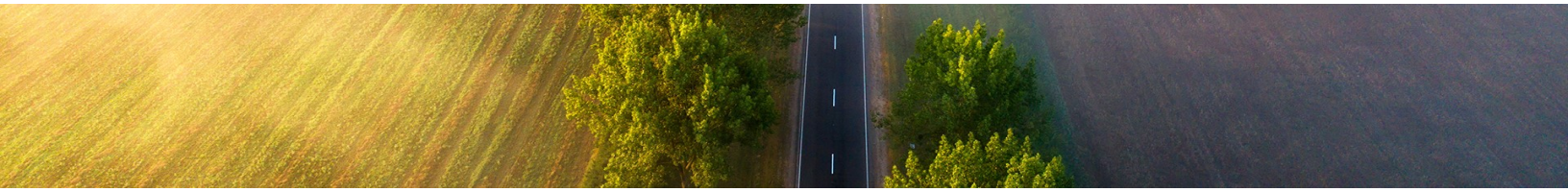
Morgan Stanley

WEALTH MANAGEMENT

INVESTMENT STRATEGY



Global Investment Committee | November 2026

On the Markets

Middle Innings Are Tougher but Rewarding

As markets anniversary the fourth year of the equity bull market, investors are dealing with the complexities of this transformational AI investment cycle. Capex has continued apace, albeit at a peaking rate of change, as demand for compute outstrips supply. But spending increasingly relies on capital issuance, which has been accompanied by wider credit spreads and higher costs of capital. Meanwhile, restraints around timing of contract delivery are tightening amid surging memory chip costs, power shortages and the local politics of data centers.

We view these brakes placed on excessive exuberance as healthy and disciplined, noting that they have fostered improved valuations. Certainly, no one likes to see market pullbacks, and the Nasdaq Composite Index's roughly 8% decline since its Oct. 6 all-time high marks the third "mini correction" this year. But market action is occurring against a solid backdrop, with leadership rotating and broadening. To wit, the S&P 500 Index is down only 3.3% from its all-time closing high, and nearly 60% of its components are above their 50-day moving average, while index profit growth is tracking at 32% year over year. Even more important, earnings forecasts are still trending higher on better-than-expected economic growth, investment, consumption and manufacturing activity. The US Treasury market is also cooperating again, as extreme oversold conditions have given way to modest retracement. The 10-year yield, having climbed to a 24-year high, has declined approximately 40 basis points. This has come amid growing confidence that the Warsh-led Federal Reserve will move in a data-driven manner and at a measured pace, and that inflation, while sticky, will not become unanchored from long-term expectations.

Against this backdrop, risks around both domestic politics and geopolitics continue to loom large, necessitating recalibration of expectations. That said, this is when diversified portfolios should shine, as we transition from a "rising tide lifts all boats" scenario to increased bifurcation between winners and losers. Stay the course, and rebalance to strategic asset allocation targets. ■

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GLOBAL MACRO

Elections Near and Far

Seth B. Carpenter, Global Chief Economist and Head of Macro Research, Morgan Stanley & Co. LLC

Elections have consequences, as the saying goes, and markets are weighing the consequences of elections past, present and future. The recent election in Brazil and the elections in France next year put fiscal policy front and center. In the UK, markets have been focused on the first budget under a new prime minister. The US midterms are both informed by and will likely inform domestic policies and geopolitics. Each election has interesting implications.

The US midterm elections take place this week. Polls point to divided government, and if that outcome materializes, we expect the macro impulse from federal policy to remain broadly unchanged. Tariffs, trade and immigration have all generated uncertainty over time, but these are areas where the executive branch exercises authority without needing new legislation. A change in control of Congress most likely will not bring changes in how those powers are exercised. Although AI has become a political topic, we do not think federal policies will change materially, so the election results will likely only hint at state and local involvement in permitting, access to the grid and electricity pricing, and support for intervention does not fall neatly along party lines.

But with a big enough swing in House and Senate majorities, we do think some domestic spending cuts could be reversed, adding a modest boost to growth, and military spending might be restrained, pushing in the other direction.

Markets have clearly anticipated a much larger shift in the case of Brazil. Lula da Silva's election was followed by substantial market volatility from a reassessment of fiscal prospects. But our Brazil team had highlighted before the election that stabilizing the fiscal outlook would be difficult regardless of the winner. More than 91% of spending is mandatory, so that meaningful fiscal adjustment requires Congress, not just the president, to act.

Politics aside, we expect the Brazilian economy to face a moderately restrictive credit cycle next year, which the Central Bank of Brazil has begun to highlight in communication but we suspect the market has not fully appreciated. So while the election matters for specific fiscal policies, we do not think it has fundamentally changed the underlying economic risks.

France's elections are still some ways off but are in focus because of the developments in the government bond (OATs) market and the protests across that country. Higher borrowing costs make difficult fiscal arithmetic even harder, and growth is not sufficient to offset those costs. Negotiations for the 2027 budget will likely come in late November and December. Current proposals would merely stabilize the deficit. Higher taxes could inhibit growth, offsetting at least some of the fiscal narrowing. Spending cuts tend to be politically difficult to deliver and also risk slowing growth. The choices appear difficult heading into the election.

For markets, one key question is whether we would see spillovers. Spain, Greece and Italy could all face election-related risks in 2027, broadening volatility in sovereign debt markets. Broader financial friction could prompt an ECB response, but that outcome is not in our baseline.

So where does this leave us? In the US, markets have relatively high conviction about the political outcome, but the economic and market implications are either modest or unclear. In Brazil, an unexpected political outcome generated volatility, but we have always said the fiscal situation depended less on the election than markets believed, and the credit cycle has not been fully priced. In France, political uncertainty is high, but the fiscal challenges are already clear, regardless of who ultimately governs.

Elections usually have consequences, but sorting them out is not always straightforward. The US midterms are this week. Polls suggest a divided government, and if they are right, our base case for the macro impulse from federal policy is very little change in the status quo. For other countries, the fiscal consequences are likely greater, and that is part of what is driving markets. ■

This article was excerpted from the Nov. 1 Morgan Stanley & Co. Research report, "Elections Near and Far." For a copy of the full report, please contact your Financial Advisor.

US ECONOMICS

Trick or Trend: Is Growth Outpacing Restraint?

Michael T. Gapen, Chief US Economist, Morgan Stanley & Co. LLC

Despite resilient growth and strong spending, there is little evidence of overheating. If growth becomes more demand-driven, however, the case for additional rate hikes would likely strengthen.

The final week of October highlighted the main tension in the monetary-policy outlook: Growth in economic activity remains resilient, raising doubts about how quickly—some might say "whether"—inflation will return to the Federal Reserve's 2% target. Growth accelerated in the third quarter, household spending was robust and business investment continued to surge. While the Fed opted to leave rates unchanged at its Federal Open Market Committee (FOMC) meeting, there was little in the week's data to suggest its task is done.

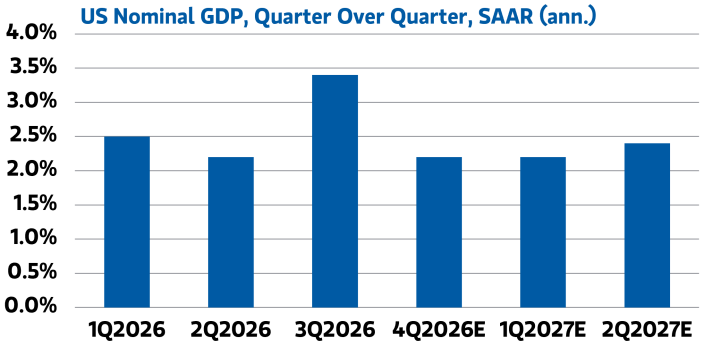
The question is how much monetary-policy restraint to provide. The answer, in our view, depends on the source of growth. Demand and supply shocks both argue for higher real rates, but demand-driven growth would likely require higher nominal and real rates to deliver on the inflation mandate. To date, we find little evidence of overheating and forecast a measured pace of policy-rate firming: We expect 25-basis-point hikes in December and March, implying a terminal target range of 4.25% to 4.5%. If the labor market were to begin tightening, our view would likely shift toward more hikes.

US GDP: ANOTHER STRONG QUARTER. Third-quarter GDP growth accelerated to 3.4%, with the expansion continuing to be investment-led (see chart). Business spending on equipment remained exceptionally strong, reflecting ongoing AI-related capex and a broader investment cycle that has so far proved resilient to higher rates and geopolitics. Equipment spending rose at a 20.9% annualized pace in the quarter, boosted by a 37.3% increase in information processing equipment. Spending on data centers was up 127%.

The consumer also pitched in, despite elevated energy prices and slow growth in real income. Real personal consumption spending rose 3.8% for the second consecutive quarter. Services rose 4.1%, while strength in goods moderated somewhat, rising 3.0%. The slowdown came in durable goods, which rose 2.3%.

The September personal income and spending data reinforces our view that consumption will likely moderate in coming quarters. Personal spending rose 0.5%, while personal income increased 0.2%, pushing the savings rate down to 3.8%. The decline in the savings rate suggests households are still willing to spend despite elevated prices and borrowing costs, which likely indicates continued support from asset markets in sustaining demand. However, household spending is running faster than income, suggesting that the consumer cannot indefinitely maintain the recent pace of growth by drawing further down on savings. Household spending is likely to remain resilient but at a more sustainable pace of spending. This likely points to some slowing ahead.

US Real GDP Has Been Boosted by Robust Business and Consumer Spending



Source: Morgan Stanley & Co. Research estimates, Morgan Stanley Wealth Management Global Investment Office as of Oct. 29, 2026

SUPPLY OR DEMAND GROWTH? The immediate question facing the Fed is whether inflation is moving in the right direction quickly enough, with the risk being whether it is moving in the right direction. The ultimate answer, in our view, depends on the sources of US growth. If growth resilience is primarily supply-side-driven, then appropriate policy still calls for higher rates, but the Fed can probably hike more slowly and may end at a lower terminal rate than feared. Supply-driven growth can keep inflation on a downward path while limiting overheating. This is the "measured recalibration" of monetary policy embedded in our baseline forecast. Our decomposition of potential growth into its component parts continues to point to faster growth in output per hour, consistent with a significant supply-side impulse.

However, if demand forces begin to dominate because AI spending spills into other parts of the economy, then demand-side price pressures could replace prior supply-side factors, preventing inflation from decelerating—or worse, causing inflation to firm. This outcome would necessitate higher nominal and real rates than we anticipate, as appropriate monetary policy would require more restriction to moderate demand and put inflation on a downward trend.

How do we know the difference between supply- and demand-driven growth? Conventional economics would say to look at the unemployment rate as a high-frequency, broad-based measure of resource utilization. If the AI-investment

boom is spilling into the rest of the economy through complementary business spending or consumer spending making its way into stronger employment growth, then the unemployment rate would likely decline. That's not the case currently. Employment growth has averaged about 51,000 per month over the past three months, the unemployment rate has remained stable, near 4.2%, and wage growth is decelerating.

AI-related spending, with its high import content of computers and peripherals, is likely creating positive output gaps abroad, particularly in Asia. This could mean firm inflation through import prices, but that would still probably call for fewer rate hikes than a story of domestic overheating.

MORE RATE HIKES, BUT A GRADUAL PACE. We think we heard support for our measured-recalibration baseline at the FOMC meeting, with several factors pointing to fewer hikes than financial markets have in place. These include the committee's actions to hike in September and hold in October and guidance during the intermeeting period. Chair Warsh's remarks about AI spending's sensitivity to tighter monetary policy, the belief that financial conditions have tightened and growth underpinning supply more than demand are also important considerations.

We think the committee is prepared to hike again in December. With only one inflation report between now and then, it would take a large surprise to change the Fed's plan. A major correction in asset markets could do it, but we think an equity market decline would need to be larger than people think, e.g., greater than 10%. ■

This article was excerpted from the Oct. 30 Morgan Stanley & Co. Research report, "Trick or Trend? Is Growth Outpacing Restraint?" For a copy of the full report, please contact your Financial Advisor.

US EQUITIES

Autonomous Trucking: Time to Get Real

Ravi Shankar, Equity Analyst, Morgan Stanley & Co. LLC

After a decade of technology development, the debate around autonomous trucking has shifted to commercialization. As we enter the final 12–18 months before the start of serial production, it's time for key stakeholders to agree on major aspects of how it will all work.

When we initiated coverage of the trucking industry in 2026, one of the pillars of our constructive thesis was the transformative potential of autonomous trucking. While the path has been a winding one—plenty has transpired as we anticipated, and even more has played out differently—we believe we've arrived at a key inflection point. In our view, the debate around the technological aspects has been settled, as questions regarding regulation and scale have also been addressed. With that, we now approach a final hurdle: Can it be commercialized?

In some ways, the commercialization hurdle is the easiest to clear—effectively the dotting of i's and crossing of t's for a technology already shown to work in select use-cases. But it's also tricky, because for the first time in the technology's 10-year history, the burden of proof and execution has shifted from the autonomous tech companies to more conservative stakeholders in the value chain. Understandably, many of them do not want the pursuit of big gains from a new technology to disrupt their existing models of service reliability, unit economics and liability.

TACKLING THE QUESTIONS. As such, we see the next 12 months as a critical period when all four groups of stakeholders—tech providers, original equipment manufacturers (OEMs), carriers/fleet operators and shippers—need to hash out commercial deployment details and answer basic questions about how this is all going to work.

Some of the friction points may be resolved by more transparent communication, and some still need to be investigated, but doing so should help put the industry on track toward its ultimate goal: the start of serial commercial production in 2027.

Notably, the unprecedented supply-side squeeze, which has already pushed our truckload freight index to a record, is a reminder of the structural driver shortage and wage inflation that the US economy faces if it maintains its current trajectory. There appear to be very few sustainable solutions to these issues outside of autonomous trucks, which should bring critical demand-pull for the technology, in addition to supply-push—a big difference versus the passenger robotaxi space, where we consider the demand-pull to be determined.

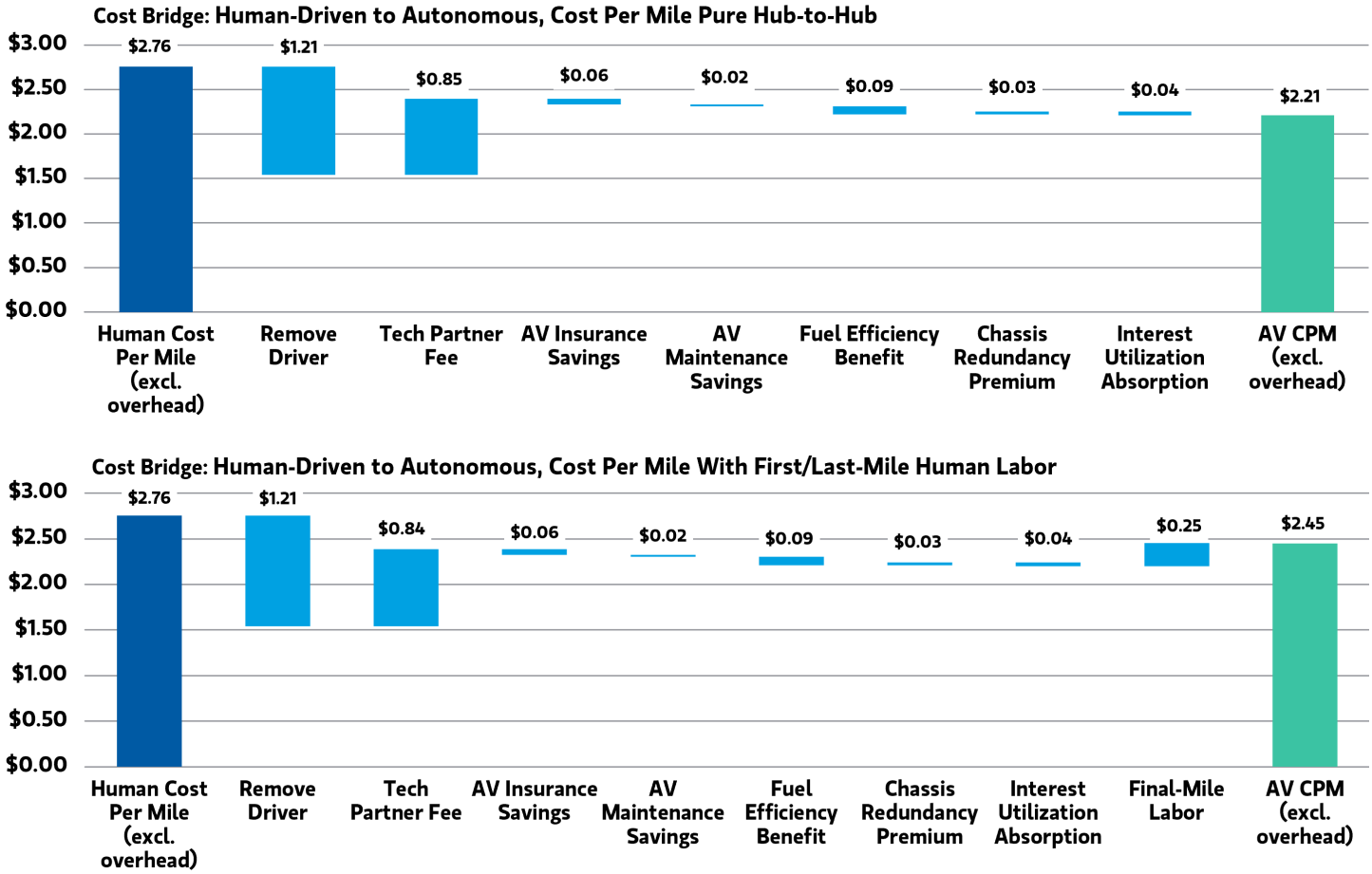
In an effort to kickstart the communication process, we surveyed 146 carriers and shippers regarding their views on autonomous trucking. We also interviewed firms across multiple areas of the Morgan Stanley & Co. Research coverage universe. The results reveal three main areas of uncertainty restraining fleets from fully embracing the promise of autonomous trucks: 1) network coverage/number of operable lanes; 2) confirmation of unit economics (see charts), especially the potential need for first- and last-mile drivers at both ends of a highway move; and 3) general maintenance, reliability and warranty questions.

The first and third issues are considered surmountable, and fleets believe they will be resolved with more work and information, perhaps as early as the start of serial commercial production in 2027. The second, however, is viewed as a potentially more fatal problem, albeit one we think is misunderstood. For example, around 60% of survey respondents said that less than 10% of their freight would be compatible with autonomous trucking if there were the need to use first- and last-mile drivers at both ends of highway drop-off points, despite one-third of carriers and shippers indicating that *at least* 75% of line-haul miles are point to point and on-highway within their network.

However, according to our proprietary AlphaWise geolocation analysis, which looked at 10,000-plus major commercial locations across more than 100 of the largest commercial shippers in the US, the average facility is approximately 2.6 miles from the nearest highway ramp point (and around one mile from the nearest main road ramp point). Furthermore, autonomous trucks can drive at least seven to 10 miles on surface streets, which many fleet operators may not realize. Finally, our updated total-cost-of-ownership (TCO) analysis shows that even if first-/last-mile drivers are needed at both ends, autonomous trucks' unit economics would be around 11% cheaper than in the case of human drivers today, with significant utilization gains on top of that. Other friction points, including the need for local drivers for yard movement, treatment at weight scales and fuel stations, can largely be solved with technology.

INVESTMENT IMPLICATIONS. We see investors increasingly focusing on the stock implications here. In fact, autonomous trucking has been a top-three incoming client topic for us this year. Our total addressable market (TAM) assumptions show that the opportunity remains significant, ranging from $0.5 billion to $1.1 trillion in the US alone, while our TCO analysis indicates that anticipated return on invested capital (ROIC) remains very attractive (approximately 20% net cost savings, meaning an autonomous fleet should be roughly 7.5 times as profitable as a human-driven fleet today).

The Economics of Autonomous Trucking



Note: Human-driven cost of $2.76/mile is the average of the ATRI cost per mile with fuel indexed to current prices and the KNX 2Q26 Trucking all-in cost per company-operated mile is an estimate of cost per mile incl. allocated net interest and excl. purchased transportation. Tech partner fee of $0.85 per driverless highway mile (AV technology provider latest estimate; incl. AV hardware, system maintenance, remote assistance, mapping and mission control). AV savings: insurance –50% (savings fully scaled from Insurance Insight), maintenance –10%, fuel –13% (low end of Aurora's 13–32% range). The owned AV case carries a 10% capital premium on tractor ownership for redundant braking, steering and electrical systems not covered by the driverless fee. Lane profile is a 1,000-mile Phoenix–Fort Worth sample with 5-mile first/last-mile legs at each end. All figures excl. overhead, purchased transportation and depreciation tax benefits. Source: ATRI, DAT, company data, Morgan Stanley & Co. Research, Morgan Stanley Wealth Management Global Investment Office as of Sept. 11, 2026

Apart from the direct implications for autonomous tech providers, investors are focused on second- and third-derivative winners among the other stakeholders, like truck OEMs, carriers and shippers, as well as on potentially challenged verticals like railroads and freight brokers, where autonomous trucking could present significant risk over time. Even if the ramp-up is slow and steady, the market is likely to extrapolate its trajectory to the end-destination and reflect that in price/earnings multiples for the winners and risk-exposed companies in the short term.

Despite the growing investor interest, unlike other areas of tech disruption in non-tech industries (especially AI), transportation companies are playing their cards very close to the chest for the time being. Some of the reticence to talk about future benefits stems from the risk of potentially alienating existing driver bases in the near term, especially when the truck market is so tight. While this is understandable, it is merely kicking the can down the road, because the labor issue during the transition period will need to be addressed eventually. We think management teams are waiting for the commercial production launch of these trucks before speaking out about potential for transformation, given the risk of being an evangelist too early if there are more delays. This "bird-in-hand" approach also applies to communications with investors and the equity market.

Some of the reluctance to go public is also driven by competitive factors, as companies look to establish an initial beachhead, especially given what is likely to be very limited supply of autonomous trucks in the early years. ■

This article was excerpted from the Sept. 11 Morgan Stanley & Co. Research report, "Autonomous Trucking: It's Time to Get Real." For a copy of the full report, please contact your Financial Advisor

ARTIFICIAL INTELLIGENCE

Data Center Capacity: Tracking the Shortfall

Cameron McVeigh, CFA, Equity Analyst, Morgan Stanley & Co. LLC

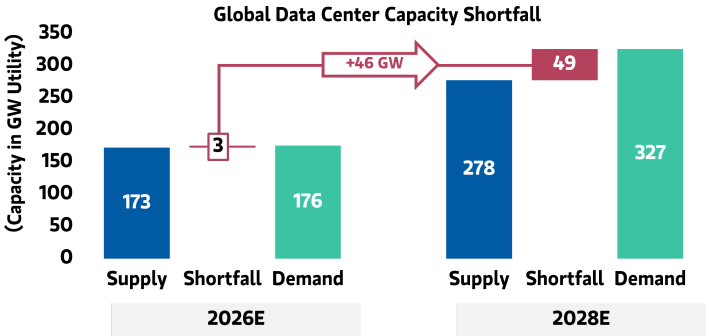
Our updated forecast for global data center capacity, featuring a 23% compound annual growth rate, implies a 49-gigawatt power shortfall by 2028. It also suggests greater opportunity for well-positioned players in the AI-infrastructure build-out.

Amid evolving debates around the unprecedented AI-capex build-out and potential changes to its pace and scale, we recently updated our data center capacity models. The analysis meaningfully informs our outlook regarding supply and demand dynamics, supporting our conclusion that demand for compute is likely to significantly exceed supply for years to come.

Leveraging a bottom-up build by operator, along with a top-down capacity forecast, we now expect a 23% compound annual growth rate (CAGR) for global data center information technology (IT) capacity between 2026 and 2030. In our base case, we expect approximately 180 gigawatts (GW) of IT capacity to come online by 2030, for a total of 316 GW (IT).

We note that our GW (IT) forecasts refer to power delivered directly to computing hardware and that GW (utility) refers to total gross electricity pulled from the power grid to run the entire data center. Matched against expected demand, our forecasts imply a 49-GW (utility) global shortfall by 2028, based on 327 GW (utility) of data center demand versus 278 GW (utility) of supply (see chart).

We Forecast Significant Growth in the Data Center Capacity Shortfall by 2028



Note: Conversion from GW (IT) to GW (Utility) assumes 1.27 PUE in 2026E and 1.24 PUE in 2028E
Source: Company data, Morgan Stanley & Co. Research estimates, Morgan Stanley Wealth Management Global Investment Office as of Oct.26, 2026

INVESTMENT IMPLICATIONS. The accelerating demand for compute is accompanied by increasingly difficult conditions to bring capacity online, given tight supply chains, inflating labor costs and access to capital. That said, we remain bullish on companies enabling the AI-infrastructure build-out, particularly "time-to-power" providers—firms that focus on reducing the time it takes to connect customers such as AI data centers to a reliable electricity source.

Within our data center operator/developer coverage, we expect colocation data centers to perform well as cost inflation and supply constraints, including moratoriums and permitting delays, should further strengthen pricing power. Colocation's smaller facilities and critical functionality offer greater insulation from community opposition than large AI campuses. In their typically smaller facilities, third-party colocation data centers provide power, cooling and related services for other firms' servers and networking equipment.

We see outsized benefits of the supply-constrained environment accruing to established colocation operators with scale and access to power. In addition, open-weight model-share gains should benefit colocation data centers as enterprises look to deploy their own AI models on their private infrastructure. We expect the percent of companies using open-weight models to roughly double over the next three years, with the retail and tech sectors potentially experiencing the largest increases.

SURVEY SUPPORT. Our favorable stance is supported by results from Morgan Stanley & Co.'s proprietary *AlphaWise* surveys. In particular, we note that the average price for data center capacity contracts signed in the past three months has risen by 11% versus a year ago. Nearly all respondents reported price increases and 56% cited gains above 10%, suggesting sustained pricing strength alongside expectations for continued capacity demand growth.

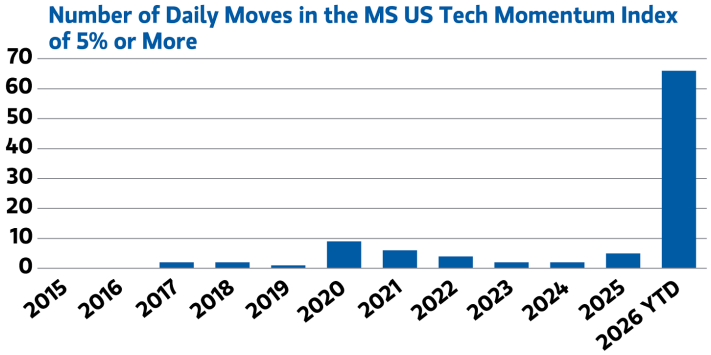
There has also been a rising trend toward preleasing capacity, with the average respondent preleasing 43% in advance. Results indicate that hyperscaler cloud-service providers and enterprise customers have the highest percent of capacity preleased. ■

This article was excerpted from the Oct. 26 Morgan Stanley & Co. Research report, "Data Center Capacity Model: ~20% CAGR to Over 300 GW by 2030E; EQIX Top Pick." For a copy of the full report, please contact your Financial Advisor.

Short Takes

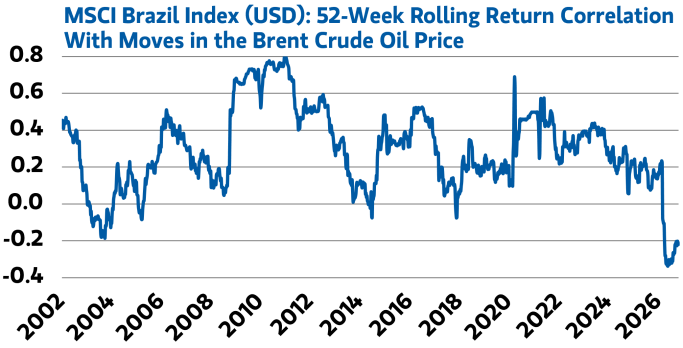
Tech Momentum Volatility Surges

Factor volatility has characterized 2026. Given large movements in "AI beneficiaries" and the "AI disrupted," the momentum factor—a measure of price strength—has been especially volatile. This has been most acute in tech, where investors have sharply distinguished between semiconductors and software. The Morgan Stanley US TMT Momentum Basket—a group of tech stocks with strong price trends—has experienced almost twice as many 5%-plus daily moves as at the peak of the 2000 tech bubble. Long- and short-momentum baskets have become increasingly negatively correlated: They have moved more than 1% in opposite directions on 28 trading days this year—over four times the average since 2022. This matters because hedge funds often pair long positions with shorts.—*Kevin Demers, CFA*



Source: Bloomberg, Morgan Stanley & Co., Morgan Stanley Wealth Management Global Investment Office as of Oct. 30, 2026

Brazilian Equities: Oil—Friend or Foe?

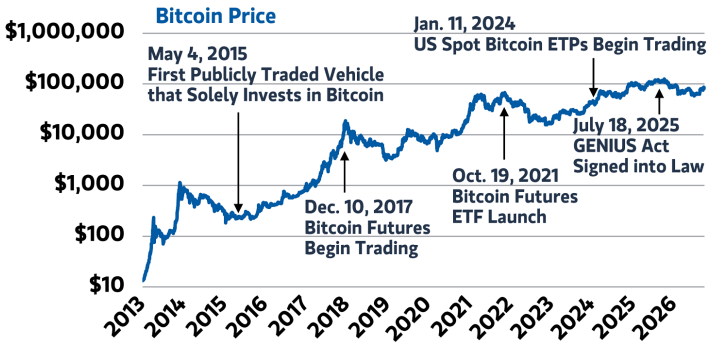


Source: Morgan Stanley Wealth Management Global Investment Office, FactSet, Bloomberg as of Nov. 6, 2026

In the week after Brazil's presidential runoff, the MSCI Brazil Index fell nearly 24% in US dollar terms—its worst week in almost 26 years, excluding the Great Financial Crisis. Of the six elections since 2002, three produced above-average returns over the following six months. Two of the three disappointments—2014 and 2022—coincided with falling oil prices. Brazilian equities have historically been correlated with oil, reflecting their energy exposure. Since the Iran conflict erupted in February, however, that relationship has turned sharply negative, reaching its weakest level in over two decades. This suggests investors fear inflation could delay Brazilian rate cuts and pressure equity multiples. Policy clarity may support a rebound, but normalized oil prices could help, too.—*Alfredo Pinel, CAIA*

Bitcoin Turns 18

If bitcoin had a birthday, it would be Oct. 31. On that day, 18 years ago, its introductory white paper was published. As the foremost cryptocurrency reaches graduation age, it is increasingly being considered alongside more established investment types. Some of the largest financial firms now provide client access to bitcoin-linked futures, exchange-traded products and spot trading. Lenders accept bitcoin as collateral, while research analysts publish return assumptions and opine on position sizes. As financial firms try to figure out where bitcoin fits, how to employ it and who might benefit from it, not everyone needs to "hire" the crypto. But in our view, bitcoin's evolving resume is worth understanding.—*Denny Galindo, CFA*



Source: Morgan Stanley Wealth Management Global Investment Office as of Sept. 30, 2026

COMMODITIES

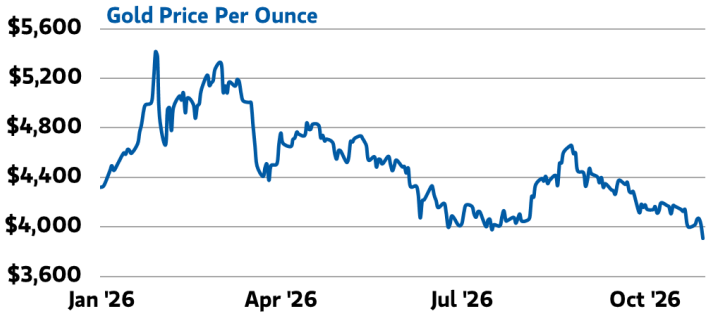
Gold: More Than a Rates Trade

Amy Gower (Amy Sergeant), CFA, Commodities Strategist, Morgan Stanley & Co. International plc+

Gold's resilience suggests structural demand is offsetting macro headwinds. From here, easing yields and/or falling oil prices could bring upside, but gold may also prove resilient if rising yields reflect fiscal concerns. Morgan Stanley & Co. Research expects gold to rise to $5,000 per ounce by mid-2027.

Despite the Federal Reserve's rate hike in September, a stronger US dollar and elevated global bond yields around the world, gold has fallen just 15% from August's high to hold around $4,000 per ounce (see chart).

Gold Holds Around $4,000

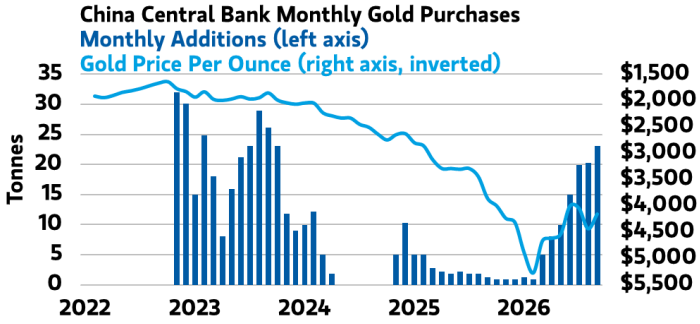


Source: Bloomberg, Morgan Stanley Wealth Management Global Investment Office as of Oct. 30, 2026.

In contrast, if the inverse relationship between gold and real yields that applied in March–July had held, gold would already be under $3,000 per ounce—about 25% lower than it is now. Strong central bank buying and ETF inflows are helping offset these macro headwinds, suggesting the precious metal is becoming less dependent on a supportive rates environment.

DEMAND BOUNCES BACK. Gold's two largest buyers—central banks and ETFs—have unexpectedly resumed buying after a weak start in 2026. Central banks purchased 289 tonnes in the second quarter, equivalent to an annualized 1,155 tonnes, versus 860 in 2025 and our expectation for 800 in 2026. Early indications suggest momentum remained strong in the third quarter. For example, the People's Bank of China (PBOC) has purchased 103 tonnes so far this year, the most since 2023—60% of this in the third quarter (see chart).

China's Central Bank Has Added the Most Gold Since 2023



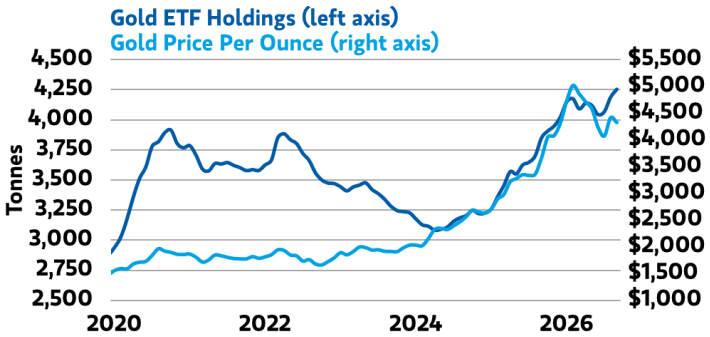
Source: Bloomberg, Morgan Stanley Wealth Management Global Investment Office as of Oct. 30, 2026

Poland remains on track to be the largest central bank buyer again in 2026, with gold reserves rising to 673 tonnes. Elsewhere, the Democratic Republic of the Congo (DRC) plans to lift its reserves from three to five tonnes by the end of the year, and Serbia has also recently added gold.

Chinese demand beyond central bank buying also looks robust. China's gold imports reached 1,100 tonnes through August, the highest annualized pace since at least 2017. This is more than 10 times higher than PBOC additions, suggesting good demand elsewhere in China, with weak property and equity markets likely pushing investors toward alternatives such as gold.

STRONGEST QUARTER FOR ETFS. Much of the strength in gold prices last year was driven by the 800 tonnes worth of ETF inflows when the Fed started to deliver rate cuts. But inflows this year have been slower, at the equivalent of just 250 tonnes, which makes sense given the more challenging macro backdrop, including rising oil prices amid the Middle East conflict and higher bond yields. Recently, however, ETF inflow data has looked more encouraging (see chart).

ETF Gold Holdings Rise and Diverge from Gold Price



Source: World Gold Council, Morgan Stanley Wealth Management Global Investment Office as of Oct. 30, 2026

Global gold ETFs recorded their strongest quarterly inflows on record in US dollar terms in the third quarter, at $31 billion, accounting for approximately 220 of the 250 tonnes of additions so far this year. The strong inflows came despite the Fed's September rate hike, which would ordinarily have the opposite effect. On top of that, European inflows exceeded those in the US for the first time since 2021.

GOLD AND BOND YIELDS. Rising rates and bond yields typically weigh on gold because they can make bonds more attractive to investors than non-interest-bearing assets like gold. But this is not always the case: The reason yields are rising matters.

Following September's Fed hike, US short-term yields eased and long-term yields resumed their rise, steepening the Treasury yield curve. As the US fiscal deficit approaches $2 trillion, growing debt issuance and competition from long-dated AI-related corporate borrowing are pressuring long-term yields, potentially reflecting investors' desire for greater compensation for taking greater risk. As the World Gold Council noted in its September report on ETF flows, this can reflect "concerns over inflation uncertainty, fiscal sustainability and sovereign bond market risks." Such concerns, in turn, could encourage diversification toward gold, which carries no issuer or credit risk. This may already be playing out, with ETF inflows remaining strong despite rising yields.

In a speech on Oct. 5, Bundesbank President Joachim Nagel made a similar argument in favor of central bank gold buying: "The recent rise in global government bond yields has boosted the relative attractiveness of debt securities again. At the same time, rising debt levels have increased concerns about the credit risk of these assets. Furthermore, geopolitical risks are likely to continue to shape reserve management decisions. Taken together, the case for further diversification into gold remains significant." We note that Germany holds the world's second-largest gold reserves.

IMPACT OF RATE EXPECTATIONS. Falling rates and bond yields typically reduce the opportunity cost of holding gold and can encourage renewed ETF inflows and speculative buying—and we would expect that to happen if rate expectations ease going forward. MS & Co. Research economists expect just two more Fed hikes through the end of 2027, compared with around 2.5 hikes priced by the market. If inflation pressures ease, allowing the Fed to deliver fewer hikes than the market expects, this could support ETF inflows into gold. The MS & Co. economics team also sees the US 10-year Treasury yield reaching 4.7% by the third quarter of 2027, from around 5% currently.

GOLD AND OIL PRICES. Gold has come under pressure as oil prices have rallied, particularly since late August: Brent crude has risen from $90 to $115 per barrel, while gold has fallen from $4,650 to $3,925 per ounce. In the near term, a jump in oil prices might bring further downside pressure to gold, particularly if it is used as a source of liquidity.

However, we think investors should consider buying the dips in gold, even if oil prices stay higher for longer. A sustained period of elevated oil prices would raise the risk of stagflation, with energy costs feeding through to broader inflation, while squeezing household incomes, business margins and growth. As growth weakens, central banks may find it increasingly difficult to justify further tightening, and a pause in rate hikes while inflation stays elevated should support gold, all else equal.

A stagflation environment also tends to weigh on equities and bonds together, which strengthens gold's role as a portfolio diversifier. Stagflation has historically been associated with periods of strong gold performance.

A BRIGHT OUTLOOK. Putting all this together, we see gold showing resilience against an increasingly challenging macro backdrop, supported by strong central bank demand and ETF inflows. We think this reflects growing appetite for gold as a hedge against geopolitical risks and concerns over government debt sustainability. With prices repeatedly finding support around $4,000 per ounce, we see an attractive risk-reward scenario from here and target $5,000 by the second quarter of next year.

Lower yields offer the clearest route higher for gold. Falling bond yields, oil prices or both could ease Fed tightening expectations, reduce gold's opportunity cost and encourage renewed investment inflows. However, further increases in long-term yields need not be bearish for the precious metal if driven by fiscal sustainability concerns, encouraging diversification toward real assets like gold, which has no credit risk. Similarly, while rising oil prices could initially weigh on gold through higher rate expectations, sustained strength in oil could eventually shift market concerns toward growth and stagflation, creating an alternative source of support. ■

This article was excerpted from the Oct. 13 Morgan Stanley & Co. Research report, "Gold: More Than a Rates Trade." For a copy of the full report, please contact your Financial Advisor.

ARTIFICIAL INTELLIGENCE

AI Financing: The Quality Divide

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Sharply higher rates and credit spreads have recently raised the question of whether the increased cost of borrowing threatens the AI build-out. We think it will proceed apace, but with financing terms increasingly shaped by credit strength, collateral and structure.

AI infrastructure, and how it gets financed, has been the defining market theme of 2026, particularly in credit. The sheer scale of investment has drawn in hyperscalers, semiconductor makers, data center developers, neoclouds (cloud-computing service providers) and virtually every channel of public and private credit. Just as the need for capital is accelerating, higher interest rates and wider spreads are raising borrowing costs. Here, we analyze what elevated borrowing costs could mean for the pace of investment and the volume and composition of credit issuance needed.

Our core premise remains unchanged: Demand for compute vastly exceeds supply, and that imbalance is likely to persist for years. Combined with demonstrable progress in AI adoption and monetization, this imbalance continues to drive AI-infrastructure-capex projections higher. Our equity research colleagues now estimate that total capex for the four largest hyperscalers will rise by more than 50% in 2027 versus 2026. These projections reflect strong conviction that the highest-quality players in the AI ecosystem have a line of sight to returns on invested capital (ROIC) of 25% or more. Against that return potential, the question is whether borrowing costs have risen enough to materially alter the economics of the next dollar of AI investment.

HIGH-QUALITY HYPERSCALERS. The answer varies across the AI ecosystem. First consider the four high-quality hyperscalers—Alphabet, Amazon, Meta and Microsoft. With average credit ratings of roughly AA, average market capitalizations exceeding $3 trillion, diversified businesses and long track records of profitability, they have ample capacity to issue more debt. Their high initial ratings also provide a meaningful cushion, creating additional balance-sheet flexibility. Weighed against prospective ROIC of 25%-plus, higher borrowing costs alone are unlikely to materially alter their commitment to AI-related capex.

For these issuers, we expect price to adjust before quantity: with wider spreads but not meaningfully lower issuance. This distinction matters for the aggregate outlook. As these four hyperscalers directly or indirectly account for more than 75% of expected AI-related capex, we think a rise in borrowing costs from here is unlikely to meaningfully slow the bulk of the AI build-out.

MOVING DOWN THE QUALITY SPECTRUM. The calculus changes materially further down in quality. Lower-rated hyperscalers, neoclouds and other participants lack the ratings cushion, market capitalization and, in many cases, the long track records of profitability of the higher-quality players. These vulnerabilities have surfaced in recent weeks, as some issuers have faced more limited capital market access and sharp declines in their bond prices. For them, higher funding costs can become a binding constraint. As borrowing costs rise, both AI-related capex and the credit issuance required to finance it from lower-rated players are likely to become more sensitive to price.

MARKETS STARTING TO DIFFERENTIATE. Through the recent volatility, the credit markets have been notably discerning. Sharp price declines have been concentrated in unsecured AI-related debt from lower-quality issuers, while the reaction in loans secured by chips or lease payments from high-quality hyperscalers has been far more contained. At the same time, unsecured bond spreads for the highest-quality hyperscalers have remained relatively stable—unlike over the summer when they led the widening. The market is differentiating not only among issuers, but also by credit quality, collateral and financing structure.

This differentiation has two important implications. First, lower-quality issuers may increasingly need to rely more on secured, asset-level financing. Second, accessing that financing may require greater credit support from the highest-quality participants in the AI ecosystem, including highly rated semiconductor companies, through contractual commitments, backstops or other forms of support. Higher funding costs, therefore, may not just affect how much these issuers invest in capex but also reshape how that investment is financed.

THE NEW DIVIDE. The bottom line is that higher borrowing costs are unlikely to derail the AI infrastructure build-out, but they will increasingly determine who finances it and how. For the highest-quality participants, strong balance sheets, ratings flexibility and prospective returns well above borrowing costs mean that price is likely to adjust before quantity.

Further down the credit spectrum, higher funding costs can constrain both capex and market access, forcing borrowers into secured structures and greater reliance on support from stronger counterparties. As the AI capital cycle matures, credit quality, collateral and structure will matter more, not less. The capital will be there, but increasingly on different terms for different borrowers. ■

This article was excerpted from the Oct. 25 Morgan Stanley & Co. Research report, "AI Financing: The Quality Divide." For a copy of the full report, please contact your Financial Advisor.

Q&A

What Would It Take to Unlock the US Housing Market?

After the Federal Reserve raised interest rates in September, the 30-year mortgage rate climbed above 7%. Combined with high home prices and the lowest housing turnover in decades, higher mortgage rates have cast a pall over the US housing market. "Early this year, we were being asked what mortgage rate would unlock the housing market. Now we're being asked what rate would break it," notes James Egan, the US housing strategist for Morgan Stanley & Co. Research. He recently discussed the market's complexities and his outlook with Morgan Stanley Wealth Management investment strategist Sarah Wolfe. Below is an edited version of their conversation on Oct. 26.

Sarah Wolfe (SW): Let's start with mortgage rates. We saw the 30-year rate dip below 6% back in February and home affordability improve to its highest level since 2022. Now mortgage rates are above 7%, and the monthly payment on the median-price home has risen 15%. What's driving up mortgage rates and where do you think they're headed?

James Egan (JE): There are a lot of components to the mortgage rate, but two stand out currently. The first is the selloff in US Treasury bonds between the first quarter of this year and now. At one point, the five-year Treasury yield was up 150 basis points, and the 10-year was up 125 basis points. So, that was the biggest driver.

Another component on the investment side is wider spreads on mortgage-backed securities. We have gone from a market that was pricing in multiple Fed rate cuts to one that's now pricing in several more hikes. Mortgage investors are inherently short rate volatility, and amid this backdrop they want to be compensated for the added risk.

In terms of where we're going from here, volatility could decline if the market coalesces around a path for Fed rates, and then we could see some improvement in mortgage-backed security spreads—but if that happens, the improvement might only be in the neighborhood of a quarter point. For any material drop in mortgage rates, the five- and 10-year part of the Treasury yield curve would need to move lower.

SW: Higher mortgage rates appear to have brought the housing market to a standstill: Purchase applications were down 11% year over year, existing home sales look depressed, and new housing inventory has risen to more than eight months of supply. Do you expect activity to pick up?

JE: If mortgage rates stay where they are, we expect more softness in sales volumes. We already saw a pullback in the third quarter. However, there is a certain amount of housing activity that has to occur regardless of where mortgage rates are and where affordability is—call it the "life happens" rate. For instance, some number of people will need to move for work reasons. We have been near this "floor" of activity for some time, and I don't anticipate much change now that affordability has fallen again.

Lack of affordability has been constraining demand for housing since 2022 and 2023, when mortgage rates rose to more than 8% and home-price growth hit a record. By the fourth quarter of 2023, existing home sales volume as a percentage of the housing stock fell to the lowest level in 40 years. Although affordability has improved since then, existing home sales have not really recovered—they've been bouncing along that 40-year low. There was an uptick in late 2025 and early 2026, but there wasn't a true breakout in demand.

So, looking at the latest rise in mortgage rates, we frame it this way: The probability of upside risk—much stronger sales volumes than expected—continues to come down. However, the probability of dramatically weaker sales has not gone up because we have already reached that activity floor.

SW: Could you break down the existing home versus the new home market?

JE: Existing and new home sales are incredibly different markets right now. What's driven the wedge between them is the "lock-in" effect in the existing home space.

Essentially, a homeowner who purchased or refinanced their home before 2022 locked in a much lower mortgage rate. So they are not incentivized to sell their home, pay off that mortgage and take out a new one at a much higher rate to buy a much more expensive house. To put some numbers around that, the effective rate on the outstanding mortgage universe is around 4.3% versus the recent prevailing rate—about 7.4%.

News headlines make it sound like affordability has deteriorated for all homeowners. But in reality, if you bought your home in 2016 and refinanced in 2020 or 2021 at record-low mortgage rates, and your income has been growing at the same pace as median household income, your monthly mortgage payment as a share of your income is probably around 7%. But if you're buying a home today for the first time, your monthly payment as a share of your income is probably closer to 25%. That's what's driven existing home inventories down and protected existing home prices.

In the new home market, the lock-in effect does not exist because there is no in-place homeowner beholden to a lower mortgage rate. Single-family home-starts climbed throughout 2020 and 2021 to local highs. Units under construction swelled, peaking in 2023, and now these new homes are completed and available for sale—in fact, new home

inventory is the highest since 2008. To move the inventory, builders are incentivizing potential homebuyers by offering "rate buy-downs," in which a homebuyer gets a lower mortgage rate and thus a more affordable monthly payment. Today, though, even with these incentives, new home prices have been falling and are below existing home prices for the first time in decades.

SW: Where are home prices at the national level? Is there a scenario where we actually see home price depreciation?

JE: Median *new* home prices are down—but that is very different from saying that home prices overall are down. In fact, as mortgage rates have increased, listing growth for existing homes has slowed. With fewer existing homes on the market, national home price appreciation has increased recently from 70 or 80 basis points year over year to 1.9%.

While home prices are coming down in some areas, to see them truly depreciate nationally, you need motivated sellers. And we struggle to find that. Mortgage lending standards and the quality of mortgage products have remained so robust that we don't foresee delinquencies, defaults or foreclosures getting to the point where homeowners would need to sell and national home prices would depreciate as a result.

Could we see things get softer as affordability remains this challenged? Sure, and we will be closely watching existing home listings for signs that homeowners are becoming more willing to sell.

SW: How do geographic differences fit in? The Northeast and the Midwest, for example, have been seeing the strongest price gains, whereas areas in the Sunbelt, Florida and Texas have had more inventory growth and weaker prices. Do you expect that dynamic to continue?

JE: The short answer is yes.

As we look at different places, we have found one variable that is highly correlated to home-price performance: how many homes are listed for sale right now versus how many were listed for sale in 2019. Back then, before anybody knew what COVID was, listed inventory was close to historic lows. But then the pandemic happened, the lock-in effect became more severe than ever and listed inventory plummeted to an all-time low. While listed inventory has increased, it's still 17% below those historic lows in 2019 on a national basis.

However, if you look at big metropolitan areas in Texas, Florida and other parts of the Southeast, listed inventories are up 20% to 50% versus 2019. And looking at places in Connecticut, New York, Pennsylvania and Ohio, inventory levels are 45% to 70% *below* where they were in 2019. That's driven a material difference in pricing.

In a world in which affordability pressures are going to keep demand soft, those inventory differentials are going to matter: They still speak to outperformance in the Northeast and the Midwest versus the Southeast.

SW: Switching to the supply side, what is the environment like for homebuilders?

JE: From a holistic standpoint, inflation, tariffs, the higher cost of inputs and labor shortages have been issues in the home building space for some time. Homebuilders are also facing increased pressure from the regulatory side. And now, on top of all that, there is eight and a half months of supply.

We could talk about which headwind is the most or least surmountable, but I think the important point is that there are so many headwinds right now. It's weighed on homebuilder confidence, which is the lowest in 14 years.

In our view, until we get affordability improvement that can clear the backlog of homes for sale and see a path toward a healthier demand environment that would then incentivize more building, it's going to be a challenging backdrop for housing starts and for building volumes.

SW: Do you see policy levers that could alleviate the lack of affordability effectively—for example, mortgage product innovation or checks for first-time homebuyers?

JE: The housing market is a very complicated mechanism, and so it's very difficult to find a silver bullet that fixes everything. Checks to first-time homebuyers, for example, would certainly increase sales volumes and home prices. But in our view, it would simply pull demand forward, and affordability would deteriorate as that happened. So, it would be a short-term benefit for medium- or longer-term issues.

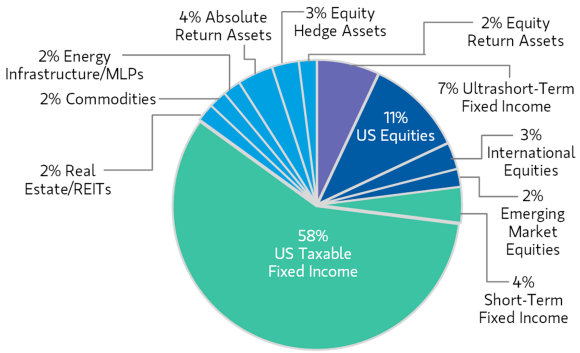
A different mortgage product could help. One reason for the lock-in effect is that the housing market is so over-indexed to 30-year fixed-rate mortgages. Over 90% of the outstanding mortgage universe, by balance or by count, is fixed-rate right now. We've started to see an increase in adjustable-rate mortgage (ARM) applications, and we think that a larger, more liquid ARM market would help with affordability on the margins.

Also, we recognize that nationally, housing supply is low, and more building volume would help with affordability. But there are regulatory hurdles and rules on what can be built where. Although some proposals in the Road to Housing Act passed earlier this year attempt to incentivize more building, they are going to take time to implement. So, this is not something that can change overnight. ■

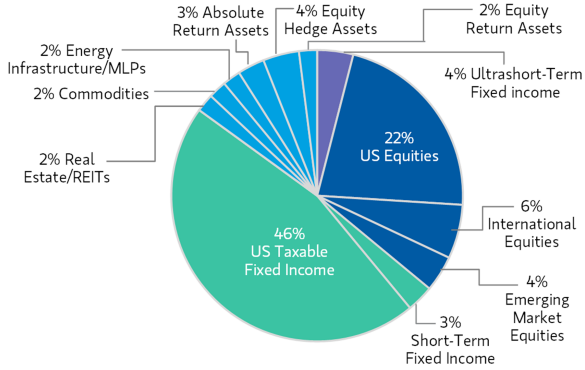
Global Investment Committee Tactical Asset Allocation

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.

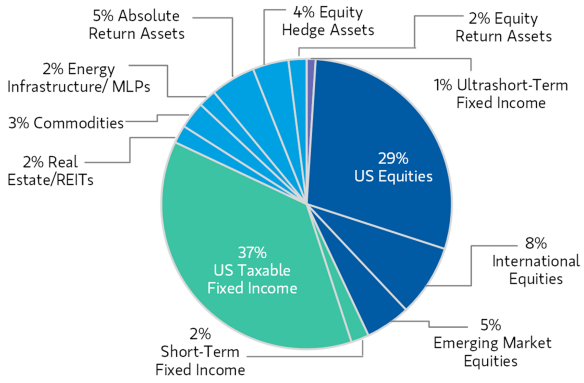
Wealth Conservation



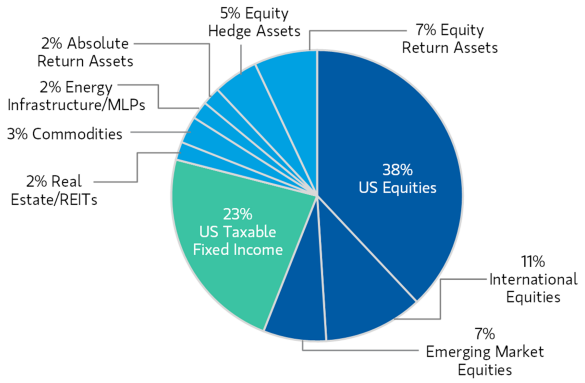
Income



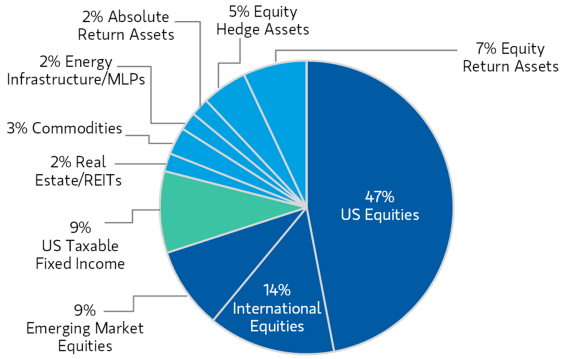
Balanced Growth



Market Growth



Opportunistic Growth



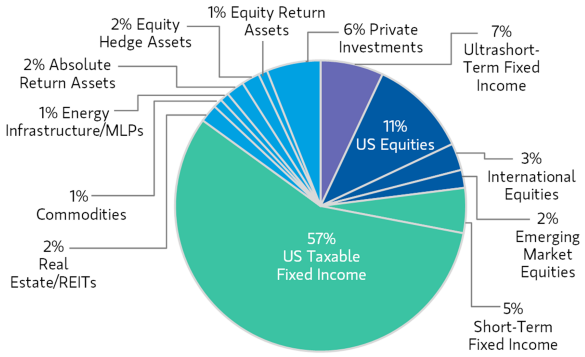
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- **Ultrashort-Term Fixed Income**
- **Fixed Income & Preferreds**
- **Equities**
- **Alternatives**

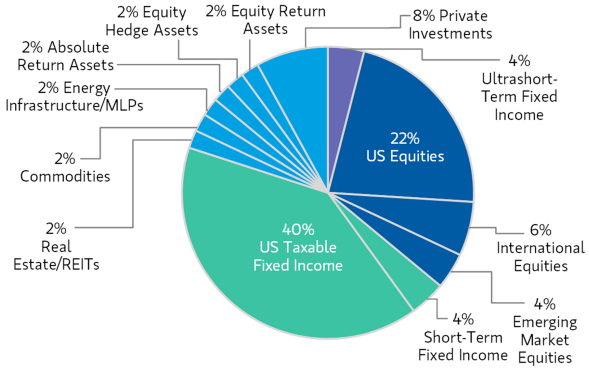
Source: Morgan Stanley Wealth Management GIC as of July 1, 2026

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.

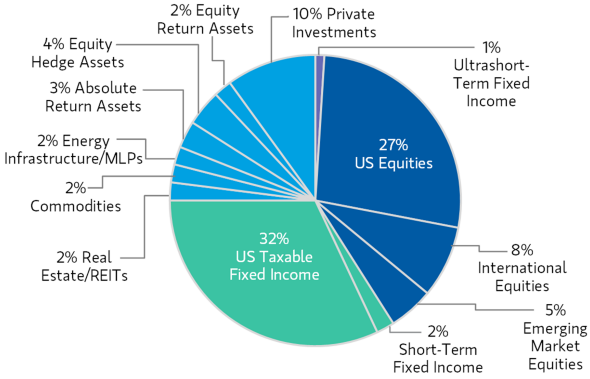
Wealth Conservation



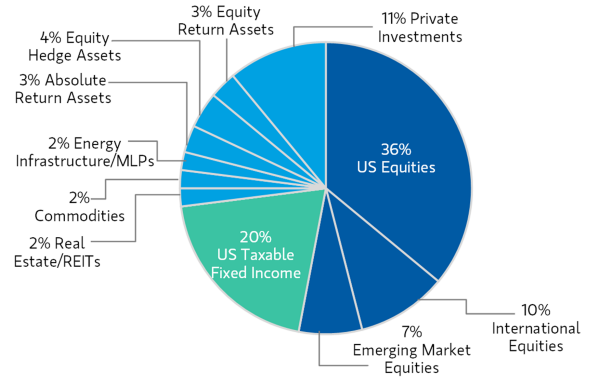
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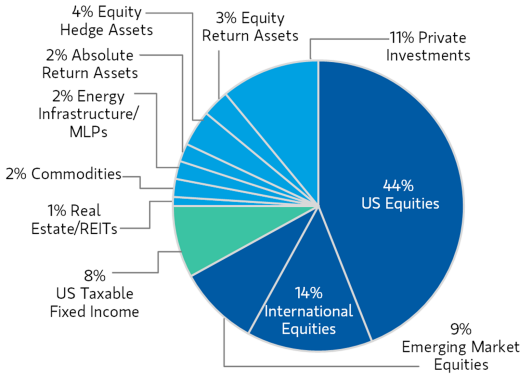
Balanced Growth



Market Growth



Opportunistic Growth



Key

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

Source: Morgan Stanley Wealth Management GIC as of July 1, 2026

Tactical Asset Allocation Reasoning

Global Equities	Weight Relative to Model Benchmark	
US	Overweight	The productivity-boom thesis catalyzed by the GenAI-capex build-out, along with aggressive fiscal and regulatory stimulus, has become very much consensus. Forecasts are ambitious and embed an expectation for cyclical broadening that takes "S&P 493" earnings growth from 6%–8% in 2025 to 24%–26% in 2026. In a market that is already expensive, concentrated and complacent, this suggests the aperture for upside surprise is narrow, and markets are apt to be quite brittle in the face of exogenous shocks. With midterm-election-related policy already hitting a fever pitch, potential for these undiscounted events to occur is rising. Thus, while we are bullish (with MS & Co.'s 2Q2027 S&P 500 Index target at 8,300), we prefer stock-picking to simply owning the cap-weighted index. Favor financials, health care, select industrials and energy.
International Equities (Developed Markets)	Underweight	Fiscal stimulus, a response to the "America First" agenda, has helped to drive recent outperformance. This is creating rest-of-world (ROW) opportunities that may simultaneously enjoy monetary, fiscal and currency-related stimulus. The outlook is improving in Japan, as corporate restructuring occurs alongside a reflationary surge three decades in the making.
Emerging Markets	Overweight	The "new Monroe Doctrine" creates opportunities not only for pro-business political stability in Latin America, but also for direct investment. For Asia, strategic realignment opportunities continue to surface, as the US turns away and the US-China trade conflict has effectively reached a one-year truce, fostering opportunities. India remains a recommended secular growth long. The GIC reduced its oveweight after a signifincant rally in semiconductor names, which skewed index composition.
Global Fixed Income	**Weight Relative to Model Benchmark**	
US Investment Grade	Underweight	The GIC maintains close-to-neutral views in investment grade. In the first half of 2026, solid growth, supported by fiscal stimulus, and inflationary pressures supported a higher-for-longer interest rate environment. Should the Fed maintain a "hold" versus enacting a hike as its next move, investors could find some value in IG. As a point of caution, we do anticipate a surge in IG corporate issuance, on the back of increasing capex and rising M&A deal activity. Given the picture, we recommend limited short-duration exposure and moving toward the "belly of the curve" to capture decent coupons with lower price volatility. We see the long end continuing to be plagued by structural imbalances that show up as widening term premiums.
Opportunistic Fixed Income	Market-Weight	High yield is competing effectively, with better liquidity, greater transparency and more favorable credit quality than private credit. In ROW and emerging market debt, yields are decent, and there may be modest room for spread tightening, as economic growth improves.
Alternative Investments	**Weight Relative to Model Benchmark**	
Real Assets	Overweight	We expect higher stock-bond correlations, which place 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 industrial metals, energy infrastructure and interesting opportunities aimed at solving the residential housing shortage.
Hedged Strategies	Overweight	We added to equity hedged positions early in 2026, noting the pickup in idiosyncratic risk and rising stock level dispersion. 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/market neutral strategies.

Note: Opportunistic Fixed Income includes Inflation-Linked Securities, High Yield Fixed Income, International Fixed Income and Emerging Market Fixed Income. The GIC asset allocation models' benchmarks do not include exposure to Opportunistic Fixed Income. Real Assets includes Real Estate/REITs, Commodities and Energy Infrastructure/MLPs. Hedged Strategies include Absolute Return Assets, Equity Hedge Assets and Equity Return Assets.
Source: Morgan Stanley Wealth Management GIC as of July 1, 2026

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

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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.

Term premium is the excess yield that investors require to commit to holding a long-term bond instead of a series of shorter-term bonds.

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.

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.

Derivative instruments. Options, futures contracts, options on futures contracts, forward contracts, swaps and structured products are examples of derivative instruments. Risks of derivative instruments include imperfect correlation between the value of the instruments and the

underlying assets; risks of default by the other party to certain transactions; risks that the transactions may result in losses that partially or completely offset gains in portfolio positions; and risks that the transactions may not be liquid. Please see the fund's prospectus for additional information.

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.

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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.

Annuities are long term tax-deferred retirement savings vehicles. Annuities are generally subject to surrender charges. A surrender charge is a penalty you have to pay if you sell or withdraw money from an annuity before it matures. The time before an annuity's maturity is called the surrender period and usually lasts for several years after purchase. Surrender charges reduce the value of your annuity and its returns. Early withdrawals will reduce the death benefit and cash surrender value.

Under current law, a nonqualified annuity that is owned by an individual is generally entitled to tax deferral. IRAs and qualified plans—such as 401(k)s and 403(b)s—are already tax-deferred. Therefore, a deferred annuity should be used only to fund an IRA or qualified plan to benefit from the annuity's features other than tax deferral. These include lifetime income and death benefit options.

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

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