Global Investment Committee | August 2021

On the Markets

Something Has to Give

Regular readers are probably familiar with our midcycle-transition narrative. However, two weeks ago we got another supportive data point when the National Bureau of Economic Research declared the COVID-19 recession was over in May 2020, just two months after it started. The record monetary and fiscal stimulus, highly effective vaccines and a digitized economy have orchestrated a return to new highs in economic output and earnings—in record time.

This is why stock markets have rebounded to all-time highs in record time, too. Everything is happening faster than normal. The midcycle transition is usually characterized by predictable changes that can be helpful to investors. First, the rate of change for economic and earnings growth peaks. Second, equity markets begin to narrow as fewer stocks can keep up the torrid pace of the initial recovery. Third, leadership moves away from sectors that do best during the early stages of recovery; these include homebuilders, semiconductors, retailers and transports. Finally, the Federal Reserve begins to tighten monetary policy, and interest rates rise considerably, which weighs on equity valuations.

Since March we have witnessed the first three changes. The peak rate of change in growth is behind us, the market has narrowed considerably, and leadership has moved away from cyclical sectors toward higher-quality ones that typically weather this part of the cycle better. However, the final change is still to come and may have a more meaningful impact on the major averages, which remain resilient despite deterioration in market breadth. In our view, the primary reason for resilience in major US equity indexes is the continued fall in longer-term rates, particularly *real* 10-year US Treasury rates, which made an all-time low last week at *negative* 1.18%. This extremely low rate doesn't jibe with an economy that is growing close to 10% year over year. The reason is crystal clear: a Fed that is moving more slowly than normal at this stage of the recovery. The question for investors is whether that is sustainable.

Bottom line: Interest rates at current levels are not compatible with a booming economy and earnings growth. Something has to give, and the equity market is likely to discount it soon via lower valuations. We recommend investors take a more conservative approach and favor defensive sectors like health care and consumer staples while using financials as a hedge against higher rates later this year as the Fed begins its tightening process.

Michael Wilson

Chief Investment Officer Chief US Equity Strategist Morgan Stanley & Co. LLC

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ECONOMICS

The Hawkish Tilt Matters

Vishwanath Tirupattur, Head of Fixed Income Research, Morgan Stanley & Co. LLC

Some Federal Reserve meetings are more consequential than others—and we would put the June 15-16 meeting and Chair Powell's subsequent press conference in the eminently consequential category. While the initial precipitous sell-off in broad risk markets in the meeting's aftermath reversed, the uncertainties it unleashed have not. Legitimate questions about the direction of monetary policy and the Fed's reaction function are now front-and-center for market participants. After all, memories of the 2013 taper tantrum are still fresh, and its scars run deep. Considering the vital role of the Fed's ultra-accommodative policy since the onset of COVID-19, heightened policy uncertainties have profound consequences.

Not surprisingly, the US Treasury market is reflecting substantial changes in policy expectations, with the Treasury yield curve having flattened dramatically from mid-June. The three-day flattening in the five-year/30-year curve, to 113 basis points, was a six-standard-deviation move, and it has since steepened only slightly off that level. The market-implied timing of short-term rate hikes has come forward modestly since early June. Ironically, the dot plot reveals that Federal Open Market Committee (FOMC) participants project a pace of three to four hikes a year after the first hike—even though the market currently expects only approximately 1.7 hikes in the first 12 months (see chart).

Market Perceptions of Timing of Fed Hikes Have Shifted



At the annual Jackson Hole symposium in August 2020, the Fed announced important changes to its monetary policy framework: It would no longer raise rates preemptively on the basis of low unemployment figures alone, with progress on realized inflation becoming the primary yardstick for

removing accommodation, and it formally adopted a flexible average inflation targeting framework (FAIT), which seeks to achieve inflation that averages 2% over time. FAIT allows for an overshoot after a period of undershooting, but more firmly anchors inflation at the 2% objective.

DEFINING MAXIMUM EMPLOYMENT. Since last year's Jackson Hole gathering, the Fed has emphasized actual progress over forecast progress. As the economy rebounds from the pandemic, Chair Powell continues to spotlight labor market measures beyond headline unemployment to determine when to raise rates under the new framework, which redefines the goal of maximum employment as "broadbased and inclusive."

Against this backdrop, the June 15-16 meeting signaled a surprisingly hawkish divergence. Our US rate strategist, Guneet Dhingra, delineated two U-turns that have reduced market confidence in FAIT. First, in contrast to the emphasis on actual over forecast progress, the Fed sounded upbeat on labor market recovery prospects, even though recent data has disappointed and progress on broader labor market metrics remains uninspiring. For example, African-American unemployment, at 9.2%, remains well above headline unemployment of 5.9%. Second, Chair Powell acknowledged upside risks to inflation after having consistently labeled them as transitory. This focus on projected (not actual) inflation strength and labor market data culminated in a dot plot projecting higher rates in 2022 and 2023, leading to our conclusion that this was a decidedly hawkish meeting.

Our economists have not changed their Fed policy views (they expect forward guidance at the September FOMC meeting, with a formal announcement of tapering in March 2022 and first rate hike in the third quarter of 2023) and continue to believe that the Fed will avoid another taper tantrum. Still, we see the pace of tapering and the projected pace of rate hikes as the biggest risks to our view. Related issues, including the composition of the taper in terms of Treasuries versus agency mortgages and the intervals between advance notice and the start of the taper, and between taper and liftoff, are additional risks worth flagging.

Given our and the market's expectations for the course of policy are largely based on a single observation—the playbook from the last cycle—any real or perceived policy shift could heighten market uncertainties. In this environment, the impact to markets of incoming data on employment and inflation (both realized and expected) would be magnified. Stronger economic data could intensify the hawkish tilt. So, buckle up.

EQUITIES

Next Stop on the Recovery Path: Capex

Daniel Skelly, Head of Market Research and Strategy, Morgan Stanley Wealth Management

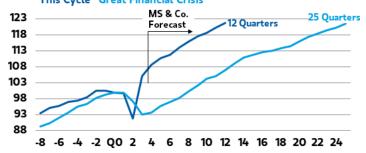
Kevin Demers, CFA, Investment Strategist, Morgan Stanley Wealth Management

For much of the post–Great Financial Crisis era—a period of "secular stagnation" marked by subpar expansion, persistently low interest rates and an uncertain policy outlook executives favored returning capital to shareholders over investing for growth. Today, we see a different dynamic, with managers more willing to engage in capital expenditures and research and development (R&D). For investors, opportunities to participate in this new capital spending paradigm can be found in both cyclical and secular stocks.

Given the extraordinary differentiation of the COVID-19 recession—an exogenous shock, as opposed to 2008's implosion of an endogenous leverage bubble—the mix of recovery drivers has been unique. Defined by unusually strong consumer demand, higher and sustained fiscal policy, and rising inflation, these drivers support a very different capital spending backdrop than in prior cycles. MS & Co. Research expects global capital investment (led by US companies) to reach 121% of prerecession levels by the end of 2022. This underwrites a much faster return this cycle, with global real investment anticipated to return to prerecession levels in 12 quarters. For comparison, the Great Financial Crisis took 25 quarters to recover to those levels and the prior five cycles averaged 21 quarters (see chart).

Return to Prior Levels of Capital Investment Has Ouickened

Global Real Investment (Pre-Recession Q0=100) This Cycle Great Financial Crisis



Note: The global aggregate is a weighted average using PPP weights. Source: Haver Analytics, national sources, Morgan Stanley & Co. Research forecasts as of May 16, 2021

The transition from consumption to business investment is a standard part of every recovery, but this one appears to be supercharged. Thus we expect the transition to occur faster, as the pandemic accelerated technology investments to

accommodate work-from-home trends. In addition to the faster pace of recovery, MS & Co. Research sees room for an upside surprise related to the magnitude of overall investments, as certain cyclical sectors make up for multiyear disruptions and other sectors ramp up digital spending to prepare for a "new normal." Below we examine both the cyclical and secular sources of investment spending.

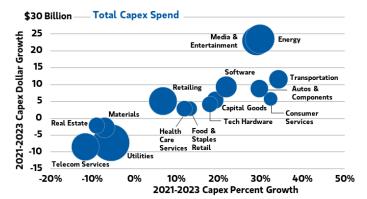
OPPORTUNITIES IN CYCLICALS. For the cyclical recovery stocks, we have focused on industries that were facing challenges pre-pandemic. The resulting reduction in capex spending already experienced by these industries was only accentuated by the recession. However, given the strong and broad-based economic recovery in place, we expect a continued rebound in these capex trends, which should create several investment opportunities.

Energy: After the energy crash of 2015/2016, exploration and production management teams promised investors capital discipline, only to continue to chase commodity cycle peaks and drive supply/demand imbalances. However, COVID-19 provided a true wake-up call as crude oil contracts reached negative territory for the first time in history. This led to a meaningful pullback in capital spending, with US rig counts plummeting from a peak of 887 in late 2018 to just 180 in mid 2020. Notably, the trough corresponded with crude oil prices of approximately \$40 per barrel. Since then, the price of crude has almost doubled to \$75 per barrel, and rig counts have recovered to 378, indicating a resurgence in spending. We expect energy companies to maintain some level of conservativism given the scarring of the last cycle. Still, we believe capex in the sector is poised to recover, with MS & Co. estimating a 28% constant average growth rate (CAGR) in energy capex between 2021 and 2023. That represents a meaningful recovery from the 50% annualized decline experienced from 2019 to 2021 and should favor oil field services and equipment providers.

Commercial Aerospace: For the aerospace industry, the last several years have been highly turbulent. First, a tragic crash uncovered material deficiencies in the design of the latest airplane model from one of the largest original equipment manufacturers (OEMs). Next, trade tensions led to tariffs being placed on another large global OEM. Finally, and most significantly, the pandemic brought global travel to a standstill. However, the next several years appear to be much more promising, as these risks have largely been resolved. This, accompanied by a strong resurgence in travel demand, should lead airlines to replace aging planes and grow fleets. Supporting our call for increased investment, MS & Co. forecasts a 34% CAGR in capex spending for the transportation sector, which is heavily weighted to airlines, reversing the 22% annualized decline seen from 2019 to 2021. Key beneficiaries of these trends are aerospace suppliers, particularly those with an aftermarket focus.

Manufacturing. The largest end users of industrial automation technology tend to be highly cyclical, focused on manufacturing, refining, and chemical processing. Prepandemic, the trade war disrupted supply chains for these companies, leading to delays in greenfield investments; these trends were accelerated during COVID-19. As the economy recovers, we expect a resumption in demand for products that can help boost productivity, particularly given current labor market dynamics that have left many lower-paying factory jobs unfilled. Additionally, longer-term trends of "near shoring," or shifting supply chains closer to end customers, should continue. This will help to drive capex investment in new facilities that require industrial automation technologies across a wide array of industries, including semiconductors, autos, pharmaceuticals and tech hardware. As such, demand for industrial automation companies should strengthen (see chart).

Capex Is Set to Grow for Most Sectors



Source: Morgan Stanley & Co. Research, Morgan Stanley Wealth Management Global Investment Office as of Aug. 2, 2021

PRE- AND POST-COVID SECULAR EXPANSION. While the more cyclically geared sectors experienced a boom/bust capex trend both during and while exiting the recession, secular expansion sectors saw steady growth in the years leading up to it as the forces driving digital transformation were already in place. We expect a continuation of these growth-supporting trends in coming years, as data-era technologies permeate more segments of the economy. Indeed, a key distinction of this cycle is the diffusion of digital services and data-era technologies (e.g., artificial intelligence and machine learning) into a wider set of industries outside of the tech and consumer spheres. Results from Morgan Stanley's 2Q21 CIO survey support this view. First, on the overall health of IT budget growth, 46% of CIOs expect spending to increase over the next three years compared to 38% in the first guarter of 2021 and 37% in the fourth guarter of 2020. Furthermore, software investment continues to be a top priority, with cloud, digital transformation and security cited as key areas of investment. These secular capex spending trends should continue as companies look to invest for the next decade.

Communications Infrastructure: Corporate and consumer demand is driving robust investment and upgrades into wireless networks. Fixed wireless, 5G and Wi-Fi technologies all enable a data era requiring massive amounts of information to be processed in real time. While this trend was already established pre-COVID, the evolving demand for additional connectivity prompted by emerging hybrid work models has reaccelerated investments. To support this, telecom and cable companies are constantly upgrading networks to add coverage and capacity. This is also manifesting itself in areas like data centers, which are hubs for information exchange. The trend in capex spending is moderating for large wireless carriers, and telecom companies —which formerly focused on spectrum—are now shifting investments to physical communications infrastructure. As such, we believe beneficiaries like towers, communication hardware and fiber optic providers are well positioned for this next leg of capex spending.

Cloud Computing: The transition to a remote workplace shifted the burden of data storage from on-premises to the cloud. Cloud applications allow companies to access work streams from anywhere, facilitating the shift from "in-office" to "at-home." We believe the market for cloud computing is still in its early days of penetration, with the public cloud and related security requirements becoming table stakes. Indeed, the MS & Co. CIO survey identified this as one of the top priorities for investment, making it a focus area for continued capex. This reinforces cloud as a ubiquitous technology that we believe will drive productivity across an array of industries and companies. We suggest focusing on cloud providers, data centers and differentiated software as a service (SAAS) companies for secular growth around this theme.

EXECUTIVE PERSPECTIVES

Executive Perspectives on COVID and Beyond

The following are excerpts from Morgan Stanley's "Exceptional Leaders/Exceptional Ideas" series. The conversation with Honeywell's Darius Adamczyk was posted to Morgan Stanley's YouTube page on June 4, 2021, and the discussion with Blackstone's Jonathan Gray was posted to Morgan Stanley's YouTube page on March 15, 2021.

Is Honeywell Rewriting the Digital Transformation Playbook?

Honeywell International, a 115-year-old company historically associated with aerospace and manufacturing, moved its stock listing from the New York Stock Exchange to Nasdaq earlier this year. The shift was aligned with its ongoing transformation into a 21st century tech innovator, focused on breakthroughs in quantum computing, industrial software, renewable energy, material science and more. Although digital transformation for any company comes with new challenges, CEO and Chairman Darius Adamczyk says the marriage of hardware and industrial software is a natural evolution, and the combination of engineering know-how and the power of data will lead to efficiency and agility for customers. The following is an edited version of his conversation with Katie Huberty, Morgan Stanley's head of technology research.

Katie Huberty (KH): Four years ago, you became the CEO. What was the catalyst for digital transformation and the new track you put the company on?

Darius Adamczyk (DA): I had a very successful predecessor in Dave Cote. There was a lot of momentum and inertia to just keep running the same playbook, but I knew that we had to pivot. In order to move from being a good company to a great company, you have to continue to evolve and become something different in the future.

We've always been a technology company. That's not new. We've had more software engineers on our staff than any other type of engineers and, because the one common fiber throughout all of our Honeywell businesses is the fact that we're a control systems company, we're connected to just about everything and anything in a given system. Moving from more of a controls company to a software/digital company was a natural evolution for us.

KH: Why do you think Honeywell will be successful, and what are some of the risks you have to manage along the way?

DA: Although we're dreaming big and have very big aspirational goals for the business, it also has to evolve and meet short-term financial goals. So, as an example, our software and our connected enterprise are already both accretive in terms of our growth rates and margin rates to our

current business. Although we're investing substantially in it, it also has to pay for itself. So we don't have this "build it and they will come" kind of a dream; we're grounded in reality and we're grounded in what we can do. The faster we grow, the more credibility we gain, and the more confidence I gain in investing even more in that business.

KH: You've invested in several cutting-edge technologies.

DA: Quantum is particularly well fit to solve problems that traditional and current computers can't solve—examples being molecule research, route optimization and cryptography. It actually doesn't move far away from our current customer set, because many of the customers are our current customers. Logistics research and route optimization are highly applicable to airlines and freight and logistics companies, which is within our current customer set. We're going to further strengthen our relationships by now offering them quantum solutions to solve some of their today, tomorrow and the day after kind of problems.

KH: How does your internal technology innovation and portfolio interact with your efforts to drive efficiency, energy savings and sustainability?

DA: I would argue that our sustainability technology set is much more advanced today than even some of our digital solutions. We're involved in so many technologies to make the planet much more sustainable for the future: ecofining, carbon capture, efficient and economically viable energy storage, plastics recyclability. One of the things that we take great pride in is that more than half our R&D (research and development) dollars are spent on ESG (environmental, social, governance) solutions, and that number is going to continue to go up.

KH: What are some of the lessons that you'll carry with you as we move beyond the pandemic?

DA: The first one is: When a crisis is upon you, you have to act quickly and decisively. Looking internally at ourselves, there's obviously a lot of our processes that we had to change literally in a matter of days—to be able to operate. Then we said, "What's the world going to need as it comes back from this pandemic?"

We developed something called our "healthy solutions." It's a suite of technologies—for buildings, for aircraft, for industrial plants, for the health care segments—that will help the world evolve and come out of this crisis. We try to be two steps ahead, in terms of where the world was at that time, to actually have a much more successful exit out of this crisis and continue to generate goodwill, but also to have a very successful financial outcome for our shareholders. That's how we think about running Honeywell: having that short-term delivery today but also having the right solutions and technologies a decade from now.

Disruption: Invest in the Right Themes

In an era of near-constant disruption, what investment themes are most exciting for 2021 and beyond? Blackstone President and Chief Operating Officer Jonathan Gray spoke with Michael Cyprys, head of US brokers and asset management research at Morgan Stanley, to dive into key megatrends, as well as Blackstone's approach to innovation. The following is an edited version of their conversation.

Michael Cyprys (MC): As the pace of change accelerates, how do you look at the landscape and determine what disruptions will stick?

Jonathan Gray (JG): Separating that wheat from the chaff is really important. What's temporary? What's permanent? What's cyclical? What's secular?

I try to think about it simply. What trends have emerged that are fundamentally better? Getting a good delivered to me within two hours—as opposed to me having to drive 10 miles to a store, pick it out, wait in line—that's better. On the other hand, cooking at home—which was on a downward trend probably for a hundred years—has seen this enormous spike up. Maybe some people fell in love with cooking again, but, in general, I think we're going to revert to the way life was.

MC: How does taking a thematic approach to investing offer an edge?

JG: The danger in investing is you tend to focus on, "Should I pay \$97? \$102?" Yet, when we look back in time, that is like focusing too much on the house over the neighborhood. If a decade ago you bought a shopping center 10% cheaper than market value, and I bought a last-mile logistical warehouse and paid 10% more than anybody back then, it wouldn't have mattered. Today, the shopping center is worth materially less, and the last-mile logistics asset is probably worth triple what it was. It's really important to fish in the right location, but getting big themes right doesn't mean you can pay any price.

What we try to do is step back and say, "What are the big themes that are out there?"

Broadly speaking, everything is moving online. How can I benefit from that, not necessarily by buying the companies themselves, but maybe things that are one derivative off companies that provide supply chains or compliance, for example? Similarly, we're seeing a massive transition in energy from a world that was hydrocarbon-driven to a green world. How can I be a part of wind and water, solar battery power, charging stations and energy infrastructure?

It's about taking a top-down approach, finding big thematic areas we like, then analyzing opportunities bottom-up.

MC: How is this approach being put to work in 2021?

JG: I think as we get out of this pandemic, sometime in the summer or early fall, the paydown of credit card debt, the enormous increase in savings and global cabin fever will unleash massive spending—on automobiles, homes, durable goods and travel—like you've never seen before. As a result, I think you'll see pressure on commodities and wages, and the long end of the curve could move up materially.

I think you want to invest in hotels, transportation, infrastructure, rail, airports, roads, ports and entertainment places. Travel is something that's been a megatrend for a long time; it's been interrupted, but not permanently so.

MC: Can you talk about your process around innovating by extending into new product sets?

JG: Innovation is built into our DNA. We're constantly talking about how we can serve our customers in new ways. It's enabled us to say, "We do private equity in the US; we can do it in Europe and Asia. We do secondaries in private equity; we can do it in infrastructure and real estate." Building on those adjacencies has been a powerful tool for innovation.

Life sciences is another big area. We're seeing the intersection of Big Data, technology and genomics coming together to do precision medicine. We're investing in life-science companies developing Phase 3 trial drugs, providing cold storage and further commercializing these drugs. We've become one of the world's biggest owners of life-science office buildings.

It's not always technology. Another theme is aging populations. You can also see what's happening in India and China in rising middle classes. Similarly, in infrastructure and insurance, we see additional opportunities.

MC: Can you compare today's markets to your experience in the late 1990s?

JG: I remember buying some warehouses and office buildings in Silicon Valley in 1999 at prices that made no sense relative to physical value. I should have stayed home. Traditional metrics had been thrown out the window. Interestingly, however, the market was right—the internet was going to change the world—but valuations became unglued from company values. We're seeing a bit of that today.

I think the areas where that's most pronounced are companies that don't produce positive cash flow and are trading on very high multiples of revenues. Some of them will turn out to be great; many may not. You want to be a bit cautious when businesses are no longer valued on traditional metrics but on momentum.

Darius Adamczyk and Jonathan Gray are not employees of Morgan Stanley Wealth Management or its affiliates. Opinions expressed by them are their own and may not necessarily reflect those of Morgan Stanley Wealth Management or its affiliates.

EQUITIES

China's Market Regulation Changes and Implications

Laura Wang, Chief China Equity Strategist, Morgan Stanley Asia Limited+

China recently announced plans to tighten capital market regulatory policy and increase oversight. The proposed changes, alongside examples of the Chinese government's heightened focus on its technology companies, have raised many questions, the answers for which will take time to materialize. As markets digest information and progress gets underway, important implications are likely to develop for investor positioning in Chinese equity markets.

SCOPE OF REGULATION. A key part of the recent policy change is increased scrutiny of China's tech giants, with particular emphasis on those that trade on overseas exchanges. US markets appear to have zeroed in on this aspect, but the overall scope of the policy change is more comprehensive and appears focused on improving the quality of the country's domestic capital markets.

China's goal of further developing its capital market infrastructure involves both judicial and legislative enforcement. Potential reforms may include: bolstering the legal system for breaches of capital market regulations; improving judicial cooperation in cross-border supervision and law enforcement; and establishing a credit system in order to document and record dealings by all capital market stakeholders. Taken together, these changes are an essential part of China's financial market cleanup and development efforts, which have been building in recent years. Areas of uncertainty remain, but these changes should help improve financial market stability.

IMPACT ON ADRs. Do these new measures spell the end of Chinese American Depositary Receipts (ADRs)? Not necessarily. ADRs are securities that effectively allow US investors to buy stakes in foreign companies, and they are likely to come under stricter review by the Chinese government. Still, the new rules could serve as a step toward mitigating the potential impact of continued US-China tensions on the financial market, including external funding risk. To that end, China could continue to promote the homecoming of ADRs—in other words, encourage its companies to list onshore or in Hong Kong instead of in foreign markets—especially by companies in more sensitive, data-rich sectors. The outcome of such a trend, in the long run, would likely be a declining representation of Chinese ADRs in the broad listed-Chinese-company universe.

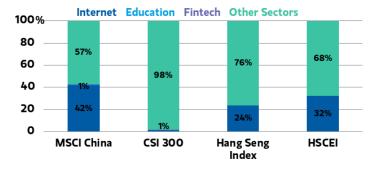
EOUITY MARKET IMPLICATIONS. We expect a near-term negative impact for Chinese ADRs. Pressure is likely to weigh on these securities as they are directly exposed to data-rich processing, cross-border information sharing, audit disputes and delisting risk. On the other hand, the market for

A-shares—which are equity shares of China-based companies that trade on the Shanghai and Shenzhen exchanges—is likely to be positively affected by long-term structural reforms aimed at improving the judicial process and law enforcement against fraud and other noncompliant activities. In addition, the A-share and Hong Kong markets could attract more fundraising activity as the importance of the US for Chinese stocks declines. ADR delisting risk has evolved over the past few years as both the A-share and Hong Kong markets started to pave the way for more relaxed initial public offering requirements.

A CAUTIOUS OUTLOOK. Our take on China is more cautious now than it has been for most of the last year. We've been highlighting industry regulatory changes as a major risk factor for 2021 performance and have been recommending A-shares over ADRs. Our concern over Chinese ADRs stems largely from two factors: They have been under persistent delisting pressure, and offshore Chinese equities have a high concentration of exposure to the Internet sector, which is subject to regulatory tightening. The flip side of that is our key reason to prefer A-shares: little exposure to sectors that are facing regulatory tightening risk, which also includes education and fintech (see chart).

In sum, the near-term shock from the Chinese government's policy changes points to more risk for Chinese ADRs and the Internet sector, while the ongoing capital market reform in China implies structural benefits for the A-share market. Patience and selectivity should prove critical.

The A-Share Dominated CSI 300 Is Less Exposed to **Industries Subject to Regulatory Uncertainty**



Note: Internet includes Media & Entertainment and Internet & Direct Marketing Retail under GICS industry; Education includes Education Services under GICS subindustry; Fintech includes Diversified Financial Services and Consumer Finance under GICS industry. Education and Fintech weights for CSI 300, Hang Seng Index and HSCEI are close to 0 and are not shown in chart. Source: Factset, Datastream, MSCI, Shanghai Stock Exchange, Shenzhen Stock Exchange, Hang Seng Index Company, China Securities Index Company, Morgan Stanley & Co. Research as of June 30, 2021

This article was excerpted from the July 8 report from Morgan Stanley & Co. Research, "Capital Market Regulation Announcement: Myths, Facts, Implications." For a copy of the full report please contact your Financial Advisor.

EQUITIES

Growth Hack: Investing in Cybersecurity

Vijay Chandar, Investment Strategist, Morgan Stanley Wealth Management James Ferraioli, Associate, Morgan Stanley Wealth Management

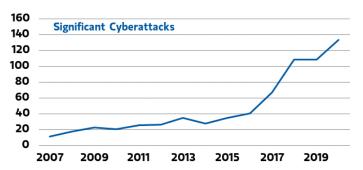
In recent months, cybersecurity returned to the spotlight as high-profile attacks reinforced just how susceptible networks are. As the world creates more data and accesses networks in more ways, new vulnerabilities are opened and exploited. Whether it's wide-scale breaches undertaken by statesponsored actors or ransomware attacks, it is clear that the threat posed by cybercriminals is growing.

As attacks have evolved, the costs have grown as well. In 2020, \$300 million was paid in ransomware. IBM found that the average cost of a data breach in the US grew from \$3.5 million in 2006 to \$8.2 million in 2019—a 134% increase in 14 years. Ultimately, ever-evolving cyber threats drive opportunity for cybersecurity providers.

No industry is safe from cyberattacks, but some are targeted more than others. According to IBM, per volume of attacks, financial services was the most frequently targeted in 2020, followed by manufacturing and energy. As attacks have increased, they have changed in nature (see chart below). Evolving from stealing personal information to shutting down infrastructure, they have often focused on energy and supply chains. Some appear to have been launched by nation-states, which could move the world closer to advanced cyber, and possibly physical, conflict.

INCREASED RISK MEANS INCREASED OPPORTUNITY. With more data being accessed from more places, the complexity of securing digital systems has risen exponentially. The increase in risk and complexity, in turn, should support opportunities for firms providing cybersecurity solutions.

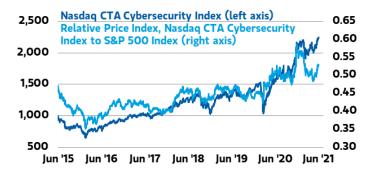
Increased Frequency of Cyberattacks Constitutes the Secular Opportunity in Cybersecurity



Note: Significant cyberattacks are defined as those on government agencies and defense and high tech companies, or economic crimes with losses of more

Source: Center for Strategic and International Studies, Morgan Stanley Wealth Management Global Investment Office as of April 1, 2021

Having Rallied in 2020 Amid WFH, Cybersecurity **Stocks Have Fluctuated Recently**



Source: Bloomberg, Morgan Stanley Wealth Management Global Investment Office as of July 30, 2021

MS & Co. Research estimates direct revenues at security software vendors surpassed \$45 billion in 2020, expanding at a 12% three-year compound annual growth rate. That makes security one of the fastest-growing subsectors in software. We believe growth is likely to continue or inflect higher. As the most recent MS & Co. CIO survey showed, spending intentions remain elevated for tech executives, with cybersecurity a top priority following recent high-profile attacks.

Secular trends in favor of cybersecurity stocks are not lost on the market. In 2020, the Nasdaq CTA Cybersecurity Index rallied more than 50%, and the group has recently broken out to new highs. That said, it has still underperformed the S&P 500 by 6.9% for the year (see chart above). Valuations for software remain on the high side, and near-term de-rating risk could be notable—but we believe cybersecurity stocks are a secular growth opportunity and should be bought on weakness. Valuations, although elevated in absolute terms, appear reasonable relative to the broad market.

As a result of the growing complexity of threats, companies often have to deploy multiple vendors' products. Furthermore, products are no longer used primarily by information security professionals. The scale of threats now often requires use by professionals in a variety of positions, enhancing price advantages for providers.

CONSIDER EXPOSURE VIA DEFENSE STOCKS. On the industry and sector fronts, we suggest investors consider opportunities in defense, along with names in the tech space. While CIO budgets are supportive of cybersecurity software, government budgets could provide tailwinds to defense firms involved in cybersecurity—and, should a cyberwar ever progress to a hot war, these companies would likely benefit. While correlation between cybersecurity software and defense firms is weak, the latter include many major companies that are now active in the area, with their participation set to grow as cyberattacks evolve.

Short Takes

Potential Opportunity in Financial Stocks?

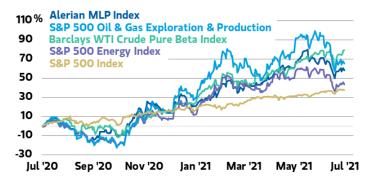


Source: Bloomberg as of July 28, 2021

Since its June all-time high, the KBW Bank Index has fallen 9.1%. But several catalysts could be a boon for the sector. First, as a result of major banks passing their capital requirement tests, they will be free to release more capital to shareholders via higher dividends and buybacks. Second, net charge-offs could come in better than expected, as US consumers remain strong. Third, loan growth is expected to be constructive in the second half, as economies reopen more broadly, driving credit demand, especially in commercial and urban markets. Lastly, rising 10year US Treasury yields and a steeper yield curve, in the event of stronger economic data and improving labor markets, could be supportive, given historical correlations between large-cap financials and long-term yields (see chart).-Doug Moglia

Taking a Diversified Approach to Energy

Broad S&P 500 energy companies are often considered a simple and efficient way to invest in oil and benefit from rising prices. For much of the past year, shares of the companies moved up with crude, outpacing the S&P 500. Recently, however, they have eased back toward the path of the broad equity market, lagging the underlying commodity. Other energy-related investments, meanwhile, have continued to significantly outpace the S&P 500 on a oneyear basis (see chart). Specifically, oil and gas exploration and production, and MLPs have benefited by a greater degree from the supply and demand imbalance caused by global reopening. This underscores the importance of looking past conventional wisdom and taking a diversified approach.—Brad Fulton, CFA



Source: Bloomberg as of July 30, 2021

The Housing-Related ETF Landscape

In the last year, housing demand has soared, due to favorable demographics, strong household balance sheets and pandemic-related behavioral changes. While the exchange-traded fund (ETF) universe doesn't provide a single way to broadly access the housing sector or real estate, it does comprise a greater variety of options for partial exposure than many realize. US real estate investment trust (REIT) ETFs, with 23 funds, are a popular option, with some focusing on apartments and residentialrelated industries. Among non-REIT funds, three homeconstruction ETFs incorporate home-builder stocks and related equities, such as home-improvement companies. Lastly, global natural resources ETFs that own individual



Source: Bloomberg as of July 29, 2021

companies involved in timber or forestry offer commodity-related exposure to housing materials. After lagging slightly to start the year, the FTSE NAREIT All Residential Capped Index has outpaced other housing-related sectors (see chart).—Gray Perkins

IMPACT

DEI Signal: Assessing Managers on Diversity, Equity and Inclusion

Emily Thomas, CFA, Investment Strategist, Morgan Stanley Wealth Management

Adriane Parris, CFA, CAIA, Investment Analyst, Morgan Stanley Wealth Management

With society's growing focus on diversity, equity and inclusion (DEI), many are asking what role they can they play—and our clients are turning increasingly to their investments. A Morgan Stanley Institute for Sustainable Investing survey found that 71% of individual investors identify multicultural diversity, incorporating elements of race, ethnicity and culture, as an area of interest for their portfolios.

Beyond the benefits to society, diversity matters because achieving balance in representation, empowerment and economic opportunity can also boost financial outcomes. According to a 2020 study from McKinsey & Co., companies with the most gender-diverse teams were 25% more likely to have above-average profitability, and companies with the most ethnically diverse teams were 36% more likely to outperform as measured by earnings before interest and taxes. To reflect the important role of diversity in manager selection, and in support of our manager research and portfolio construction efforts, Morgan Stanley Wealth Management's Global Investment Manager Analysis (GIMA) team has launched a new manager scoring tool: DEI Signal.

DEI Signal joins our other proprietary tools—Adverse Active AlphaSM (AAA) 2.0, the Risk Score, the Value Score, Impact Signal and the Tax Score—all of which are intended to bolster our manager selection capabilities and enhance our clients' risk-adjusted returns. DEI Signal is designed to help our due diligence and portfolio construction teams cut through the noise and meaningfully engage with managers as they progress toward a more inclusive and diverse culture.

Focusing on diversity and inclusion is not new to Morgan Stanley. DEI Signal complements resources like our gender and racial equity toolkits and model portfolios, and it is consistent with practices such as providing access to investment products from diverse-owned firms. It also builds on Morgan Stanley's work to make itself a more inclusive organization, in keeping with the addition of Commit to Diversity and Inclusion as our fifth core value and the launch of the Institute for Inclusion in 2020 (see chart).

OUR APPROACH TO TABULATING DEI SIGNAL. As part of a regular quarterly survey, GIMA analysts ask the asset managers on our platform more than 30 questions regarding their efforts around diversity and inclusion (D&I). Notably, this isn't new, as we've been asking firms some of these questions since 2018. In 2020, however, GIMA significantly expanded the number of D&I-oriented questions, focusing on those related to policies and procedures and diverse representation. Not only do we expect to see survey results evolve over time as more managers codify their DEI strategy, we believe we are moving the industry forward just by asking the questions.

Morgan Stanley Has Increasingly Invested in D&I Efforts

2015: Investing with Impact develops an investment product matrix featuring diverse asset management firms, defined as 50%+ ownership by women or ethnically diverse individuals

2016

2017: Morgan Stanley launches the Multicultural Innovation

2019: First of its kind impact reporting application launched, Morgan Stanley Impact Quotient® (Morgan Stanley IQ). Clients can evaluate their portfolio and make investment decisions in the area of Diversity in Leadership

- Investing with Impact launches Racial Equity Investing Tool Kit and relaunches Diversity **Portfolios**
- GIO launches Impact Signal and DEI Signal

2007: Morgan Stanley Wealth Management launches the National Diversity and Inclusion Council

Pre 2015

2009: Morgan Stanley launches Global Sustainable Finance

2015

2012: Morgan Stanley launches Investing with Impact Platform across Wealth Management

2013: Morgan Stanley launches the Institute for Sustainable Investing

2016: Investing with Impact launches the Gender Equality Investing Tool Kit, a roadmap for Financial Advisors and clients to integrate gender equality objectives into investment portfolios

2017

2018:

2018

Global Investment Manager Analysis (GIMA) incorporates firm-level DEI questions as part of due diligence process

2019

· Morgan Stanley first publishes its annual survey of the venture capital industry focused on investments in diverse-owned businesses

2020:

2020

Morgan Stanley announces the launch of Institute for Inclusion, and adds fifth core value: Commit to Diversity and Inclusion

2021

- Global Investment Office (GIO) launches **D&I** Committee
- GIMA expands DEI questions as part of due diligence process for all investment strategies considered for approval
- GIMA formalizes D&I Investment Office

Source: Morgan Stanley Global Investment Office

Furthermore, we aren't asking managers for anything we aren't pushing to deliver ourselves. We've been transparent around our employee D&I efforts and data collection, as exhibited by the release of our diversity report in 2020.

FROM GATHERING DATA TO ASSIGNING POINTS. We assign points to each question in order to help tabulate a score and understand the data more holistically. For policies and procedures, we solicit responses to the questions we believe are most tied to a given firm's progress on DEI. For example: "Does the firm have a mentorship program or a formal D&I policy?" We request "Yes" or "No" responses to these questions and assign firms a "1" for "Yes" and a "0" for "No."

For representation questions, while we focus on diversity of senior leadership and within investment teams, we also consider firm diversity at all levels. To earn a full point on a representation question, the firm must meet or exceed US Census benchmarks on representation—i.e., equal representation of men and women and 40% representation from racially/ethnically diverse individuals. We believe this approach is consistent with Morgan Stanley CEO James Gorman's contention in our 2020 Diversity and Inclusion Report that true diversity is achieved when a company's employee base represents the society in which it lives.

Finally, our survey includes a bonus question on firm ownership. Similar to the policy section, this is a "Yes" or "No" question. Firms with more than half their ownership in the hands of women or ethnically diverse individuals receive a 1.0. Given that this is less relevant for publicly traded companies, we position the data point as a bonus, rather than a penalty.

AGGREGATING SCORES. We group firms based on size small, medium, large and mega—in an effort to compare like managers to like managers (see chart). Given that some of the largest firms have had policies in place for years, we are especially focused on the quality of these policies and whether they have generated progress toward more diverse representation. While we recognize many small firms initially have diverse cultures, we believe it is important to codify their policies to ensure that such cultures endure as firms grow.

Policies and procedures make up 20% to 35% of DEI Signal, with diverse representation accounting for the remaining 65% to 80%, depending on firm size. We compute an aggregate absolute score for each firm according to its size category by multiplying points earned by relevant weight for each question. This gives us a signal for a manager's progress toward a more diverse and inclusive culture.

Recognizing the industry overall has room to improve, we are mainly focused on the absolute score. Still, some firms are doing better than others. We are also engaging with managers and using DEI Signal for manager research and portfolio construction. When our due diligence analysts and

portfolio construction teams review DEI signal, they see a list of leaders, or firms that have achieved greater than 50% of the points based on our methodology. Importantly, policies and procedures alone are not enough to qualify a firm for the Leaders list. We use this data to engage with managers and have already started to incorporate it into manager research and portfolio construction.

Anatomy of DEI Signal

DEI Signal Scoring Framework	Weight by Size Cohort			
DEI Signat Scoring Framework	Mega	Large	Medium	Small
Intentional Focus on DEI	20%	25%	30%	35%
Policies and Procedures				
Diversity Metrics	80%	75%	70%	65%
Leadership Diversity Investment Team Diversity Firm Diversity				
Diverse Ownership (Bonus)	20%	20%	20%	20%

For illustrative purposes only. Weights, scoring and results not representative of any manager analysis. Source: Morgan Stanley Global Investment Office

FINDINGS. Initial findings suggest managers are at different stages in implementing policies and procedures to improve DEI. About 60% of firms cited a codified D&I policy or initiative, making it the most frequent policy implemented to date. The next most common initiative was unconscious bias training for investment decision-makers.

The data suggests the presence of policies and procedures correlates to stronger diversity metrics, and we note differences between asset managers who have D&I policies and those who do not. On investment and leadership teams, firms with D&I policies average higher levels of diverse representation regarding both gender and ethnic diversity. Managers with D&I policies are also much more likely to have additional policies and procedures related to DEI. For example, almost half the managers who have a D&I policy have specific diversity goals, while only about 5% of firms who do not have a D&I policy have identified diversity goals.

GIMA's due diligence and portfolio construction teams are already leveraging this data and using it to engage with asset managers, encouraging greater disclosure, implementation of further policies and procedures, and more diverse representation. Ultimately, we are confident that DEI Signal will help align our manager research process with Morgan Stanley's core values and build on our leadership position in the wealth management industry as it strengthens attention to diversity, equity and inclusion.

This article was excerpted from the June 22 Special Report "DEI Signal: Assessing Asset Managers' Progress on Diversity, Equity and Inclusion." For a copy of the full report please contact your Financial Advisor.

Q&A

Where Are the Opportunities in a Hot Market?

The S&P 500 recently posted its fifth consecutive guarter of strong returns, closing at a new high in the last week of June. Likewise, global equities turned in a strong first half, with the MSCI ACWI Index gaining nearly 13%. Now, as valuations also march higher, it begs the question: Are there still attractive opportunities? "With new company formation and some companies going from private to public, there are a lot of interesting companies out there today that have compelling fundamentals and that we still think can be much bigger in the future, but generally, I wouldn't expect the incredibly high returns to continue into the future," says Dennis Lynch, head of Counterpoint Global at Morgan Stanley Investment Management. Dan Skelly, head of Market Research & Strategy at Morgan Stanley Wealth Management, recently spoke with Lynch and his colleague Manas Gautam, lead portfolio manager on Global Endurance Strategy. The following is an edited version of their conversation.

Dan Skelly (DS): Having navigated a global pandemic that not only upended the way people invest, but also the way they live their lives, what are some trends you think are here to stay (or not)?

Dennis Lynch (DL): Even though we have made tremendous progress as a country, there is still a lot of work to do globally, and there are some things that can still change. You have to be careful not to be too sure of such things, because remember coming out of the 2008 crisis? There was a lot of conviction about certain things—and after 9/11, no one was going to fly again. We all have these deep convictions in the moment, but you have to know that you can't be too confident that they're going to play out.

I think some of the companies we invest in are going to benefit from some of the changes that might come out of this, including remote work, which I think is likely to continue. People have also probably gotten a little more used to habitually buying things remotely. E-commerce seems like something that's accelerated in terms of its adoption, not just in terms of a blip in extra usage. Again, time will tell.

What we do is invest in companies. From time to time in this business, people put things in buckets that are kind of artificial in nature and have nothing to do with the individual companies and their execution, their cultures and their ability to be much bigger in the future. If I get too caught up in talking themes, I run the risk that I'm going to make bad decisions—from a thematic vantage point, as opposed to a company-specific vantage point.

Manas Gautam (MG): I would add that we're still in observation mode with respect to the impact to the global supply chain, changes in consumer behavior, adoption of digital software and services, or even people becoming more nimble. The thing that I came away with, which reaffirmed a lot of things we already think, is that humanity is quite resilient and that volatility does not equal risk. We focus a lot on risk management and margin of safety, but the most important part is a focus on strong management teams and companies. Continue to remain open-minded and observe the data and see what behavior is transitory versus what will be permanent going forward.

DS: What are some areas of opportunity you think may be impaired relative to their position prior to March of last year?

DL: Manas referenced this idea of the global supply chain. While globalization and capitalism have led to production that is more efficient from a financial standpoint, there are other strategic risks that exist. Maybe that extra efficiency you thought you had might not be worth it, given what can go wrong during a period like this. I think that capitalism makes us all really efficient but, in a way, you can see the fragility and downside that comes with having a global supply chain.

Generally speaking, we've always been a little bit hesitant toward companies that have those kinds of complex frameworks and reliance on outside countries and outside parties. Not having a whole lot of exposure to the complex global supply chains has probably been a positive for us.

MG: Businesses that we think will face true impairment are ones whose customer value proposition worsened over the last 15 or so months. A lot of businesses that we own are quite customer focused, and as company-focused investors, we love businesses that invested and grew through the pandemic and provide valuable operations. The competitors who didn't do so will face more impairment.

DS: When deciding to invest or not, is there a difference in what you look at for a public versus a private company?

DL: All things equal, when I look at the opportunity set today, I think private is very interesting. It's a lot more competitive than it's been—and certainly that's another consideration but when I think about overall upside of ideas that we're looking at today, I would lean toward the private opportunity set; but make no mistake, there are many small- and mediumsized public companies that are also interesting.

The areas we referenced earlier continue to be the ones of focus, whether it's e-commerce, digitization of companies or software as a service. Some of those trends acting as tailwinds for individual companies were there before the pandemic. In many cases these trends are really not that different than they were. They were just accelerated.

At the end of the day, we're trying to understand why a company is unique in what the management's like and what

their skin in the game is and what the culture is—and then, of course, why they have some unique customer proposition that's sustainable and why they could be much bigger as they continue to pull things off from an execution standpoint. That part is consistent, no matter if the company is public or private.

When we see great ideas and find something worth doing, we figure out where it's appropriate. That is a very different approach than investment teams built around a specialization like large-cap growth.

MG: As a team we are putting capital to work today for more capital in the future, be it public or private. I think that over time you will see how the value versus growth debate, for instance, is immaterial, because we're just trying to buy great companies. The difference in public or private will be a moot debate over time.

I will say that business formation is at its highest. Entrepreneurship is high. We saw almost a half a million new businesses formed in the month of May.

DS: How are you thinking about alternative currencies, their utility and how they fit into an investment program, if at all, right now?

DL: Obviously there's something happening with cryptocurrencies. People have a lot more knowledge and awareness of it than they did even a few years ago. In the case of Bitcoin specifically, you've had some interesting persistence. I like to joke that Bitcoin's like Kenny from South Park, who dies every episode and then is back again. There have been many periods since Bitcoin was formed where it was written off as a foolish endeavor.

This area could continue to be substantial, and we're going to keep an eye on it. I think it could have an interesting diversification benefit as a small investment in portfolios. I don't think it's any sort of core investment at this point or for the medium term, but I've always been fascinated with things that can go up while the rest of your portfolio goes down. There's some possibility that could be the case here, but there's no guarantee.

So we're interested and we're on it, but we're also mindful of what can go wrong. In general, it can be smart to make small investments that can have big outcomes, as long as you size the positions properly.

DS: How do you think about interdisciplinary investing, and how do you ensure you're taking a holistic view of the opportunities available in the market without being swayed by whatever the next hot topic is?

MG: Interdisciplinary investing is taking learnings from various fields of study and disciplines, and applying them to improve our understanding of companies. The analogy I use to describe it is: If you look at the metal bronze, it is made by bringing copper and tin together. Both of these metals are weak from a stand-alone perspective, but when they make bronze, it's a stronger metal than either of them alone. That's the approach one can take—from fields like economics. science and technology—to better understand companies.

I'd say that taking an interdisciplinary approach actually helps you to not be swayed by the next hot topic, because you're employing history or psychology to keep you grounded in what the reality is. It can act as an inoculation where an investor is focused on the key drivers of any business and what creates value in the long term.

DS: What is your process for when and why to trim or remove a position?

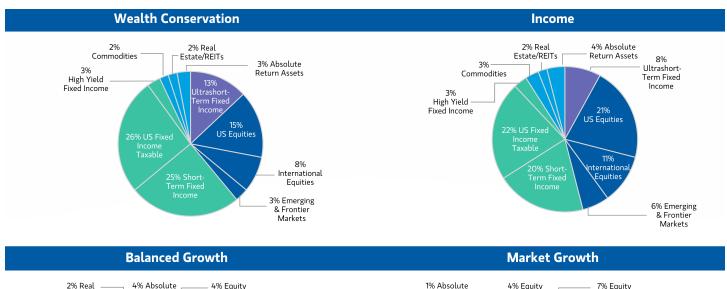
DL: We're always looking at the current opportunity set and trying to figure out what we should be doing today based on what we know today. Having said that, generally speaking, our best-case scenario is identifying truly unique companies with the right management teams, the right cultures and a very big end game ahead—and then owning them long term and living through some of the ups and downs. That doesn't mean that we're not going to diversify from time to time based on the opportunity set shifting, or if we think valuation is no longer compelling.

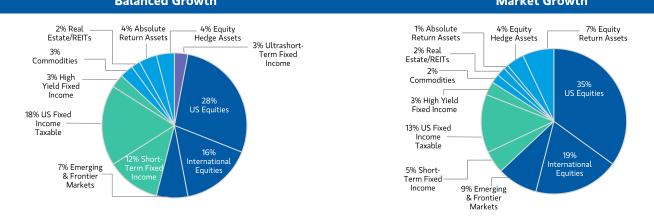
More recently, while we still own many of the companies that were big drivers of results over the last few years, they're smaller positions today than they were previously and/or we own less of them than we would have, despite the appreciation.

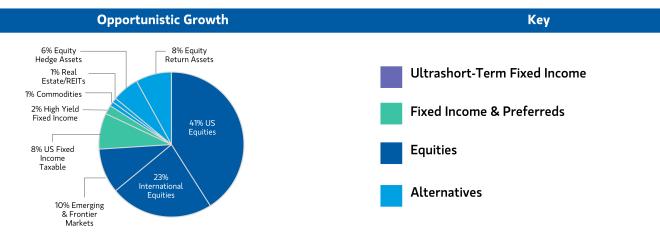
We probably own more companies today than we did a few years ago when we thought the opportunity set was very narrow and compelling. Our best-case scenario is not having to sell, but from time to time—when the markets can get too exuberant or your ideas shift—to make room for new ideas.

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.

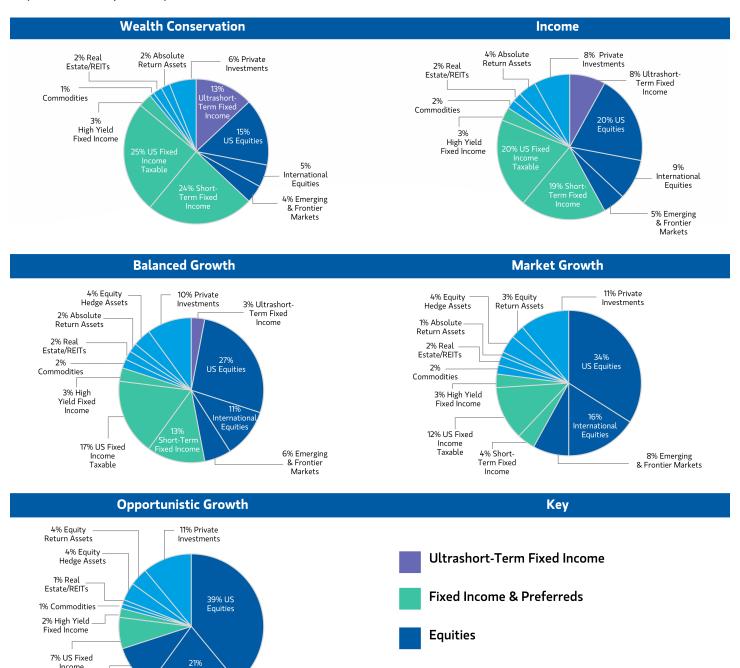






Source: Morgan Stanley Wealth Management GIC as of July 31, 2021

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.



Alternatives

Source: Morgan Stanley Wealth Management GIC as of July 31, 2021

International Equities

Income Taxable

10% Emerging Markets

Tactical Asset Allocation Reasoning

Global Equities	Relative Weight Within Equities	
US	Overweight	As the S&P 500 has continued to hit all-time highs, pricing the fastest recovery from recession in the last five business cycles, we recently reduced exposure to expensive US growth stocks with a focus on SMID exposure. From here we enter the midcycle adjustment, where gains moderate as expectations get recalibrated and policy normalizes. Odds of a 10%-15% correction are increasing as the outlook for inflation and higher rates crystalizes.
International Equities (Developed Markets)	Market Weight	In Europe, prospects for fiscal stimulus and concrete moves toward pan-Europe fiscal integration are game changers. In Japan, economic recovery is gaining momentum, and we expect shareholder-friendly and positive return-on-equity policies to persist. The weakening of the US dollar is a tailwind.
Emerging Markets	Overweight	China was the first country to enter the COVID-19 crisis and appears poised to be the first out. Resumption of economic activity during the second quarter should jump-start global growth, especially given huge government stimulus programs. While valuations are attractive and local central banks should be able to maintain accommodation and stimulus, we need to be more selective now as rising commodity prices are a blessing or a curse, depending on the country.
Global Fixed Income	Relative Weight Within Fixed Income	
US Investment Grade	Market Weight	After moving in 2018 to a maximum underweight to core US fixed income with a strong tilt toward short duration, we recently moved to partially neutralize our extreme positioning. Since 2020, nominal long rates have nearly doubled while inflation breakevens are near multidecade highs. With two-thirds of the cycle repricing behind us and stock volatility likely to stay high, we are using this exposure to collect low-volatility income.
International Investment Grade	Underweight	Negative interest rates suggest that this is not a preferred asset class for US-dollar clients at this time. Actively managed funds may provide very patient, risk-tolerant clients with income opportunities in select corporate credits.
Inflation-Protection Securities	Underweight	The "sudden stop" recession caused a severe pricing of real interest rates, pushing them negative and near all-time lows. In the near term, upside appears limited.
High Yield	Market Weight	We recently halved our exposure to the equity-like asset class, wanting to reduce equity beta of portfolios. High yield bonds have rallied aggressively with the unprecedented provision of liquidity from the Fed and fiscal stimulus from Washington. Surging commodity prices have also repaired balance sheets of oil-levered companies. With spreads near all-time tights, the upside is limited.
Alternative Investments	Relative Weight Within Alternative Investments	
REITs	Overweight	With the debate between growth and rising rates moving to center stage, we recently added modestly to the asset class, believing it is a diversifying source of income that is also leveraged to reflation. With real interest rates still negative and inflation expectations rising, we expect to be selective opportunistic investors in the sector this year, with a focus on residential.
Commodities	Market Weight	Sooner-than-expected economic and COVID-19 recoveries in both China and the US have shocked supply chains drained from last year's closures. Now most major commodities are rallying in a chase to keep up with improving demand. The impact is broad-based, affecting areas as diverse as industrial metals, soft agricultural, lumber and semiconductors. Longer term, increased global capital spending, a strong US housing market, a weaker US dollar and rising overall inflation suggest the asset class will likely remain opportunistically bid.
Hedged Strategies (Hedge Funds and Managed Futures)	Overweight	With broad market valuations rich, a majority of returns from here will be based on company earnings growth and managements' ability to navigate rising costs, surging demand and disruptive competition. These factors create a constructive environment for hedge fund managers who are good stock-pickers and can use leverage and risk management techniques to amplify returns. We prefer very active and fundamental strategies, especially equity long/short.

^{*}For more about the risks to Duration, please see the Risk Considerations section beginning on page 17 of this report. Source: Morgan Stanley Wealth Management GlC as of July 31, 2021

Disclosure Section

Important Information

The Global Investment Committee (GIC) is a group of seasoned investment professionals from Morgan Stanley & Co. and Morgan Stanley Wealth Management who meet regularly to discuss the global economy and markets. The committee determines the investment outlook that guides our advice to clients. They continually monitor developing economic and market conditions, review tactical outlooks and recommend asset allocation model weightings, as well as produce a suite of strategy, analysis, commentary, portfolio positioning suggestions and other reports and broadcasts.

Vijay Chandar, Michael Cyprys, Kevin Demers, James Ferraioli, Brad Fulton, Manas Gautam, Katie Huberty, Dennis Lynch, Doug Moglia, Adriane Parris, Gray Perkins, Daniel Skelly, Emily Thomas, Vishwanath Tirupattur, Laura Wang are not members of the Global Investment Committee and any implementation strategies suggested have not been reviewed or approved by the Global Investment Committee.

Index Definitions

BARCLAYS WTI CRUDE PURE BETA INDEX This index reflects the returns that are potentially available through an unleveraged investment in the futures contracts in the crude oil markets.

DOW JONES US SELECT HOME BUILDERS INDEX This index measures constructors of residential homes, including manufacturers of mobile and prefabricated homes intended for use in one place.

FTSE NAREIT ALL RESIDENTIAL CAPPED INDEX This index includes all tax-qualified real estate investment trusts (REITs) that are listed on the New York Stock Exchange, the NYSE Arca or the Nasdaq National Market List, across the apartments, manufactured homes, health care, selfstorage and single family homes sectors and subsectors.

HANG SENG INDEX This is a free-float-adjusted market-capitalization-weighted index used to record and monitor daily changes of the largest companies of the Hong Kong stock market and is the main indicator of the overall market performance in Hong Kong.

S&P GLOBAL TIMBER AND FORESTRY INDEX This index is comprises 25 of the largest publicly traded companies engaged in the ownership, management or the upstream supply chain of forests and timberlands.

S&P OIL & GAS EXPLORATION & PRODUCTION INDEX This index comprises stocks in the S&P Total Market Index that are classified in the GICS oil & gas exploration & production sub-industry.

For other index, indicator and survey definitions referenced in this report please visit the following: https://www.morganstanley.com/wealthinvestmentsolutions/wmir-definitions

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 appropriate 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 appropriate 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.

An investment in a money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the Fund seeks to preserve the value of your investment at \$1.00 per share, it is possible to lose money by investing in the fund.

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 across many and across the principal value of ETF investments are across the principal value of ETF investments and across the principal value of ETF investments are across the ethics are across the ethics are across the principal value of ETF investments are across the ethics are across the ethics are across the expenses and expenses are across the ethics are across the ethics are across the expenses are across the 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.

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

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 and frontier markets, since these countries may have relatively unstable governments and less established markets and economies.

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.

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 appropriate 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 longterm 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 appropriate 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 portfólio.

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.

Although they are backed by the full faith and credit of the U.S. Government as to timely payment of principal and interest, Treasury Bills are subject to interest rate and inflation risk, as well as the opportunity risk of other more potentially lucrative investment opportunities.

CDs are insured by the FDIC, an independent agency of the U.S. Government, up to a maximum of \$250,000 (including principal and accrued interest) for all deposits held in the same insurable capacity (e.g. individual account, joint account, IRA etc.) per CD depository. Investors are responsible for monitoring the total amount held with each CD depository. All deposits at a single depository held in the same insurable capacity will be aggregated for the purposes of the applicable FDIC insurance limit, including deposits (such as bank accounts) maintained directly with the depository and CDs of the depository. For more information visit the FDIC website at www.fdic.gov.

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

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 shorted his large to the MBS/CMO's average life and likely to increase, the MBS/CMO class purchased and likely to increase, the MBS/CMO class purchased life and likely to increase. 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.

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.

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.

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.

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

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