PIMCO

ALTERNATIVES INVESTMENT OUTLOOK

DECEMBER 2024

Private Credit:

Asset-Based Finance Shines as Lending Landscape Evolves



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Key Takeaways

- Asset-based finance is one of PIMCO's highest-conviction investment themes, with a market valued at over $20 trillion. While a broad universe, key sectors include residential mortgage lending, U.S. consumer lending, aviation finance, and data infrastructure.
- We expect banks to continue operating in a more restrictive environment, prompting them to seek additional capital partners and prioritize non-balance-sheet lending alternatives.
- High barriers to entry and the need for specialized expertise create a competitive advantage for investors with established capabilities in these evolving markets.

WRITTEN BY:

Kristofer Kraus
Managing Director,
Asset-Based Finance

Harin de Silva
Managing Director,
Asset-Based Finance

Jason Steiner
Managing Director,
Asset-Based Finance

The transition from bank-dominated lending to a diversified financing ecosystem offers unprecedented opportunities for private credit investors.

Asset-based lending has become an attractive alternative to traditional direct lending as banks navigate evolving capital requirements and seek to optimize their balance sheets. With investments secured by tangible assets, the sector is bolstered by underlying trends in key areas.

One is the strength of the U.S. consumer, with robust household balance sheets and high homeowner equity. Another is the investment in data centers, spurred by rising demand for cloud computing and advanced data processing.

Since the global financial crisis (GFC), banks have faced a succession of challenges including stricter regulations, changes in loan accounting, and a rapid rise in interest rates that is just beginning to reverse. These factors have affected capital requirements and increased the cost of lending, prompting many banks to trim their balance sheets, prioritize certain types of lending, and focus on risk mitigation.

The Basel III regulatory framework was developed in response to the GFC to strengthen the supervision and risk management of banks. Following the regional bank crisis in March 2023, we expect banks – particularly large regional lenders – to face a restrictive environment, even as the incoming U.S. administration may relax regulations more broadly. Regulators are considering a revised framework, known as Basel III Endgame in the U.S. and Basel IV globally, that could increase capital requirements.

As they await clarity on new regulations, banks (and importantly, bank shareholders) are focused on long-term, stable profitability. To achieve this, they are reducing the proportion of loans with high capital charges and loans that drive higher earnings volatility. We believe this is prompting banks to seek additional balance sheet partners that can provide strategic capital and/or non-balance sheet lending alternatives.

This disruption is opening opportunities for private capital across a range of asset-based markets, which offer attractive starting valuations and favorable fundamentals – especially when compared with private corporate markets. We believe investors today can find better compensation for risk in asset-based finance, given significant capital formation in lower-quality private corporate credit.

What might seem like a recent rise in asset-based finance is in fact part of a long-term shift that started with the banking sector's deleveraging 15 years ago. At PIMCO, we have been at the forefront of this trend. Recent interest reflects a broader recognition of the asset class's growth potential and aligns with investors' growing need to diversify income sources beyond traditional corporate-skewed credit allocations.



Private capital is now increasingly able to collaborate with banks, offering solutions while seeking to generate attractive risk-adjusted returns. These collaborations can take the form of portfolio sales, partnerships on new originations that allow banks to retain customer relationships, or customized transactions known as synthetic risk transfers (SRTs) – a type of securitization where banks shift risk from their balance sheets to other investors.

Asset-based finance: one of PIMCO's highest conviction investment themes in private credit

Asset-based finance, also known as specialty finance or asset-backed lending, is an attractive and less crowded asset class bolstered by favorable trends in the evolving banking landscape. We estimate the asset-based finance market (excluding commercial real estate lending) to be valued upwards of $20 trillion.

Asset-based sectors, in both consumer and non-consumer areas, provide appealing opportunities for private market investors, particularly relative to corporate lending (for more, see our September *Cyclical Outlook*, "Securing the Soft Landing"). Sectors such as consumer lending – including residential mortgages, personal loans, and student loans – offer robust long-term fundamentals and attractive value, especially as U.S. household balance sheets are much healthier post-GFC and the housing markets remain well-supported. We also have high conviction in sectors with significant secular tailwinds, including aviation finance and data infrastructure.

Our conviction is backed by the well-established architecture for sourcing, analyzing, structuring, financing, and managing various asset types. In our view, high barriers to entry mean that successful investment requires deep infrastructure throughout the value chain.

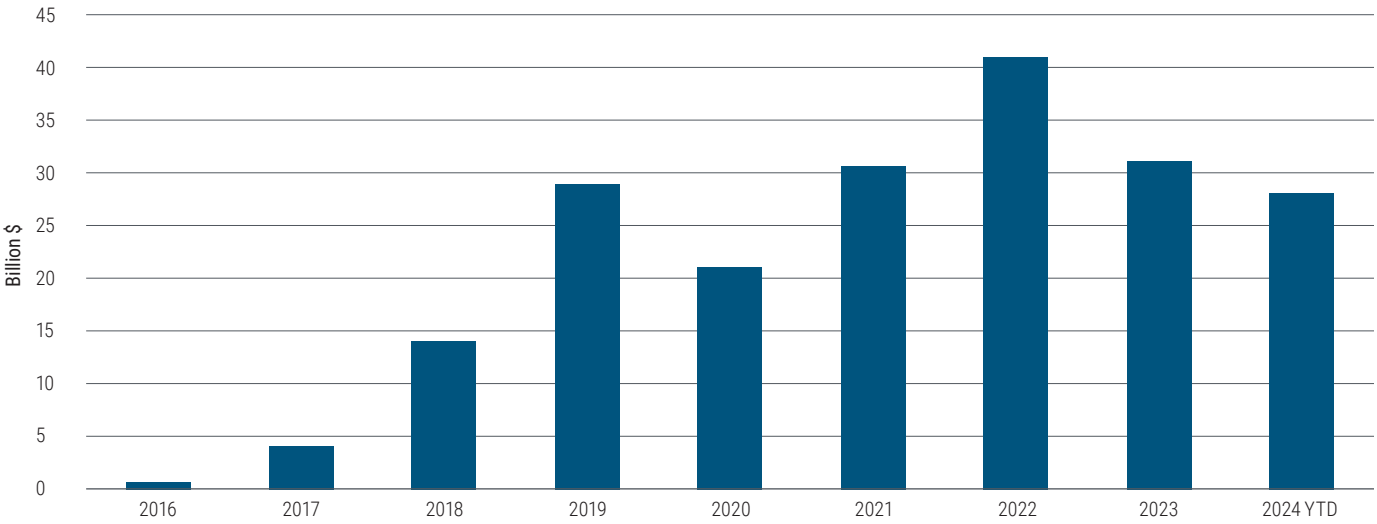
These are our highest-conviction investment areas within asset-based finance today:

Residential Mortgage Lending

The residential mortgage market is the largest component of the asset-based investment opportunity set, supported by several compelling trends, including leverage in the U.S. and U.K. housing markets that is lower than historical norms. However, at this point in the cycle, we remain focused on affordability amid higher prices and low inventory across sub-markets.

Due to stricter post-GFC regulations, non-qualified mortgage (non-QM) loans – aimed at borrowers who may not meet the requirements of standard loan programs, such as self-employed individuals, property investors, or non-residents – represent a growing segment of the U.S. housing market (see Figure 1). These loans benefit from a robust equity cushion given relatively low loan-to-value (LTV) ratios, tighter underwriting standards, and home price tailwinds amid strong demand from millennials and a housing undersupply. With mortgage rates potentially remaining elevated and homeowners with lower rates reluctant to move, we expect attractive opportunities in the second lien market.

Figure 1: Non-QM loans have grown rapidly since 2016



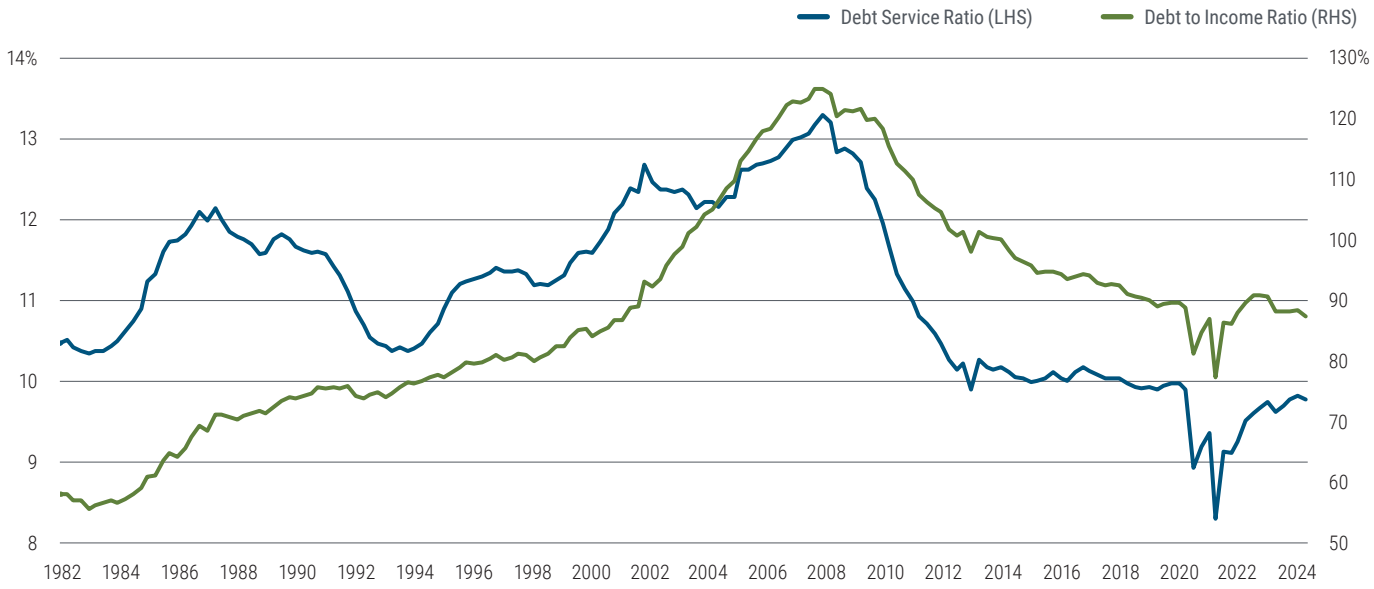
Source: JP Morgan as of 9 September 2024. **For illustrative purposes only.** Views expressed are those of PIMCO. There can be no guarantee that the trends above will continue.

U.S. Consumer Lending

Consumer lending outside of residential mortgages represents a sizable opportunity, with over $17 trillion in U.S. household debt including personal loans, student loans, and credit card receivables. Despite higher interest rates, household balance sheets remain strong, with debt-to-income ratios declining in recent years and net worth near all-time highs (see Figure 2). Debt servicing costs remain low by historical standards, largely because about 95% of American mortgages are fixed rate.

While higher delinquencies are often seen as signs of U.S. consumer weakness, not all U.S. consumers have similar credit profiles. Delinquencies have risen significantly in the subprime segment; but those in the prime and near-prime categories have normalized to pre-COVID levels. Additionally, many lower-credit consumers experienced a temporary and artificial boost to their FICO scores due to pandemic-era student loan forbearance and fiscal stimulus, which has since led to increased delinquencies. PIMCO's large, granular U.S. consumer credit database stretches back to 2005 and encompasses an estimated 35-40 billion anonymized data points, helping us understand consumer behavior through the cycle and pinpoint the most compelling loan pools.

Figure 2: Household balance sheets remain strong with relatively low debt servicing costs

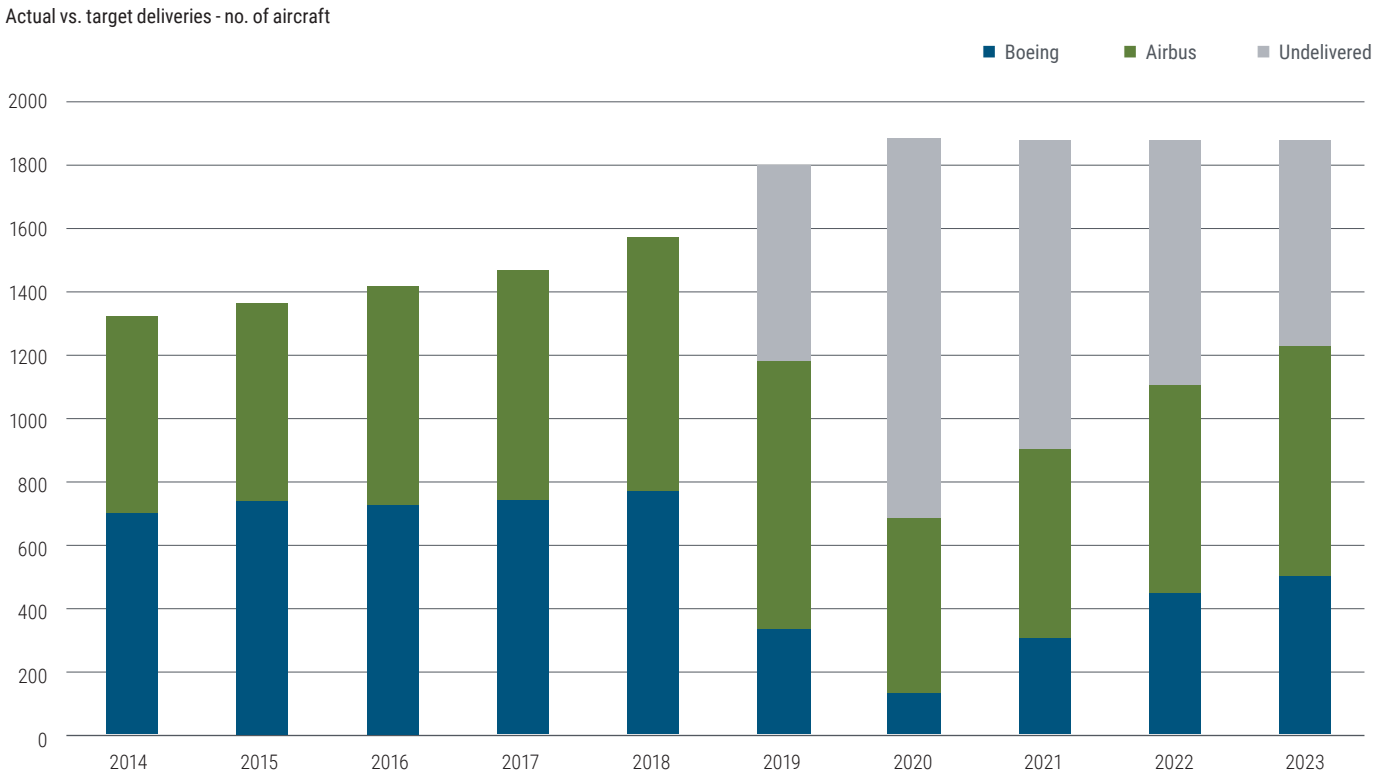


Source: Goldman Sachs, Federal Reserve Bank of St. Louis, J.P. Morgan, Black Knight, Goldman Sachs Global Investment Research as of 1 January 2024. **For illustrative purposes only.** There can be no guarantee that the trends identified above will continue.

Aviation Finance

Capital needs continue to grow in this sector. Barriers to sourcing and servicing the underlying collateral remain high, while the collateral itself exhibits strong fundamentals. The aviation industry has faced substantial disruption from the pandemic and the Russia-Ukraine conflict. However, after taking on $250 billion in incremental debt, airlines returned to profitability in 2023 by focusing on cost-cutting and increasing fleet capacity to meet increasing travel demand, with revenue passenger kilometers (RPKs) surpassing pre-COVID levels. Production issues and a persistent backlog in aircraft manufacturing have limited the availability of new planes, with original equipment manufacturers delivering 35% fewer aircraft (4,200 planes) than ordered from 2019 to 2023 (see Figure 3). With this supply/demand imbalance growing, we believe lease rates on new and mid-life aircraft offer attractive yield and income potential (for more, watch "Aviation Finance: Capturing Opportunities in Private Credit").

Figure 3: Airbus and Boeing have underdelivered vs. targets from 2019 onwards



Source: Cirium, Boeing, Airbus as of 31 December 2023.

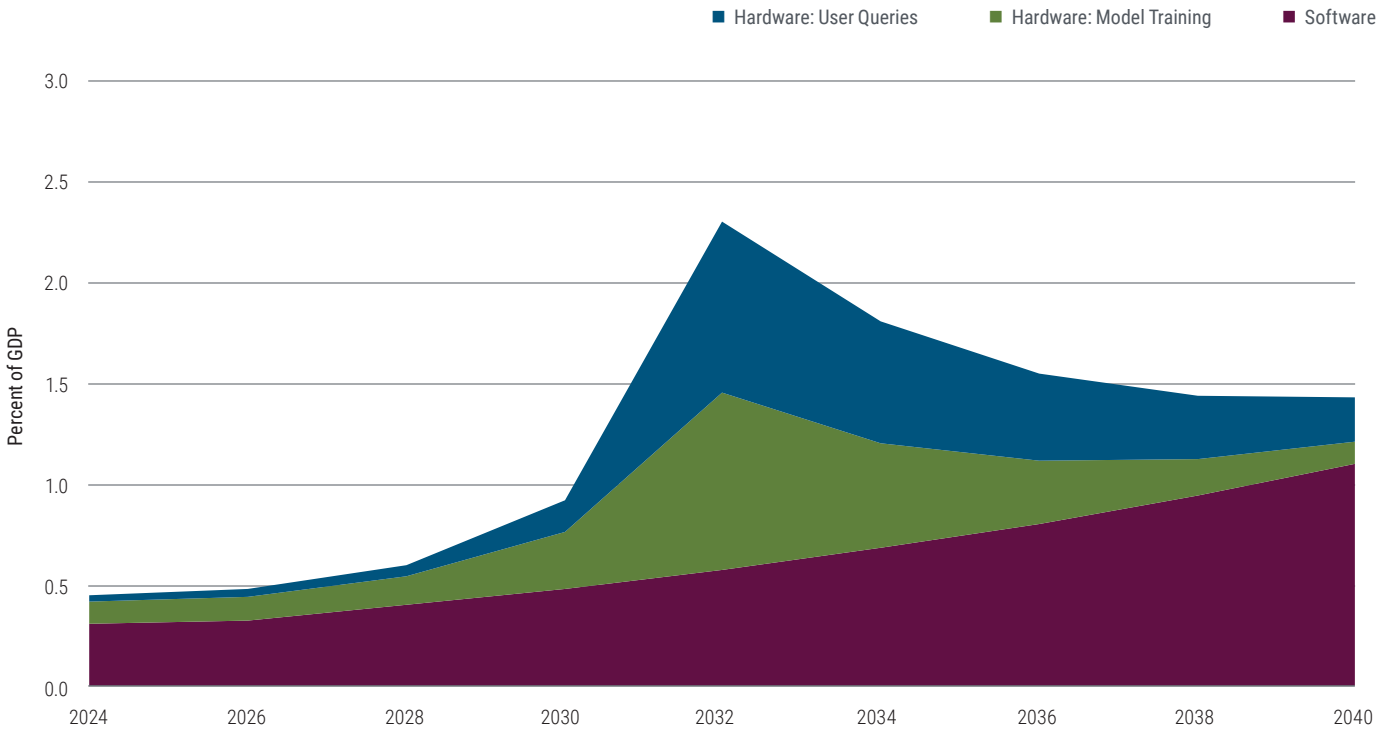
Data Infrastructure

Demand for data centers has been surging – driven by increased connectivity, cloud computing adoption, large language models, and the rapid evolution of generative AI technologies (see Figure 4) – and the supply of capital is not keeping up. Companies need robust infrastructure, including both data centers and high-computational GPU chips, which require significant capital investment.

Banks have had a very limited footprint in these markets, specifically in lending to companies looking to buy new chips. We see numerous opportunities to develop bespoke financing solutions that can benefit from underlying collateral, including chips, network infrastructure, or contractual future cash flows derived from customer contracts.

Figure 4: AI could drive a sizable investment cycle, which requires data infrastructure

Estimated U.S. AI Investment Cycle



Source: Goldman Sachs Global Investment Research as of 2 April 2024.

Focus on relative value is paramount in private credit

As demand for capital outpaces supply across several sectors, investors stand to benefit from a diversified approach to private credit. Over cycles, we have regularly seen certain markets experience inflated pricing. At PIMCO, we consistently apply a relative value lens to aim to avoid value traps. We believe it is important to approach certain sectors with caution given significant capital formation or hidden risks that have yet to be tested.

These are some of those areas:

MUSIC ROYALTIES

An emerging sector within asset-based finance, music royalties are attracting interest due to their uncorrelated returns. However, we believe dedicated capital has generally left less value in this sector amid expanding multiples and astounding valuations for some high-profile deals. While music royalties offer strong recurring income, we remain selective, focusing on smaller catalogs with under-monetized assets. There are also opportunities to acquire catalogs from lesser-known industry participants (e.g., mixing engineers), which may provide similar cash flows at significant discounts.

SYNTHETIC RISK TRANSFERS (SRTs)

For the past 15 years, banks have been frequent issuers of SRTs, mainly in Europe, to manage credit risk on their balance sheets. Until 2023, these trades were noticeably absent from the U.S., but the U.S. market has quickly evolved, with 2024 on track for record activity. With the influx of dedicated capital, valuations in the U.S. SRT market have tightened significantly. While SRTs provide an efficient way to access high-quality bank-originated credit, we do not consider them a standalone asset class. Instead, they represent one of many ways investors can gain exposure to the underlying collateral, such as residential and commercial real estate, consumer-related areas, and corporate assets. We see SRTs as an attractive means to access certain asset classes when whole loans are less accessible, trading at rich levels, or offer less scale. Our strategies will constantly shift between SRT and other formats as relative values evolve, or as strategic factors, like bank capitalization levels, affect pricing.

NEWER CONSUMER LOAN PRODUCTS

While we remain constructive on broader personal lending, we believe emerging, shorter-term products, including buy now, pay later (BNPL) loans, are still maturing. BNPL loans allow customers to buy products and services without paying the full amount upfront, providing financial flexibility. However, we have limited insight into origination practices, as many active originators do not conduct thorough underwriting or share reporting with credit bureaus. Our approach to investing in consumer loans emphasizes granular underwriting, requiring extensive loan-level datasets to drive our analysis.

Balancing optimism with cautious evaluation

As a longstanding investor in asset-based finance, we are excited about the sector's evolving opportunities. What was once a market dominated by banks is becoming a more diverse financing ecosystem that has historically included securitization markets and increasingly involves private lenders. This shift presents one of the most compelling opportunities for private credit allocators in over a decade.

However, this optimism must be tempered with discipline. Investors should be aware of the varying fundamentals and valuations across asset-based finance areas, particularly in sectors with uncertain collateral values or weak documentation that could undermine credit performance.

At PIMCO, we continue to take a relative-value-oriented approach to the array of opportunities generated by our origination platform. By leveraging our multi-decade head start in building datasets, as well as our analytics framework and macroeconomic insights, we strive to uphold rigorous discipline in underwriting and portfolio construction. The same principles that have driven our success in public and private markets will remain essential in navigating the future of asset-based finance.

Appendix: Asset-based finance requires harnessing relative value when sourcing across PIMCO's multiple origination channels

Private lenders employ various approaches to origination in asset-based finance. Some focus on specific sectors, some emphasize captive sourcing through ownership of origination platforms, while others take a more opportunistic approach across secondary markets.

PIMCO's origination strategy leverages the power of our platform to source opportunities across all sectors, deal structures, and channels. In practice, we believe that successful investing in this asset class prioritizes relative value, which requires navigating both bank and non-bank origination channels. This approach allows us to capitalize on bank portfolio sales, forward flow partnerships, and highly structured risk transfer transactions.

We can source deals across all the collateral types we've outlined and with a variety of risk profiles depending on the health of the collateral and the structure of the transaction. While owning an origination platform can be the optimal sourcing strategy for certain asset types, it isn't universally applicable. For example, since the GFC, we believe residential mortgage credit markets have graduated beyond a captive origination model. Conversely, in sectors such as aviation finance, we consider captive origination critical to access various financing products across loans and leases. We look to apply a uniform approach to any sector in which we invest. We systematically compare the various potential origination channels by assessing potential origination partners across product quality, the scalability and durability of the opportunity set, and potential alternative ways to source risk.

We believe the power of PIMCO's platform provides investors with access to opportunities across the asset-based finance spectrum, focusing on relative value and a strong alignment of incentives with our investors.

For more information on PIMCO's alternatives solutions, visit pimco.com/alternatives

All investments contain risk and may lose value. Investments in **residential/commercial mortgage loans** and **commercial real estate debt** are subject to risks that include prepayment, delinquency, foreclosure, risks of loss, servicing risks and adverse regulatory developments, which risks may be heightened in the case of nonperforming loans. The value of **real estate** and portfolios that invest in real estate may fluctuate due to: losses from casualty or condemnation, changes in local and general economic conditions, supply and demand, interest rates, property tax rates, regulatory limitations on rents, zoning laws, and operating expenses. **Mortgage and asset-backed securities** are highly complex instruments that may be sensitive to changes in interest rates and subject to early repayment risk and their value may fluctuate in response to the market's perception of issuer creditworthiness; while generally supported by some form of government or private guarantee, there is no assurance that private guarantors will meet their obligations. **REITs** are subject to risk, such as poor performance by the manager, adverse changes to tax laws or failure to qualify for tax-free pass-through of income. Investing in **banks and related entities** is a highly complex field subject to extensive regulation, and investments in such entities or other operating companies may give rise to control person liability and other risks. **Bank loans** are often less liquid than other types of debt instruments and general market and financial conditions may affect the prepayment of bank loans, as such the prepayments cannot be predicted with accuracy. There is no assurance that the liquidation of any collateral from a secured bank loan would satisfy the borrower's obligation, or that such collateral could be liquidated. **Collateralized Loan Obligations** (CLOs) may involve a high degree of risk and are intended for sale to qualified investors only. Investors may lose some or all of the investment and there may be periods where no cash flow distributions are received. CLOs are exposed to risks such as credit, default, liquidity, management, volatility, interest rate and credit risk. **Real asset investments** including **data centers** are subject to a variety of inherent risks that may have an adverse impact on the values of, and returns (if any) from, such investments, including: changes in the general economic climate, local conditions (such as an oversupply of space or a reduction in demand for space), the quality and philosophy of management, attractiveness and location of the properties, physical condition of the properties, as well as the financial condition of tenants, buyers and sellers of properties. **Private credit** involves an investment in non-publicly traded securities which are subject to illiquidity risk. Portfolios that invest in private credit may be leveraged and may engage in speculative investment practices that increase the risk of investment loss.

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