs, increases average annual real private investment growth by 0.5 percentage points and increases annual real disposable income growth by 0.1 percentage point.

Bear Case: "Let America Erode." There is no spending plan, and the drag from America's aging infrastructure grows more acute, weighing on GDP growth by as much as 0.3 percentage points on average over 10 years.

Public Policy

For investors, we believe that the size of the infrastructure spending increase matters most, rather than speed and efficiency. While policymakers are likely to promote the reform aspects of their proposals, the overall system of infrastructure spending is not likely to change substantially. Further, a faster pace of spending does not guarantee a lasting investment impact.

Currently, state and local governments are the primary owners and funders of infrastructure, with the federal government playing a more regulatory and subsidizing role. We thus see the policy debate evolving along two lines: Is a more centralized approach or decentralized approach favorable, and is more private investment appropriate? This yields four potential outcomes:

The "Federalist" Approach. This is effectively the status quo. To meet future needs, the federal government could make more grant money available and/or streamline permitting processes, but ultimately may be unwilling to play a larger funding role. Given states' and locals' de facto inability to deficit-finance, they turn to user fees.

The Centralized Approach. Concluding that local governments are not responsive enough to infrastructure needs and/or incapable of designing large, multijurisdictional projects, the federal government redirects tax dollars away from state and local subsidies. The federal government could impose user fees or de facto socialize the cost through deficits and/or income taxes.

The "Laissez Faire Libertarian" Approach. In this plan, the federal government changes rules substantially to lay the groundwork for public-private partnership (P3) expansion, but maintains state and local ownership of most assets. Technological advancements in payment systems help shift the funding burden from income and sales taxes to user fees, which increase over time.

The Mandated "Libertarian" Approach. The federal government authorizes most infrastructure, but has most projects managed and financed through P3s. Payment system advances enable the shift to user fees and away from state and local taxes.

In our view, an outcome consistent with the Federalist Approach remains most probable, which leads us to think higher taxes in the form of user fees look increasingly likely. Municipalities have increasingly borne the infrastructure funding burden, but are budget-constrained. Many states face unfunded public pension and retiree health care liabilities as their share of Medicaid spending is growing and their future health care costs are uncertain. We expect them to continue imposing user fees and consumption taxes as their preferred infrastructure financing mechanism. The federal government may face resistance over time to fund infrastructure with deficits, leading Congress to eventually raise the federal gas tax for the first time since 1993, in the face of strong political opposition. ■

This article was excerpted from the April 9, 2018, Morgan Stanley & Co. North America Insight, "Infrastructure: Laying an Investment Foundation."

Multitasking Your Leisure Time

SCOTT HELFSTEIN, PhD

Market Strategist
Morgan Stanley Wealth Management

My grandfather worked for 16 hours a day. He thought he was very busy. We work eight hours a day for five days a week and we think we are very busy. But in the next 30 years, people will work only for four hours a day and four days a week.—Jack Ma, founder and executive chairman of Alibaba

The advent and refinement of video games, social media, on-demand video and price-transparent travel, to name a few, have helped to propel growth in the leisure sector. The Dow Jones Travel and Leisure Index reflects these trends and has grown at twice the pace of the S&P 500 in the past 25 years (see chart). Two important trends, the multitasking of leisure activities and increased leisure time resulting from automation, are likely to continue to drive growth.

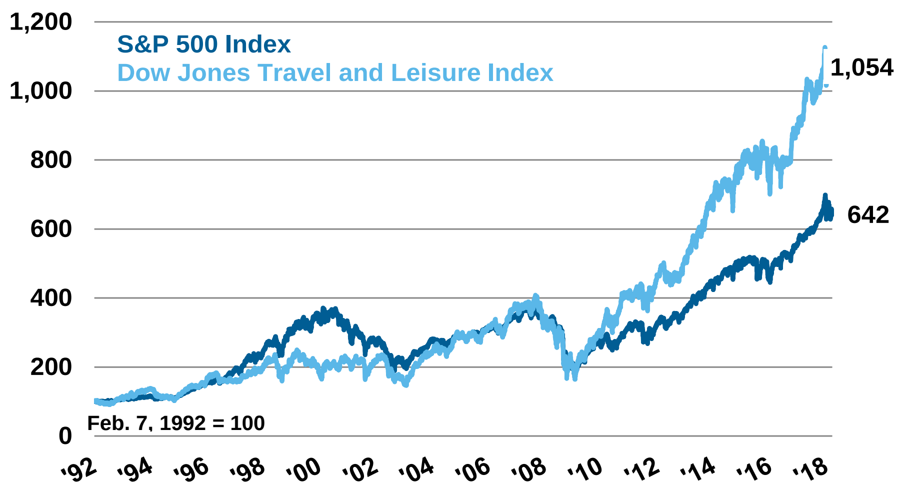
NEW TECHNOLOGIES. Some existing media will continue to grow rapidly, but new technologies such as virtual reality, augmented reality, interactive media, on-demand food and alcohol delivery and e-sports are expected to transform the sector:

- Home-based virtual reality systems that leverage existing game systems or standalone technologies are now available.
- There are 62 universities offering students video game scholarships as e-sports gain popularity, according to ESPN.
- Home and mobile assistants can help users identify products for on-demand delivery or find nearby activities.

These are just some of the developments in leisure technologies. Multiple factors drive changes in the industry as well as its strong growth potential.

The first critical driver is the way in which people consume leisure goods, in what could be called "multitasking leisure." Studies show people use their smartphones to participate in alternative media channels while watching TV. Tablet users with streaming video can minimize a window so that they can play a game on the screen simultaneously. This multitasking increases leisure-time consumption.

Travel and Leisure Stocks Have Outperformed The S&P 500 for the Past 25 Years



Source: Bloomberg, Morgan Stanley Wealth Management as of April 25, 2018

MORE FREE TIME. The second builds on automation and how it impacts everyday life. Even as people continue to work hard, more of their time will likely be freed up by automation of both physical and cognitive tasks. This trend is not new. Annual hours worked across the developed world have generally declined during the past five decades. This means more time for travel, exercise, pets and other experiences. If Jack Ma is correct, people will get more than half of their time back in the next 30 years.

The commercial implication is that content providers and advertisers are competing for that time. Consumption might not be equal across media or technologies, and this likely drives differentiation in pricing leisure products and services. Activities that require close attention, such as a virtual reality game, may ultimately command pricing power relative to those easily multitasked. Less-intense forms of entertainment such as watching TV may grow faster as available leisure time increases. The companies that are engaged in both areas are a sweet spot.

CONVERGENCE. There could come a time in the not-too-distant future at which TV shows, multiplayer gaming, social media and virtual reality converge. People may watch TV in 3D-augmented reality settings while interacting with characters and friends in the program instead of in parallel from a mobile device on the couch. Many of these technologies also have the ability to change the workplace, creating interactive offices that cut across geographic boundaries. That said, here we focus on the leisure activities, what will drive their growth and a framework for investors interested in participating in the multitasking leisure theme.

Our report on multitasking leisure is in the March 27 issue of *AlphaCurrents*, a new publication on thematic investing. ■

Bond Investors Face Weaker Covenants

SUZANNE LINDQUIST

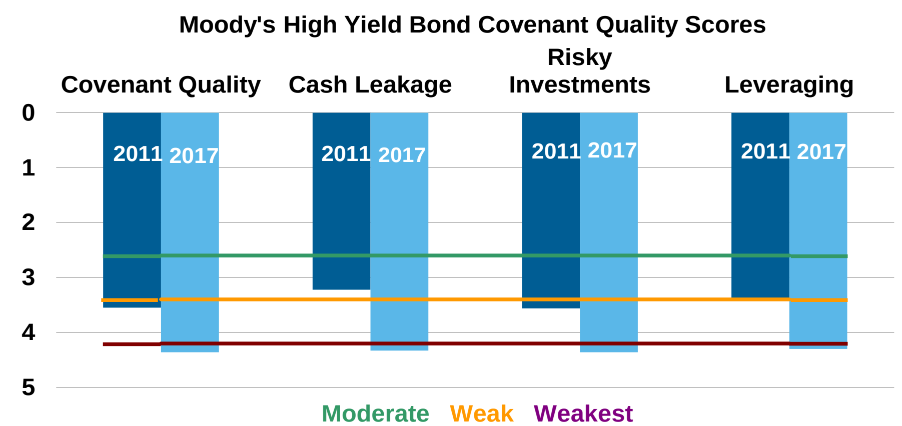
Senior Fixed Income Strategist
Morgan Stanley Wealth Management

During the past several years, companies have taken advantage of easy credit conditions to lower their borrowing costs and extend their debt years into the future to reduce refinancing risk. At the same time, a strong stock market boosted the market capitalization of public companies, enhancing their access to equity capital. The low cost of financing and strong corporate earnings has further improved companies' interest coverage despite an increased amount of existing debt. However, leverage remains elevated and average quality, as determined by credit ratings agencies, has deteriorated.

LOOSER CREDIT STANDARDS. Another important development has been the weakening structure of new high yield bond issues, which typically occurs later in cycles as credit standards loosen after years of low defaults. What's more, in their search for yield, bond buyers have looked past the deteriorating quality of bond covenants. Covenants are legally enforceable terms specified in a bond's governing documents, which are agreed upon by issuers and bond investors. They set forth the conditions within which issuers pledge to operate and serve to protect investors from actions that could materially weaken the issuer's credit profile.

Covenants typically address such activities as engaging in shareholder-friendly activities at the expense of bondholders, or the transfer of assets to affiliates or subsidiaries to which creditors have no recourse, otherwise known as "cash leakage." Restrictions are also placed on large acquisitions or other risky investments that fundamentally alter the business profile, as well as on material leveraging of the company's balance sheet as a result of increased debt or deteriorating earnings. In addition to potentially harming the company's ability to service its debts and decreasing the market value of investors' bonds, these actions may also dilute bondholder claims against a company's assets and reduce the amount creditors recover in the event of a bankruptcy.

Covenants Have Weakened in Recent Years



Source: Moody's, Morgan Stanley Wealth Management as of March 8, 2018

QUANTIFYING COVENANT QUALITY. To assess the efficacy of covenants, Moody's High Yield Bond Covenant Quality scoring system provides a useful measure of terms in new high yield issues (see chart). The quality score, which is measured on an absolute scale of 1 (strong) to 5 (weak), has deteriorated each year since 2011 and has fallen in the range indicating "weakest level" protections for four consecutive years.

Furthermore, the percentage of bond issuances considered "covenant-lite," which lack any limitations on restricted payments, investments, or the incurrence of unsecured debt, rose to 34% in 2017, according to Moody's; approximately 25% of the high yield bonds issued during the past seven years falls into this category, versus 14% in 2011. As older bonds with stronger underwriting protections are refinanced or mature, the overall quality of covenant structure in the market will decline.

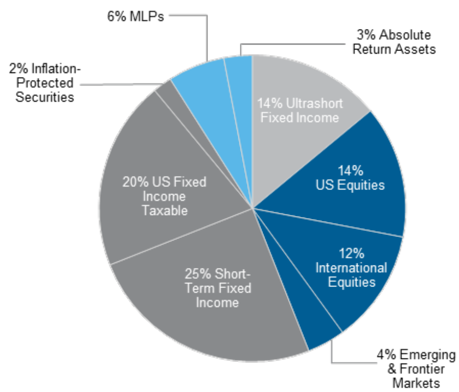
LOWER RECOVERY RATES. While looser credit terms may not be the ultimate cause of issuer defaults, they could lead to lower recovery rates for creditors when defaults inevitably rise at the end of the cycle. The potential for increased losses given default will ultimately be reflected in widening credit spreads as investors anticipate a turn in credit and economic conditions. It is important for investors to consider whether valuations in the market properly reflect the current risk, and position their portfolios accordingly. ■

Also contributing to this article were Darren Bielawski and Daryl Helsing.

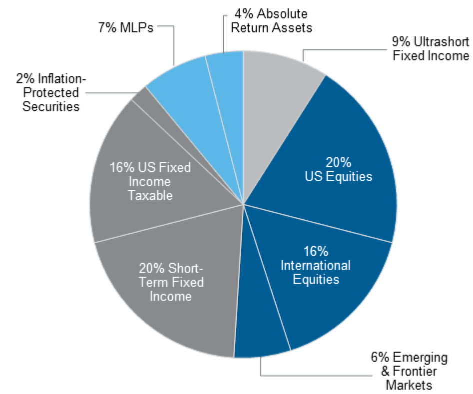
Global Investment Committee Tactical Asset Allocation

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.

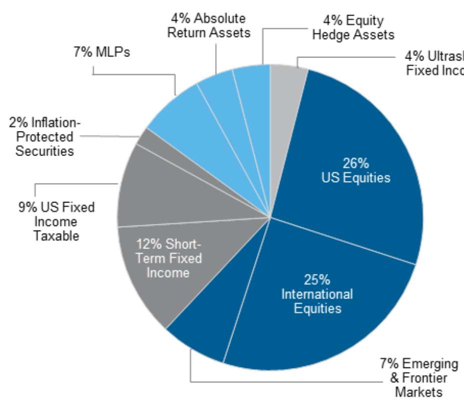
Wealth Conservation



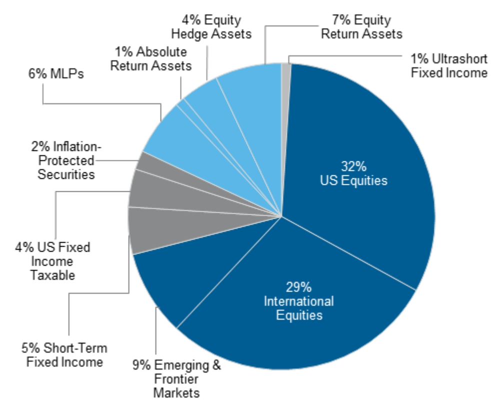
Income



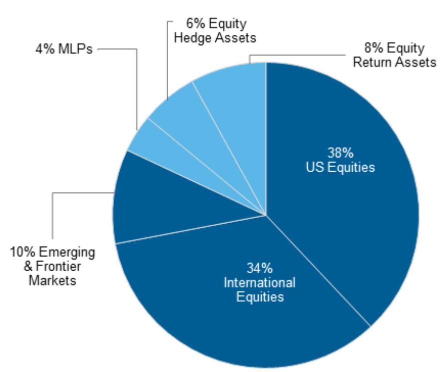
Balanced Growth



Market Growth



Opportunistic Growth



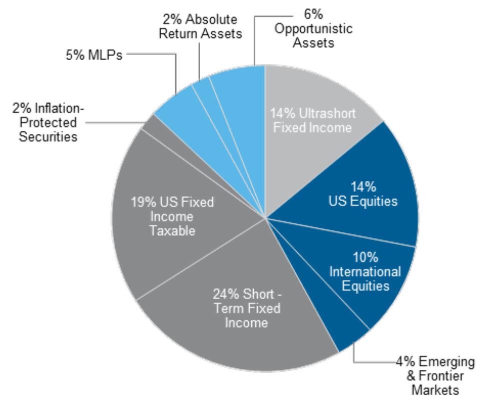
Key

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

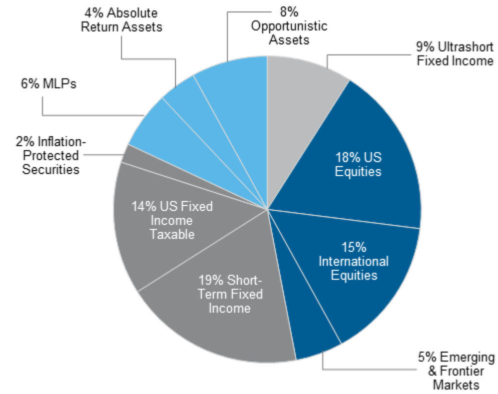
Source: Morgan Stanley Wealth Management GIC as of April 30, 2018

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.

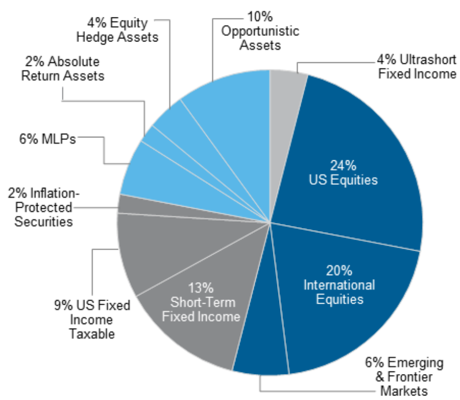
Wealth Conservation



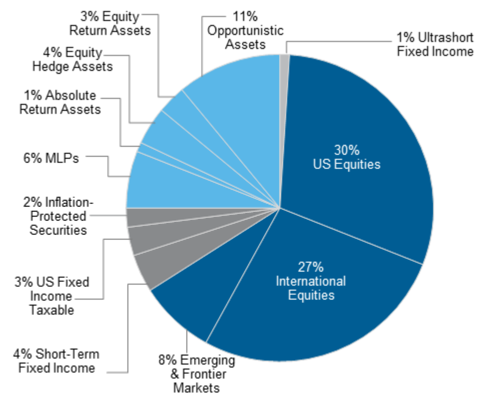
Income



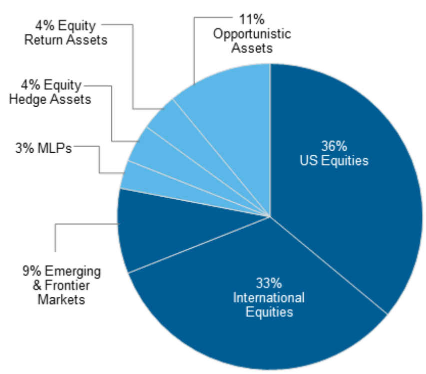
Balanced Growth



Market Growth



Opportunistic Growth



Key

Ultrashort Fixed Income

Fixed Income & Preferreds

Equities

Alternatives

Source: Morgan Stanley Wealth Management GIC as of April 30, 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 April 30, 2018

For more about the risks to Master Limited Partnerships (MLPs) and Duration, please see the Risk Considerations section beginning on page 15 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

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 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.

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