Morgan Stanley

WEALTH MANAGEMENT

INVESTMENT STRATEGY

Global Investment Committee | July 2025

On the Markets

The New Bull Market

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As investors reflect on the first half of 2025, it's hard not to describe the economic and geopolitical backdrop as historic, the uncertainty that created a one-week equity bear market as nearly unprecedented and the subsequent 25% retracement to new highs as positively relieving. But here we are. For the year to date, the S&P 500 Index is up more than 5%. So the key question is, where to from here?

The Global Investment Committee (GIC), alongside Morgan Stanley & Co.'s chief US equity strategist, Mike Wilson, continues to believe that the benchmark index can hit 6,500 this year, suggesting single-digit gains for the rest of 2025. A better outcome than that might be possible, as investors craft a new bull market narrative comprising faith in Federal Reserve easing into a disinflationary "Goldilocks" soft landing; a capex/productivity boom aided by corporate tax cuts; and constructive deregulation supporting credit growth and Treasury issuance. Lower-than-expected oil prices, a weak US dollar and tariff policy that proves nondisruptive are additional potential tailwinds.

But as the stock market has moved on from "policy uncertainty," the GIC has remained more measured, focusing on risk management. In particular, we note high valuation multiples, a slim equity risk premium, ambitious profit forecasts that already assume margin expansion and clear signs of economic weakening from housing, the labor market and pockets of consumer spending. With US stock gains forecast to pace in the low single digits and equities and long-term bonds positively correlated, we are opting for portfolios with maximum diversification. Rest-of-world stocks have been outperforming the US in dollar terms by more than several thousand basis points for the year to date and may benefit from monetary and fiscal easing ahead, while fixed income coupons are still pricing higher total returns than stocks. Meanwhile, real assets are good inflation hedges, and hedge funds offer superior active management. Select private investments can add additional sources of idiosyncratic return. There are exciting things to do, but the strongest gains lie beyond the passive S&P 500 Index in the second half of 2025.

Happy summer!

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US INTEREST RATES

Steeper Curve, Weaker US Dollar Ahead

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

Interest rate and currency markets have oscillated in wide ranges over the past two years. Since mid-2023, the 10-year US Treasury yield has traversed nearly the entire 3.5%–5.0% range five times before settling near its midpoint. When US Treasury yields rose from the lower end of the range, the US dollar appreciated. And when they fell from the upper end, the dollar depreciated. Coming into the year, we thought both the dollar and Treasury yields would break these ranges to the downside—leaving the currency materially weaker and yields materially lower in 2025.

DOLLAR DEPRECIATION. At one point in early April, both calls looked on track. The 10-year Treasury yield nosedived from near 5.0% to below 4.0%, and the US Dollar Index (DXY) fell 10%—both from their mid-January high. Since "Liberation Day" on April 2, however, the US dollar has decoupled from the 10-year yield. Instead of appreciating in line with Treasury yields, the dollar has depreciated, breaking below its two-year range. While this decoupling may not last, we believe it supports our view for a much weaker dollar ahead. Indeed, in our midyear outlook, "The Moments of TRUTHS," we forecast that DXY would depreciate by 9% over the next 12 months.

What about Treasury yields? We expect the 10-year yield to fall below 3.5%—the lower end of its two-year range—over the next 12 months. And while good things proverbially come to those who wait, a year may seem like an eternity to investors. Fortunately, another part of the Treasury market, waiting to launch itself into a larger trend, stands on the precipice: the shape of the yield curve.

SHORTER MATURITIES TO DRIVE STEEPENING. We expect the US Treasury curve to steepen much further than it has so far. At the same time, we don't think the 30-year Treasury bond yield will steepen the curve by rising. Instead, we expect investors to face lower yields across the Treasury curve, led by shorter maturities. Still, just as lower yields have proved elusive over the past two years, stubbornly high levels may continue to frustrate investors over the next six months. Our economists believe tariff-related inflation will prevent the Fed from lowering rates this year—a dynamic that may keep Treasury yields in their two-year range for longer.

As we approach year-end and pass the peak of the inflation impulse, our economists expect growth data to weaken. We see that path leading to lower Treasury yields into year-end, taking the 10-year yield to 4.0%. Then, in 2026, we think Treasury yields will fall much further as yield curve steepening accelerates, taking yields below their captive range. The predominant driver? The Federal Reserve lowering the target range for the federal funds rate by 1.75 percentage point by the end of 2026.

Investors remain skeptical about such a drop in the Fed's target policy rate of 4.25%–4.50%. Indeed, while Morgan Stanley & Co. projects a range of 2.50%–2.75% by the end of 2026, market pricing suggests a more modest decline. If the Fed delivers the policy path we envision, we expect investors to increasingly embrace shorter-dated Treasury securities, namely those with maturities less than five years. Monetary policy easing beyond what investors currently expect should then shift focus to what comes next: reflation.

As investors embrace a reflationary outlook toward the end of an easing cycle, they are likely to shy away from Treasuries with longer maturities, especially as their yields decline in sympathy with lower overnight rates. In addition, running in the background, the Fed's presence in the Treasury market should continue to decline. At present, the Fed holds more duration risk in longer maturities than the private sector. As the central bank gradually exits the marketplace, we expect the private sector to assume more duration risk. And to do so, we think investors will demand more compensation in the form of yield.

In the end, we expect uncertainty to remain a constant in the lives of investors through our forecast horizon. But a much steeper US Treasury curve should help to compensate them for the inconvenience. ■

This article was excerpted from the June 8 Morgan Stanley & Co. Research report, "A Steeper Yield Curve, a Weaker US Dollar Ahead." For a copy of the full report, please contact your Financial Advisor.

GLOBAL ECONOMICS

AI and the Labor Market: Apocalypse or Opportunity?

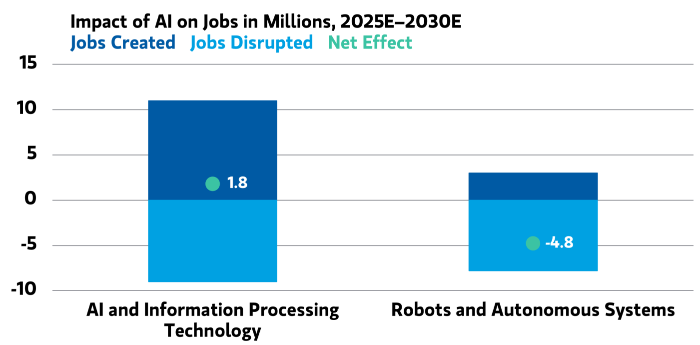
Sarah Wolfe, Investment Strategist, Morgan Stanley Wealth Management

Is artificial intelligence (AI) an existential threat to the global workforce—or its greatest catalyst for reinvention? It depends on who you ask.

Elon Musk famously predicted that AI will eventually eliminate all jobs, creating a future where universal basic income becomes necessary. While many view this as extreme, there is broad consensus that AI will bring extraordinary disruption and transformation to labor markets.

The World Economic Forum estimates that advances in AI and information processing will create 11 million new jobs by 2030—while displacing 9 million—resulting in a net gain of 2 million jobs globally (see chart). That net positive of 2 million hides wide variation, with robotics and autonomous systems expected to cause a net loss of 5 million jobs, particularly in repetitive or manual roles.

Expected Impact of Tech Innovation on Employment



Source: World Economic Forum, Morgan Stanley Wealth Management Global Investment Office as of January 2025

The key question is whether AI will complement workers or replace them. In reality, the future likely lies somewhere in between. The interplay among humans, machines and algorithms is becoming more complex, reshaping functions across nearly every industry.

Daniel Rock, of the Wharton School of the University of Pennsylvania, argues that "AI exposure" is neither good nor bad—it simply signals change. His research shows that 80% of workers have at least 10% of their tasks exposed to AI. A deeper look reveals that 1) 35% of occupations have 25% of tasks exposed to AI; 2) 11% of occupations have 50% exposed; and 3) just 4% of occupations have 75% or more exposed.

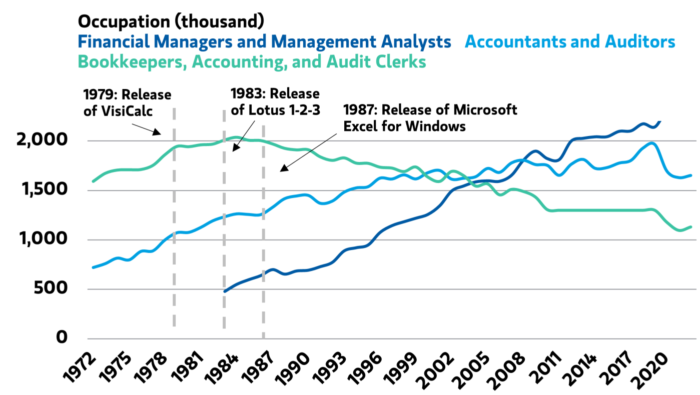
This nuance matters. AI typically replaces tasks, not entire jobs. High-exposure roles tend to be knowledge-based, e.g., in the case of mathematicians, proofreaders, blockchain engineers, programmers and database administrators. Conversely, jobs in farming, personal care, and sports and entertainment remain relatively insulated due to their physical or interpersonal nature.

This suggests that while certain occupations may shrink or disappear, the vast majority of jobs will be reshaped, not replaced. In many cases, AI will augment workers, freeing them from mundane or repetitive tasks and allowing them to focus on higher-value work. In this manner, AI becomes a platform for exponential productivity and growth, not a threat.

Morgan Stanley & Co.'s economists emphasize that concerns about mass job elimination often fall prey to the "lump of labor" fallacy—the mistaken belief that there's a fixed quantity of work to be done in an economy. In fact, history shows that new technologies often increase total employment by enhancing productivity, reducing costs and prices, and enabling the creation of new sectors.

Consider the adoption of spreadsheets in the 1980s. While the number of bookkeepers and clerks declined from approximately 2 million in 1987 to 1.5 million in 2000, the number of accountants, auditors, management analysts and financial managers grew from about 1.9 million to 3 million (see chart). That's a net job creation of 600,000 before even accounting for the emergence of the financial planning and data analysis industries that hadn't previously existed.

Spreadsheet Adoption Helped Create New Jobs



Source: Bureau of Labor Statistics, Morgan Stanley & Co. Research, Morgan Stanley Wealth Management Global Investment Office as of June 2025

Similarly, AI is projected to boost productivity by 0.7%, to 4.0% annually over the next decade. That could translate into significant gains in potential GDP across both developed and emerging markets. Entire categories of work are expected to emerge around AI model training and governance; AI-enhanced health care and diagnostics; AI-augmented education and content creation; and cybersecurity and privacy engineering. That's just to name a few.

To effectively participate in the AI wave, companies must be deliberate and strategic in preparing their employees for success. Organizations that develop AI infrastructure, encompassing both software and hardware, may be recognized as leaders in this trend. However, a crucial element of success will be a robust workforce strategy. "Re-skilling" initiatives and workforce transition tools are essential for equipping employees for AI-enhanced roles. Companies that invest in these areas are likely to gain the most from this digital transformation. ■

EMERGING MARKETS

India: Policy Momentum Reinforces Our Constructive View

Chetan Ahya, Chief Asia Economist, Morgan Stanley Asia Limited+

We recently attended our India Investment Forum in Mumbai, and came away more confident about the medium-term outlook. Efforts are underway to cut revenue expenditures and raise capital expenditures, which should be positive for macro stability and the interest rate outlook. Schemes to attract manufacturing investment and exports are starting to bear fruit, and policymakers are taking the next steps to make a bigger push to increase domestic value-added content.

Multinational companies are now making in India not just for India but with a view to exporting the goods elsewhere—an important change from their previous approach. Moreover, state governments are taking steps to address the cost of doing business, likely catalyzing further investment.

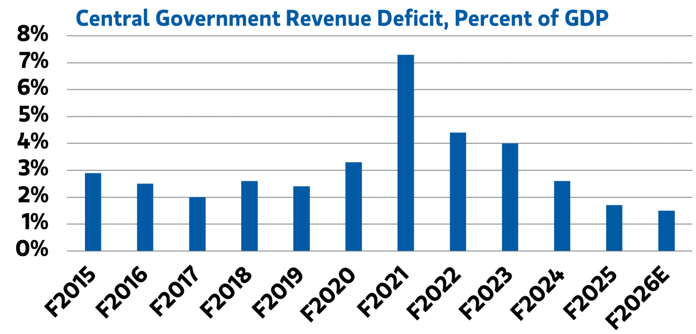
CYCLICAL PERSPECTIVE. In our view, India is the most favorably placed in Asia from a cyclical perspective given its low trade exposure; monetary, liquidity and fiscal policy easing; domestic demand recovery; and support from the rising importance of services exports. After a period of slowing, domestic demand has progressed gradually, with growth of goods- and sales-tax collection accelerating to a two-and-a-half-year high in May. Services-exports growth has continued to outpace goods-exports growth, remaining robust at an annualized 17% in April.

On the monetary policy front, the Reserve Bank of India surprised to the dovish side last month by implementing a 50-basis-point cut to its benchmark rate. Meanwhile, efforts to inject durable liquidity into the system have meant that interbank rates persisted at 25 basis points below the policy rate in May. The announced cut of 100 basis points in the cash reserve ratio should infuse additional liquidity into the banking system.

A TELLING METRIC. We believe the most telling metric is the trend in revenue expenditure. On a 12-month trailing basis, the central government's revenue expenditure relative to GDP has declined to a six-year low of 22%. Moreover, the revenue deficit has also declined to a 17-year low of just 1.7% of GDP in fiscal year 2025; per budget estimates, this will decline further to 1.5% in fiscal 2026—the lowest in 18 years (see chart).

There has been good progress on public finances, too. The central government's fiscal deficit is narrowing, reaching 4.8% of GDP in fiscal 2025. The mix of spending is also improving. The ratio of capital expenditure to GDP rebounded to 5.5% in March, just a touch off the February 2024 peak, and expenditure on social programs is coming down relative to GDP.

Central Government Revenue Deficit To Continue On Narrowing Path



Source: CEIC, Budget Documents, Morgan Stanley & Co. Research, Morgan Stanley Wealth Management Global Investment Office as of June 18, 2025

SPENDING SHIFT. This shift toward capital spending and reducing social spending should lift overall investment. We acknowledge that the public debt ratio is still relatively high, at 83% of GDP. Even so, especially considering India's demographic position, we think that recent public finance dynamics are positive. Macro stability risks should remain at bay while fiscal sustainability gets on a much better footing. And thanks to a much-improved macro stability backdrop, India may be entering a period of structurally lower interest rates.

We expect India to grow at a 6.5% annual average in the coming decade and become the world's third-largest economy by 2028. Nonetheless, we think policymakers should target an even higher level of growth. India's labor force is projected to grow by at least 84 million in the coming decade, and the current pace of GDP growth will not be able to generate enough jobs. If job growth continues to underperform labor force growth, a potential rise in social stability risks may lead policymakers to rely more on redistribution, which would distort the productivity dynamic and elevate macro stability risks. We estimate that required GDP growth rate to be above 9%. ■

This article was excerpted from the June 10 Morgan Stanley & Co. Research report, "The Viewpoint: India—Positive Policy Momentum Reinforces Our Constructive View." For a copy of the full report, please contact your Financial Advisor.

ENERGY

Natural Gas: Fueling the Decade

Mayank Maheshwari, Equity Analyst, Morgan Stanley Asia (Singapore) Pte+

The US shale revolution, which reshaped the country's energy consumption over the past decade, is being exported to Asia. And similar to its impact on the US, we believe it is set to transform the region's energy landscape. That said, electrification is the backbone to energy security needs, and natural gas is the primary energy that can help reach those needs efficiently and economically. To put things in perspective, since 2010, global energy consumption has risen some 20%, and all fuels have seen consumption growth. The pursuit of generative artificial intelligence (GenAI), onshoring of manufacturing and electrification of various sectors including transportation, are driving unprecedented power demand. Natural gas, a "cleaner" fossil fuel than coal and oil, is critical to satisfying rising energy consumption. These new demand centers are also changing consumer behavior, making natural gas consumption a lot more inelastic than over the past decade, and inflecting the adoption curve.

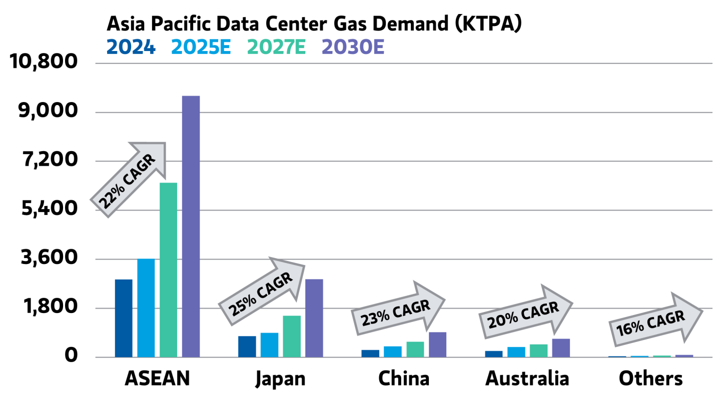
ASIA WILL SURPRISE. Our Asian natural gas demand growth forecasts are nearly double those of global consensus estimates. A combination of tight power markets, a rise in natural gas/liquified natural gas (LNG) vehicles, new data centers and higher renewables will be key to consumption growth. Overall, we estimate 120 million tons per annum (120 mpta) of LNG demand growth. That's as much as US capacity expansion by 2030. Total natural gas—domestic production plus LNG—consumption in Asia is estimated to rise by 212 mtpa, or slightly below the additional LNG global capacity. While Asia consumers would prefer domestic supply over imports, as they are cheaper by 20% to 30%, rising consumption leaves plenty of room for imported LNG. That said, Asian LNG demand remains price sensitive. We expect the adoption curve to inflect at prices of $10 per one million British thermal units (mmbtu) and below.

We believe the globalization of natural gas is set to usher in a new wave of gas adoption. Cheap natural gas has transformed the North American energy landscape, yet fragmentation of markets across the globe has left this impact isolated. Now a wave of investment in LNG, which can be easily transported, is unleashing this cheap energy resource and creating a new global commodity market at a time when demand for power is inflecting. This supply could not have come at a better time, as energy security is a top concern for policymakers. Interestingly, after a new wave of construction during the past five years, there are enough LNG carriers available to transport the fuel from the US to Asia.

SUPPLY CREATES DEMAND. The impact of upcoming global and local natural gas supply on demand could surprise as new avenues in power, LNG trucking, natural gas-powered vehicles and the hard-to-decarbonize industrial sector grow Asia's gas and LNG consumption by an estimated 120 mtpa. Asia will be at the forefront of this new normal in gas consumption with imports from the US. We estimate Asia's (ex China) dependence on US natural gas will more than double this decade and rewire supply chains for energy consumption across sectors—technology, new energy and transportation. LNG helps create a lower trade surplus by up to 20% for key countries like India, Indonesia and Japan. We believe LNG-delivered pricing of $10/mmbtu or lower is a sweet spot for consumption Asia.

Natural gas has an AI connection, too. Asia will be home to an estimated 80 gigawatts (GW) of direct current (DC) demand by the end of this decade, and demand for power could reach 87 GW in 2030, almost equal to the need for 120 GW of new gas-fired power plants. We estimate that as volumes of inferences pick up in Asia (similar to the US), DC capacity utilization will rise from 55% to 70% in the next three years and to about 80% by 2030. This makes an estimated 14 mntpa of gas demand more of a necessity as it works with coal and renewables to power systems in China, India, Malaysia, Singapore and Japan. Overall, we estimate gas will power 10% of inferencing capacity in Asia and support the need for clean power for DCs (see chart). Interestingly, there are enough idle gas-based power-generation capacity load factors (about 40% in 2024) that can help raise output, thereby lowering the incremental cost of power. India has 20 GW-plus of spare capacity, while China also aims to increase utilization rates.

Natural Gas Will Help Meet Asia's Growing Appetite for Power, as Data Centers Fuel Incremental Demand



Source: Morgan Stanley & Co. Research, Morgan Stanley Wealth Management Global Investment Office as of June 23, 2025

CHANGING POWER MARKETS. In multiple ways, the power market structure in Asia is evolving to get closer to developed market economies, with more units exposed to power trading rather than power purchase agreements (PPAs). This is also coming at a time when regulators are looking to keep power prices as affordable as possible and blunt the impact of renewables on power grids while making them more stable. Hence, natural gas is going to gain significant importance as some 20% of Asia's power consumption moves to the spot market or has some linkage to the spot market in China, Japan and South Asia (including India and Southeast Asia). We believe this development, as well as a shift to cleaner fuel sources, will lift gas-based power consumption demand by more than 100 mtpa. While batteries are apt to be in competition with gas, the levelized cost of energy of gas makes it very competitive for round-the-clock power generation.

Can natural gas compete with coal? Natural gas has found faster adoption as a transport fuel but has struggled to compete with cheaper coal in Asia for the past decade. This is changing for a few reasons: 1) Rising domestic supply in China and India makes natural gas more competitive; 2) higher base load demand in Malaysia, the Philippines and Singapore from data centers and new-generation manufacturing leads to higher needs for peak load gas-based generation; 3) the combination of renewables, cheaper LNG imports and a higher mix of contracted LNG can also compete with coal as power trading rises in Asia; and 4) carbon targets drive faster coal-to-gas switching, especially in China, where we see mandatory industrial boilers burning gas and a coal-to-gas switch in rural areas. Over the past two years, when global and domestic gas prices have risen we have seen demand in major Asian markets sustain at higher growth levels. That's in contrast to before COVID, when demand elasticity to price was higher. ■

This article was excerpted from the May 5 Morgan Stanley & Co. Research report, "Natural Gas: Fueling The Decade, Powered by AI." For a copy of the full report, please contact your Financial Advisor.

CRYPTOCURRENCY

Seven Things to Know About Stablecoins

James E. Faucette, Equity Analyst, Morgan Stanley & Co. LLC

Stablecoin enthusiasm has grown recently, as the GENIUS Act, which would codify stablecoin requirements, makes its way through Congress and large retailers reportedly explore issuing stablecoins. Here, we outline seven things we think investors should know.

Stablecoins are generally defined as a cryptocurrency category where the value of the coin is intended to be pegged to the value of another asset or target. Most currently, available well known and proposed stablecoins are intended to be pegged to the US dollar. However, a stablecoin could also be pegged to the underlying value of other assets, including commodities, such as gold.

Most stablecoins maintain an asset base whose total value is equivalent to the value of the outstanding stablecoins. However, algorithmic stablecoins have been introduced where the sponsoring entity doesn't actually hold the underlying asset but attempts to maintain a peg primarily by adjusting the supply of available tokens. Stablecoin transactions are often promoted as being recorded on a blockchain, but that is not a necessary condition.

From a practical standpoint, a stablecoin is typically a deposit account that pays no interest and can clear immediately. Stablecoins definitionally can be confusing to some, in no small part because they often look, and largely function, like existing financial instruments. In our opinion, most dollar-backed stablecoins are really just deposit accounts on which the depositor is not paid interest or other consideration, but whose sponsor is able to generate net interest income by investing the deposited assets, typically in highly liquid and very short-duration assets—like a standard checking account, but without Federal Deposit Insurance Corporation (FDIC) insurance.

A key difference versus checking accounts, however, is that any transaction into or out of the stablecoin account can be cleared immediately. Notably, while most stablecoins do not pay interest, as is the case under proposed legislation, there is nothing in the stablecoin structure itself that makes doing so implausible, and a few stablecoins currently do pay interest.

Stablecoins can enable unique transactions (at least initially). We find that stablecoins can serve as a transaction mechanism for situations that are often hard to satisfy with other instruments and mechanisms. In particular, stablecoins can serve well in situations that require a variety of transactions, including those for which exact timing can't be predicted, those for which the exact value isn't known ahead of time and especially large transactions (e.g., greater than $100,000). Other situations where we believe stablecoins can serve well include those involving interorganizational transactions, transactions that require immediate clearing and transactions that require immediate fund availability.

For transactions that don't entail all six of these requirements, there are existing, well developed mechanisms. Examples of instances where stablecoins can clearly provide some utility include brokerage/trading—especially for crypto trading activities and settlement of online gaming transactions—and potentially some cases of international commerce.

The GENIUS Act would codify requirements for stablecoin issuers. The proposed GENIUS Act has advanced in the US Senate, but a full floor debate and vote have not yet been set. The act would outline the requirements for issuing stablecoins, including asset holding, audit and reporting obligations, while limiting permitted reserves.

If passed, it could reduce the ambiguity that has emerged periodically as to what kinds of institutions may issue stablecoins and what the issuing entities' obligations are to stablecoin holders.

Stablecoin usage costs rise with interest rates. As typically no interest is paid on stablecoin accounts, the cost of transacting for the depositing party is likely to be primarily the opportunity cost of lost potential interest income on the deposited funds. As such, we would expect that the cost of transaction would rise (and may reduce demand for stablecoins generally), during a period of rising/higher interest rates. Conversely, we would expect the cost of stablecoin transactions to fall in a period of lower/falling interest rates.

Major credit card companies have been building stablecoin capabilities for years. While some may fear that stablecoins could represent a challenge to major payment networks, we do not expect that to be the case. As the capabilities of the largest payment networks are unlikely to be surpassed, including in terms of cost, and stablecoins are really just a form of deposit account, we think that the existing payment networks can bring to bear substantial efficiencies and benefits for stablecoins generally. As such, stablecoins likely represent more incremental opportunity than risk for the payment networks.

Merchant-sponsored stablecoins for consumers are just like gift cards. Recently, there has been substantial investor buzz created by news stories that large retailers may introduce their own respective stablecoins.

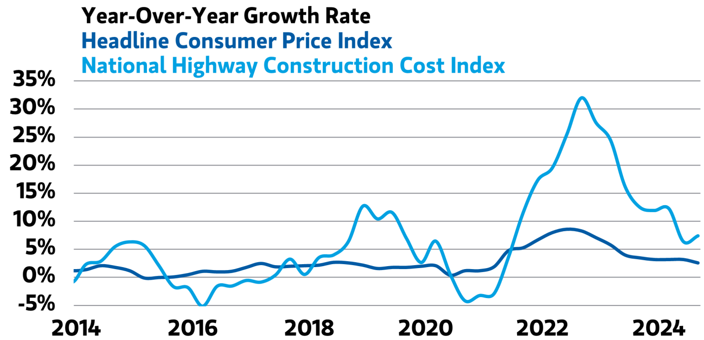
While there may be various operational uses, such as paying vendors, any consumer-centric stablecoin offerings will functionally be the equivalent of prepaid gift cards. The consumer will give funds to the merchant, the merchant will hold the funds (and generate float income), and the consumer will at some future date be able to use the deposited funds for purchases of goods and services. We would not expect transaction or servicing costs for those stablecoin accounts to be substantially different than for prepaid gift cards. ■

This article was excerpted from the June 16 Morgan Stanley & Co. Research report, "Seven Things to Know About Stablecoins." For a copy of the full report, please contact your Financial Advisor.

Short Takes

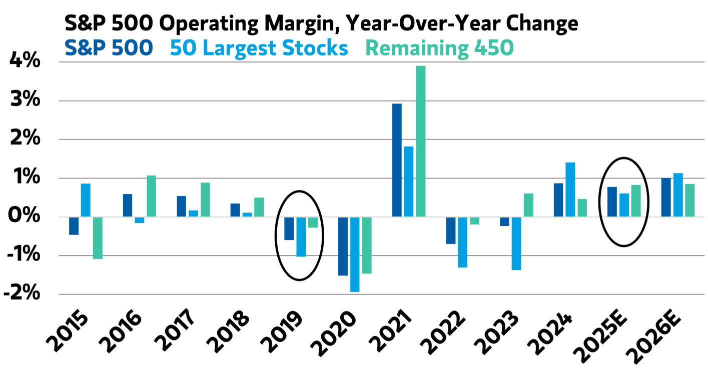
2025 Supply Deluge Weighs on Municipals' Performance

At $278 billion, 2025's tax-exempt municipal issuance is on track to exceed the 2024 all-time high. Issuers have pulled forward supply ahead of potential federal policy changes that may limit certain sectors' ability to issue tax-exempt debt. Rising costs, reflecting the cumulative effect of elevated inflation over recent years, have also led to greater funding needs. Roads, which account for nearly a third of state and local construction spending, offer one example. In recent years, the Federal Highway Administration's National Highway Construction Cost Index has far exceeded the growth of broader inflation indexes. Over the past 12 to 18 months, elevated issuance has been a headwind for munis, contributing to their underperformance versus other fixed income assets.—*Daryl Helsing, CFA*



Source: Federal Highway Administration, Bloomberg, Morgan Stanley Wealth Management Global Investment Office as of Sept. 30, 2024

Tariffs May Erode Margins and Reduce Earnings Estimates

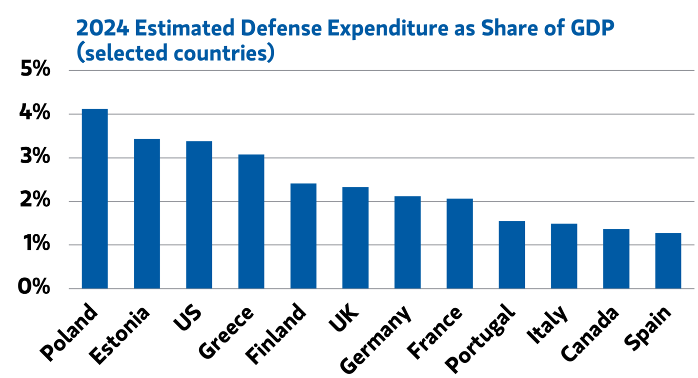


Source: FactSet, Morgan Stanley Wealth Management Global Investment Office as of June 30, 2025

Since the end of April, consensus S&P 500 Index earnings forecasts have been stable, boosting confidence that we might be past earnings downgrades. But the consensus forecast's embedded margin assumption suggests risks of another leg lower in estimates, especially considering the 2018–2019 experience. The effective tariff rate rose from about 1.5% in 2018 to 3.0% in 2019, resulting in a lost year of earnings growth, primarily due to margin contraction. The current estimated tariff rate is about 13%—10 percentage points higher than in 2024—with the consensus earnings forecast implying broad margin expansion. Even if one assumes that, unlike 2019, the 50 largest stocks don't see any margin erosion, margin disappointment for the remaining 450 may suggests further earnings downgrades. —*Priya Hariani, CFA*

NATO Commits to Raise Defense Spending to 5%

In what's been reported as a historic move, NATO members recently agreed to a defense-spending goal of 5% of GDP. The new target, up from 2%, comes with a 2035 timeline and breaks down into 3.5% for core defense spending and 1.5% for related investment, including in critical infrastructure and cybersecurity. Part of the commitment is to "expand transatlantic defense industrial cooperation" and to "harness emerging technology." Morgan Stanley & Co. Research European defense sector analysts have noted such moves as being positive for the industry. These developments also further support the global defense thematic call made by the Morgan Stanley Wealth Management Global Investment Office's Thematic and Macro Investing team in its January 2025 *AlphaCurrents Macro* report.—*Jane Yu Sullivan, CFA*



Source: NATO, Morgan Stanley Wealth Management Global Investment Office as of June 12, 2024

GLOBAL MACRO

Unanchored Term Premiums Break Higher

Alfredo Pinel, Investment Strategist, Morgan Stanley Wealth Management

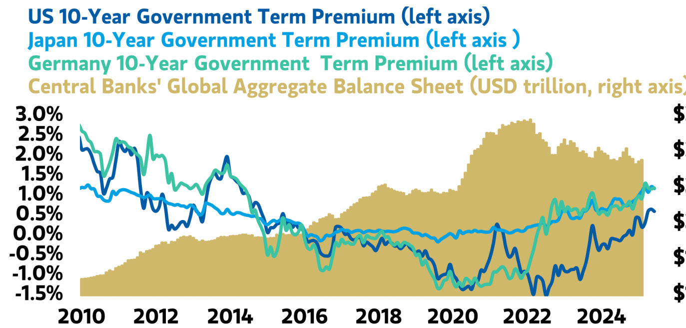
Despite G7 inflation peaking in 2022, long-term, developed market government bond yields still hover near decade-plus highs. Waning central bank demand, sticky inflation and a deteriorating fiscal backdrop have led investors to demand more compensation—or term premium—to hold longer-maturity bonds. US, Japanese and German 10-year term premiums have risen to levels well above their post-Global Financial Crisis (GFC) averages, contributing to a reset in global yields.

The cross-asset implications of rising term premiums could prove substantial. For example, the repricing of duration risks in recent years has helped drive a steepening of government bond yield curves, particularly on the long end of the maturity spectrum. The yield spread between 10- and 30-year Japanese government bonds (JGBs), for instance, has widened to 1.5 percentage points, marking the biggest differential in at least 25 years. Yield curve steepening, in turn, has boosted financial equities, making them the strongest sector performers in non-US developed markets over the past two years.

WANING CENTRAL BANK DEMAND. To promote economic recovery following the GFC, central banks deployed quantitative easing (QE) to anchor term premiums and help depress yields across the curve. In recent years, however, central banks' retreat has removed a major price-insensitive demand source, shifting influence to private sector investors, who have pushed 10-year term premiums higher. Based on the Adrian, Crump and Moench model, the US term premium has risen to 61 basis points, which is well above the 13-basis-point post-GFC average. In Japan and Germany, term premiums have risen to around 120 basis points, also easily clearing post-GFC averages.

Global aggregate central bank holdings—as compiled by the Bank for International Settlements—stand at $28 trillion, down from an early-2022 peak of $32 trillion (see chart). Despite the modest decline, holdings remain more than double levels that prevailed at the beginning of the 2010s. The Bank of Japan's (BOJ) JGB holdings still account for 53% of that market, up from 11% in the mid-2000s. The European Central Bank (ECB) commands a 32% share of the eurozone sovereign debt market—up from zero in the mid-2010s—while the Federal Reserve's share of the Treasury market has reverted to the 18% average since the early 2000s.

Waning Central Bank Support Has Helped Unanchor Term Premiums



Note: We display central banks' global aggregate balance sheet through February 2025, the most recently reported data. Source: Bloomberg, Bank for International Settlements, Morgan Stanley Wealth Management Global Investment Office as of June 30, 2025

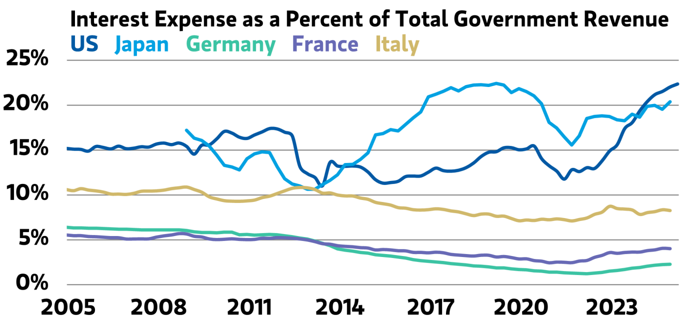
FISCAL PRESSURES. Over the past 12 months, the US Treasury has issued $548 billion of 10-year notes, alongside $316 billion of 30-year bonds—a sharp increase from pre-COVID trends. Due to declining Fed participation amid quantitative tightening (QT), the acceleration in issuance of long-duration Treasuries has required absorption from more price-sensitive buyers in the private sector. Morgan Stanley & Co. Research's banks and diversified finance team does not expect a significant increase in US banks' demand for Treasuries to arise from potential changes to the supplementary leverage ratio (SLR), given the lack of SLR-constrained US large-cap banks in its coverage universe.

The US government's interest expense versus its revenue, a measure of fiscal sustainability, has risen sharply post-COVID, from 13% in mid-2022 to 22% (see chart). Fiscal deficits, rate hikes and front-loaded Treasury issuance have driven the move. In Japan, the ratio is also elevated, standing at just over 20%. Worsening demographics, anemic growth and a significant debt pile have largely offset the benefits from lower rates. In Europe, the lagged effects of zero interest rate policy (ZIRP) and relatively lower debt levels have translated into a more benign debt burden of 2% for Germany, 4% for France and 8% for Italy. Even with more expansive fiscal policy, German Bunds could become relatively more appealing to global investors, given healthier fiscal dynamics.

Government debt-to-GDP ratios have increased post-GFC, with Japan's 216% level—driven by a large social security deficit and unfavorable demographics—standing out. That said, Japan has not faced any semblance of a fiscal crisis, given the combination of low policy rates, BOJ buying and strong domestic demand. With the first two factors turning less supportive, however, term premiums have begun to rise. The picture looks more sanguine in Germany, where the debt-to-GDP ratio stands at 62%, compared to 113% in the US, potentially allowing long-term German government bonds (Bunds) to enjoy a lower default risk premium.

High debt levels could crowd out private sector investment and dampen fiscal multipliers, as companies, consumers and investors anticipate eventual tax hikes and spending cuts. International Monetary Fund estimates point to modest increases in debt-to-GDP ratios in coming years, contributing to the recent Moody's downgrade of the US sovereign credit rating.

The US Government's Debt-Service Ratio Is Ramping Up, While Germany's Is More Restrained



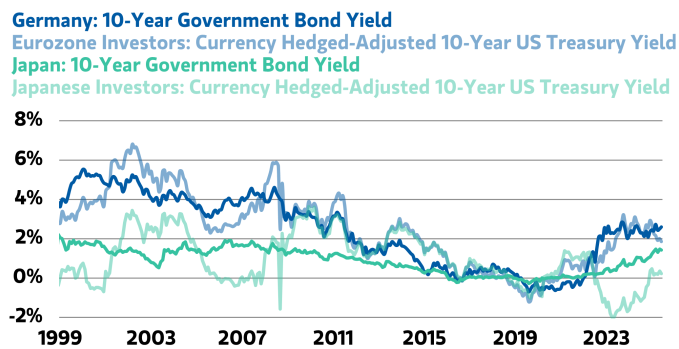
Note: We display trailing 12-month interest expense as a percent of government revenue. Source: US Office of Management and Budget, Bank of Japan, Ministry of Finance, Eurostat, Morgan Stanley Wealth Management Global Investment Office as of June 30, 2025

ASSET ALLOCATION. We analyzed global equities based on their monthly-return betas relative to moves in the 10-year US Treasury yield computed over the past three years of fiscal expansion and inflationary dynamics. Among them, Chinese and US stocks, as well as those in the technology and materials sectors, appear to be the most rate-sensitive. On the other hand, Brazilian and Japanese stocks, alongside those in the energy and financials sectors, appear the least sensitive to rising long-term rates. Among real assets, infrastructure stocks and real estate investment trusts (REITs) appear the most vulnerable. Rising long-term bond yields pose headwinds to multiple expansion, particularly in the US, placing a greater onus on earnings growth at a time of elevated global economic uncertainty.

After being largely absent from 2000 to 2021, inflation's return in the post-COVID years has helped flip the correlation between monthly equity returns and moves in 10-year government bond yields to well-entrenched negative levels for US and European equities. For Japanese stocks, the correlation has appeared less negative, possibly because rising long-term rates in Japan have corresponded with the welcome exit from a deflationary regime, alongside strengthening nominal GDP growth—both positives for corporate pricing power. As bonds' diversifying properties have eroded in recent years, investors have demanded greater compensation in return, pushing term premiums higher.

The rise in global long-term bond yields has created some competitive pressure for US Treasuries, also driving term premiums higher, as foreign investors consider opportunities elsewhere (see chart). In April, foreigners sold around $47 billion in Treasuries amid the tariff turmoil, marking a top-2% monthly decline in holdings since 1978. The German 10-year Bund yield has risen to 2.6%, from -0.2% at the end of 2019. As a result, eurozone-based investors may now find greater relative value in local government debt, compared to currency-hedged Treasuries (EUR/USD), which yield only 1.9%, in part due to increasing hedging costs related to this year's rise in short-term US rates relative to the eurozone benchmark. Similarly, Japanese investors now benefit from a yield pickup of about 120 basis points when holding Japanese 10-year JGBs relative to currency-hedged US Treasuries (USD/JPY). ■

Non-US Government Bonds Have Gained Some Appeal



Source: Bloomberg, Morgan Stanley Wealth Management Global Investment Office as of June 30, 2025

This article was excerpted from the June 25 Morgan Stanley Wealth Management Global Insights report, "Watching for Bond Vigilantes' Impact on Long-Term Government Yields." For a copy of the full report, please contact your Financial Advisor.

COMMODITIES

How China Is Playing Its Rare Earth Card

Robin Xing, Chief China Economist, Morgan Stanley Asia Limited+

China's control over rare earth supply has become a calibrated yet assertive tool for strategic influence. Its near-monopoly of the supply chain means rare earths will remain a significant bargaining chip in trade negotiations. Among 17 rare earth elements, China has imposed export controls on seven heavier ones and their processed products (including alloys and magnets) since April 4—two days after the US' "Liberation Day."

Rare earth elements are not "rare" in the same way as gold or platinum. However, they are found in quite small quantities, and thus it is costly to mine and refine them. Rare earths are in increasing demand because they are critical for state-of-the-art manufacturing processes: For example, rare earth magnets used in electric vehicles (EVs) can make the motor small and energy-efficient. Looking ahead, humanoid robots will also be a big demand driver for such magnets.

SUPPLY CHAIN DOMINANCE. We believe China is increasingly leveraging its rare earth supply chain dominance. Recent actions point to systematic efforts to refine mechanisms so that it can become a more effective strategic lever. They include tightening of export licenses to regulate volume, destination, end use and recipient companies; a tracking system to strengthen oversight of finished magnet exports; and warnings to trading partners to avoid facilitating indirect exports of rare earths or magnets to third-party countries.

Beijing had largely refrained from using rare earths as a lever even amid 2018–19 trade tensions due to concerns over global confidence in Chinese supply chains and whether rare earth leverage would endure. We believe the reduced hesitation in leveraging rare earths stems from two key developments: rising trade tensions and tech restrictions, as well as strengthened supply chain dominance.

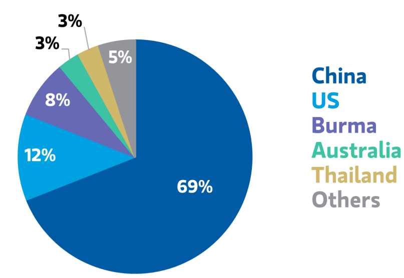
The buildup of alternative rare earth refining and magnet production capacity has been slow in the past five years due to economic, technical and environmental hurdles. Last year, China accounted for 69% of global rare earth production and 49% of global reserves (see charts). It controls over 85% of global rare earth refining and 90% of NdFeB (neodymium, iron, boron) magnet production, which is critical for national defense, wind turbines and EVs.

EVOLVING EXPORT CONTROLS. Can China effectively wield this lever? While China's export control regime is advancing, it remains in its early stages. Its system still lacks institutional depth and international compliance frameworks. The export control framework, taking shape only since 2021, is still evolving. Beijing is developing sophisticated tracking and licensing systems, which, while they cannot yet match US-style precision, suggest rapid progress.

The current rare earth controls are as much about testing mechanisms as they are about immediate economic impact. Yet ultimately, Beijing appears to be establishing a calibrated deterrence system in which strategic elements such as rare earths are used to reshape the cost-benefit calculus of siding with the US export control regime. It will likely respond selectively to tech restrictions imposed by the US and its allies. For example, if a US ally were to block semiconductors and lithography tools, China might target critical inputs like rare earths to that country. This reciprocal escalation seeks to deter full alignment with US policies and reshape global tech and trade dynamics. ■

China Is the Largest Rare Earth Producer Globally

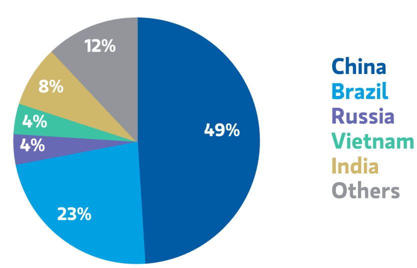
Global Rare Earth Production (2024) - Breakdown by Country



Source: USGS, Morgan Stanley Research, Morgan Stanley Wealth Management Global Investment Office as of June 18, 2025

China Has the Largest Rare Earth Reserves in the World

Global Rare Earth Reserve (2024) - Breakdown by Country



Source: USGS, Morgan Stanley Research, Morgan Stanley Wealth Management Global Investment Office as of June 18, 2025

This article was excerpted from the June 9 Morgan Stanley & Co. Research report, "How China Is Playing Its Rare Earth Card." For a copy of the full report, please contact your Financial Advisor.

THEMATIC INVESTING

Demographics and Drinking

Sarah Simon, Equity Analyst, Morgan Stanley & Co. International plc+

While global beverage analysis has for several years focused on when the market would normalize post-COVID, we believe that the more important question is the level of medium-to-long-term growth in alcohol consumption. That normalized growth rate will drive valuation multiples for beverage stocks, whereas investors may "look through" short-term earnings pressures, viewing them as simply cyclical.

We believe that growth in spirits consumption in the US is set to settle at a lower long-term rate than the 5% that prevailed in the decade prior to COVID. US spirits volume growth indexed to 2015 increased in 2020 and 2021 but has been trending down toward pre-pandemic levels. Outside the US, spirits' growth rate was in decline before COVID and is now falling even further.

STRUCTURAL PRESSURES. What's going on? We see structural pressures at play: pressures that we believe are set to increase as moderation trends gain traction, mix shifts toward older consumers and population growth slows in many markets.

To start with, ample survey data suggests that younger consumers are drinking less. To be sure, the use of such data is often criticized on the basis that consumers may not be entirely honest about their consumption of unhealthy products. For this reason, the market has sought alternative explanations for alcohol market weakness—such as the consumer being under pressure or that this is a post-pandemic normalization—and the debate about structural pressures has often been pushed aside.

LONG-TIME CHANGES. Indeed, while cost-of-living pressures and COVID-related demand distortion have clouded the picture, the data suggests that structural change has been underway for some time. For this analysis, we have looked primarily at US data from *Monitoringthefuture.org*, and Gallup, both of which have been asking the same questions of Americans for many years. While the past 15 years have seen slight growth in the proportion of 30+ year olds who drink alcohol, penetration has consistently declined among younger consumers.

The issue is moderation, not abstinence. We do not believe that alcohol is like tobacco, where people "give up" completely: This isn't a question of all or nothing. Rather, we see a trend toward moderation in alcohol consumption. When it comes to "heavy" drinking, again there is a divergence between age groups. As a result, the average number of drinks per capita in the US has fallen materially for the 18–34 age cohort and has held broadly flat for older demographics (see table).

Drinks per Capita, on Average, Have Fallen Materially Among Those Aged 18 to 34

US: Weekly Drinks Per Capita (by age group)	2001–2003	2011–2013	2021–2023
18 to 34	5.2	4.5	3.6
35 to 54	3.9	3.8	3.8
55 and older	3.9	3.7	4.0

Source: Gallup (US data); Morgan Stanley & Co. Research, Morgan Stanley Wealth Management Global Investment Office as of March 24, 2025

AGE-RELATED BEHAVIOR. Of course, there will always be the argument that while youth may be less keen on drinking today, when they hit middle age they may revert to type and consume as much as their predecessors. However, we think the behavior of different cohorts is distinct. Those born in the 1980s have consistently exhibited higher alcohol consumption than their predecessors, both in terms of regularity and volume. Later millennials and Gen Z, though, consume materially less than any of the previous cohorts.

Spending trends over time mirror the volume picture. US Bureau of Labor Statistics data shows declining dollar spending (in both absolute and inflation-adjusted terms) among the youngest cohort. Spending on alcohol by the under 25s currently is 35% below that of the under 25s 20 years ago, despite inflation, while the highest increase in spending is in the 45–54 age group, which now spends 71% more than the same age group in 2003.

SPENDING RATES. Thus, if we look at the compound annual growth rate (CAGR) in dollars spent per capita, those who were aged 30 in 2003 and are now 50 have shown the strongest increase in expenditure over the past 10 years. The CAGR has been less than 6% versus compound inflation of 2.7% over the same period. Those who were 20 then and are 40 now have increased their expenditures, but at a slower rate. Those who were 40 or above in 2003 have only matched or lagged inflation, with the oldest age group showing a decline in spending over the period. After adjusting for compound inflation, Americans younger than 25 years old spent 60% less on alcohol in 2023 than their counterparts did in 2003. Conversely, the greatest increase in spending has been among the older generations.

The data also suggests that increasing moderation by the younger generation has been offset by heavier drinking in middle age. Meanwhile, since 2000 there has also been a 1.4% CAGR in the size of this alcohol-consuming middle-aged population (45-64). However, as a result of the change in birth rates, during the next 20 years the number of people in that age group is expected to be close to flat, just 0.4% CAGR. On the other hand, as today's middle-aged drinkers age, the number of people ages 75 and up, who exhibit much lower consumption per capita, is expected to grow at an accelerated compound growth rate of 3.1% versus 1.9% in the prior 20 years. This acceleration in the growth of the age group for whom consumption has historically been lower presents a further headwind to overall volume and spending, in our view.

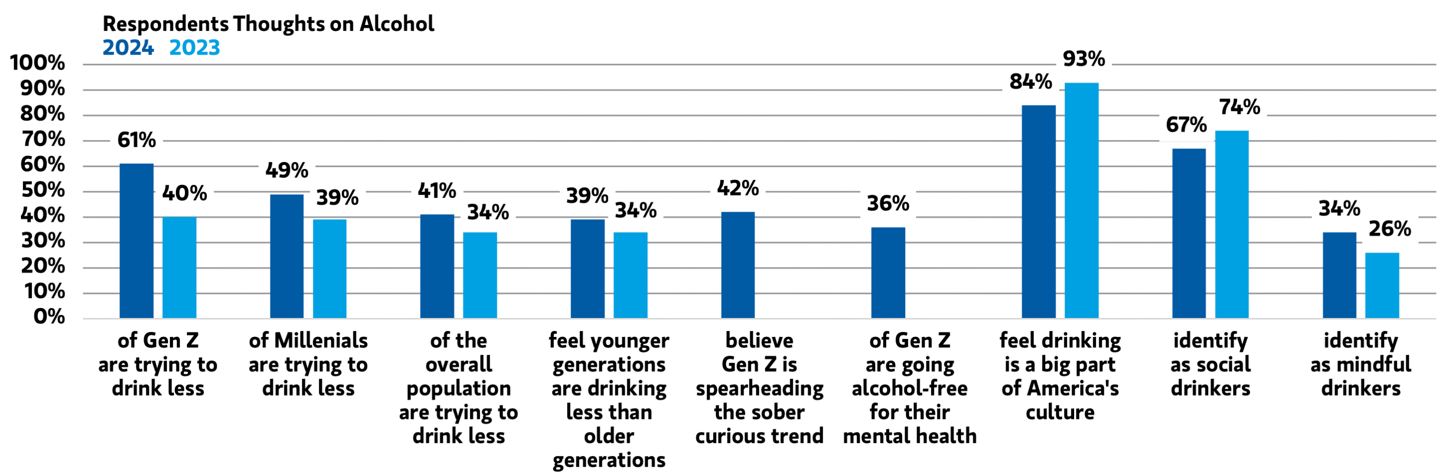
It is also evident that the trend toward lower consumption is gaining traction. More Americans report cutting back on drinking. According to NC Solutions, 41% are trying to drink less versus 34% in 2023, with 61% of Gen Z saying they planned to drink less in 2024 versus 40% in 2023. Meanwhile, 49% of millennials have the same intentions (see chart).

GLOBAL TREND. Internationally, a similar trend may be observed. Globally, the World Health Organization has been raising awareness of the link between cancer and alcohol (also well documented in the popular press) and is pushing for prominent health warning labels on alcoholic beverages. In China, the National Health Commission has said that it would intensify a three-year weight-management campaign, aiming to popularize healthy lifestyles and enhance the prevention and treatment of chronic diseases. There is clearly a push from policymakers for a healthier lifestyle, and the rise of social media messaging supports this.

Indeed, we note strong growth in the nonalcoholic drinks category, which would seem to confirm the shift away from alcoholic beverages more broadly. As a category, zero alcohol appears to be gaining traction, with meaningful acceleration in the US market—where zero beer has been around for many years but failed to really take off—and increased interest in the category by the spirits groups. ■

This article was excerpted from the March 24 Morgan Stanley & Co. Research report, "Demographics & Drinking." For a copy of the full report, please contact your Financial Advisor.

More Americans Report Cutting Back on Drinking



Source: NCSolutions, Morgan Stanley & Co. Research, Morgan Stanley Wealth Management Global Investment Office as of March 24, 2025

Q&A

Global Market Perspectives: Weighing Valuations Against Uncertainties

While the US has led much of the global market over the past decade—propelled by robust corporate earnings, sizeable budget deficits (often functioning as economic stimulus) and technology-sector dominance—there is an undercurrent of concern about the sustainability of these trends. Investors are wary of geopolitical instability, tariffs, a rising US fiscal deficit and unsettled currency dynamics. "There seems to be a bit of a disconnect between multiples and earnings and the real world," says Bruno Paulson, portfolio manager on Morgan Stanley Investment Management's International Equity team. He recently spoke with Renato Grandmont, chief investment strategist for Morgan Stanley International Wealth Management. The following is an edited version of their June 24 conversation.

Renato Grandmont (RG): What's your take on the current environment?

Bruno Paulson (BP): The earnings performance of the US over the past decade is amazing: S&P 500 Index earnings were up by 140% versus 34% for the MSCI EAFE Index in the 10 years through 2024. But if you think about what drove that massive earnings outperformance, there was stronger US economic growth—a lot of which came on the back of immigration-driven population growth—as well as the very strong US dollar and massive budget deficits, which were partly driven by corporate tax cuts.

A lot of macro factors have driven the major earnings outperformance for a decade. It's unclear if this can continue going forward. Is the dollar going to continue to strengthen over the next 10 years? Can the US budget be a net stimulus to the economy? Can corporate taxes fall? Will US population growth be faster than Europe's?

RG: What are your expectations for the impact of tariffs?

BP: You've got two problems here. First, what is the tariff going to be? Second, what will its effect be? We'll be finding out in the future what the latest version of the so-called reciprocal tariffs are, but the working assumption is that this would be a tax on US consumers and a slowing factor for US growth.

Plus, it would potentially impair margins, depending on the costs that get absorbed, and would have detrimental effects on both consumer and business confidence. This would all be fairly negative for the US economy and probably more so versus other economies.

So far, you're not seeing much of an impact. As someone based in the UK, which is an incredibly open economy, I view the US as a much more closed economy. Exports and imports as a percentage of GDP are almost an order of magnitude lower in the US than in European countries, which may account for the lack of impact, but I have still been surprised about the lack of negative impact so far. It's early days, and there has been a recalibration upwards of the tariff levels, and we will see where the tariffs end up and what the effects will be.

I think the latest US growth estimate is about 1.5%. US earnings for 2025 are down a few points this year, even in dollars, which are weaker. But you're not seeing a major impact yet. One of the problems is, the soft data wasn't looking great, but soft data has been pretty unreliable for quite a while, perhaps because it has been very tainted by people's political views. The hard data has been OK so far. You can point to elements of slowing down, but there's nothing disastrous going on.

RG: What is the impact of the US imposing tariffs on imports for global companies versus US-based companies?

BP: For the companies that we invest in, we're looking for companies with a great deal of very high gross margins and pricing power, which relatively insulates you. If you have 20% gross margins and you're facing a 25% tariff, then you need to raise your prices by 20% to end up with the same level of profits. If you have 80% gross margins, it's only 5%.

For our portfolio, as it happens, the high element of service companies—be it software or data based financial companies or industrial companies—means there's less sensitivity. Even where we have companies that actually make stuff, or goods, we're looking for the ones with the pricing power and high gross margins. Hopefully, as a result, the effect of any tariffs on the portfolio will not be that significant.

I think the key point is that outside the US, it's not ideal being a steel manufacturer. Inside the US, you've also got to measure the effect on demand. Then you have companies that may be based in and sell in the US, but that have supply chains going across borders. Then, think about the potential effects of retaliation. Assuming that it all remains relatively moderate, I think economists say that the impact on US companies is likely to be bigger because you've got the demand hit as well as the supply.

RG: US dollar weakness, to a certain degree, has allowed equity markets outside the US, when measured in dollars, to perform better. What is your view on the dollar going forward?

BP: There are many companies in the US for which the weaker dollar is a benefit because their non-US revenues go up, particularly if their cost base is more skewed to the US. You have a situation where the US is running a 7% budget deficit with basically full employment and no sign of any appetite to do anything about that. There are disputes about what effect the One Big Beautiful Bill will have, but I think it's unambiguous that it isn't going to be a deficit-reduction bill.

You worry from a long-term perspective about how long global markets will tolerate that. That's not a short-term focus because in the short term, people tend actually to flee into the dollar at times of crisis, but you do worry about an unsustainable budget path.

Long-term bond yields are potentially vulnerable in the long run. The thing people don't think about enough is the extent to which budget incontinence over the past decade or so has been a tailwind for the US economy. I think it's underestimated. And there's a limit to how much you can have further net fiscal stimulus in the US from here.

RG: Looking out a year or so, where do you see the 10-year US Treasury yield ?

BP: We're not macro-centered, but it strikes me that, absent a crisis in confidence in the US economy, which may raise the yield, or a severe recession, which may make it fall, 4% to 5% is a reasonable level historically given inflation running at 2% to 3%.

To the extent there is a significant slowdown, it may drop. To the extent that people get nervous about the US fiscal situation, which is a tail risk, then it might go up because people will need to be paid to lend to the US.

RG: What is your view of where we are in terms of geopolitical risk, and what could be the implications for various regions and sectors?

BP: One thing you could say is that a resolution of the Russia-Ukraine conflict—and I have no insight as to whether that will happen—would be a positive for European markets and result in potentially cheaper energy. What seems anomalous is that at a time of high geopolitical uncertainty and high economic uncertainty, we have very high multiples by historical standards and the assumption of double-digit earnings growth.

I don't know how this stuff will resolve itself, the extent of the risk and the potential implications, but it seems odd that with all these uncertainties, the S&P 500 is trading at a price/earnings multiple well into the 20s based on next-12-months earnings, which it is assumed will rise by double digits. And the MSCI World Index is trading at a multiple of close to 20. There seems to be a gap between the world reflected in the equity markets and the actual real world.

RG: Is the equity market too complacent regarding the geopolitical risks that we're seeing and the fiscal risks you mentioned?

BP: Generally, I think so. The MSCI World trading at 19 to 20 times—when have we seen that this century? The only time we've seen it since the TMT bust in 2002 is during COVID when earnings were very suppressed. These multiples assume really good stuff is going to happen. Now, you could say that artificial intelligence (AI) is going to be a massive tailwind for corporate profits, etc. You can make a bull case; but you have to accept that multiples of 19 to 20 on double-digit earnings growth are unusually high.

It's difficult to argue that the real world outlook is significantly better than the average so far this century, but that's what valuations and earnings are saying.

RG: Where do you see value currently if markets are potentially a bit complacent and growth around the world is sluggish?

BP: We're looking for high-quality companies, that therefore will be much less affected by any disruption, trading at reasonable multiples. We think there are decent companies slightly away from the great growth excitement and core hype around AI, that can compound steadily at reasonable multiples.

One of our mantras is that there are only two ways to lose money in equities. The earnings go away, or the multiple goes away. Right now, we think the market's vulnerable on both fronts. Investors are assuming double-digit earnings growth with pretty mediocre economic growth. If nominal GDP is growing at a 5% rate, and you want double-digit earnings growth, then margins have to improve significantly when they are already at peak levels.

We think the best approach is to find companies for which the earnings are unlikely to go away—or those that at least have resilient pricing power and recurring revenues—and to own them at reasonable multiples. This is not an easy market. It isn't going to be like it was coming out of the Great Financial Crisis, when you could find outstanding companies at high-single-digit free-cash-flow yields. If you take a five-year view and you can find a company you think is going to compound steadily, with limited multiple downside, then you should make a respectable return.

RG: What is the biggest risk?

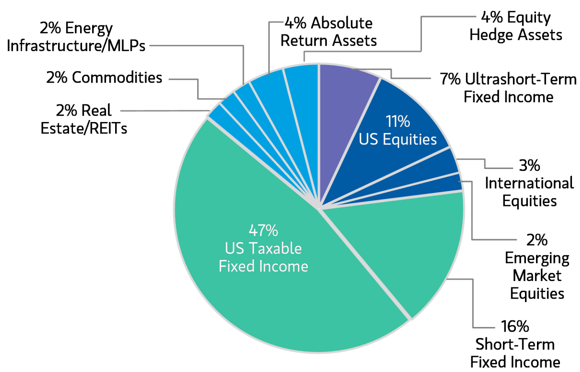
BP: It's simple. Market prices are driven by earnings and multiples. We know you've got high multiples on record margins, and the assumption that those margins are going to improve. Measures of economic policy uncertainty in the US are at record highs, and geopolitical tensions are high. You have the US conducting radical experiments in economic policy around tariffs.

I don't know where we're going to end up. Everything might be fine. But there does seem to be a disconnect between what seems like relative complacency in equity markets and the volatility and uncertainty in the world. The risk is that one of the potential elements of volatility means that earnings fail to meet the extended expectations, and this has a knock-on effect on multiples, causing a double hit for equities. ■

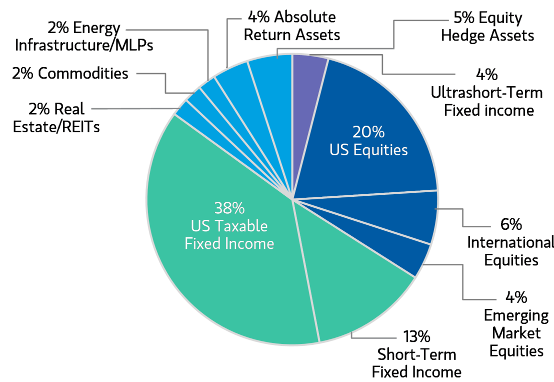
Global Investment Committee Tactical Asset Allocation

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.

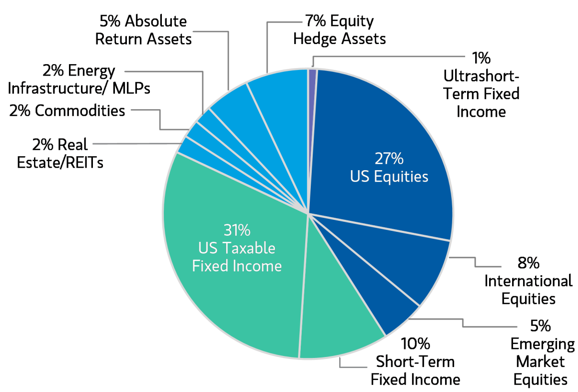
Wealth Conservation



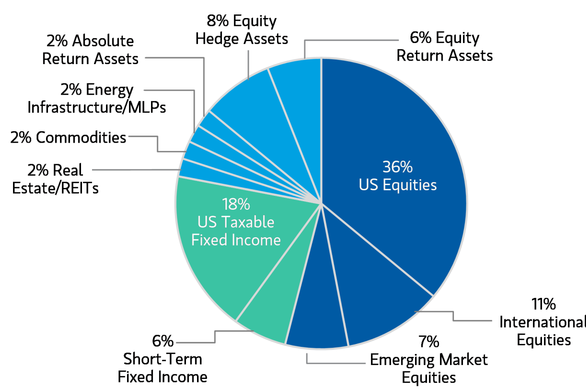
Income



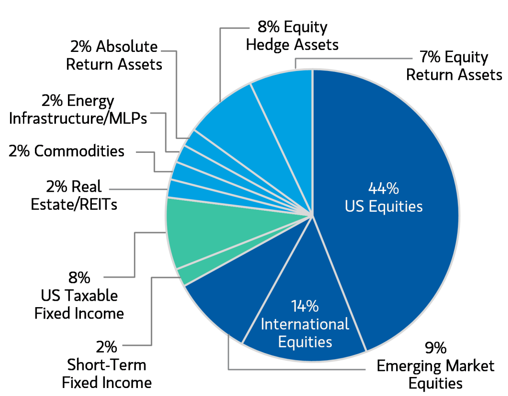
Balanced Growth



Market Growth



Opportunistic Growth



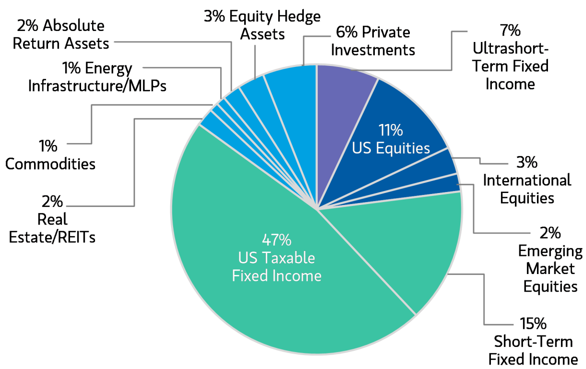
Key

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

Source: Morgan Stanley Wealth Management GIC as of July 1, 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



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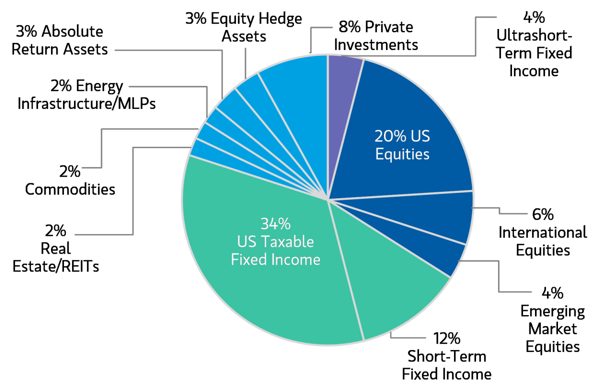
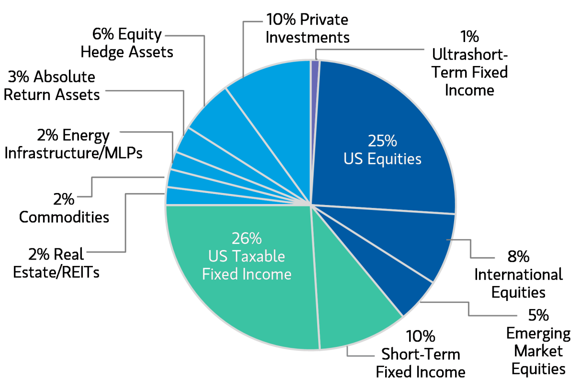
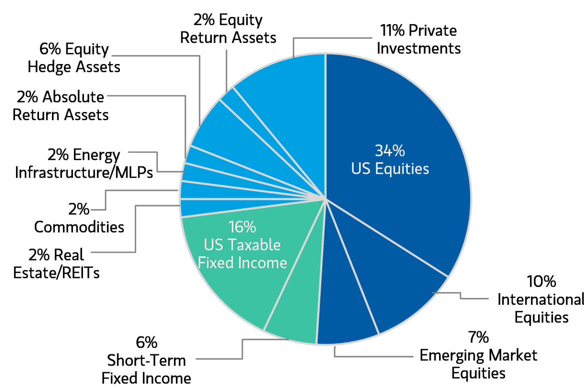


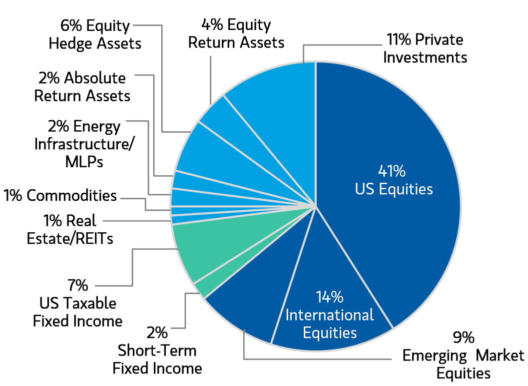
Balanced Growth



Market Growth



Opportunistic Growth



Key

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

Source: Morgan Stanley Wealth Management GIC as of July 1, 2025

Tactical Asset Allocation Reasoning

Global Equities	Weight Relative to Model Benchmark	
US	Overweight	Stock indexes have experienced a round trip of April's bear market shock from tariffs, and aggregate valuations are as rich as they were in January on 3%–5% lower earnings estimates. That said, uncertainty remains elevated as equity investors appear highly complacent. An economic soft landing is still the base case as long as the labor market holds. The S&P 500 Index appears poised to grind out a 5%–10% gain this year, with interest rates (debt/deficits) the biggest constraint. We are buying equal-weighted indexes, quality-cash-flow stories in both growth and value universes and midcap 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, Germany and the UK. Lower global oil prices help.
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, especially as odds of a soft landing continue to solidify. 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 among 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 July 1, 2025

Disclosure Section

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

Additional Index Definitions

National Highway Construction Cost Index This index is a measure of the average change over time in the prices paid by state transportation departments for roadway construction materials and services.

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Glossary

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

Artificial Intelligence (AI) A field of study that seeks to train computers to process large amounts of unstructured information in a manner similar to human intelligence, capable of performing tasks such as learning and problem solving.

Beta is a measure of the volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole.

Correlation This is a statistical measure of how two securities move in relation to each other. This measure is often converted into what is known as correlation coefficient, which ranges between -1 and +1. Perfect positive correlation (a correlation coefficient of +1) implies that as one security moves, either up or down, the other security will move in lockstep, in the same direction. Alternatively, perfect negative correlation means that if one security moves in either direction the security that is perfectly negatively correlated will move in the opposite direction. If the correlation is 0, the movements of the securities are said to have no correlation; they are completely random. A correlation greater than 0.8 is generally described as strong, whereas a correlation less than 0.5 is generally described as weak.

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.

Equity risk premium is the excess return that an individual stock or the overall stock market provides over a risk-free rate. The risk-free rate represents the interest an investor would expect from an absolutely risk-free investment over a specified period of time.

Nominal Gross Domestic Product (GDP) is the GDP of the country measured at current market prices and not adjusted for inflation or deflation.

Price to forward earnings calculates the price-to-earnings ratio that uses projected future earnings.

Real Gross Domestic Product (GDP) is the GDP of the country measured at current market prices and adjusted for inflation or deflation.

Risk premium is the return in excess of the risk-free rate of return an investment is expected to yield.

Volatility This is a statistical measure of the dispersion of returns for a given security or market index. Volatility can either be measured by using the standard deviation or variance between returns from that same security or market index. Commonly, the higher the volatility, the riskier the security.

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

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

Alternative Investments

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.

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.

Virtual Currency Products (Cryptocurrencies)

Buying, selling, and transacting in Bitcoin, Ethereum or other digital assets ("Digital Assets"), and related funds and products, is highly speculative and may result in a loss of the entire investment. Risks and considerations include but are not limited to:

- Digital Assets have only been in existence for a short period of time and historical trading prices for Digital Assets have been highly volatile. The price of Digital Assets could decline rapidly, and investors could lose their entire investment.
- Certain Digital Asset funds and products, allow investors to invest on a more frequent basis than investors may withdraw from the fund or product, and interests in such funds or products are generally not freely transferrable. This means that, particularly given the volatility of Digital Assets, an investor will have to bear any losses with respect to its investment for an extended period of time and will not be able to react to changes in the price of the Digital Asset once invested (for example, by seeking to withdraw) as quickly as when making the decision to invest. Such Digital Asset funds and products, are intended only for persons who are able to bear the economic risk of investment and who do not need liquidity with respect to their investments.
- Given the volatility in the price of Digital Assets, the net asset value of a fund or product that invests in such assets at the time an investor's subscription for interests in the fund or product is accepted may be significantly below or above the net asset value of the product or fund at the time the investor submitted subscription materials.
- Certain Digital Assets are not intended to function as currencies but are intended to have other use cases. These other Digital Assets may be subject to some or all of the risks and considerations set forth herein, as well as additional risks applicable to such Digital Assets. Buyers, sellers and users of such Digital Assets should thoroughly familiarize themselves with such risks and considerations before transacting in such Digital Assets.
- The value of Digital Assets may be negatively impacted by future legal and regulatory developments, including but not limited to increased regulation of such Digital Assets. Any such developments may make such Digital Assets less valuable, impose additional burdens and expenses on a fund or product investing in such assets or impact the ability of such a fund or product to continue to operate, which may materially decrease the value of an investment therein.

- Due to the new and evolving nature of digital currencies and the absence of comprehensive guidance, many significant aspects of the tax treatment of Digital Assets are uncertain. Prospective investors should consult their own tax advisors concerning the tax consequences to them of the purchase, ownership and disposition of Digital Assets, directly or indirectly through a fund or product, under U.S. federal income tax law, as well as the tax law of any relevant state, local or other jurisdiction.
- Over the past several years, certain Digital Asset exchanges have experienced failures or interruptions in service due to fraud, security breaches, operational problems or business failure. Such events in the future could impact any fund's or product's ability to transact in Digital Assets if the fund or product relies on an impacted exchange and may also materially decrease the price of Digital Assets, thereby impacting the value of your investment, regardless of whether the fund or product relies on such an impacted exchange.
- Although any Digital Asset product and its service providers have in place significant safeguards against loss, theft, destruction and inaccessibility, there is nonetheless a risk that some or all of a product's Digital Asset could be permanently lost, stolen, destroyed or inaccessible by virtue of, among other things, the loss or theft of the "private keys" necessary to access a product's Digital Asset.
- Investors in funds or products investing or transacting in Digital Assets may not benefit to the same extent (or at all) from "airdrops" with respect to, or "forks" in, a Digital Asset's blockchain, compared to investors who hold Digital Assets directly instead of through a fund or product. Additionally, a "fork" in the Digital Asset blockchain could materially decrease the price of such Digital Asset.
- Digital Assets are not legal tender, and are not backed by any government, corporation or other identified body, other than with respect to certain digital currencies that certain governments are or may be developing now or in the future. No law requires companies or individuals to accept digital currency as a form of payment (except, potentially, with respect to digital currencies developed by certain governments where such acceptance may be mandated). Instead, other than as described in the preceding sentences, Digital Asset products' use is limited to businesses and individuals that are willing to accept them. If no one were to accept digital currencies, virtual currency products would very likely become worthless.
- Platforms that buy and sell Digital Assets can be hacked, and some have failed. In addition, like the platforms themselves, digital wallets can be hacked, and are subject to theft and fraud. As a result, like other investors have, you can lose some or all of your holdings of Digital Assets.
- Unlike US banks and credit unions that provide certain guarantees of safety to depositors, there are no such safeguards provided to Digital Assets held in digital wallets by their providers or by regulators.
- Due to the anonymity Digital Assets offer, they have known use in illegal activity, including drug dealing, money laundering, human trafficking, sanction evasion and other forms of illegal commerce. Abuses could impact legitimate consumers and speculators; for instance, law enforcement agencies could shut down or restrict the use of platforms and exchanges, limiting or shutting off entirely the ability to use or trade Digital Asset products.
- Digital Assets may not have an established track record of credibility and trust. Further, any performance data relating to Digital Asset products may not be verifiable as pricing models are not uniform.
- Investors should be aware of the potentially increased risks of transacting in Digital Assets relating to the risks and considerations, including fraud, theft, and lack of legitimacy, and other aspects and qualities of Digital Assets, before transacting in such assets.
- The exchange rate of virtual currency products versus the USD historically has been very volatile and the exchange rate could drastically decline. For example, the exchange rate of certain Digital Assets versus the USD has in the past dropped more than 50% in a single day. Other Digital Assets may be affected by such volatility as well.
- Digital Asset exchanges have limited operating and performance histories and are not regulated with the same controls or customer protections available to more traditional exchanges transacting equity, debt, and other assets and securities. There is no assurance that a person/exchange who currently accepts a Digital Asset as payment will continue to do so in the future.
- The regulatory framework of Digital Assets is evolving, and in some cases is uncertain, and Digital Assets themselves may not be governed and protected by applicable securities regulators and securities laws, including, but not limited to, Securities Investor Protection Corporation coverage, or other regulatory regimes.
- Morgan Stanley Smith Barney LLC or its affiliates (collectively, "Morgan Stanley") may currently, or in the future, offer or invest in Digital Asset products, services or platforms. The proprietary interests of Morgan Stanley may conflict with your interests.
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