MOODY'S RATINGS

SECTOR IN-DEPTH

17 June 2025

Send Your Feedback

TABLE OF CONTENTS

Contacts

Manoj Jethani +1.212.553.1048
VP-Sr Credit Officer
manoj.jethani@moodys.com

Michael Fruchter, CFA +1.212.553.3871
VP-Sr Credit Officer
michael.fruchter@moodys.com

Shachar Gonen, CFA +1.212.553.3711
VP-Sr Credit Officer
shachar.gonen@moodys.com

Scott Robinson, CFA +1.212.553.3746
Associate Managing Director
scott.robinson@moodys.com

Marc R. Pinto, CFA +1.212.553.4352
MD-Financial Institutions
marc.pinto@moodys.com

» Contacts continued on last page

Life Insurance – US

Life insurers stay bullish on private credit

Summary

US life insurers have a large and growing investment allocation to private credit. Based on a survey of insurers we rate, approximately one third of the sector's $6 trillion in cash and invested assets was allocated to private credit investments as of the end of 2024. This broad category includes private placements, mortgage loans, and similar instruments[1]. As the share of private credit investments grows, it will contribute to more diversified, higher-yielding, and better liability-matched portfolios. However, growth in private credit also reduces transparency, lowers liquidity, and makes valuations more complex. The pace of growth in the US is faster than in Europe, where expansion into private credit has been more measured and balanced (see: Insurance – Europe: Growth in insurers' private credit will accelerate).

Some insurers have large single-name exposures: US life insurers' exposure to private fixed income securities remains heavily concentrated by issuer. Although these investments are generally rated on the higher side – A or higher – they are illiquid, harder to value than traditional investments, and lack transparency to outside investors.

Affiliated investments increasing: Affiliated investments have grown steadily over the years and are likely to increase further. Lack of transparency to outside investors make concentrated affiliated exposures, like other large exposures, a credit negative.

New principles-based investment classifications and increased disclosure a step toward more transparency: Rapid evolution of the US life insurance industry, which includes a shift to more private structured investments, has led to increased focus on life insurers' investment portfolios. Regulators aim to increase transparency and set a framework to refine regulatory capital requirements of investments so that they better reflect asset risk.

Definition of private credit

Private credit is non-bank lending. Until recently, loans were principally to private-equity-owned, middle-market companies. Driven by growing institutional investor demand for long-duration, high-yielding and high-quality investments, private credit has expanded into real estate debt, infrastructure debt and asset-based finance (ABF).[2]. Within ABF, private asset-backed securities and fund finance are emerging as growth areas, including data center and fund finance securitizations. See Moody's 2025 Outlook on private credit.

Some insurers have large single-name exposure to private credit assets

As of year-end 2024, US life insurers have continued to expand their exposure to private credit assets, a shift driven partly by the assets' incremental yield, which typically exceeds that of traditional corporate bonds by 100 basis points or more. However, private credit assets are also relatively illiquid, making them more suitable for pairing with long-term liabilities or an insurer's capital and surplus. Although the share of these assets is growing within US life insurers' investment portfolios, the asset category is not new for them — the companies have decades of experience investing in private placements, real estate, and mortgage loans, all of which can be forms of non-bank lending, or private credit. This analysis does not include equity or real estate investments.

Those insurers with the largest allocations to private credit, including faster-growing areas within private credit such as ABF, are affiliated with alternative asset managers — such as Athene, owned by Apollo, and Global Atlantic, owned by KKR. These asset managers possess strong asset origination capabilities. For instance, Apollo has implemented an asset origination strategy across 16 distinct platforms, accumulating $100 billion in assets, with a strong emphasis on investment-grade private credit. A shared characteristic among these insurers is their product mix, which includes long-term liabilities such as life insurance, pension risk transfer arrangements, and certain annuity products like structured settlements.

Growing in tandem with private asset exposure in the industry are concentrated exposures, with certain companies holding large exposures to single-name issuers. The exhibit below lists the 10 largest fixed income investments – both public and private – held by US life insurers, in aggregate. One third of these investments hold a private letter rating, denoted by a PL in the NAIC Designation.

Exhibit 1

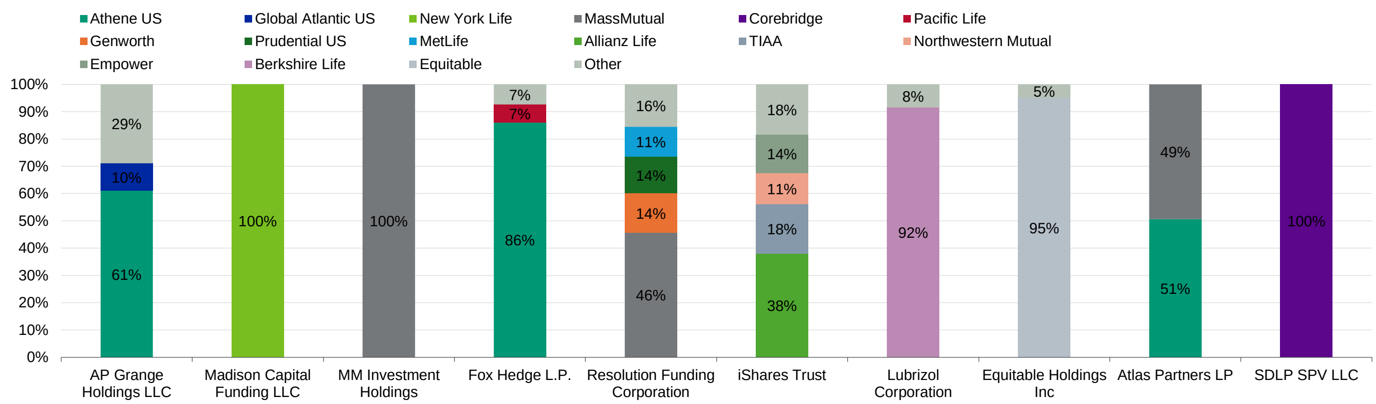
Largest fixed income investments show concentration risk
as of year-end 2024 (in US $ millions)

CUSIP	Issuer	Description	NAIC Designation	Carrying Value ($M)
G2964#AA7	AP Grange Holdings LLC	Senior Debt	1.G PL	6,466
G2964#AB5	AP Grange Holdings LLC	Subordinated Debt	2.A PL	
55670#AH2	Madison Capital Funding LLC	Variable Funding Note	2.C	5,904
G5695#AA6	MM Investment Holdings	Revolver/Credit Facility	2.C	5,763
35138CAD6	Fox Hedge L.P.	Super Senior Debt	1.D PL	3,488
35138CAE4	Fox Hedge L.P.	Senior Debt	1.G PL	
35138CAF1	Fox Hedge L.P.	Junior Debt	2.B PL	
76116FAB3	Resolution Funding Corporation	Resolution Funding Corp Principal Strip	Varies	3,193
76116FAC1	Resolution Funding Corporation	Resolution Funding Corp Principal Strip	Varies	
464287242	iShares Trust	Corporate Bond ETF	2.A	2,455
464287432	iShares Trust	Treasury Bond ETF	1.A	
464287176	iShares Trust	Corporate Bond ETF	1.A	
464287457	iShares Trust	Corporate Bond ETF	1.A	
549271C#9	Lubrizol Corporation	Senior Debt	1.B	2,106
549271D*2	Lubrizol Corporation	Senior Debt	1.B	
549271AF1	Lubrizol Corporation	Senior Debt	1.C	
549271AA2	Lubrizol Corporation	Senior Debt	1.C	
29452EA*2	Equitable Holdings Inc	Senior Debt	2.A	1,992
29452EAC5	Equitable Holdings Inc	Senior Debt	2.A	
29452EA@0	Equitable Holdings Inc	Senior Debt	2.A	
04940#AA9	Atlas Partners LP	Apollo Structured Credit Fund	1.D PL	1,917
04940#AB7	Atlas Partners LP	Apollo Structured Credit Fund	2.B PL	
784075AC7	SDLP SPV LLC	Collateralized Debt Obligation	1.A PL	1,879
784075AD5	SDLP SPV LLC	Collateralized Debt Obligation	1.C PL	
784075AE3	SDLP SPV LLC	Collateralized Debt Obligation	1.F PL	

Source: Moody's Ratings, S&P Global Market Intelligence LLC. Contains copyrighted and trade secret material. Distributed under license from S&P. For recipient's internal use only.

The most significant single-issuer credit exposure — reported in Schedule D of statutory financial statements — is Athene's investment in AP Grange, a joint venture between Apollo and Intel to finance a semiconductor manufacturing facility in Ireland. Apollo owns roughly half the joint venture and Intel owns the remaining interest through an equity investment. This exposure appears as a $6.5 billion investment in our review of the US life insurance industry's fixed income holdings. Athene accounted for 61%, or $3.9 billion of the total, through its US entities. Global Atlantic held $657 million, and as many as 40 other carriers have invested the remaining 29% in AP Grange. Other sizable exposures that appear on the schedule D holdings of insurance companies are almost $5.9 billion in Madison Cap Funding (MCF) LLC and $5.8 billion in MM Investment Holdings (MMIH), which are affiliated investments of New York Life and MassMutual, respectively. New York Life and its insurance subsidiaries entered into a note funding agreement with MCF and acquired a variable funding note issued by MCF. Meanwhile, MMIH provides financing for MassMutual Asset Finance and is primarily used to finance ongoing asset purchases.

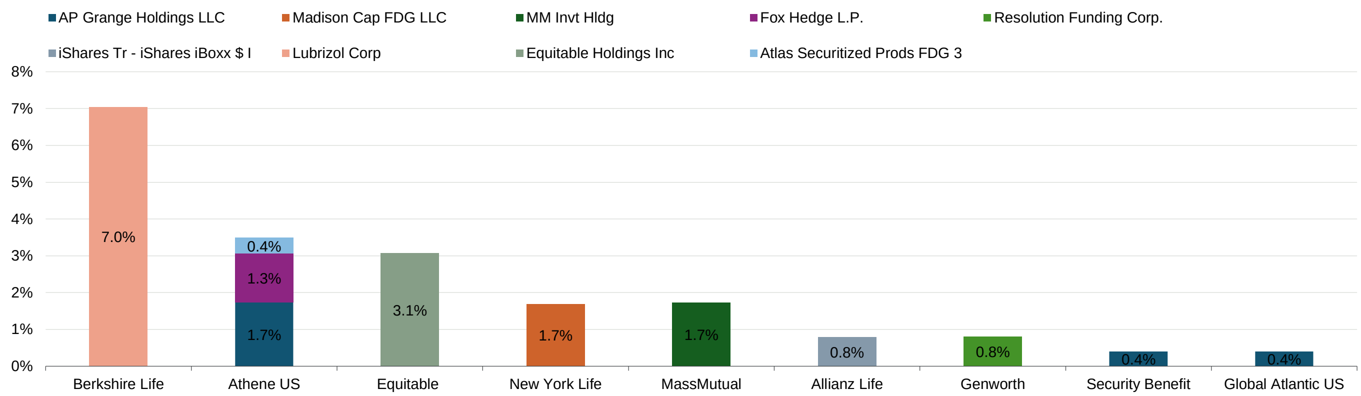
Exhibit 2
Insurer level exposure to top fixed income holdings by aggregate investment amount
as of year-end 2024



Note: Our analysis includes business reinsured on modified coinsurance with funds withheld basis. Source: Moody's Ratings, S&P Global Market Intelligence LLC. Contains copyrighted and trade secret material. Distributed under license from S&P. For recipient's internal use only.

The largest concentrated exposure, as shown in the exhibit below, is to Berkshire Life Insurance Company — a Berkshire Hathaway subsidiary — whose holdings in The Lubrizol Corporation, a Berkshire-owned chemical manufacturer, account for 7% of its cash and invested assets. On the other hand, roughly 3.4% of Athene's US statutory cash and invested assets are allocated to AP Grange, Fox Hedge, and Atlas SP. However, Athene has entered into several reinsurance agreements that are directed offshore and therefore are not reflected in its US statutory invested asset figures. When including both onshore and offshore assets, Athene's total cash and invested assets stood at $325 billion as of year-end 2024. This broader asset base reduces the company's overall exposure to the three investments to 2.4%, down from the 3.4% shown in the exhibit below. Fox Hedge is a private credit fund managed by Apollo alongside other institutional investors and Atlas SP is a structured product credit origination platform that emerged from Credit Suisse's securitized products group and is also backed by Apollo and other institutional investors.

Exhibit 3
Top individual issuer concentrations among larger insurers as a % of cash and invested assets
as of year-end 2024



Note: Our analysis includes business reinsured on modified coinsurance with funds withheld basis. Source: Moody's Ratings, S&P Global Market Intelligence LLC. Contains copyrighted and trade secret material. Distributed under license from S&P. For recipient's internal use only.

Somewhat offsetting the risk in private credit investing – including concentration risk as well as illiquidity of the investments – is the presence of stronger covenant protections, which significantly enhance risk oversight. These covenants enable originators of private credit assets to closely monitor borrower performance and act quickly if terms are at risk of being breached. Covenants' effectiveness depend heavily on the diligence and expertise of the asset manager, particularly in volatile markets. Another mitigant to risks of private credit investments is borrowers' and lenders' ability to negotiate tailored deal structures that align risk with return expectations.

Life insurers expected to increase their allocation to private credit

We expect insurers globally, particularly those with significant life insurance business, to increase their exposure to private credit in the coming years. This will make their investment portfolios more diversified, higher yielding and better matched with liabilities, but also less transparent and liquid. Almost 80% of respondents to our investment survey of the world's largest insurers said they plan to increase their holdings of at least one class of private credit over the long term.

Growth appetite is strongest in higher spread asset-based finance and private placements, with 44% of respondents expecting to increase long-term allocations, followed by midmarket lending and infrastructure lending (33%) and fund finance (28%).

Commercial real estate and private placement investments have historically represented US life insurers' two largest private asset classes. However, as life insurers bring in new expertise, they are starting to grow holdings in more esoteric asset classes. Fund finance, which ranges from 1% to 8% of investment portfolios for the US life insurers we rate, will likely grow in the next three to five years based on our survey. Within fund finance, insurers have an incentive to hold rated feeder notes and collateralized fund obligations that qualify as bonds, because bond investments generally have more favorable capital treatment than equity investments.

Privately rated securities concentrated at large insurers

US life insurers' exposure to private letter-rated fixed income investments is also highly concentrated. Private ratings are credit ratings that are communicated by a Nationally Recognized Statistical Rating Organization (NRSRO) to an issuer or a specified investor or group of investors but that are not publicly shared or disclosed on the NRSRO's website or included in its broadly disseminated data feeds.[3] A private letter rating (PLR) is a term used by the NAIC to categorize private credit ratings assigned to insurer-owned securities by NAIC Credit Rating Providers (CRPs)[4]. PLRs are typically accompanied by a rationale report that supports the rating decision. Insurers must submit PLR rationale reports to the NAIC for the associated securities to remain eligible for the "filing exemption" process and to receive or maintain a corresponding NAIC Designation. Once NAIC assigns an NAIC Designation based on a PLR, the associated securities are classified as "privately rated securities" for insurance regulatory capital purposes.

Exhibit 4

Top 10 holders of PLR bonds held 55% of total industry's PLR bonds
as of year-end 2024 (in US $ millions)

Insurer	PLR Carrying Value ($M)	NAIC 1 ($M)	NAIC 2 ($M)	Below IG ($M)	Total Bonds ($M)	PLR as a % of Total Bonds
Global Atlantic US	25,024	20,032	3,370	1,623	100,206	25%
MassMutual	50,974	31,592	17,827	1,555	205,661	25%
Brookfield Wealth Sol.	12,069	5,776	3,890	2,404	53,822	22%
Allianz Life	18,190	8,650	9,027	513	87,964	21%
Athene US	26,606	15,943	9,895	768	136,321	20%
Corebridge	25,007	12,600	8,641	3,765	169,977	15%
TIAA	28,592	13,337	10,529	4,727	214,002	13%
MetLife	14,065	6,123	7,373	568	151,856	9%
Northwestern Mutual	15,926	8,864	6,493	569	201,788	8%
New York Life	17,056	8,667	7,750	639	255,955	7%
Top 10 Total	**233,509**	**131,583**	**84,795**	**17,130**	**1,577,551**	**15%**
Total Industry	**422,419**	**212,195**	**177,309**	**32,915**	**3,785,672**	**11%**

Note: Our analysis includes business reinsured on modified coinsurance with funds withheld basis. Source: Moody's Ratings, S&P Global Market Intelligence LLC. Contains copyrighted and trade secret material. Distributed under license from S&P. For recipient's internal use only.

The top 10 insurers collectively had $234 billion in PLR bonds (out of a total of $422 billion, or about 55% of the industry, highlighting the high concentration) as of year-end 2024. For the top 10 insurers, PLRs are also a sizable percentage of overall bonds at 15% of total bonds as of year-end 2024, although most PLR bonds carry an investment-grade rating, as seen in the exhibit above. However, as the private credit market continues to grow, we will likely see the use of PLRs increase over time. A key concern with PLRs is their limited transparency — they are generally shared only with the issuer and a select group of investors, including the NAIC and the insurance regulator, and their disclosure is generally restricted. Other concerns with PLRs is that they are less liquid and make valuations more complex, as discussed previously. Although PLRs can technically be issued for publicly or institutionally distributed securities, they are most commonly used for privately placed instruments. Regulators will likely continue to pay close attention to instruments with assigned PLRs.

Exhibit 5

Privately rated credit concentrations: Led by Athene, MassMutual, and Global Atlantic
as of year-end 2024 (in US $ millions)

Insurer	Issuer	Descirption	NAIC Designation	Coupon	Maturity	Carrying Value ($M)	% of Bonds	Affiliated Investment
Athene US	AP Grange Holdings LLC	Sr Secured Debt	1.G	6.5%	2045	3,512	2.6%	Yes
Brookfield Wealth Sol.	American Equity Inv. Life Ins. Co.	Subordinated Debt	3.A	9.0%	2031	1,300	2.4%	Yes
Athene US	Fox Hedge L.P.	Apollo Investment Fund	1.D	6.1%	2064	1,500	1.1%	Yes
Global Atlantic US	Thunderbird 2021-1 FING L P	Asset Backed Security	1.G	5.5%	2037	1,099	1.1%	Yes
Global Atlantic US	Lightning 2021-1 FING L P	Asset Backed Security	1.G	5.5%	2037	1,097	1.1%	Yes
Corebridge	Sdlp Spv LLC	Structured Product	1.A	7.2%	2036	1,402	0.8%	No
Athene US	Atlas Securitized Prod Fdg 3	Apollo Structured Credit Fund	1.D	6.3%	2069	891	0.7%	Yes
MassMutual	Landmark Equity Partners XVI-D	Private Equity Fund	1.F	7.5%	2029	893	0.4%	No
MassMutual	Atlas Securitized Prod Fdg 3	Apollo Structured Credit Fund	1.D	6.3%	2069	870	0.4%	No
MassMutual	Everlake Private FD Borrower	Private Bond	2.A	7.5%	2037	830	0.4%	No

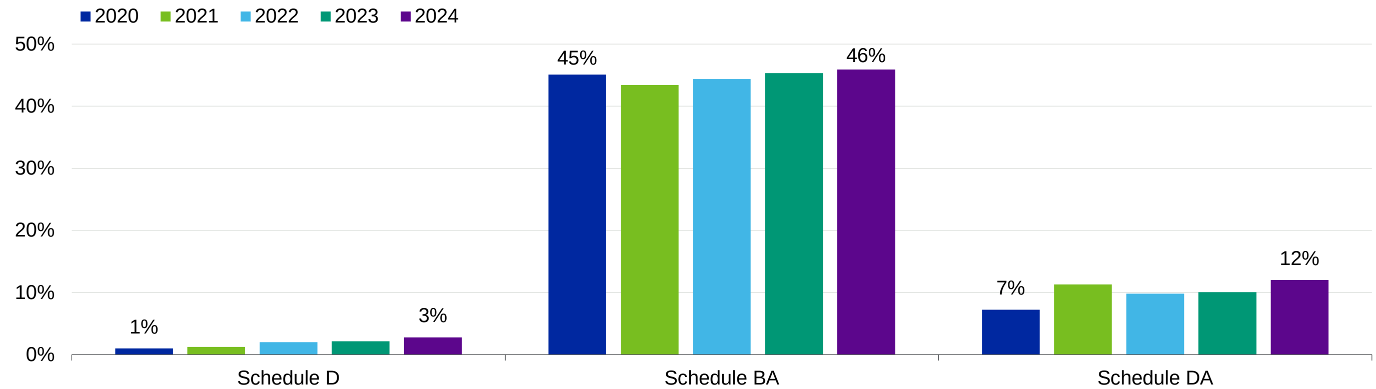
Note: Our analysis includes business reinsured on modified coinsurance with funds withheld basis. Source: Moody's Ratings, S&P Global Market Intelligence LLC. Contains copyrighted and trade secret material. Distributed under license from S&P. For recipient's internal use only.

Affiliated investments increasing, reducing transparency and adding complexity

Affiliated investments held by life insurers, although still a small percentage of industry investments, have grown steadily over the past several years. Affiliated exposures are assets connected to or originated by an entity with which the insurer has an ownership or significant business relationship. As shown in the exhibit below, within Schedule D, affiliated bonds have increased to $106 billion (2.8%) from $34 billion (1.0%) since 2020. Although affiliated Schedule BA assets[5] have remained stable at around 45%, affiliated collateral loans have grown to $15 billion (4%) from $5 billion (2% of total Schedule BA). In Schedule DA, affiliated short-term investments have gone up to 12% from 7% ($5.9 billion from $2.9 billion).

Exhibit 6

Schedules D and DA affiliated investments have been growing



Source: Company filings, S&P Global Market Intelligence LLC. Contains copyrighted and trade secret material. Distributed under license from S&P. For recipient's internal use only.

In general, because they lack transparency to outside investors, concentrated affiliate exposures, like other large exposures, are a credit negative. However, in many cases investments are designated as affiliated because they were originated by an insurer's affiliated asset manager and these same investments may be held by many third party insurers as well.

The largest holders of affiliated Schedule D assets are Athene ($30 billion), Global Atlantic ($24 billion) and MassMutual ($14 billion), together making up 64% of all affiliated Schedule D assets. Athene's and Global Atlantic's exposure is largely from “other loan backed and structured securities” with $48 billion out of $64 billion for the entire industry. Athene's top exposure is $3.5 billion in AP Grange Holdings (from Apollo's investment in Intel), as discussed earlier. MassMutual's exposure is both from other loan backed as well as affiliated bank loans; within affiliated bank loans MassMutual has nearly all of the industry's $6.2 billion of exposure (mostly from MM Investment Holding Revolver).

Apollo noted on an earnings call that $11 billion of its origination during the second quarter of 2024 came from private investment grade bonds in Intel. Apollo's 2024 10-K lists AP Grange among its three investments with concentrations of more than 10% of shareholders' equity. Meanwhile, on its 2024 Q2 call, KKR announced that Global Atlantic anchored a $3 billion institutional tranche of an $8 billion facility arranged to support the growth of CyrusOne, a data center portfolio company of KKR. Commonwealth Annuity and Life Insurance Company, an insurance subsidiary of Global Atlantic, said that it committed to purchase $650 million of revolving credit loans from CyrusOne.

Organizations have different practices and procedures for dealing with potential conflicts of interest between insurance companies and their alternative asset manager sponsors, something we evaluate in our analysis of life insurers. For example, an alternative asset manager struggling to pay back its portfolio investors could consider seeking a loan from its affiliated insurer. The following are ways in which this conflict of interest is typically mitigated: the insurance company has a fiduciary duty to get fair value for its policyholders; there is due diligence that occurs on both sides; and in many cases the sponsored insurance companies will only join the investment if third parties are also involved. Additionally, in cases where the alternative asset manager fully owns the insurer and holds it on its balance sheet, the interests of both would likely be more aligned.

As compared to nonaffiliated Schedule D investments, affiliated investments are more likely to have private letter ratings, which reduce transparency for outside parties into these investments in comparison to public alternatives. Of the $422 billion assets industrywide that are labeled as having a private letter SVO designation as of year-end 2024, $56.2 billion were also labeled as affiliated, which make up 53% of all affiliated Schedule D investments. This compares to 10% of nonaffiliated investments. At a recent meeting, the NAIC's Financial Analysis (E) Working Group expressed concern about a “recent troubled company situation” where concentrations in affiliates were not initially readily apparent to the regulator and upon discovery through an examination, the regulators “identified significant concerns regarding the valuation of the securities.”

Though the case has now been dismissed, Utah had been pursuing litigation against Advantage Capital's (A-Cap) insurers operating in the state. In its complaint, Utah noted that many of A-Cap's loans turned out to be affiliated. Some of the loans called out were 777

Partners, PAC Wagon, Nutmeg, Flair Airlines and JARM. Utah claimed that its independent valuation specialist, Harvest, had identified significant issues with these loans and assigned relatively low recovery values. Yet A-Cap held most of these loans with a 2B SVO designation[6] (equivalent to a Baa2 rating) based on PLRs. Additionally, many of A-Cap's assets rely on payment in kind (PIK) interest with cumulative PIK accounting for over 60% of surplus as of year-end 2024.

Within Schedule BA, $172 billion of industry assets are affiliated, or 46% of the industry total. The largest holders are Northwestern Mutual ($19 billion), Security Benefit ($15 billion), Thrivent ($11 billion) and TIAA ($28 billion), which together make up 42% of all affiliated Schedule BA assets. TIAA has a large amount of affiliated JV real estate and mortgage loans, while Thrivent has a large amount of affiliated JV common stock (through three vehicles, Thrivent White Rose, Pacific Street Fund and Twin Bridge). Security Benefit ($12.8 billion) and Brookfield ($1.4 billion) hold 92% of the industry's $15.4b of affiliated collateral loans. More than 25% of all of Security Benefit's investments are in Schedule BA collateral loans and in 2024 the company had more than a 50% churn on its Schedule BA assets.

At a recent meeting, the NAIC's Statutory Accounting Principles (E) Working Group adopted a proposal to make schedule BA reporting of collateral loans more granular by categorizing based on the collateral type securing the loan. The working group is hopeful that subdividing the collateral loans will help with assigning different RBC factors based on the nature of the underlying collateral. Under the existing system, all collateral loans held by US life insurers have a relatively low 6.8% RBC factor, which could be incentivizing that type of investment. More disclosure and better refinement of capital standards would be credit positive.

The largest holders of Schedule DA (short-term investments) affiliated assets are Security Benefit ($2.1 billion) and Nationwide ($1.4 billion). Those two companies together compose 58% of the $5.9 billion of affiliated Schedule DA assets held by the industry. Security Benefit's largest exposure as of year-end was to Holliday Park, LLC with around $450 million. As noted, Security Benefit also had a high churn on its Schedule BA collateral loans.

New principles-based investment classifications a step in the direction of increasing transparency

Rapid evolution of the US life insurance industry, which includes a shift to more private structured investments, has led to increased focus on life insurers' investment portfolios. Regulators are aiming to increase transparency and establish a framework to refine regulatory capital requirements for investments to better reflect asset risk.

Beginning in 2025, a new principles-based bond definition under Statement of Statutory Accounting Principles Number 26 (SSAP 26) took effect. SSAP 26 provides guidance on how insurers should classify their bond investments. Additionally, there is no grandfathering of existing investments. The principles-based bond definition includes “any security representing a creditor relationship, whereby there is a fixed schedule for one or more future payments, and which qualifies as either an issuer credit obligation or an asset-backed security.”

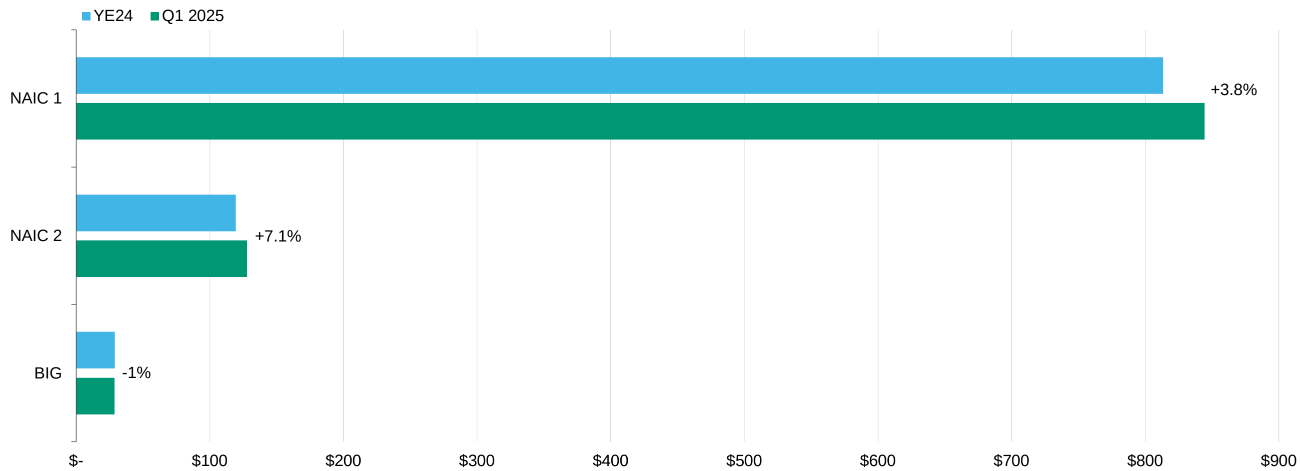
US statutory financial reporting now includes a number of new disclosures that started in Q1 2025. One key highlight is a breakdown of assets into two defined categories: Issuer Credit Obligations (ICO) and Asset-Backed Securities (ABS). According to SSAP 26, an ICO is “a bond, for which the general creditworthiness of an operating entity or entities through direct or indirect recourse, is the primary source of repayment.” Likewise, an ABS is a “bond issued by an entity (ABS Issuer) created for the primary purpose of raising debt capital backed by financial assets or cash generating nonfinancial assets owned by the ABS Issuer, for which the primary source of repayment is derived from the cash flows associated with the underlying defined collateral rather than the cash flows of an operating entity.” If a security fails to qualify as either an ABS or ICO, it is typically classified as a Schedule BA asset, which has a higher capital charge. We believe that these new disclosures provide more information about investment securities and their associated collateral, if any.

Overall, the US life insurance industry held total cash and invested assets (C&IA) of $5.6 trillion as of year-end 2024. Of this total, $3.8 trillion reflects the book adjusted carrying value on Schedule D where bonds are reported.

Of the total Schedule D assets, approximately 73% ($2.8 trillion) reflected holdings of ICOs while 26% ($962 billion) represented asset-backed securities. Among both ICO and ABS, the vast majority of the holdings were investment grade with NAIC1 and NAIC2 designations accounting for 95% and 97%, respectively. However, ABS holdings represented a larger proportion of NAIC1 (84%) as compared to 50% for ICOs. See Appendix 2 below for further details on the life insurance Schedule D holdings as of YE 2024 and Q1 2025.

Further review of Q1 investment transaction data showed that acquisitions for the most part balanced out dispositions (relative to the starting book value) for ICOs. The ABS holdings for the industry increased 4% to $1 trillion at Q1 2025. Additionally, The proportion of ABS holdings to bonds increased to 26.0% in Q1 2025 from 25.2% of bonds at YE 2024. Life insurers also shifted their ABS holdings to higher credit quality positions. For ABS, there was a modest increase in NAIC1 and NAIC2 holdings in Q1, while there was an approximately 6% sequential decline in the ABS NAIC5 holdings and a 15% reduction in ABS NAIC6 holdings. Although the new disclosures only show one quarter of data, the shift to ABS is consistent with what we have observed during the gradual transition of the life industry toward more private and structured investments. See Exhibit 7 for details on the growth in ABS in Q1 2025.

Exhibit 7
ABS experiencing recent growth in life insurer portfolios
($US billion)



Source: Moody's Ratings, S&P Global Market Intelligence LLC. Contains copyrighted and trade secret material. Distributed under license from S&P. For recipient's internal use only.

Appendix I

NAIC Designations:

NAIC Designations represent opinions of gradations of the likelihood of an insurer's timely receipt of an investment's full principal and expected interest ("investment risk"). Where appropriate for a given investment, NAIC Designations and Designation Categories shall reflect "tail risk" and/or loss given default, the position of the specific liability in the issuer's capital structure, and all other risks, except for volatility/interest rate, prepayment, extension or liquidity risk. NAIC Designations shall be identified by the NAIC 1 through NAIC 6 symbols (as modified by NAIC Designation Categories) which indicate the highest quality (least risk) to the lowest quality (greatest risk), respectively.

NAIC Designation Modifier:

Each delineation of investment risk is represented by a letter (a Modifier) which modifies the NAIC Designation grade to indicate a more granular measure of investment risk within the NAIC Designation grade. All Modifiers roll up into the respective NAIC Designation grade as they are a subset of them.

NAIC Designation Category:

Means and refers to 20 more granular delineations of investment risk in the NAIC 1 through NAIC 6 investment risk scale used by the Valuation of Securities Task Force (VOSTF) to relate investment risk in insurer-owned securities to a risk-based capital factor assigned by the NAIC Capital Adequacy (E) Task Force. The more granular delineations of investment risk are distributed as follows: seven for the NAIC 1 Designation grade indicated by the letters A through G; three delineations each for each of the NAIC Designation grades NAIC 2, NAIC 3, NAIC 4 and NAIC 5 indicated by the letters A, B and C and 1 delineation for NAIC Designation grade NAIC 6.

Exhibit 8
Rating symbol mapping

NAIC Designation	NAIC Designation Modifier	NAIC Designation Category	Moody's Ratings Equivalent
1	A	1.A	Aaa
1	B	1.B	Aa1
1	C	1.C	Aa2
1	D	1.D	Aa3
1	E	1.E	A1
1	F	1.F	A2
1	G	1.G	A3
2	A	2.A	Baa1
2	B	2.B	Baa2
2	C	2.C	Baa3
3	A	3.A	Ba1
3	B	3.B	Ba2
3	C	3.C	Ba3
4	A	4.A	B1
4	B	4.B	B2
4	C	4.C	B3
5	A	5.A	Caa1
5	B	5.B	Caa2
5	C	5.C	Caa3
6		6	Ca
6		6	C

Source: NAIC

Appendix II

Exhibit 9

New investment classifications reflect larger current allocation to ICO, but material and growing ABS exposure

Type	Designation	Carrying value YE 2024 ($B)	% of category	Carrying value Q1 2025 ($B)	% of category	Q1 percentage change
Issuer Credit Obligations	NAIC1	1,437.9	50.8%	1,425.5	50.3%	-0.9%
	NAIC2	1,240.7	43.8%	1,252.0	44.2%	0.9%
	NAIC3	93.7	3.3%	94.8	3.3%	1.2%
	NAIC4	42.0	1.5%	43.6	1.5%	3.6%
	NAIC5	14.3	0.5%	13.9	0.5%	-2.5%
	NAIC6	1.9	0.1%	1.9	0.1%	0.2%
	TOTAL ICO	2,830.6	100.0%	2,831.7	100.0%	0.0%
Asset Backed Securities	NAIC1	813.4	84.6%	844.4	84.4%	3.8%
	NAIC2	119.4	12.4%	127.8	12.8%	7.1%
	NAIC3	19.4	2.0%	19.2	1.9%	-0.7%
	NAIC4	5.9	0.6%	6.1	0.6%	3.1%
	NAIC5	2.4	0.2%	2.2	0.2%	-6.1%
	NAIC6	1.3	0.1%	1.1	0.1%	-15.4%
	TOTAL ABS	961.7	100.0%	1,000.9	100.0%	4.1%
Preferred Stock	NAIC1	3.5	19.4%	3.8	17.8%	6.3%
	NAIC2	10.7	58.6%	12.5	59.5%	17.4%
	NAIC3	2.3	12.8%	3.0	14.1%	27.5%
	NAIC4	0.4	2.0%	0.4	1.8%	6.0%
	NAIC5	0.8	4.6%	0.9	4.3%	7.3%
	NAIC6	0.5	2.6%	0.5	2.5%	11.8%
	TOTAL PS	18.2	100.0%	21.1	100.0%	15.7%
Grand Total		3,810.5		3,853.6		

Source: Moody's Ratings, S&P Global Market Intelligence LLC. Contains copyrighted and trade secret material. Distributed under license from S&P. For recipient's internal use only.

Endnotes

1 Using a narrower definition of private credit, industry holdings tend to land somewhere within the mid-to-high single-digit percentage range.

2 Asset-based finance or ABF is broadly defined as any financing secured by assets including consumer assets, commercial assets, hard assets and financial assets.

3 See SEC Office of Credit Ratings' Staff Report on Nationally Recognized Statistical Rating Organizations, January 2025, p. 7

4 See Purposes and Procedures Manual of the NAIC Investment Analysis Office, December 2024, p. 126

5 Schedule BA includes other long-term invested assets that are not bonds, common stocks, real estate or mortgage loans.

6 Schedule D investments have SVO designations from 1 through 6, with 1 having the lowest capital charge and 6 having the highest.

REPORT NUMBER 1442118

Contacts

Kyle Woodward *Ratings Associate* kyle.woodward@moodys.com	+1 212-553-0904	**George Xie, CFA** *Sr Ratings Associate* george.xie@moodys.com	+1.212.553.3486
Lars Djuve *Ratings Associate* lars.djuve@moodys.com	+1.212.553.4084	**Alexander Naumann** *Ratings Associate* alexander.naumann@moodys.com	+1.212.553.0421

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454