[A|B] CarVal®

Asset-Based Finance

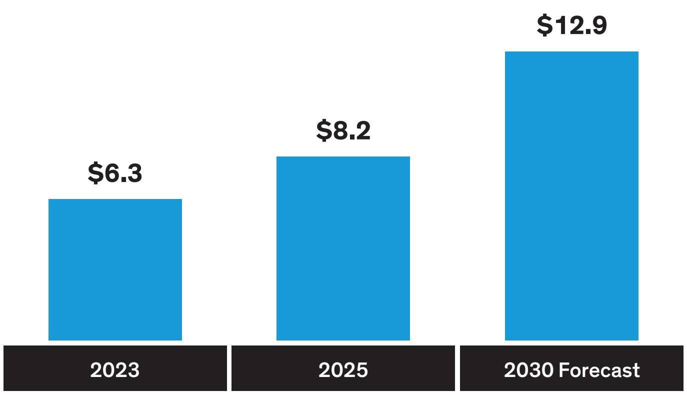
A Framework for Navigating a Maturing and Expanding Private Credit Market

Asset-Based Finance ("ABF") is granular lending to the real economy.

The global ABF market has grown by 30% and now weighs in at $8.2 trillion. That's roughly twice the size of Japan's economy and comparable to the combined economic output of the UK and India. This rapid growth has been driven primarily by increased demand for capital to support real economy activity and matched by the proliferation of non-bank lenders that can provide financing. It is estimated that the market will swell to roughly $13 trillion by 2030 as an ongoing secular shift away from bank lending continues and the investment-grade opportunity set expands (*Display 1*).

DISPLAY 1:
$8.2 TRILLION GLOBAL ABF MARKET

Represented by Granular ABF Portfolios



References are estimates and capture the granular ABF market defined as household and business credit assets held by non-banks and specialty finance lenders. Excludes syndicated and leveraged finance as well as US non-bank originations of agency residential mortgages. Based on latest available data.

As of December 31, 2025 | **Source:** Integer Advisors

From a capital perspective, insurance company balance sheets are increasingly serving as a source of lower-cost capital, helping to perpetuate the disintermediation of traditional bank lenders. At the same time, we're witnessing continued growth in the number and scale of non-bank lending platforms, most of which are funded by private credit–focused asset managers with diverse sources of capital. So far, this growth has been more prominent in the US, where 22% of total credit lending is supported by non-banks, compared to about 9% for Europe, including the UK (*Display 2*). We think this means there is more space for non-bank lenders to capture additional market share, especially in Europe.

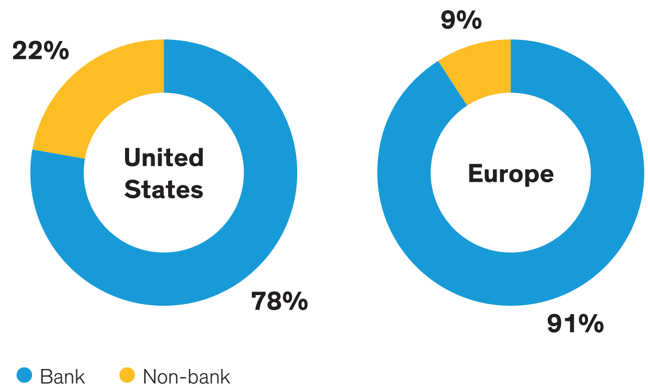
Another notable theme in ABF has been the wave of private credit managers entering the market seeking to capitalize on growing demand from investors, many of whom have expanded from corporate credit to ABF, either through acquisition or organic growth. Meanwhile, allocators continue to diversify their private credit portfolios, most of which are concentrated in corporate direct lending.

At the same time, the definition of ABF has broadened. As capital has flowed into the space, structures that are collateralized in form but corporate in substance have been marketed alongside asset-centric strategies. For allocators, this definitional drift matters: an asset-centric structure and an enterprise-dependent structure can exhibit materially different correlations and loss outcomes. As ABF continues to evolve as an asset class, this paper seeks to re-anchor ABF to first principles, introduce the emerging category we describe as corporate ABF and provide a practical framework to distinguish asset-centric risk from corporate-centric risk.

But before we examine the definitional and underwriting distinctions that should guide allocation decisions, it is worth detailing the structural forces that continue to drive ABF's expansion and that are simultaneously creating the conditions under which rigor matters most.

DISPLAY 2: THE EUROPEAN MARKET IS SIGNIFICANTLY UNDERPENETRATED RELATIVE TO THE US MARKET

Percent of Non-Bank Penetration Relative to Total Credit Lending



As of December 31, 2025
Source: Bank for International Settlements, Integer Advisors

Structural Growth Drivers

Demand-Side Drivers

The primary driver of ABF growth has been continued bank retrenchment from large swaths of lending to the real economy. Banks remain focused on regulatory and capital optimization, leading many to reduce exposure to asset-based verticals that involve structural complexity while focusing on less capital-intensive lending that offers scale and better (capital-weighted) returns.

On the other hand, the non-bank, specialist lending markets' supply of credit to the real economy continues to grow, with technology-enabled specialist and non-bank lenders focusing on speed, flexibility and reliable execution—outcomes they are often achieved by partnering with private capital providers rather than just banks or public securitization markets.

Concurrently, banks are increasingly adopting originate-to-distribute models. Under these frameworks, banks seek to preserve borrower relationships and fee income while effectively outsourcing balance-sheet deployment and credit underwriting to institutional capital. This shift allows banks to optimize risk-weighted assets, return on equity and liquidity while simultaneously creating opportunities for private credit capital providers to partner with banks on warehouse facilities and risk-transfer deals.

This structural evolution has opened a durable systemic opportunity for private capital to serve as programmatic funding partners to the full ABF credit ecosystem: through direct origination, forward-flow agreements, warehouse facilities and other scalable structures.

Relative to banks and public markets, specialist lenders are increasingly capitalizing on these dynamics with technology- and AI-enabled underwriting models that can extend credit much more seamlessly. At the same time, scalable financing structures offered by private capital may provide greater funding certainty across cycles.

Capital-Supply Drivers

Insurance as an alternative source of low-cost capital is transforming institutional buying power in ABF, particularly within the investment-grade ABF opportunity set. We also don't expect to see meaningful bank re-intermediation in many ABF segments, given the underlying regulatory constraints and balance-sheet economics.

Importantly, investor demand is not solely a function of yield. ABF has the ability to provide collateral-backed income with enhanced structural downside protection and diversification benefits relative to both public markets and private corporate credit (*Table 1*). Because many exposures are backed by granular pools of shorter-duration amortizing assets, performance is less reliant on the macroeconomic environment at the time of maturity or refinancing. That makes ABF distinct from traditional corporate debt instruments. This profile becomes particularly attractive in uncertain macro environments that are likely to include pockets of volatility.

Notably, ABF exhibits an average correlation of just 0.16 across the asset classes shown—well below the correlations in every other category. In particular, its near-zero correlation with US corporate investment-grade (0.01), securitized assets (0.03) and leveraged loans (0.02) underscores the diversification potential that asset-centric ABF can offer within a broader credit portfolio.

Against this backdrop—expanding capital, broadening definitions and a wider range of participants—we expect ABF to continue to grow as a strategic allocation within private credit portfolios.

But what exactly does ABF constitute? There does not seem to be a universally accepted definition among investors. This is important, because growth accompanied by definitional drift creates the conditions for outcome dispersion. In the next section, we establish a clear taxonomy.

Table 1

	Direct Lending	Private Equity	Leveraged Loans	High-Yield Bonds	S&P 500	US Corporate IG	Securitized Assets	ABF
Direct Lending	—	0.27	0.73	0.67	0.49	0.22	0.41	0.39
Private Equity	0.27	—	0.18	0.37	0.60	0.32	0.24	0.24
Leveraged Loans	0.73	0.18	—	0.89	0.65	0.56	0.55	0.02
High-Yield Bonds	0.67	0.37	0.89	—	0.70	0.78	0.72	0.12
S&P 500	0.49	0.60	0.65	0.70	—	0.59	0.55	0.29
US Corporate IG	0.22	0.32	0.56	0.78	0.59	—	0.84	0.01
Securitized Assets	0.41	0.24	0.55	0.72	0.55	0.84	—	0.03
ABF	0.39	0.24	0.02	0.12	0.29	0.01	0.03	—
Average Correlation	**0.46**	**0.33**	**0.59**	**0.69**	**0.60**	**0.55**	**0.55**	**0.16**

IG: investment-grade. Direct Lending represented by Cliffwater Direct Lending Index. Private Equity represented by Cambridge Associates Private Equity Index. Leveraged Loans represented by Morningstar LSTA US Leveraged Loan Index. High-Yield Bonds represented by Bloomberg US Corporate High Yield Bond Total Return Index. US Corporate IG represented by Bloomberg US Corporate Bond Total Return Index. Securitized Assets represented by Bloomberg Global Securitized Asset-Backed Total Return Index. ABF represented by AB CarVal's ABF Composite track record. Reflects correlation of returns between 2010–2025.

ABF Defined: Returning to First Principles

In its most basic form, **ABF** is asset-centric. The lender's first source of repayment is the contractual cash flows of a discrete asset or pool of assets, supported by collateral value and enforceable control rights. Such assets may be real or financial assets—loans secured by real assets as well as those that are not. Structures are typically designed to ring-fence collateral, define eligibility and implement performance tests that automatically de-lever or trap cash when metrics deteriorate. Where these features are present, ABF can offer lower loss severity and a less correlated return profile than corporate credit. This is possible because outcomes are anchored to asset and loan performance and structure rather than enterprise value and idiosyncratic corporate risk.

At AB CarVal, we have decades of experience lending to the real economy. Our loan origination platform is powered by dedicated partnerships or ownership of specialty lenders whose sole business is to write loans within their specific area of ABF expertise. This spans small-balance granular loan portfolios to larger single or multi-asset exposures. The common thread in the underwriting of these strategies is that assets and loans drive the primary risk exposure. However, there are distinct investment profiles between granular and large-asset ABF, and each carries its own unique considerations.

Granular ABF (market size depicted in *Display 1*) focuses on facilities backed by highly diversified pools of smaller-balance assets (e.g., residential mortgages, consumer loans, small and medium-size enterprise loans, equipment leases, receivables, small-balance commercial mortgages, etc.) where underwriting relies on loan data, cohort behavior, servicing performance, and structural enhancements such as overcollateralization and excess spread. The granularity of these portfolios diversifies risk exposures coupled with embedded amortizing loan schedules, resulting in self-liquidating, short-duration profiles. There will typically be hundreds or thousands of underlying loans in each portfolio.

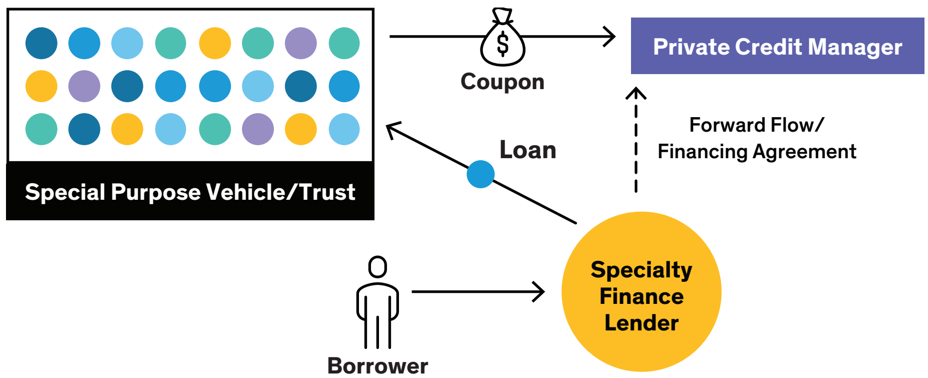
Large ABF represents financing secured by one or a small number of large assets (e.g., aviation, infrastructure projects, large-ticket commercial real estate) where underwriting focuses on credit enhancement from single-asset value, cash-flow durability and unique asset risks, as well as reliance on a realization event for the return of capital.

As depicted in *Display 3, page 4*, granular ABF and large ABF, while distinct in pool composition and underwriting emphasis, share a common anchor: the lender's primary exposure is to asset and loan performance, not enterprise risk. As the market has grown, however, a third category has emerged: one in which collateralized form and corporate substance increasingly coexist. We describe this category as **corporate ABF**.

DISPLAY 3

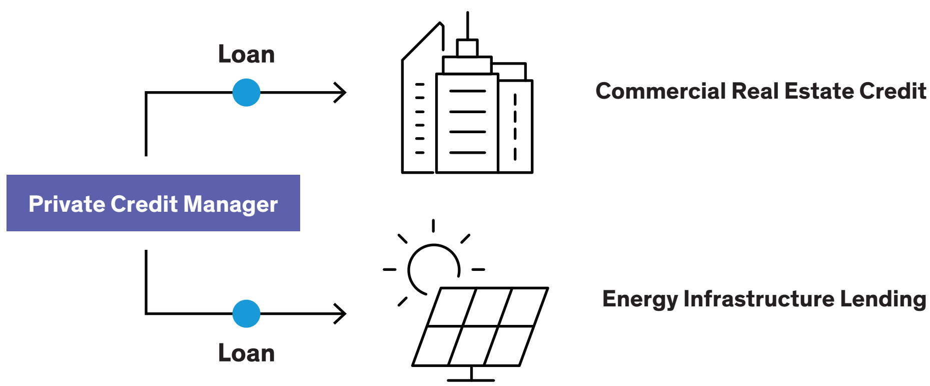
Granular ABF

- Direct access to collateral
- Manager influences portfolio makeup
- Highly granular, amortizing portfolio of loans—mitigating risk
- Shorter-duration loans (2.5-year weighted average life)



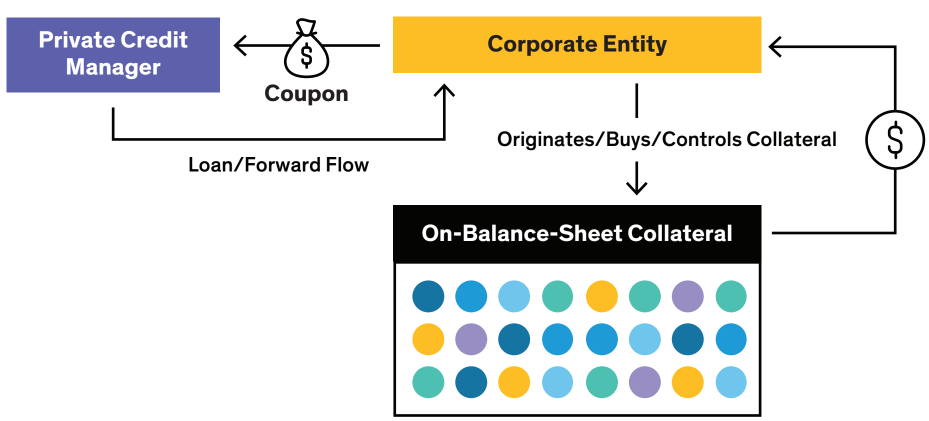
Large ABF

- Direct access to collateral
- Manager benefits from embedded asset value
- Idiosyncratic single-asset risk
- Longer-duration loans typically non-amortizing



Corporate ABF

- Linked to enterprise cash flows and/or asset monetization linked to corporate enterprise
- Requires specialized, dedicated underwriting capabilities
- Idiosyncratic corporate risk
- Limited cash-flow transparency and difficult asset segregation



For illustrative purposes only.

The Emergence of Corporate ABF

As ABF has scaled, an adjacent category, corporate ABF, has become more visible. Repayment of these collateralized loans depends either on the counterparty's ability to originate, service and monetize work-in-progress assets or continue as a going concern. Corporate ABF typically comes with asset security, but the assets and cash flows cannot be easily separated from the corporation. As a result, the asset may behave more like corporate credit than asset-centric ABF.

Why is corporate ABF emerging now? In our view, three forces are converging: (1) corporate direct lending managers are seeking to diversify capital deployment and to capture capital earmarked for ABF strategies; (2) competition and pressure to deploy are stretching definitions; and (3) technology-enabled platforms have created new receivables and monetization structures.

Yet we believe many entrants do not have the operating infrastructure, experience and expertise required to underwrite, structure and manage investments of this kind in an asset-centric way. Structuring with the desired risk/reward profile requires key skills, including data management expertise, servicing oversight, collateral auditing, covenant setting, fraud controls and the ability to step in if necessary to transition operations.

Given the reliance on the corporation's system of record, verification and operational execution to produce finished "monetizable" product, a different set of risks emerge. In these settings, allocators should focus on control and avoiding potential pitfalls. These include misreporting risk, priming—when a new loan or lien is placed ahead of the existing lender's claim on collateral—or the transfer of value, cash or collateral out of the lender's collateral package. It's equally important, as we see it, to avoid over-leveraged structures, bankruptcy entanglement and higher-beta corporate cycles. Importantly, outcomes are also highly sensitive to positioning in the capital stack. Senior, bankruptcy-remote structures with hard collateral controls and cash dominion may experience materially different recoveries than structurally subordinated or "holdco" exposures that rely on enterprise value preservation.

Corporate ABF is not inherently unattractive, but it should be underwritten, and priced, as enterprise-dependent corporate risk, with commensurate diligence on the corporate itself and its systems architecture, controls and operational resilience.

Framework: Corporate ABF Versus Granular ABF

Having described the characteristics that define corporate ABF, we can now crystallize the distinction in a side-by-side framework. *Table 2 (page 6)* offers a detailed comparison of the fundamental differences between what we view as the emerging categories of corporate ABF and granular ABF.

The following outlined distinctions are not merely theoretical. Recent challenging cases involving corporate malpractice have underscored the consequences of applying the term "ABF" as a broad brush across structures with fundamentally different risk profiles (*Case Study: Carriox Capital*, *page 6*). When asset-centric and enterprise-dependent exposures are marketed under a single label, the resulting ambiguity obscures the risks that allocators are actually bearing.

Table 2

Dimension	Corporate ABF	Granular ABF
Asset types	Often platform-linked assets; harder-to-verify collateral, for example, consisting of current assets (inventory/receivables)	Identifiable and segregated pools of asset-backed loans and financial assets
Bankruptcy remoteness	Higher entanglement and stay risk—difficulty in enforcement; cash flows often non-segregated	Low-to-zero entanglement and stay risk; stronger ring-fencing and control of cash. Assets and loans held in separate SPVs with definable cash flows and separate bank accounts
Correlation	Higher corporate cycle sensitivity	Low-to-zero corporate correlation
Fraud risk	Greater control and reporting risk; greater potential for double pledging of security; less visibility to full flow of cash	Verification, audits, eligibility criteria, triggers and ring-fenced reconcilable cash flows
Priming risk	Higher leakage/priming pathways	Cleaner collateral boundary; controlled accounts; low-to-zero priming risk
System of record	Company ledger/tech/systems might be the primary record	Independently verifiable and enforceable assets via legal documents (electronic or physical), public collateral registries, etc.
Third-party servicing	Transition often difficult or uneconomic	Third-party servicing common; backup/transition plans in all cases
Transparency	Visibility mediated by platform	Direct line of sight to collateral and cash
Value creation	Linked to enterprise cash flows and asset monetization via the continuation of operations and the corporate as a going concern	Tied to discrete asset cash flows that are realizable regardless of whether the originator continues as a going concern or not

The above table reflects AB's views as of the date presented and is subject to change. It is not exhaustive and is intended only to provide a representative sample of differences that AB considers fundamental. Other market participants may interpret the descriptors differently or hold materially different views.

SPV: special purpose vehicle

Case Study: Carriox Capital

Carriox Capital II LLC, a New York-based telecom receivables financing company, entered bankruptcy in 2025 after lenders alleged that contracts, invoices and customer communications supporting more than $550 million of secured financing facilities had been fabricated. Court filings asserted that significant portions of the purported receivables collateral could not be verified and that certain customer obligations did not exist as represented.

The company's financing facilities were backed by telecom receivables that were represented as obligations of established counterparties. However, according to subsequent litigation, lenders uncovered inconsistencies while conducting collateral reviews and attempting to independently verify customer relationships, invoices and supporting documentation. Those investigations allegedly identified forged contracts, false invoices and counterfeit communications tied to purported receivables.

The discovery triggered a series of defaults, legal actions and bankruptcy filings across the broader Carriox-affiliated platform. The case drew significant attention within private credit and asset-based finance markets because the facilities were structured as receivables-backed financings that appeared to be supported by diversified collateral.

The Takeaway

The Carriox case demonstrates that asset backing alone is insufficient. As discussed throughout this paper, sustainable ABF investing depends not only on the nature of the underlying assets, but also on the verification, monitoring and control frameworks used to validate and protect them.

Credit Discipline, Fraud Controls and the Importance of Manager Selection

The rapid institutionalization of ABF, marked by new capital, new managers, broader mandates and intensifying competition for origination, has made credit discipline and control infrastructure increasingly important. As more transactions get marketed under the ABF label, allocators will need to look beyond whether an exposure is described as asset-backed and assess whether the manager has the experience, verification tools, control rights, servicing arrangements and operational capability required to make the asset-backing real.

Fraud and control failures are not unique to any single form of ABF. They can arise in enterprise-dependent structures and granular pool financings. The comparison is not simply corporate ABF versus granular ABF. Instead, it is the interaction between the source of repayment, the degree of enterprise dependency and the strength of the control framework. Even so, corporate ABF often carries higher inherent exposure to corporate conduct risk because the same enterprise is frequently responsible for creating the assets, maintaining the system of record, controlling customer relationships, servicing collections, managing cash and monetizing collateral. When these functions are concentrated inside the borrower or platform, lenders are more exposed to governance failures, reporting manipulation and outright malfeasance.

Granular ABF is not, by itself, insulated. Granularity diversifies obligor exposure; it does not solve for collateral verification, dilution, servicing or cash-control risk. Certain granular profiles can present elevated fraud and verification risk—particularly short-duration, high-turnover financial assets that rely on the originator's proprietary technology as the primary system of record (e.g., embedded finance, cross-border trade receivables and supply chain finance). In these cases, the apparent diversification of the pool can mask a concentrated dependency on the originator's systems, controls and integrity.

Further related risks can compound the exposure: (1) the absence of recurring contractual cash yield in some receivables and bridge strategies limits the ability to test performance through regular cash tracing; (2) dilution risk—offsets, disputes, returns, rebates and enforceability challenges—can materially reduce realizable value; (3) servicing that is embedded in the originator's stack may be too costly to transfer, creating operational dependency even in a granular pool and; (4) multiple separate funding lines from different sources raises the risk of manipulation of receivables and contracts if not properly audited on an ongoing basis.

This is where manager selection can determine outcomes. Experienced ABF managers are not merely buyers of collateralized exposure. They are operators of platforms and control systems. The strongest managers understand the underlying asset-creation process, identify where fraud, dilution or structural leakage can emerge, and design transaction controls (e.g., independent collateral verification, eligibility testing, cash reconciliation, servicer oversight, field audits, obligor confirmations and practical contingency plans) around those specific risks. Less experienced managers and newer platforms are most vulnerable when they rely on borrower-produced data, generic securitization–style documentation or headline collateral metrics without the operational infrastructure to test assets continuously. In a benign environment, weak controls remain hidden. But under stress, they become the difference between a protected asset-backed exposure and an unsecured claim against a failed platform.

It is important to contextualize these developments appropriately. We believe fundamental performance across the broader ABF market remains robust. Loss rates and arrears in well-established, asset-centric segments continue to perform in line with or better than long-run historical averages, and the structural protections that define ABF—bankruptcy remoteness, cash dominion and enforceable collateral registries—function as designed in most cases. Isolated fraud cases are not evidence of systemic fragility. Rather, they are evidence of what can happen when the label is applied without the discipline that underpins the asset class. As the market expands, dispersion will widen between managers who can demonstrate genuine control over collateral, cash, data, servicing and enforcement, and those who rely primarily on structure and asset labels. In a more challenging macro environment, that dispersion will only widen.

Outlook: The Next Phase of ABF

If manager selection and control discipline define the current challenge, the next phase of ABF will test both on a greater scale. We expect the market's future to be shaped by continued private capital entering the market, geographic expansion beyond the most mature US segments, and a widening dispersion between repeatable, asset-centric structures and enterprise-dependent transactions. Europe remains a key growth frontier given its fragmentation across jurisdictions and data standards. And as we've already noted, Europe has lower non-bank lender penetration relative to the US. Select opportunities are also emerging across the Middle East and parts of Asia as non-bank lending ecosystems start to develop in those markets.

Asset type evolution under the ABF umbrella is broadening the opportunity set beyond traditional consumer, housing-related and commercial finance exposures. Increasingly, segments such as fund finance, royalties, litigation finance, and other specialty or contractual cash-flow streams are being incorporated into ABF allocations. These asset classes may offer differentiated return drivers and structural protections, but they also introduce unique legal, structural and performance considerations that require specialized underwriting and monitoring capabilities. At the same time, the market's growth is likely to produce more "ABF-like" opportunities with greater corporate dependency. In our view, the allocation opportunity is strongest when underwriting discipline, relationships, experience and operating capability can consistently separate asset risk, liquidity and complexity premiums from enterprise risk.

From a relative value perspective, we currently see the most compelling opportunities in loan portfolios tied to hard, enforceable collateral with observable performance histories. In particular, residential real estate, where supply and demand dynamics are supportive in particular markets, and asset values, lien positions and servicing standards are well established, offering attractive structural protections relative to spread (*European Residential Development Lending*).

Within consumer finance, we favor asset-adjacent segments such as auto and homeowner loans, where collateral recovery dynamics and debtor payment hierarchy support more predictable loss behavior. In unsecured consumer exposures, we often see comparatively better risk-adjusted value closer to the point of sale, where underwriting benefits from transaction-level data and a tighter linkage between credit extension and purchase activity and where yields may benefit from merchant subsidies. Across these areas, our emphasis remains on tangible collateral, granular pools and structural controls that anchor repayment to asset-level performance rather than enterprise outcomes.

European Residential Development Lending

The Problem
Europe needs ~9.6 million* new homes to meet demand, yet major banks are retreating from development lending under rising capital charges.

The Gap
Small and midsize homebuilders face a financing vacuum just as housing affordability worsens—prices across Europe are at or above pre-global financial crisis peaks.

The ABF Solution
Private specialist lenders provide bespoke construction financing secured by tangible residential assets at 60%–70% loan to gross development value. Developer equity goes in first, and loan disbursements are tied to construction milestones—independently verified—limiting lender exposure at every stage.

Downside Mitigation
Structural supply and demand imbalances limit home price declines even in recession. First-loss provisions sit with the developer, adding further credit protection.

Breadth
Opportunities span multifamily, build-to-rent, co-living, student housing and senior living across multiple European jurisdictions.

*Source: CBRE

For portfolio construction, this distinction is central. ABF can serve as a diversifying, collateral-backed income allocation to investors who are increasingly seeking to diversify from corporate direct-lending exposure.

Conclusion: Why Origination, Operational Excellence and Experience Define the Next Chapter

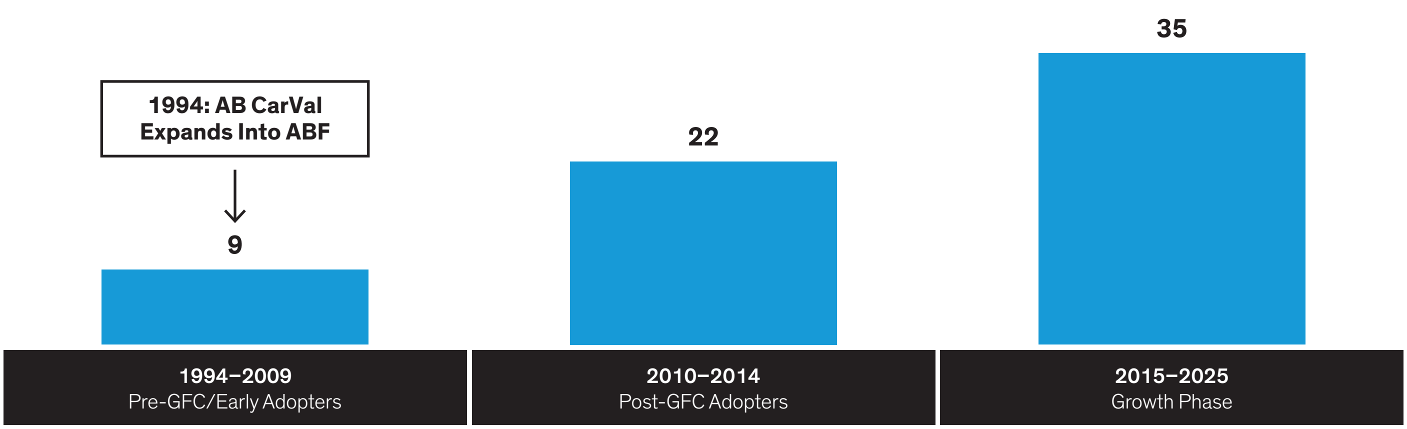
This paper has traced the evolution of ABF from a niche segment of private credit to a maturing, institutionalizing asset class—one in which, we believe, definitions, structures and operational capabilities vary widely across managers. We close by drawing these threads together: in a market defined by expanding opportunity, widening dispersion and an increasing number of market participants (*Display 4*), the case for experience is ultimately the case for consistent, risk-adjusted outcomes.

ABF is a bilateral, solutions-driven market. Transactions are negotiated directly with originators, banks, non-banks and asset owners to solve specific funding and risk-transfer needs. They are not broadly syndicated. This provides advantages to managers with deep counterparty relationships, repeat transaction history and the credibility to be a reliable funding partner across cycles. Access to the best opportunities and best origination partners is not primarily a function of capital scale. It is a function of trust, expertise and certainty of execution.

Structuring capability and operational infrastructure are equally critical and, as recent market events have underscored, the most consequential pillars of competitive advantage. Legal documentation and asset labeling alone are not sufficient; what matters is whether a structure actually delivers asset-level control, cash dominion and enforceable step-in rights when they are needed. The ability to verify collateral independently, oversee or manage originator and servicer performance, and maintain a rigorous control framework across a portfolio is the mechanism through which structural protections are made real. Managers who have built this capability across multiple cycles possess a moat that is durable precisely because it is difficult and time-consuming to construct.

As ABF continues to scale and institutionalize, the gap between managers who bring genuine depth across relationships, platform ownership, structuring expertise and operational capability, and those who do not, will widen. For allocators, identifying and partnering with managers who can demonstrate this depth across all four dimensions is, ultimately, the most important allocation decision in the asset class.

DISPLAY 4:
NUMBER OF MANAGERS ENTERING THE EUROPEAN PRIVATE ASSET-BASED FINANCE MARKET



GFC: global financial crisis. Information presented herein is based on data obtained from a third-party source. While believed to be reliable, the information has not been independently verified, and no representation or warranty is made as to its accuracy or completeness and may be subject to change. Chart shows the number of managers launching dedicated European private asset-based finance ("ABF") strategies by period, which we believe is broadly representative of the global market. Coverage is limited to a subset of institutional managers deemed to run strategies with at least some dedicated focus on European ABF and further restricted to those judged to apply a high degree of discipline, resourcing and capital to such strategies. "ABF" here refers to private financing across financial and real asset types (including real estate credit) but generally excludes adjacent sectors such as significant risk transfers and collateralized loan obligations. Strategy launch dates are drawn from public sources where available and from anecdotal and/or proprietary intelligence otherwise.

As of March 31, 2026 | **Source:** Integer Advisors

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