Morgan Stanley

WEALTH MANAGEMENT

INVESTMENT STRATEGY

Global Investment Committee | May 2025

# On the Markets

## Recalibrating, Beyond Shock and Awe


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The month of April witnessed one of the most volatile on record when considering the dynamics in stocks, bonds and currencies. The tariff surprises of "Liberation Day" unleashed a spike in uncertainty that translated into sinking confidence among consumers, small businesses and CEOs. In turn, this raised the odds of the potential for both recessionary or stagflationary outcomes, sending both the S&P 500 and the Nasdaq Composite Indexes into bear market territory. At the same time, the sheer size and breadth of the actions blindsided allies and foes alike, morphing global narratives around American Exceptionalism into one about global portfolio rebalancing. Such equity market reactions combined with a modest rout in long-duration Treasuries finally got the attention of policymakers, forcing the delivery of a 90-day pause on the tariffs, the promise of near-term trade deals and a systematic industry-by-industry walkback. So profound was the turnaround in investor beliefs about the impact of tariffs—from tragedy to nonevent—that by the month's end, the S&P 500 and the Nasdaq had retraced nearly the entire drawdown.

We are encouraged that thus far the real economy has exhibited general resilience, with both inflation and labor markets remaining stable even as growth has slowed. What's more, first quarter earnings have come in better than expected. That said, we caution against investor ebullience given the historic level of changes and their speed. Weighing on us is the soft survey data, which points to material weakness ahead. With earnings revisions still falling and recession odds still stuck at 40%, valuation remains a constraint. And with policy-linked volatility unlikely to normalize anytime soon, we remain focused on active risk management, and maximum diversification by sector, region and asset class. Setting expectations for equity returns that are no better than the rate of profit growth is the prudent strategy and one that acknowledges that with America's lingering debt and deficit problems, gains from valuation expansion are likely off the table. ■

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**GLOBAL MACRO**

# The Safe Haven Question

**Vishwanath Tirupattur**, Chief Fixed Income Strategist and Director of Quantitative Research, Morgan Stanley & Co. LLC

The prospect of foreign investors reducing exposure to US assets amid concerns about the continued predominance of US Treasuries as a "safe haven" has been at the center of market debate over the past few weeks. Significant shifts in cross-asset correlations—particularly between US equities and the US dollar—are adding to concerns. Correlations between US equities and foreign exchange are nearly two standard deviations above their five-year average, with the dollar weakening as equities have sold off—a pattern associated more with emerging markets than developed markets. In our view, evolving perceptions of the trajectory of the US economy and policymaking are taking the global economy and markets to unprecedented levels of uncertainty and challenging long-held assumptions about cross-asset relationships.

**ABUNDANT CAPITAL FLOWS.** Over the past 20 years, US markets have had a terrific run, and for good reason. US growth has consistently outperformed much of the rest of the developed markets. Furthermore, US policymaking has been consistent, if not infallible, with clear lines of demarcation between the executive branch and the central bank. US markets have attracted abundant capital flows during periods of stability as well as stress, and the dollar has remained entrenched as the global reserve currency.

While capital inflows in periods of relative normalcy—driven by the persistent relative outperformance of US equities—are not surprising, it's noteworthy that even during intervals of risk-market stress, much of the world turned to US Treasuries and other high-quality US fixed income instruments as safe haven assets. This held true even when market stress emanated from the US, as during the Great Financial Crisis. The dollar's dominance and global influence are evident across multiple metrics, including central bank reserve allocations, global trade financing, foreign exchange activity, cross-border lending and debt issuance.

**CHANGING ENVIRONMENT?** Some recent developments, however, may signal that the environment is changing. For example, growth differentials between the US and the rest of the developed markets are narrowing. In 2024, the US recorded GDP growth of 2.5% on a seasonally adjusted annual rate basis versus 1.2% for the eurozone. With the Trump administration's announced policies on tariffs and immigration, our US economists see US growth dropping to 0.6% in 2025 and 0.5% in 2026 in their baseline scenario. In contrast, our Europe economists expect the eurozone to slow to 0.6% in 2025 but accelerate to 1.1% in 2026 on the back of fiscal stimulus. If these expectations hold, the positive growth differential the US enjoyed versus the eurozone disappears in 2025 and turns negative in 2026.

Uncertainties spawned by the administration's tariff policy, especially given multiple reversals, and nagging questions about whether the Federal Reserve's independence may be undermined, have raised concerns in the foreign investor community, which had been largely overweight US assets. It is hard to put the genie back in the bottle once such concerns are raised. Consequently, foreign investors' allocations to US investments, particularly allocations of new capital, may decline and shift to non-US assets, while currency hedge ratios on exposures to US assets may increase; both could continue to pressure the US dollar. This leads our forex strategists to continue to advocate for long euro positions versus the dollar, even following the recent rally, with a target exchange rate of 1.20. They also forecast appreciation of the Japanese yen versus the dollar, with a target exchange rate of 135.

**SEARCH FOR ALTERNATIVES.** The concern about US Treasuries' continued safe haven status bangs up against practical realities, however, raising the question of where to find safe haven alternatives. Two points are worth considering here. First, the quantity of global safe haven assets excluding US Treasuries has declined meaningfully in the past 15 years. As Matt Hornbach, our global head of macro strategy, notes, global safe havens ex US Treasuries outstanding currently stand at approximately 4% to 5% of the total versus about 14% to 17% during the Great Financial Crisis.

Furthermore, while alternatives exist—government bonds in select European countries are potential candidates—their scale, size, depth and liquidity are meaningfully lower. For example, the US Treasury market is 10 times larger than equivalently rated eurozone government bonds. While expected issuance of approximately €500 billion by Germany for infrastructure and defense spending would help, it will take time and provide only a marginal increase in the availability of alternative safe haven assets. ■

*This article was excerpted from the April 27 Morgan Stanley & Co. Research report, "The Safe-Haven Question." For a copy of the full report, please contact your Financial Advisor.*

**US EQUITIES**

# Upgrading the Defense Industry

**Kristine T. Liwag**, Equity Analyst, Morgan Stanley & Co. LLC

Concerns over the trajectory of US defense spending and potential headwinds from the Department of Government Efficiency (DOGE) kept defense stocks largely on the sidelines since the November election. Several discrete developments, however, point to an improving backdrop. Talk of a bigger-than-expected defense budget proposal from the White House lifts prospects, as do two executive orders: one to review major defense programs and accelerate acquisitions; and another to reform foreign defense sales. Thus, we have upgraded our Morgan Stanley & Co. Research North America defense industry view from "In-Line" to "Attractive."

**BIG BUDGET INCREASE.** The Trump administration has suggested, but not yet formally proposed, a $1 trillion Department of Defense (DOD) budget for fiscal year 2026, a 12% year-over-year increase. For context, annual defense spending has historically grown in the 3%–4% range. Per the Pentagon's most recent budget request (fiscal year 2025), discretionary defense spending was expected to reach $924 billion in fiscal year 2026 and $983 billion in fiscal year 2029. Initial fears over a potential budget cut of approximately 8% have eased, as it now appears that the DOD will implement approximately an 8% *shift* in spending versus an outright cut of that magnitude.

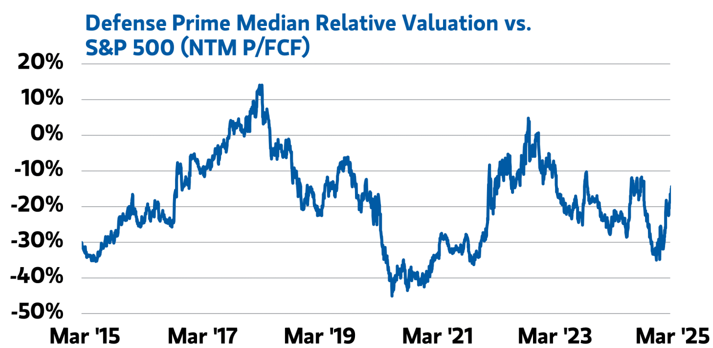
The risk in DOGE is with services companies as the Government Services Administration focuses on cutting "nonessential" consulting contracts, especially from the 10 highest paid consulting firms. We could see a $37 billion step-up in investment spending, much of which would flow to the major defense contractors.

**NO TARIFFS.** Defense is largely insulated from tariff disputes as the US defense supply chain and manufacturing footprint have historically been US-based for national security reasons. Sales are also largely to the US government, which insulates the companies from potential retaliation from other countries. From our conversations with investors, while there is recognition of the US defense industry's defensiveness in this environment, the potential upside from exports is underappreciated. The US is a net exporter of defense products, and we see potential opportunities for other countries to ease their trade imbalances with the US by increasing their purchases.

Exports may also benefit from efforts by the Trump administration to streamline foreign military sales processes. While we acknowledge newfound skepticism in Europe around overreliance on US defense equipment, the relative superiority of US technology (e.g., the F-35 and missile defense systems) and capacity (e.g., missile production) in some areas cannot be accounted for or replaced overnight, particularly as current demand remains elevated amid the Russia-Ukraine conflict. US foreign military sales also tend to drive interoperability while carrying important political considerations.

**ATTRACTIVE VALUATIONS.** What also makes the defense sector attractive is valuation. The major companies, or "primes," recently traded around a 21% discount to the S&P 500 Index on a next-12-months price-to-free-cash-flow basis—largely in line with the group's 10-year median 20% discount (see chart). We recognize that defense can trade at a premium to the S&P 500 during Republican administrations. The group had underperformed the S&P 500 by roughly 5% since the November election and until "Liberation Day," but after Liberation Day, defense primes began to outperform. ■

**After Liberation Day, Defense Primes Began to Outperform**




Source: FactSet, Morgan Stanley & Co. Research, Morgan Stanley Wealth Management Global Investment Office (GIO) as of April 24, 2025

*This article was excerpted from the April 16 Morgan Stanley & Co. Research report, "Upgrading Defense to Attractive; Upgrade LMT to OW and Downgrade GD to EW; NOC to Top Pick." For a copy of the full report, please contact your Financial Advisor.*

CROSS-ASSET STRATEGY

# Fool Me Once, Shame on You. Fool Me Twice, Shame on Me

**Matthew Hornbach**, Global Head of Macro Strategy, Morgan Stanley & Co. LLC

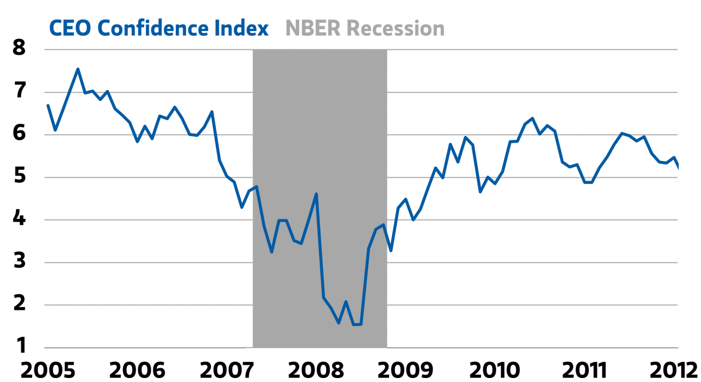
Among the many challenges investors face today, two make navigating markets particularly frustrating: figuring out the Trump administration's "master plan" for trade policy and predicting how often it may change.

The idea that reconfiguring US trade entails some economic pain seems well understood by the administration. Prior to the 90-day pause in the reciprocal tariffs, President Trump encouraged the Federal Reserve to ease monetary policy and Congress to ease fiscal policy to offset any adverse consequences of rebalancing global trade. Investors may interpret these actions as a master plan of sorts.

**POLICY LAGS.** The problem with this perceived plan is the lags with which monetary and fiscal policy operate relative to those of trade policy. Consumer confidence already cracked ahead of the April 2 reciprocal tariff announcement. The 90-day pause is unlikely to provide much relief. CEO confidence also cracked ahead of April 2. The last time the CEO Confidence Index fell below 5 and remained below that level for more than two months, real GDP growth stalled and eventually contracted, while initial unemployment claims rose.

For example, in October 2007, US CEO confidence fell into net pessimism territory—an index reading below 5. It remained net pessimistic until January 2010 (see chart). According to the National Bureau of Economic Research, the economy entered recession in December 2007, after only three months of net pessimism.

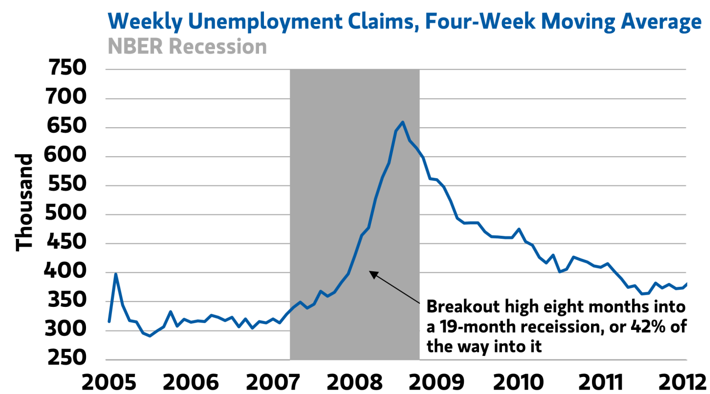
### US CEO Confidence in Economy One Year From Now and the 2007-2009 NBER Recession




Source: Chief Executive, Bloomberg, NBER, Morgan Stanley & Co. Research, Morgan Stanley Wealth Management GIO as of April 14, 2025

This three-month stretch of net pessimism and subsequent start of the recession occurred with the S&P 500 Index losing, at its worst point, only 10% from its then all-time high of Oct. 9, 2007. While initial unemployment claims rose with the decline in CEO confidence, they did not rise above their October 2005 peak until July 2008—eight months into the recession and 11 months after CEOs turned net pessimistic (see chart). While lags between CEO confidence and CEO action may vary, those that occurred in 2007 seem much shorter than what most economists would suggest for any monetary easing from the Fed. In addition, Morgan Stanley & Co.'s economics team continues to vocalize how tariffs' impact on inflation may delay any such easing from the Fed in the first place.

### US Weekly Initial Unemployment Claims and the 2007-2009 NBER Recession




Source: Department of Labor, Bloomberg, NBER, Morgan Stanley & Co. Research, Morgan Stanley Wealth Management GIO as of April 14, 2025

Longer lags may also feature in fiscal policy. Our economists suggest that simply extending the current tax rates in the US won't add to economic activity. And even if the government lowers tax rates further, our public policy strategists don't expect new rates would take effect until 2026.

On top of this, prospects for a larger-than-initially-expected fiscal boost get incorporated into bond market pricing via higher yields much earlier than might any beneficial economic impact. This rise tightens financial conditions—usually without detriment. US Treasury yields rise to incorporate higher supply and an eventual economic uplift as expectations for fiscal policy take hold.

As such, if a master plan relies on the use of monetary and fiscal policy to offset any adverse consequences of rebalancing global trade, we think the lags with which each policy may operate risk a much worse near-term economic outcome, something we believe is insufficiently priced into markets.

**SAFE HAVEN ALTERNATIVES?** Government bond markets usually benefit from an environment of heightened risks. In the past, US Treasuries behaved as the ultimate "safe haven" security. Recently, however, US Treasuries have often exhibited more risk than many investors expected. As the question about the safe-haven status of US Treasuries arises, so does another question: Do alternatives exist? The answer: Yes, but perhaps not in the size many investors think.

US Treasuries outstanding make up 35.7% of the Bloomberg Global Aggregate Treasuries Index, or $14.0 trillion. That leaves $25.3 trillion in non-US Treasuries outstanding in the index. Another way of thinking about safe havens relies on rating agencies. Only 11.8% of bonds in the Bloomberg Global Aggregate Index have a median AAA/Aaa rating. This dearth of top-rated global bonds looks even worse in the context of world GDP. Contrast the amount of global safe havens ex US Treasuries currently outstanding versus the Great Financial Crisis: only about 4%–5% today versus 14%–17% in the 2007–2009 period.

**CURRENCY IMPLICATIONS.** A key theme in the currency markets has been the possibility of foreign investors reducing their exposure to US assets. Elevated US policy uncertainty and volatility, combined with signs of structurally higher fiscal spending in the European Union, have been key factors fueling this narrative and have weighed on the US Dollar Index (DXY).

Several sources detail the stock of US assets held by foreigners. Tracking US outflows from foreign investors in real time is not particularly easy, however, as these data series are often lagged and have a low frequency. Price action across macro markets and anecdotal evidence can provide some indications, but they still leave the challenge of assigning a number to the magnitude of potential outflows and concluding whether there is a sustainable trend.

To this end, the tracker we constructed as a proxy for US outflows from foreign investors points to a gradual reduction in exposure to US equities since the start of 2025, while fixed income exposure has remained relatively stable. However, a sustained trend of foreign investors reducing their exposure and potentially actively repatriating capital back home would weigh on the US dollar—especially in the case of currencies like the euro. We expect DXY to continue to decline, in part because we expect euro-positive flows to persist. ■

*This article was excerpted from the April 14 Morgan Stanley & Co. Research report, "Fool Me Once, Shame on You. Fool Me Twice, Shame on Me," featuring input from various MS & Co. teams. For a copy of the full report, please contact your Financial Advisor.*

**US EQUITIES**

# Assessing AI Capex in an Uncertain Macro Environment

**Stephen C. Byrd**, Equity Strategist, Morgan Stanley & Co. LLC

We view our "Powering AI" theme as relatively insulated from tariffs and economic weakness, given the benefits of the adoption of artificial intelligence (AI) and commitment among large language model (LLM) developers to continued innovation and cost reduction. To be sure, there are significant investor concerns that spending on AI infrastructure may weaken. However, based on feedback from many Morgan Stanley & Co. analysts across the AI and power/energy value chain, we believe US AI infrastructure spending is likely to remain strong.

How do we come to this assessment? First, channel checks indicate that demand for graphic processing units (GPUs), the chips commonly used for AI, is strengthening, driven by strong customer AI adoption. According to Joe Moore, MS & Co. Research's US semiconductors analyst, inference outages —failure to achieve target accuracy—for several major LLMs have highlighted tight inference capacity across the market, which has led to customers redeploying GPUs from training to inference. Broader economic concerns, like a modest drift in purchasing managers' indexes or a tariff-induced consumer slowdown, are not problematic for spending on GPUs, though financial strains in venture funding could be.

**LIMITED TARIFF EFFECT.** Next, the majority of data center costs are relatively unaffected by tariffs. Semiconductors were exempted from "Liberation Day" tariffs, but most industry participants are convinced this just means tariffs on chips will be handled differently. The hope is that they will be phased in more gradually, assuming the end goal is more domestic manufacturing, which takes multiple years of lead time.

Finally, the continued commitment among US LLM developers to maintain their early lead in LLM design requires large volumes of GPUs. Brian Nowak, MS & Co. Research's US internet analyst, notes several indications of continued strength in AI infrastructure spending from key companies. If anything, he sees a skew to the upside given the importance of continuing to invest in next-generation capabilities to advance the companies' early leads, among other factors.

**INCREASED CAPEX.** If the cost of some components of data centers goes up because of tariffs, Nowak would expect the internet companies he covers to increase capital spending to support required computational capabilities. If some smaller companies back out and do not buy as many GPUs as planned, he believes the larger companies would buy any excess inventory/chips. All said, investors are focused on potential impacts to his companies' earnings per share and free cash flow through the potential upcoming period of economic weakness and tariffs.

Another reason for a positive outlook is our global tech team's latest chief information officer (CIO) survey. CIOs continue to prioritize spending on AI and machine learning (ML). In fact, AI/ML is closing the gap between it and spending on security. This finding shows CIOs deem these initiatives to be mission-critical and thus increasingly immune to macroeconomic fluctuations, an important distinction in the current environment.

**LARGEST RISKS.** The largest risks to the Powering AI theme, in our view, are the practical constraints to data center growth: the time required to secure power grid interconnection, power equipment shortages and labor shortages. As we have highlighted recently, we expect a "power bottleneck" in the US totaling 42 gigawatts through 2028. (As a frame of reference, the power usage for the greater Philadelphia metropolitan area is about 3 gigawatts). However, we do see a handful of important solutions: off-grid natural gas-fired data center complexes using power turbines and fuel cells, repurposing bitcoin mining sites and leveraging the extensive power infrastructure of large power plant sites.

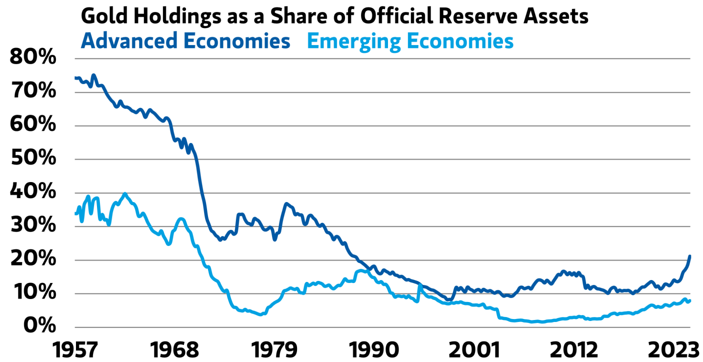
Beyond the bottleneck issues, there are clear inflationary cost pressures with respect to data center construction costs. While the GPU component of a data center (by far the largest cost component) is likely exempt from additional tariffs, other components, especially metals content, are not immune to tariff impacts. ■

*This article was excerpted from the April 14 Morgan Stanley & Co. Research report, "Powering AI: Assessing US AI Capex in an Uncertain Macro Environment." For a copy of the full report, please contact your Financial Advisor.*

# Short Takes

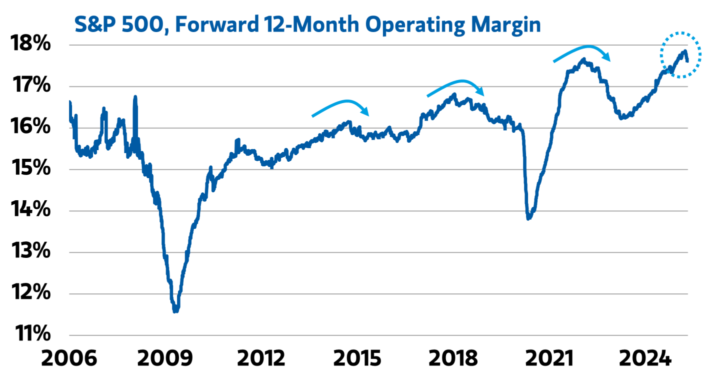
## Gold's Share of Central Bank Reserves Still Well Below Historical Levels

While gold's share of central bank reserves has certainly risen lately, it remains near historically low levels. Even with the recent overall upward movement, central banks' efforts to boost gold holdings have not been especially broad-based. Since March 2022, only 44% of nearly 40 countries with the largest gold reserves have boosted their percentage holdings of gold. China's reserve total is the world's largest, at $3.4 trillion, but it holds just 5.5% in gold. Japan, with reserves of $1.2 trillion, has only 5.8% in gold, and India, with $647 billion in reserves, holds 11.0% in gold. That said, given these countries' exceptionally large reserves, an increase in their demand would require sizable purchases, adding potential further upside to the precious metal.—*Alfredo Pinel and Sonny Mendez*




Source: International Monetary Fund, Morgan Stanley Wealth Management GIO as of April 28, 2025

## Forward Operating Margins Have Begun to Decrease

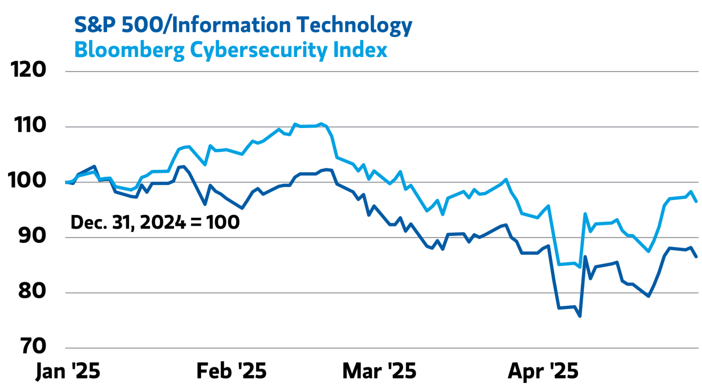



Source: Bloomberg, Morgan Stanley Wealth Management GIO as of April 29, 2025

Declining operating margins have often coincided with significant equity market drawdowns, even outside of recessions. In 2011, 2015–2016, 2018 and 2022, the S&P 500 Index saw meaningful declines as operating margins started falling. The speed and magnitude of margin declines should be closely followed, as a gradual or short-lived fall has often been manageable, but a rapid decrease could point to a recessionary environment or nonrecessionary pullback. As margins slide, balance sheets become squeezed, often coinciding with falling free cash flow. Tariff impacts—not yet reflected in earnings—could further weigh on margins in the coming quarters. With recession odds currently elevated and uncertainty near an all-time high, falling operating margins could have the potential to disproportionally hamper equities.—*Matt Armstrong*

## Cybersecurity Stands Out in Turbulent Tech Environment

Despite a difficult start to the year for the technology sector, cybersecurity stocks have held up well, significantly outperforming the broader sector. Cybersecurity companies have been less affected by tariff headlines, as the mission-critical services they provide are generally among the last areas to see corporate cost cutting. Morgan Stanley & Co. Research notes that spending on cybersecurity, while still a relatively small portion of tech budgets, has continued to increase over the past few years. Furthermore, the number of cyberattacks has increased, the cost of corporate data breaches has risen and corporations continue to move applications and data to a cloud-based model. As a result, spending on cybersecurity is expected to outpace broader software and tech spending.—*Justin Tapper and Amy Tonkin*




Source: FactSet, Morgan Stanley Wealth Management GIO as of April 30, 2025

**GLOBAL ECONOMICS**

# Will Trade Deglobalization Return Jobs to the US?

**Sarah Wolfe**, Investment Strategist, Morgan Stanley Wealth Management

The Trump administration's trade strategy, featuring aggressive tariffs, aims to bring industrial jobs back to the US by reshoring manufacturing and reducing reliance on foreign —particularly Chinese—supply chains. Whether this approach will succeed in revitalizing the US industrial sector, however, has been the subject of much debate. A plethora of studies going back 30 years come to varying conclusions. As we sift through the historical evidence, we find that, on balance, the US labor market has benefited from the globalization of trade.

In recent months, the US has imposed sweeping tariffs—10% on goods from most trade partners and up to 145% on Chinese imports. These measures have pushed the US effective tariff rate to around 20%, its highest in decades. The Trump administration's stated goals include encouraging foreign companies to invest in US-based production, boosting domestic manufacturing, enhancing national security by reducing dependence on Chinese supply chains and increasing exports and tariff revenues to help lower the US trade deficit and national debt.

The economic rationale behind global trade is straightforward: It increases overall welfare. It does so by lowering consumer prices, expanding the variety of goods available and allowing countries to specialize in areas where they have a comparative advantage. For the US, this has meant focusing on advanced manufacturing, in areas such as aerospace, robotics and pharmaceuticals, as well as on high-value services like software, finance and insurance.

**WINNERS AND LOSERS.** But trade also produces winners and losers. Industries rise and fall, and the distribution of benefits is uneven. As they have throughout history, these disparities can foment populist movements—not unlike the circumstances that have led to the global trade war of today (see the Annual Review of Economics, Volume 13, 2021, "Why Does Globalization Fuel Populism? Economics, Culture, and the Rise of Right-Wing Populism?" by Dani Rodrik).

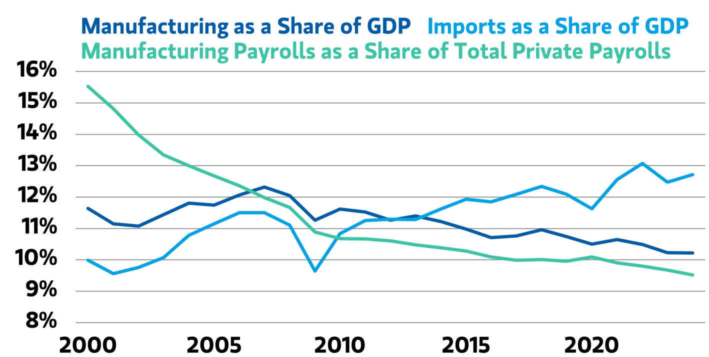
China's entry into the World Trade Organization in 2001 marked a major shift in global trade patterns. It quickly became the world's dominant producer of labor-intensive goods. As a result, US industries that directly competed with Chinese imports—such as textiles, furniture and electronics—faced steep job losses. A 2017 Federal Reserve study, "What Is the Impact of Chinese Imports on US Jobs?" found that between 2000 and 2007, increased trade with China led to the loss of approximately 800,000 US manufacturing jobs, primarily in sectors vulnerable to Chinese competition.

But this is only part of the story. During the same period, the US economy gained a similar number of jobs in other sectors and industries, including services, construction, and wholesale and retail trade. Largely shielded from Chinese competition, they benefited from lower input costs thanks to cheaper imported goods along with other factors that drove "US exceptionalism," including open capital markets and labor flexibility. This trade-driven cost reduction allowed US firms to reduce prices for consumers. According to the same Federal Reserve study, US consumers gained an additional $260 in annual spending power for life, on average, due to the availability of cheaper Chinese imports.

Overall, globalization brought widespread consumer benefits, and high-skilled workers often transitioned to new roles with little loss in income. Yet, lower-skilled, lower-wage workers, especially in the manufacturing sector, bore the brunt of the adjustment costs. Will reversing globalization solve this issue? Evidence suggests it likely won't. US consumers, particularly those with lower incomes, will face higher prices for domestically produced goods. Moreover, retaliatory tariffs from trade partners could suppress demand for US exports and contribute to a global economic slowdown.

**LABOR CAPACITY.** A key question is whether the US has the ability to develop the labor capacity needed to significantly expand domestic manufacturing. Manufacturing's share of GDP has declined from 12% in 2000 to around 10% as of 2024 (see chart). Over the same period, manufacturing payrolls have dropped from 17 million to 12.8 million, while US goods imports as a share of GDP have risen from 10% to 13%. Despite these shifts, the broader US labor market added 30 million jobs during this time—a net gain of over 25 million jobs, suggesting that overall economic dynamism remained strong despite offshoring trends.

**As Imports Have Risen, Manufacturing Has Declined as a Share of US GDP**

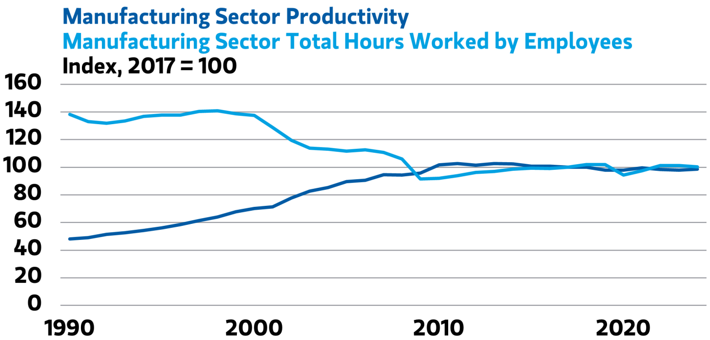



Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Morgan Stanley Wealth Management GIO as of April 30, 2025

So, could reversing globalization bring back 4.2 million manufacturing jobs? The answer is complicated.

In their 2012 National Bureau of Economic Research working paper, economists David Autor, David Horn and Gordon Hanson found that rising Chinese import competition accounted for only about one-quarter of the decline in US manufacturing employment. The dominant factor was technological advancement. Productivity gains—driven by automation, robotics and artificial intelligence (AI)—enabled firms to produce more with fewer workers (see chart).

## Productivity Gains Helped Drive Manufacturing's Employment Decline

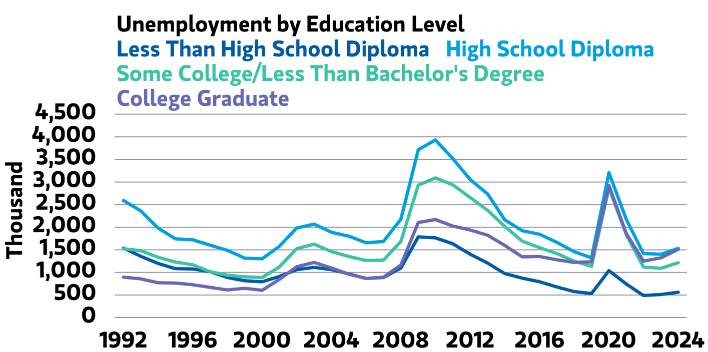



Source: Bureau of Economic Analysis, Morgan Stanley Wealth Management GIO as of April 30, 2025

Even if reshoring initiatives succeed in reviving domestic manufacturing, higher production costs may incentivize firms to automate rather than hire. Moreover, reshoring could eliminate jobs tied to import logistics and reduce overall demand through higher prices, particularly if wage growth fails to keep pace with inflation.

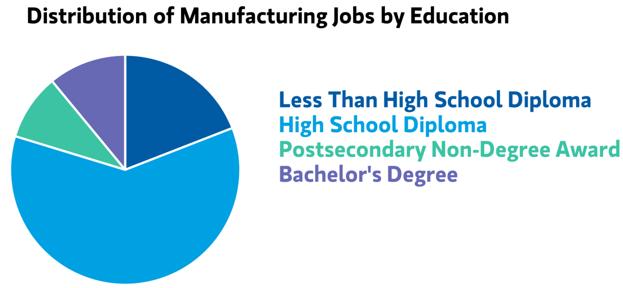
Labor market constraints further complicate matters. The US currently has around 7 million unemployed individuals, indicative of a historically tight labor market. Of these, only 2.2 million are at an educational level of high school diploma or below—the demographic most likely to fill traditional factory roles, according to the Bureau of Labor Statistics (see charts).

## US Unemployment Rates Are Near Historic Lows




Source: Bureau of Labor Statistics, Morgan Stanley Wealth Management GIO as of April 30, 2025

## US Manufacturing Workers Skew Lower Education




Source: Bureau of Labor Statistics, Morgan Stanley Wealth Management GIO as of June 2014

Pulling additional workers into the labor force might be difficult, especially given long-term demographic trends. While the labor force participation rate has fallen by roughly 4 percentage points since 2000, it's mostly been due to aging—not job loss. Among prime-age workers (25–54), participation is near a historic high, at approximately 84%.

To expand manufacturing meaningfully, the US may need to draw from the ranks of those not currently in the labor force or expand immigration. Without additional workers, reshoring may simply shift labor shortages around the economy, upwardly pressuring wages and, ultimately, prices.

While the desire to bring manufacturing jobs back to the US is politically appealing, the economic evidence suggests a more complex picture. Trade globalization, while painful for some workers, has delivered net benefits to the US economy—raising overall employment, lowering prices and supporting consumption. Efforts to reverse these trends through tariffs and reshoring face significant structural headwinds: a tight labor market, limited low-skilled labor supply, high automation potential and the likelihood of retaliatory trade policies. Rather than retreat from global trade, a more promising path may lie in strengthening worker retraining programs, investing in education and fostering innovation in high-value industries where the US maintains a comparative advantage. Simply put, the future of US jobs may depend less on where goods are made and more on how well American workers are prepared to compete in a rapidly evolving global economy. ■

US HOUSING

# Tariffs and Housing

**James Egan**, Strategist, Morgan Stanley & Co. LLC

Tariffs that have already been implemented, those that have been discussed and those that might potentially go into effect will have implications for home prices and housing activity. The exact impact on the cost of goods used to build homes will depend on myriad factors, including the final details of various tariffs, the ability of homebuilders to replace imported materials with domestic materials and potential price adjustments from domestic producers. That said, the end result will likely be more expensive homes, smaller homes, fewer being built or some combination of the three. On top of tariffs, more restrictive immigration policy could impact labor availability, putting upward pressure on construction sector wages.

From the perspective of housing activity, new-home inventory is hovering at its highest percentage of monthly homes available for sale in the 40-plus year history of our data. In other words, any decrease in home building or new home sales as a result of these changes could have a bigger impact on total transaction volume and housing prices than it would in a more historically "normal" context.

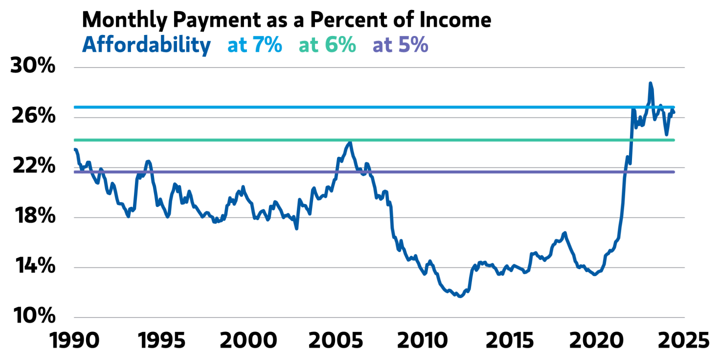
**NEW VS. EXISITING HOMES.** While the inventory of existing homes available for sale has been increasing, it remains tight relative to history. We expect any pressure on the new home market to push more buyers toward existing homes. Increased demand for existing homes in the face of limited supply would likely pressure home prices upward. While we would need further details to provide specific guidance around changes to our forecast trajectory of home prices, these dynamics appear poised to prevent the extent of deceleration in home price appreciation we have been expecting. In our 2025 outlook, our base case for price appreciation was -2%. We are currently penciling in a gain of 2% to 3%.

The tariffs are hitting the market just as affordability—that is, the monthly payment as a percent of income—is stretched. While it might not be quite as bad as it was in late 2023, we aren't too far off (see first chart). While several factors drive affordability, increasing the cost of inputs, all else equal, isn't going to improve it.

**DIFFERING IMPACTS.** Higher input costs will be felt differently across the housing landscape, but two of the more direct impacts are apt to be on housing starts and new home sales. New home sales have recently made up the largest share of total monthly transactions since the Great Financial Crisis. While the share of total volume is elevated, it is not unprecedented. In fact, it is slightly below the typical share of new home sales over the two decades prior to the crisis. What is unprecedented is the share of new for sale inventory as a percentage of monthly total inventory, recently at the highest levels on record (see second chart). This significant growth in inventories—largely outpacing that of sales volumes—has led to elevated months of inventory.

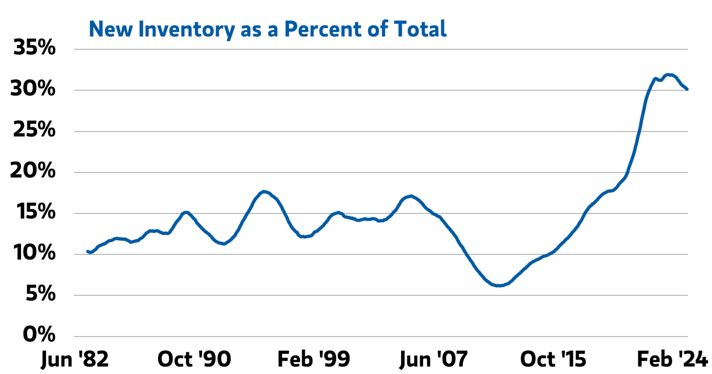
While new home prices are far from correction territory, the median price has been falling on a year-on-year basis for 17 months, while existing-home price growth has been accelerating. Of course, this price trajectory is not all a function of supply. Median price calculations introduce mix influences in a way that repeat sales indexes attempt to control for. The size of new homes being built has been on a downward trajectory for about a decade, which could also be playing a role in lower prices.

### Affordability Remains Stretched




Source: Freddie Mac, NAR, Morgan Stanley & Co. Research, Morgan Stanley Wealth Management GIO as of Feb. 28, 2025

### New Homes for Sale at Highest Share of Total Inventory on Record




Source: US Census Bureau, NAR, Morgan Stanley & Co. Research, Morgan Stanley Wealth Management GIO as of Feb. 28, 2025

**STALLED STARTS.** Decreasing prices and prospects for higher costs and slower growth have been weighing on homebuilder sentiment. The waning enthusiasm can be seen in single-unit housing starts, which have largely stalled over the past nine months. Suffice it to say, tariffs on products such as lumber, if they were to remain in place, could have a greater impact on the housing market than at any point in the past 15 to 20 years.

Morgan Stanley & Co.'s US economics team has noted that restrictive trade and immigration policies could lead to slower growth and firmer inflation. Construction is uniquely positioned among the different sectors in the economy: The division between goods and services is heavily skewed toward goods, and a large percentage of these are imported. This would imply first-order effects on prices of imported goods used in homebuilding.

**IMMIGRATION REFORM.** Another major policy area that will likely have implications for the housing market is immigration reform, since about 20% of the homebuilding workforce is foreign born—the highest percent of any industry. From 2022 to 2024, immigration averaged about 3 million per year in the US, around twice the historical run rate. We expect immigration to slow back toward and below normal run rates this year and next, coming in at around 1 million in 2025 and 500,000 in 2026.

The effects of less immigration could play out in a couple different ways: Reduced labor availability could result in fewer workers, longer construction timelines and lower supply of new houses; or it could result in hiring at steeper wages and thus higher building costs. Either way, this likely adds more upward pressure on new home prices. ■

*This article was excerpted from the March 28 Morgan Stanley & Co. Research report, "US Housing and Tariffs." For a copy of the full report, please contact your Financial Advisor.*

JAPAN

# Revisiting Japanese Investor Behavior

**Koichi Sugisaki**, Strategist, Morgan Stanley MUFG Securities Co., Ltd.+

In September 2019, when the Japanese economy was still mired in a low interest rate and disinflationary environment, we published "Understanding Investors in Japan," a detailed analysis of the motives and behavior of Japanese investors. They had a significant presence in Japanese government bonds (JGBs), the non-yen fixed income market and indeed in global markets, where their positions are substantially larger than those of other G10 investors.

Repeated fiscal stimulus to spur private demand, coupled with higher social security spending, had resulted in a massive private nonfinancial sector surplus. Most of the savings took the form of bank deposits, life insurance and pension products—all of which mostly invested in JGBs. With few attractive investment opportunities in a languishing domestic market, much investment was directed overseas. Financial institutions also looked overseas in search of higher yields.

**ECONOMIC NORMALIZATION.** Half a decade later, the world and Japan have changed dramatically. The Japanese economy has escaped from a deflationary equilibrium that lasted for many years and is transitioning to a normal one with moderate upward trends in prices and wages. Household and corporate long-term inflation expectations have started rising at the same time.

For example, the Bank of Japan's (BOJ) recent survey indicated that around 70% of firms thought it preferable in terms of business activities for prices and wages to rise moderately. Households similarly accept the view that an environment of moderate increases in prices and income is preferable.

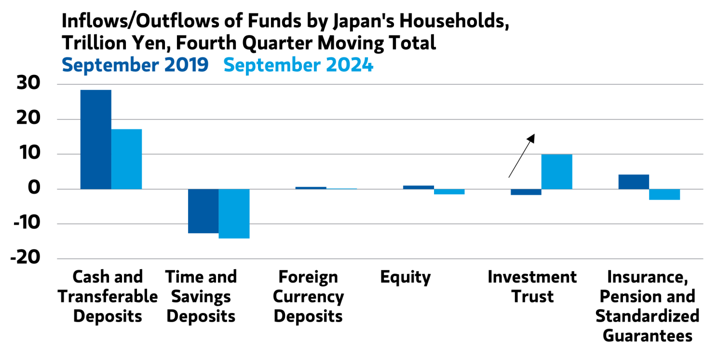
**RISING INFLATION EXPECTATIONS.** Workers are requesting significant wage hikes alongside the rise in inflation expectations, and corporate executives, who share their high inflation expectations, are boosting wages as corporate earnings improve. Hence, wage and price increases are becoming sustainable.

Japanese households have accumulated a massive amount of financial assets, which we expect to reach ¥2,500 trillion—about $17.7 trillion—by 2030. Thus, any changes in the asset composition have important implications for financial markets. Compared with Europe and the US, Japanese households have a relatively high percentage of their assets in cash, while the percentage in equities and other risk assets is low.

**ASSET SHIFT.** As household inflation expectations approach a 2% annual rate, we anticipate households will start shifting some cash and liquid deposits into risk asset investments. Movement from savings to investments is strengthening among younger people, who are less trapped in deflationary thinking and more likely to receive long-term investment benefits.

Excluding the impact of price changes, recent quarterly flow of funds data already show signs of an increase in new inflows to risk assets from households. While new flows to stocks have not risen, the inflow to investment trusts is expanding, partly due to impact of the Nippon Individual Savings Account (NISA), a tax-exempt investment framework launched last year (see chart).

## Inflows to Japanese Investment Trusts Have Risen




Source: Bank of Japan, Morgan Stanley & Co. Research, Morgan Stanley Wealth Management GIO as of March 11, 2025

As households' risk tolerance increases, a key question is how much they are investing in Japanese equities. We estimate that the impact of household investment in Japanese stocks via the NISA is at least ¥6.3 trillion, roughly what the BOJ spent on exchange-traded funds in 2020. Of note, households as a whole are adopting a buy-and-hold strategy. Looking at new NISA stock sales, just under 80% of users did not sell any stocks at all in 2024, either from growth investments or NISA investment allocations. ■

*This article was excerpted from the March 11 Morgan Stanley & Co. Research report, "'Understanding Investors in Japan' Reboot: Big Changes in Investment Behavior Under Way." For a copy of the full report, please contact your Financial Advisor.*

**Q&A**

# Location, Location, Location: Where to Invest in Real Estate Amid Volatility

Few industries have been disrupted in recent years as significantly as real estate. Supply chain realignment in response to policy change—during both the first trade conflict and again today—and pandemic-related impact on office demand have occurred parallel to secular trends such as those around senior housing, e-commerce's contribution to the industrial warehouse buildout and the ramp-up in data centers for artificial intelligence (AI) infrastructure. To discuss these themes, as well as the capital markets environment and emerging opportunities for individuals to access private real estate, Dan Skelly, head of market research and strategy at Morgan Stanley Wealth Management, spoke with Lauren Hochfelder, Morgan Stanley Investment Management's co-CEO of Real Estate. Below is an edited version of their April 16 conversation.

**Dan Skelly (DS):** Does the current severe market volatility remind you of any other periods historically? What are your broader impressions of the economic and policy environment?

**Lauren Hochfelder (LH):** While comparisons to the Great Financial Crisis (GFC) have some merit, we think that this period is quite different for a host of reasons. Principally, much of the value appreciation coming out of the GFC was tied to interest rates' dramatic decline and the concomitant benefit of cap-rate compression. Relatedly, the correction in values across sectors was much more homogenous than this cycle.

In this cycle, we see wide divergence in performance across sectors, markets and asset quality, and we expect rates to stay more elevated (even as they moderate). Therefore, selecting assets with outsized cash flow growth potential—those tied to structural megatrends and the faster growing parts of economies—is critical.

**DS:** How will ongoing tariff and trade developments impact supply chain movements yet again, and how could that affect industrial warehouse demand and leasing?

**LH:** Stepping back, the disruption of the global supply chain did not begin on "Liberation Day." Companies have been diversifying their supply chains for years in response to the U-turn on globalization and the increased frequency and severity of event-driven supply shocks—COVID, disruptions in the Red Sea or the Panama Canal, etc. Tariffs are one more very important proof point of what we've been saying and investing around for several years now: Companies cannot rely on yesterday's supply chains. They learned the hard way the risks of putting all their eggs in one basket; they need options. Over the long run, that should create more demand and shift where that demand is, creating winners and losers.

As to tariffs specifically, supply chains are obviously highly engineered and complex. They involve long-dated commitments, not just the lease commitments to landlords like us, but many other types. Sudden changes don't give companies enough time to adjust, so not surprisingly, we're seeing companies in wait-and-see mode, delaying decisions. We already saw that impact in the first quarter, and I'd expect it to increase. The first quarter saw the lowest quarterly net absorption since the GFC—25 million square feet versus a pre-COVID rate of 55 million.

As the market gets more clarity, we expect leasing to pick up. Importantly, new construction starts are down dramatically—and tariffs make it even more difficult and expensive to build. So the supply picture is very supportive of long-term value appreciation.

**DS:** Industrial real estate demand has been evolving since the first bout of trade conflict in 2018, and then of course during COVID. But going back further, the ramp-up in capacity linked to e-commerce underpinned your team's industrial thesis even before the 2016 election. How much of that trend has yet to play out, and how much could it potentially offset tariff-related uncertainty?

**LH:** We were early believers in the rise in e-commerce and the profound impact it would have on industrial real estate. As people started buying more of their goods online and demanding them faster, we bought and built warehouses that get those boxes to our front door every day. US e-commerce penetration grew from 11% in 2015 to 25% today. Over that time, rents in the top e-commerce markets we invested in grew 2.5 times.

E-commerce sales growth may be choppy in the near term, as it's highly correlated with consumer spending. But we expect continued long-term growth in e-commerce sales, and AI will be an additional tailwind to e-commerce.

**DS:** On the capital markets front, long-end rates have certainly moved higher. How is the cost of capital affecting transactions and commercial real estate pricing in particular?

**LH:** Real estate is over three years into a market correction triggered originally by rate increases in early 2022. Values have declined by 25%-plus in the US. By comparison, even after the volatility post-Liberation Day, equities are up 25% over the same period. So we think real estate is well priced relative to other asset classes and, importantly, is set up well for a recovery, with new construction dramatically down.

**DS:** Are we going to go back to pre-COVID office occupancy trends at some point?

**LH:** We are well past peak in this work-from-home odyssey. Work from home certainly got a test drive during COVID, with some favoring working in pajamas. But we've always said that it is highly linked to the economy. A strong economy and strong labor market give employees pricing power, so you get more work from home; a weaker economy and potential recession give employers pricing power, so more return to office.

I think we're absolutely seeing that. For example, on a national basis, with peak-COVID utilization rates having hit 15%, we're back up to 65% today. You take New York City, peak-COVID was 5%, so well below national, and today it's almost 75%. Within those numbers, there's pretty wide bifurcation. While low-quality, commodity spaces are struggling, we're seeing all-time-high rents in the best-quality assets. Take San Francisco, the city is 37% vacant, but in our office assets there, because they are so high quality, we are getting all-time-high rents.

**DS:** What are some of your preferred sectors?

**LH:** Two of the sectors we have high conviction in are net lease and senior housing.

Net lease is real estate that is long-term leased to creditworthy tenants in structures that push the risk of rising expenses to the tenant, so the asset owner collects a durable, contractual, escalating income yield. In a world with so much uncertainty, we like that net lease offers greater predictability of cash flows and is less exposed to macro uncertainty. Essentially, it's a hybrid between real estate and private credit that delivers the best of both and avoids the worst of both. It provides contractual cash flow like private credit but with a strong inflation hedge, tax advantages and the appreciation potential of hard-asset ownership. Net lease is also an attractive way to capitalize on the supply chain changes we've been discussing—for example, by investing in mission-critical manufacturing facilities.

**DS:** On senior housing, are the valuations still compelling?

**LH:** We continue to have strong conviction in senior housing. We focus on investing behind long-term megatrends where demand is structural, not cyclical. In a time with so much uncertainty, one thing is sure: Our population is aging, and with that its housing needs are shifting. You and I can sit here and speculate about interest rates or tariff policies, but we can actually calculate that the 80-plus population is expected to grow by 50% over the next decade. That provides a durable runway on demand.

Beyond that, new construction is way down, and we are acquiring assets at discounts to replacement cost and historically wide yields.

**DS:** How does your team approach data centers?

**LH:** On data centers, the demand side is pretty clear. The question has been what the value of these assets is at the end of the hyperscaler or other lease. How do you capitalize on that demand without assuming the residual value risk?

For us, the answer has been to invest in assets that benefit derivatively from that demand. We've invested heavily in industrial assets in markets that are exploding with data centers. We benefited from increased demand tied to the economic growth data centers generate as well as dramatically reduced supply because land is being gobbled up and warehouses are being knocked down to convert to data centers.

We found that a very attractive way to benefit asymmetrically from the demand without taking many of the key risks. We focus heavily not just on the markets that benefit, but on having power-intensive assets, which aren't just good for data centers, but also for advanced manufacturing, etc.

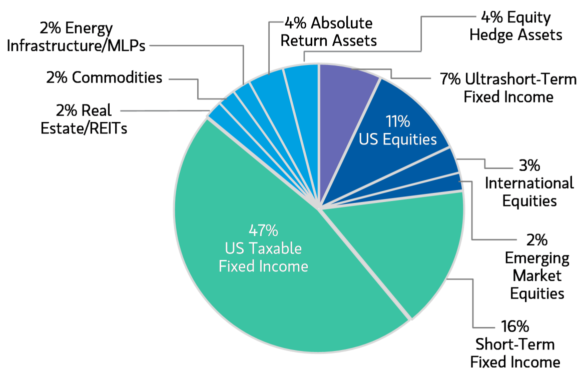
**DS:** Many asset managers are looking to expand their private product offerings in wealth management channels. What are some of the ways that you foresee individuals getting more access to real estate?

**LH:** We have been investing in private real estate on a global basis for over 30 years. Private real estate offers so many advantages—beyond total return, it offers effective inflation hedging, low correlation with other asset classes and tax advantages to US taxpayers. That individual investors can now access private real estate through a host of diversified investment products purpose built for individual investors is very exciting. ■

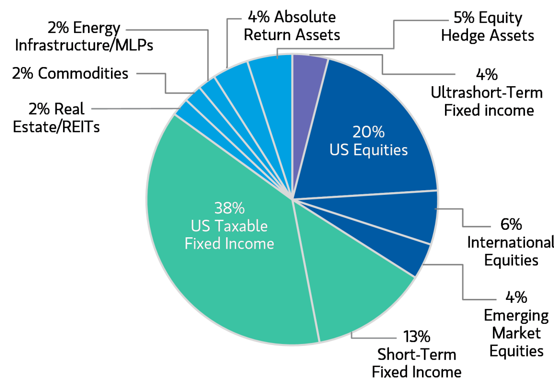
# Global Investment Committee Tactical Asset Allocation

The Global Investment Committee provides guidance on asset allocation decisions through its various allocation models. The five models below include allocations to traditional assets, real assets and hedged strategies. They are based on an increasing scale of risk (expected volatility) and expected return.

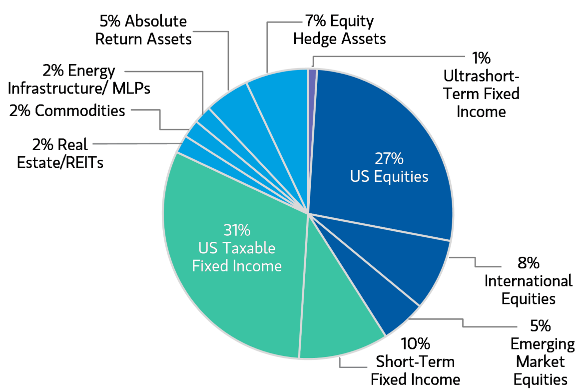
## Wealth Conservation



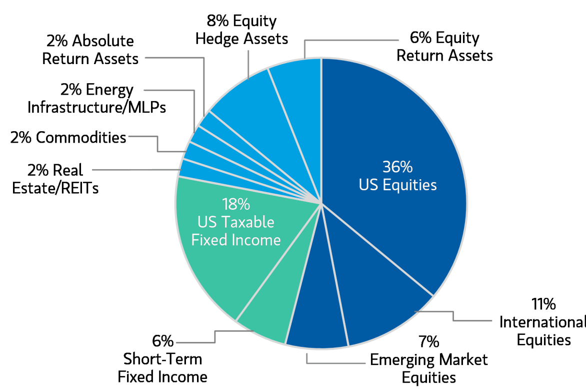

## Income



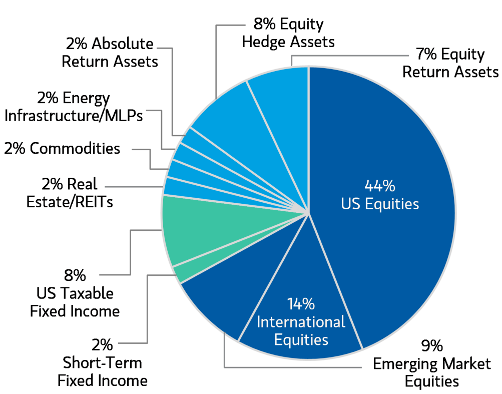

## Balanced Growth




## Market Growth




## Opportunistic Growth



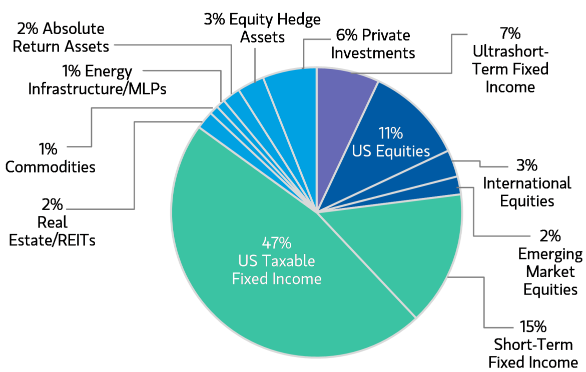

## Key

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

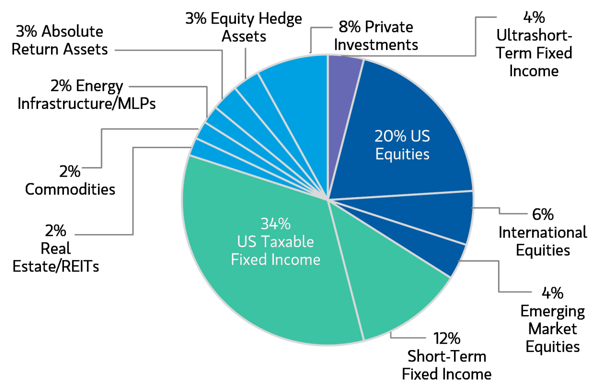
Source: Morgan Stanley Wealth Management GIC as of April 30, 2025

The Global Investment Committee provides guidance on asset allocation decisions through its various allocation models. The five models below include allocations to traditional assets and alternative investments, including privates, and are recommended for investors with over $10 million in investable assets. They are based on an increasing scale of risk (expected volatility) and expected return.

## Wealth Conservation




## Income

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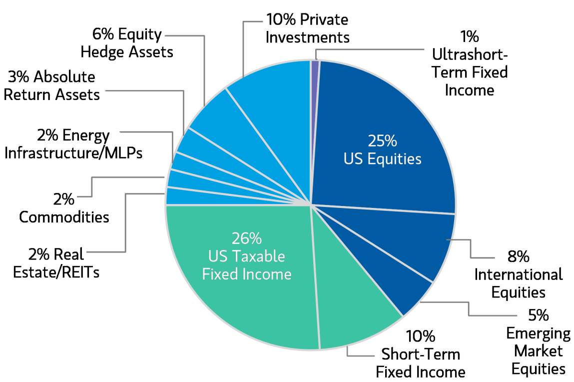


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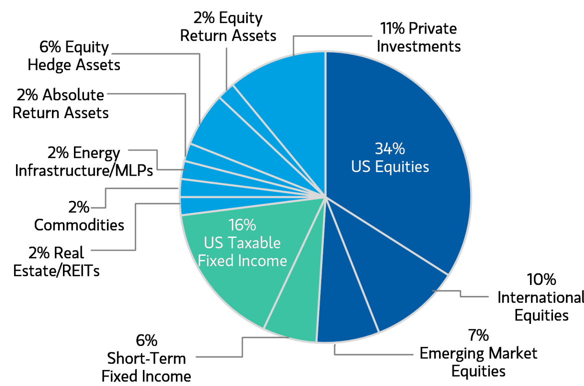


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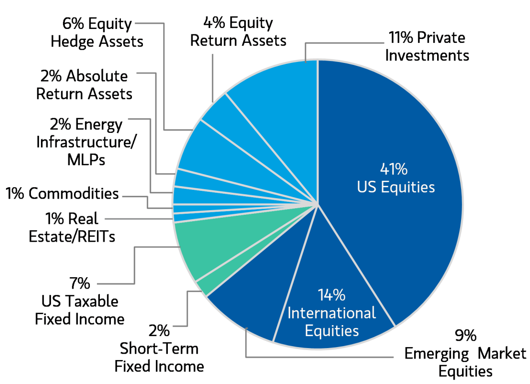


## Key

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

Source: Morgan Stanley Wealth Management GIC as of April 30, 2025

# Tactical Asset Allocation Reasoning

| Global Equities | Weight Relative to Model Benchmark | |
|---|---|---|
| US | Overweight | The recent corrections in both the Nasdaq Composite Index and the S&P 500 Index provide some relief to overstretched valuations, while the Federal Reserve's policy pause and the DeepSeek events have cooled the GenAI fever breaking the bull case. The uncertainty shock to confidence from Trump 2.0's rapid-fire policy agenda is leading to cuts in GDP that should translate to negative earnings revisions, but a soft landing is still the base case as long as the labor market holds. We are buying equal-weighted indexes, quality-cash-flow stories in both growth and value universes and mid-cap growth names. |
| International Equities (Developed Markets) | Underweight | Recent outperformance has been catalyzed as responses to the "America First" agenda have driven fiscal stimulus and concerns about tariffs have been cooling rest-of-world (ROW) inflation. This is creating ROW opportunities to simultaneously enjoy monetary, fiscal and currency-related stimulus. The outlook is improving in Japan and Europe. |
| Emerging Markets | Overweight | China stimulus, while potentially insufficient to address the challenges of the country's secular bear market, is likely enough to help stabilize the downturn in the short term. The US-China trade conflict remains a wild card, and we expect the "bazooka" of China stimulus may come in light of ongoing trade tensions. Given that valuations in the region are already nondemanding, we are inclined to be patient and wait for recovery. A weaker US dollar and lower global energy prices are positives for Latin America and Southeast Asia. |
| **Global Fixed Income** | **Weight Relative to Model Benchmark** | |
| US Investment Grade | Overweight | Corporate cash flows remain resilient even with recession risks rising. Spreads have partially adjusted to these realities, and default risk remains modest. While interest rates have backed up to reflect "higher-for-longer" expectations, there is good value and "coupon" in the belly of the curve. With geopolitical uncertainty high and equity valuations broadly rich, we like coupons of bonds with index-matching and shorter durations. Municipal securities are exhibiting good value but should be actively managed for credit concerns in a new world of federal funding priorities. |
| International Investment Grade | Market-Weight* | Yields are decent, central banks have begun to cut rates and there is room for spread tightening as economic growth improves. Currency impact is a tailwind for US dollar investors. |
| Inflation-Protection Securities | Market-Weight* | Real yields have sold off and are now bordering on cheap relative to the past two years. The securities could be a potential buy in a stagflationary environment. |
| High Yield | Market-Weight* | We have eliminated our exposure to the equity-like asset class to reduce equity beta of portfolios. High yield bonds rallied aggressively after the unprecedented provision of liquidity from the Fed and fiscal stimulus from Washington. However, we believe there is currently limited upside. Ultra-tight spreads may be the result of increasing competition for capital with private credit financial sponsors and general partners and may not fully reflect adequate compensation for default risk. |
| **Alternative Investments** | **Weight Relative to Model Benchmark** | |
| REITs | Market-Weight | We expect higher stock-bond correlations, which places a premium on the diversification benefits of investing in real assets. Nevertheless, with real interest rates positive and services inflation remaining quite sticky, we would need to be selective in adding to this asset class broadly. We are focused on interesting opportunities aimed at solving the residential housing shortage. |
| Commodities | Market-Weight | Global reflation, tense geopolitics, especially in the Middle East and ongoing fiscal spending suggest decent upside potential for precious metals and industrial commodities, including energy-related. |
| MLP/Energy Infrastructure | Overweight | We previously increased exposure to real assets, with a preference for energy infrastructure and MLPs. Competitive yields and expectations for continued capital discipline amid stable oil and gas prices underpin our decision, as does hedging against geopolitical risks. |
| Hedged Strategies (Hedge Funds and Managed Futures) | Overweight | We recently added to equity hedged positions noting the pickup in idiosyncratic risk, falling borrowing costs and rising volatility. The current environment appears constructive for hedge fund managers, who are frequently good stock pickers and can use leverage and risk management to potentially amplify returns. We prefer very active and fundamental strategies, especially high quality, low beta, low volatility and absolute return hedge funds. |

*The GIC asset allocation models' benchmarks do not include any exposure to this asset class.
Source: Morgan Stanley Wealth Management GIC as of April 30, 2025

## 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.

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Index Definitions

**BLOOMBERG CYBERSECURITY INDEX** This index is a thematic benchmark index designed to track the performance of companies involved in cybersecurity.

**CEO CONFIDENCE INDEX** This index tracks confidence in current and future business environments, based on CEO's observations of various economic and business components.

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

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Glossary

**Alpha** is the excess return of an investment relative to the return of a benchmark index.

**Earnings revision breadth** is defined as the number of positive analyst revisions minus the number of negative analyst revisions divided by the total number of revisions.

Hedged Strategy Definitions

**Absolute return:** This type of investing describes a category of investment strategies and mutual funds that seek to earn a positive return over time—regardless of whether markets are going up, down, or sideways—and to do so with less volatility than stocks.

**Equity Hedge** is a hedge fund investment strategy with a typical goal of providing equity-like returns while limiting the impact of downside market movements and volatility on an investor's portfolio. Managers utilize long and short positions, primarily in equity and equity-related instruments, to achieve this goal.

Risk Considerations

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## Alternative Investments

Alternative investments may be either traditional alternative investment vehicles, such as hedge funds, fund of hedge funds, private equity, private real estate and managed futures or, non-traditional products such as mutual funds and exchange-traded funds that also seek alternative-like exposure but have significant differences from traditional alternative investments. Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are 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 of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; and Risks associated with the operations, personnel, and processes of the manager. Further, opinions regarding Alternative Investments expressed herein may differ from the opinions expressed by Morgan Stanley Wealth Management and/or other businesses/affiliates of Morgan Stanley Wealth Management.

Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing.

Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank.

It is important to note that only eligible investors can invest in alternative investment funds and that in order for an FA/PWA to engage a prospective investor in general discussions about Alternative Investments and specifically with regards to Private Funds, the prospective investor will need to be pre-qualified through the Reg D system.

**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.

**Hedge funds** may involve a high degree of risk, often engage in leveraging and other speculative investment practices that may increase the risk of investment loss, can be highly illiquid, are not required to provide periodic pricing or valuation information to investors, may involve complex tax structures and delays in distributing important tax information, are not subject to the same regulatory requirements as mutual funds, often charge high fees which may offset any trading profits, and in many cases the underlying investments are not transparent and are known only to the investment manager.

**Hedge Funds of Funds** and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax-inefficient investing and delays in distributing important tax information. Categorically, hedge funds and funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns.

**Private Real Estate:** Risks of private real estate include: illiquidity; a long-term investment horizon with a limited or nonexistent secondary market; lack of transparency; volatility (risk of loss); and leverage.

An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. Investing in an international ETF also involves certain risks and considerations not typically associated with investing in an ETF that invests in the securities of U.S. issues, such as political, currency, economic and market risks. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economics. ETFs investing in physical commodities and commodity or currency futures have special tax considerations. Physical commodities may be treated as collectibles subject to a maximum 28% long-term capital gains rates, while futures are marked-to-market and may be subject to a blended 60% long- and 40% short-term capital gains tax rate. Rolling futures positions may create taxable events. For specifics and a greater explanation of possible risks with ETFs¸ along with the ETF's investment objectives, charges and expenses, please consult a copy of the ETF's prospectus. Investing in sectors may be more volatile than diversifying across many industries. The investment return and principal value of ETF investments will fluctuate, so an investor's ETF shares (Creation Units), if or when sold, may be worth more or less than the original cost. ETFs are redeemable only in Creation Unit size through an Authorized Participant and are not individually redeemable from an ETF.

***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.***

An investment in **a money market fund (MMF)** 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. The price of other MMFs will fluctuate and when you sell shares they may be worth more or less than originally paid. MMFs may impose a fee upon sale or temporarily suspend sales if liquidity falls below required minimums. During suspensions, shares would not be available for purchases, withdrawals, check writing or ATM debits.

**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. MLPs carry interest rate risk and may underperform in a rising interest rate environment.

**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.

**Bonds** are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or changes in the credit quality of the issuer. Bonds are subject to the credit risk of the issuer. This is the risk that the issuer might be unable to make interest and/or principal payments on a timely basis. Bonds are also subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate.

**Bonds rated below investment grade** may have speculative characteristics and present significant risks beyond those of other securities, including greater credit risk and price volatility in the secondary market. Investors should be careful to consider these risks alongside their individual circumstances, objectives and risk tolerance before investing in high-yield bonds. High yield bonds should comprise only a limited portion of a balanced portfolio.

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

**Treasury Inflation Protection Securities' (TIPS)** coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation.

**Ultrashort-term fixed income** asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

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.

Principal is returned on a monthly basis over the life of a **mortgage-backed security**. Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. Yields and average lives are estimated based on prepayment assumptions and are subject to change based on actual prepayment of the mortgages in the underlying pools. The level of predictability of an MBS/CMO's average life, and its market price, depends on the type of MBS/CMO class purchased and interest rate movements. In general, as interest rates fall, prepayment speeds are likely to increase, thus shortening the MBS/CMO's average life and likely causing its market price to rise. Conversely, as interest rates rise, prepayment speeds are likely to decrease, thus lengthening average life and likely causing the MBS/CMO's market price to fall. Some MBS/CMOs may have "original issue discount" (OID). OID occurs if the MBS/CMO's original issue price is below its stated redemption price at maturity, and results in "imputed interest" that must be reported annually for tax purposes, resulting in a tax liability even though interest was not received. Investors are urged to consult their tax advisors for more information.

**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.

**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.

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.

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.

The initial interest rate on a **floating-rate security** may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security's underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk.

The market value of **convertible bonds** and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield.

**Investing in commodities** entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention.

**Physical precious metals** are non-regulated products. Precious metals are speculative investments, which may experience short-term and long-term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. If sold in a declining market, the price you receive may be less than your original investment. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be 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.

**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.

Principal is returned on a monthly basis over the life of a **mortgage-backed security.** Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. Yields and average lives are estimated based on prepayment assumptions and are subject to change based on actual prepayment of the mortgages in the underlying pools. The level of predictability of an MBS/CMO's average life, and its market price, depends on the type of MBS/CMO class purchased and interest rate movements. In general, as interest rates fall, prepayment speeds are likely to increase, thus shortening the MBS/CMO's average life and likely causing its market price to rise. Conversely, as interest rates rise, prepayment speeds are likely to decrease, thus lengthening average life and likely causing the MBS/CMO's market price to fall. Some MBS/CMOs may have "original issue discount" (OID). OID occurs if the MBS/CMO's original issue price is below its stated redemption price at maturity, and results in "imputed interest" that must be reported annually for tax purposes, resulting in a tax liability even though interest was not received. Investors are urged to consult their tax advisors for more information.

**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.

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

**Investing in smaller companies** involves greater risks not associated with investing in more established companies, such as business risk, significant stock price fluctuations and illiquidity.

**Stocks of medium-sized companies** entail special risks, such as limited product lines, markets, and financial resources, and greater market volatility than securities of larger, more-established companies.

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.

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. **Health care sector stocks** are subject to government regulation, as well as government approval of products and services, which can significantly impact price and availability, and which can also be significantly affected by rapid obsolescence and patent expirations.

**Artificial intelligence (AI)** is subject to limitations, and you should be aware that any output from an IA-supported tool or service made available by the Firm for your use is subject to such limitations, including but not limited to inaccuracy, incompleteness, or embedded bias. You should always verify the results of any AI-generated output.

**Environmental, Social and Governance ("ESG") investments** in a portfolio may experience performance that is lower or higher than a portfolio not employing such practices. Portfolios with ESG restrictions and strategies as well as ESG investments may not be able to take advantage of the same opportunities or market trends as portfolios where ESG criteria is not applied. There are inconsistent ESG definitions and criteria within the industry, as well as multiple ESG ratings providers that provide ESG ratings of the same subject companies and/or securities that vary among the providers. Certain issuers of investments may have differing and inconsistent views concerning ESG criteria where the ESG claims made in offering documents or other literature may overstate ESG impact. ESG designations are as of the date of this material, and no assurance is provided that the underlying assets have maintained or will maintain and such designation or any stated ESG compliance. As a result, it is difficult to compare ESG investment products or to evaluate an ESG investment product in comparison to one that does not focus on ESG. Investors should also independently consider whether the ESG investment product meets their own ESG objectives or criteria. There is no assurance that an ESG investing strategy or techniques employed will be successful. Past performance is not a guarantee or a dependable measure of future results.

**Rebalancing** does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. Investors should consult with their tax advisor before implementing such a strategy.

The **indices** are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. The indices are not subject to expenses or fees and are often comprised of securities and other investment instruments the liquidity of which is not restricted. A particular investment product may consist of securities significantly different than those in any index referred to herein. Comparing an investment to a particular index may be of limited use.

The **indices selected by Morgan Stanley Wealth Management** to measure performance are representative of broad asset classes. Morgan Stanley Smith Barney LLC retains the right to change representative indices at any time.

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