

# THE CASE FOR SECURITISED

## Introducing Securitised

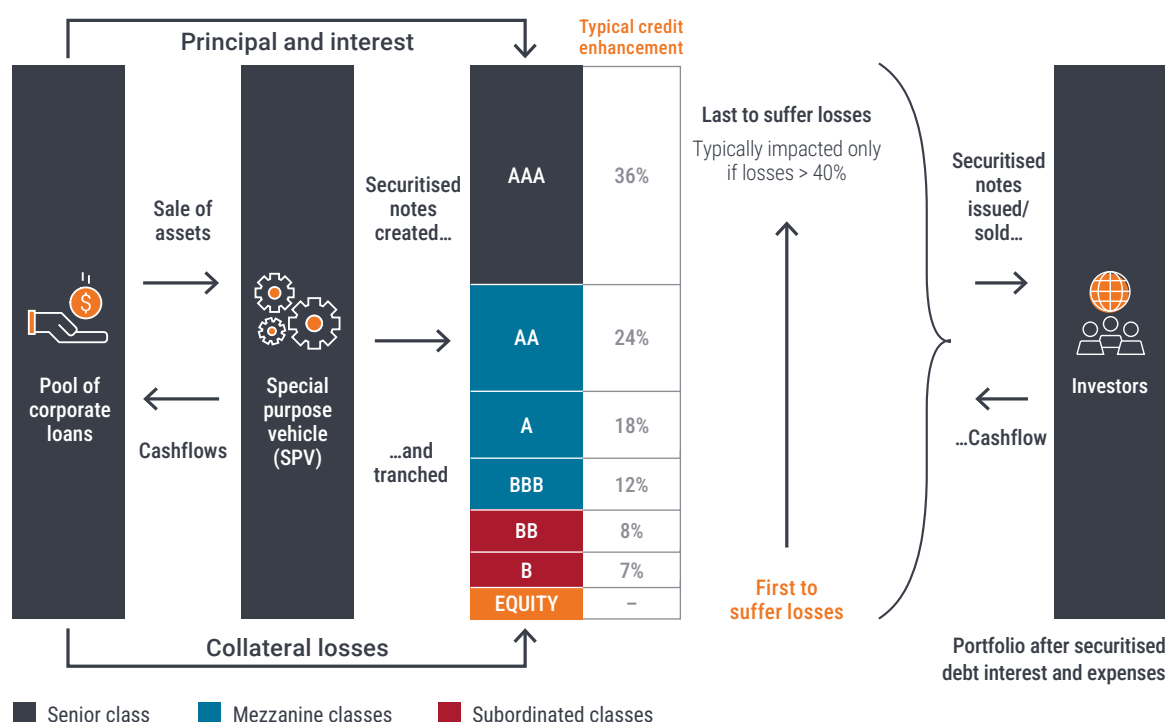
Although known by numerous names based on the type of assets that back them, securitisations are ultimately all securities made up of discrete pools of common assets. The primary asset classes are residential mortgage-backed securities (RMBS), consumer ABS (such as pools of consumer loans, credit card receivables), commercial mortgage-backed securities (CMBS), collateralised loan obligations (CLOs – typically syndicated leveraged or secured loans) and whole business securitisation (WBS – where securitisation has been used to finance portfolios of assets owned by businesses such as large estates of restaurants). For simplicity in this paper, securitisations include all of the above. We focus on the European securitised sector but note there are commonalities in terms of structures and characteristics between Europe and the US.

## Key takeaways

- The securitised universe represents a diverse opportunity set, offering investors varied risk and return characteristics, alongside high-quality income and resilient returns.
- It can offer diversification to fixed income portfolios, while the amortising structures and shorter durations can help reduce overall credit and interest rate risks.
- Investing in securitisations requires not only a unique and broad insight into the dynamics of securitisation markets, but also an ability to understand and analyse the risks in different types of securitisation transaction.

**Figure 1: The securitisation process uses credit enhancement to increase credit quality**

### Typical CLO structure example



Source: Janus Henderson Investors, as at 31 August 2026. For illustrative purposes only. Credit enhancement is used in a securitisation to improve the credit quality and ratings of the debt tranches. The percentages shown include a small amount of excess spread. Excess spread represents net interest earned on a loan portfolio after securitised debt interest and expenses.

Using a process called securitisation, originators (financial institutions including banks, specialist lenders and asset managers) sell risks associated with pools of assets to investors through a special purpose vehicle (SPV). The SPV finances the acquisition of those assets by raising debt and equity tranches. The SPV then utilises the cashflows generated by the purchased assets to pay back investors and provide them with a return through these securities it issues.

Securitisation structures use credit enhancement to increase the credit quality of the debt issued by the structure. If underlying loans in a securitisation default, the equity component of the structure provides protection to the bonds, with losses only realised by the debt tranches in order of priority (AAA being last) once the equity has been fully written off.

This form of credit enhancement, called 'tranching', creates a waterfall structure (Figure 1), where cashflows are allocated to the higher-rated tranches first and work their way down to the lower-rated tranches. To compensate for the extra risk, investors in the junior-ranked tranches receive a better yield than those higher up the capital structure. Tranching also provides investors with the flexibility to tailor portfolios to specific risk-return objectives, as it determines the specific repayment and credit profiles for a particular bond in the structure.

Other forms of credit enhancement to improve the credit quality of securitised debt tranches include the following:

- **over-collateralisation** – where the face value of the underlying assets in the collateral pool is higher than the bonds it backs, providing protection to all tranches.
- **excess spread** – often the first line of defence in absorbing potential losses, is where the interest earned on the collateral pool exceeds the coupon payable on the securities and expenses.
- **cash reserve funds** – often funded by the originator and designed to cover interest and expense shortfalls and losses in the collateral pool.

Securitisation structures can be fully or partially amortising, where either immediately or after a period of time, repayments from the underlying collateral portfolio are used to repay principal. This can play an important role in risk reduction: the gradual repayment of debt tranches means investors take less borrower refinancing risk than corporate bonds, which typically have a large principal payment at maturity.

Securitisation structures can be thought of as analogous to a "mini bank" that makes only one type of loan. Like a bank it funds these loans via a mixture of different classes of debt and equity (each with different risk and return profiles). However, securitisation has a number of positive distinguishing features versus a typical bank:

- **Less complexity and governance risk** – Investors enjoy greater transparency on the loans being made and tight controls over how those loans can change over time.
- **Matched funding of assets and liabilities** – Securitised debt usually does not need to be repaid before the assets repay.
- **Limited interest rate risk** – Generally securitisations just pass through the income they earn on the loan portfolio to pay the securitised debt interest. If there is any mismatch between say a fixed rate loan portfolio returns and variable rate securitised debt interest, this will be hedged via swaps embedded within the structure.

### A variety of differentiating features

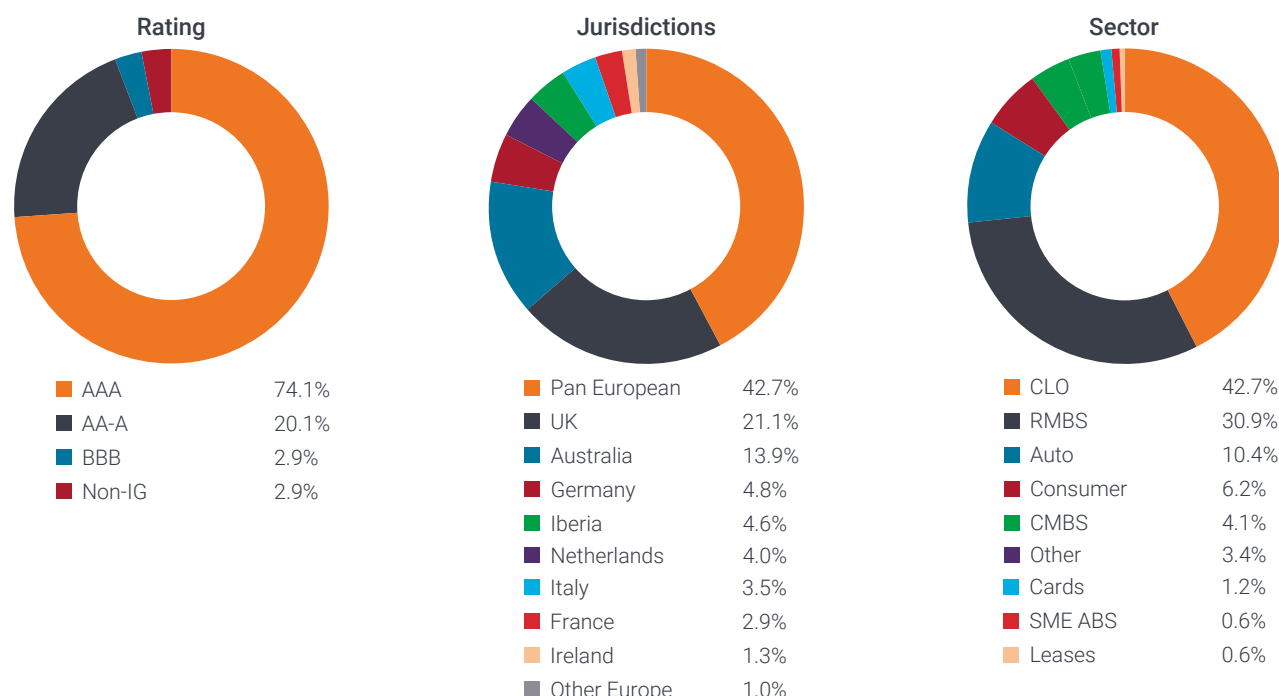
From an investor's point of view, securitised debt has a number of differentiating features that can be combined successfully alongside other fixed income assets:

1. **Resilience through high quality structures** – Most of the market is senior ranked and structures are secured, providing additional downside protection, while credit enhancement is used to improve the credit quality/ratings of the debt tranches.
2. **Fundamental portfolio diversification into different risk profiles** – The asset class provides exposure to a range of asset types and structures, within which there are different consumer-driven and 'real economy' risks that impact underlying collateral quality.
3. **Predominantly a floating rate asset class (in Europe)** – Interest rate risk is typically negligible, which enables investors to enjoy credit spread-based excess returns while managing the portfolio's interest rate strategy separately.
4. **Attractive relative value versus equivalently rated corporate bonds** – Securitised typically offers a better spread compared to other credit asset classes on a comparable ratings basis and has a shorter average spread duration.
5. **Strong long-term risk-adjusted returns versus other credit asset classes** – European securitised has historically provided a lower default rate and an attractive Sharpe ratio relative to other credit asset classes.
6. **Amortising structures promote continuous deleveraging** – Cash is actively returned to investors and debt levels are reduced or at least maintained even during periods of stress (when corporates may need to borrow more)

## Resilience through high quality structures

The pooling of risk of the underlying loans alongside various forms of credit enhancement and other structural protections results in a high-quality market, reflected in the large proportion of the structures rated AAA. There is also diversity in the sectors and jurisdictions represented in the European securitised universe.

**Figure 2: European securitised sector by rating, jurisdiction and sector**



Source: Ratings: AFME, based on total Moody's rated securities. European issues outstanding, as at 31 March 2026. Country & Sector: JP Morgan, BofA, European distributed issues outstanding, as at 30 June 2026. Some figures may not add up to 100% due to rounding.

## Diversification against a range of assets

Given the nature of the underlying collateral, the European securitised sector offers access to different consumer-driven and 'real economy' risks, diversifying from corporate credit. Structures are also floating rate, which means coupons typically reset monthly or quarterly, moving in line with market interest rates (with a spread over prevailing cash rates). Thus, interest rate risk is somewhat negligible.

Such floating rate features of much of the securitised universe means its correlation to government bonds is especially low relative to global investment grade (IG). Figure 3 shows the correlation of total returns of a representative securitised portfolio with several key asset classes.

**Figure 3: Securitised has a low correlation to typical institutional asset classes**

### 10-year monthly return correlation

|                                   | Global equities | EUR Governments | Global Investment Grade | Global High Yield | EMD   | European securitised rep. account |
|-----------------------------------|-----------------|-----------------|-------------------------|-------------------|-------|-----------------------------------|
| Global equities                   | 100%            |                 |                         |                   |       |                                   |
| EUR Governments                   | 38.4%           | 100%            |                         |                   |       |                                   |
| Global Investment Grade           | 53.0%           | 78.0%           | 100%                    |                   |       |                                   |
| Global High Yield                 | 72.0%           | 50.5%           | 81.1%                   | 100%              |       |                                   |
| EMD                               | 56.1%           | 62.4%           | 87.0%                   | 88.1%             | 100%  |                                   |
| European securitised rep. account | 41.6%           | 20.2%           | 52.1%                   | 68.0%             | 56.1% | 100%                              |

Source: Bloomberg, ICE indices, MSCI, Janus Henderson Investors analysis, as at 30 June 2026. Correlation calculations based on EUR returns. Where base currency returns are non-EUR, correlations are calculated using EUR hedged returns.

Notes: European securitised: Janus Henderson Asset-Backed Securities Fund from October 2020. Prior to this, reflects the performance track record of the ABS sleeve of the Janus Henderson Horizon Total Return Bond Fund.

Indices: Global equities: MSCI World Net Total Return EUR Index; EUR Government Bonds: ICE BofA Euro Government Index; Global Investment Grade: ICE BofA Global Corporate Index; Global High Yield: ICE BofA Global High Yield Index; EMD: ICE BofA Emerging Markets External Sovereign Index. **Past performance does not predict future returns.**

## Attractive relative value

Supply and demand dynamics can result in higher credit spreads in securitised versus traditional corporate credit. Less favourable regulatory treatment of the underlying assets on bank balance sheets encourages securitisation as a means to offload such assets. Similarly, banks use securitisation as a funding tool, freeing up capital for other lending activity. Both these factors are supportive for supply. Conversely, a complexity premium, exclusion from passive indices and less frequent use in institutional liability hedging hamper demand.

Securitised investments typically offer higher credit spreads with lower spread duration risk and exhibit better credit quality compared to Euro IG (Figure 4). There is also variation in the spreads and spread durations across the different securitised sub-sectors, creating a diverse opportunity set for active investors (Figure 5).

**Figure 4: Higher average quality, lower spread duration risk and attractive relative credit spreads**

|                                     | JHI IG Securitised Rep Account | Euro Investment Grade |
|-------------------------------------|--------------------------------|-----------------------|
| Credit spread, % <sup>1</sup>       | 1.30                           | 0.65                  |
| Total yield EUR% <sup>2</sup>       | 3.9                            | 3.5                   |
| Spread duration, years <sup>3</sup> | 3.6                            | 4.7                   |
| Weighted average rating             | AA+                            | A-                    |

Source: Janus Henderson Investors, Bloomberg, as at 30 June 2026. ICE BofA Euro Corporate Index shown. Note: Data shown is referencing Janus Henderson Asset-Backed Securities Fund.

<sup>1</sup> Credit spreads are versus ESTR for the JHI IG Securitised. Euro IG credit spread is Swap OAS.

<sup>2</sup> For JHI IG Securitised, total yield is based on the sum of the EUR OIS swap rate corresponding to the respective weighted average life and credit spread. For Euro IG corporate it shows yield to worst.

<sup>3</sup> Spread duration for JHI IG Securitised is based on modelled base expected average life for the invested portfolio.

**Yields may vary and are not guaranteed. Past performance does not predict future returns.**

**Figure 5: Diversity in spread versus spread duration profiles**

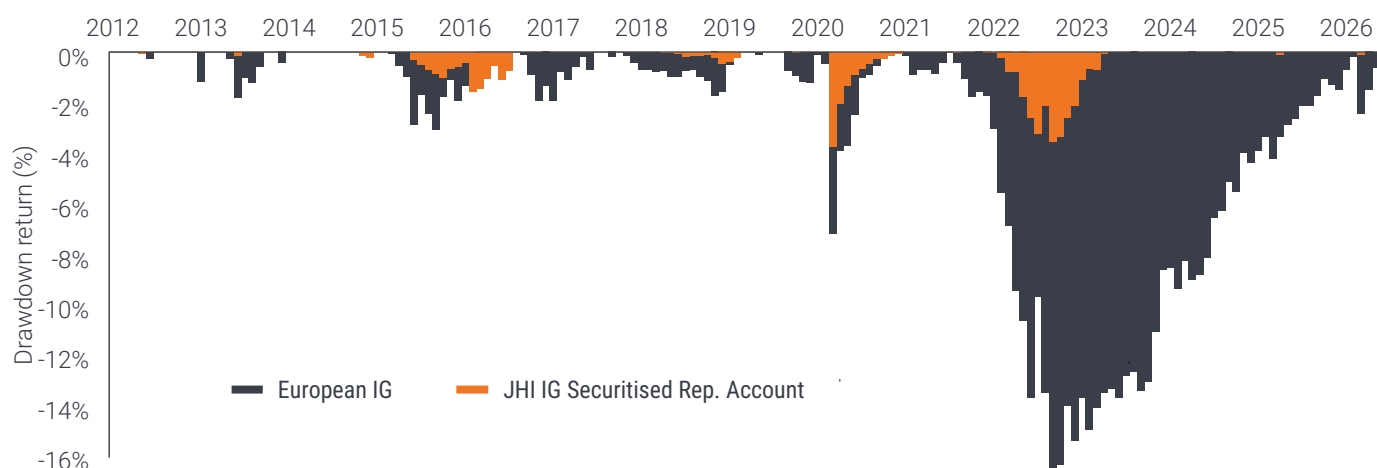


Source: Janus Henderson Investors, Bloomberg, Citi Velocity, Morgan Stanley, JP Morgan, as at 30 June 2025. Weighted average lives for securitised asset classes are used to estimate their spread duration. A Euro Corps = ICE BofA Single-A Euro Corporate Index, AA Euro Corps = ICE AA BofA Euro Corporate Index, BBB Euro Corps = ICE BBB BofA Euro Corporate Index. NC = non-conforming. **Yields and spreads may vary and are not guaranteed.**

## Resilience during challenging markets

The high-quality defensive profile of securitised, lower volatility and stable income profile generated by this floating rate asset class has resulted in shallower and shorter drawdowns relative to IG credit. Such floating rate characteristics limits the impact of moves in interest rates (which amplifies the volatility of returns in longer duration fixed income).

This defensiveness is reflected during periods of rates volatility (2015/2016, 2018/2019) and/or spread widening (2010-2012 European Sovereign Debt crisis, 2013 Taper Tantrum, 2016 Brexit, 2020 Covid pandemic), 2025 Trump tariffs and 2026 Middle East War as well as a liquidity event in 2022 (we cover this later on page 6). During the 2025 and 2026 volatility, securitised barely moved while corporate credit has not yet recovered (Figure 6). While securitised markets were not immune to the broad and deep risk asset sell-offs, the effect on returns tends to lag that of corporate credit and the recovery is quicker.

**Figure 6: Equivalent or lower mark-to-market risk in securitised compared to IG corporates**

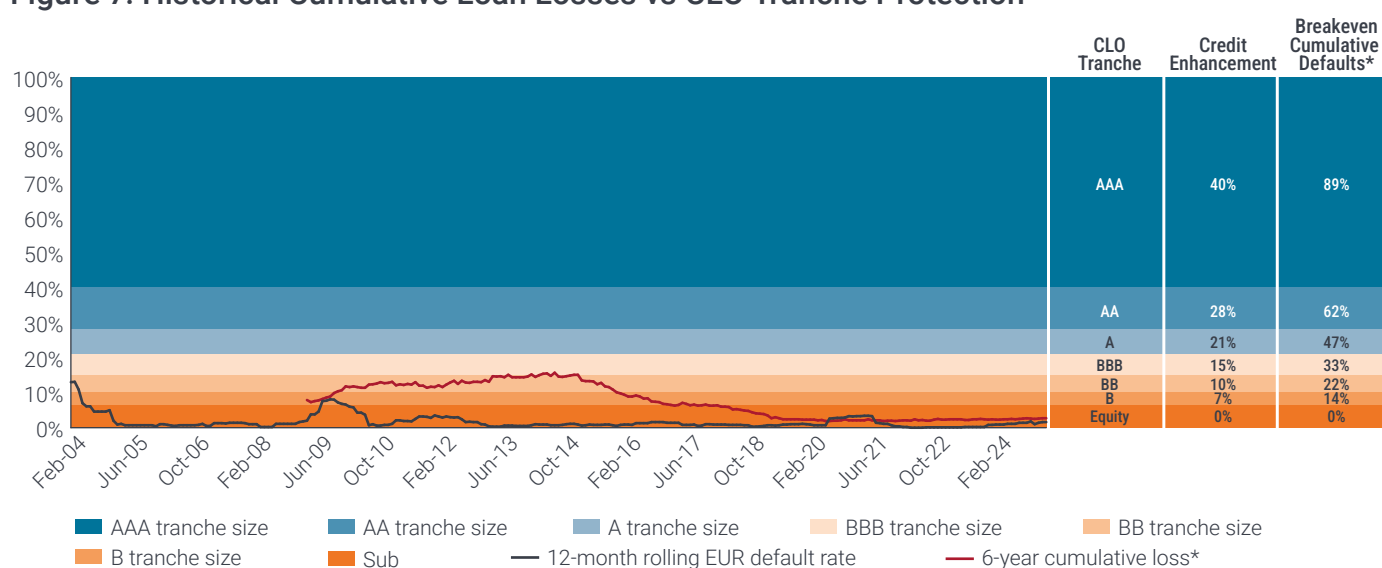
Source: Janus Henderson Investors, Bloomberg, as at 30 June 2026.

Note: JHI IG Securitised Rep. Account: Janus Henderson Asset-Backed Securities representative account, Gross of fees in EUR. European IG Index: ICE BofA Euro Corporate Bond Index, in EUR. Representative account data is based on the representative account in the composite and may vary from other accounts in the strategy, due to asset size, client guidelines and other factors. The representative account is believed to most closely reflect the current portfolio management style. Drawdown returns from 31 March 2012 to 30 June 2026. The data shown is of the Asset Backed Securities portfolio sleeve of the Janus Henderson Horizon Total Return Bond Fund up to September 2020 and Janus Henderson Asset-Backed Securities Fund thereafter, to demonstrate the Securitised team's performance track record and is for illustrative purposes only. The fund managers have been running this portfolio sleeve since March 2012.

**Past performance does not predict future returns.**

Similarly, credit support within CLOs is strong. There has never been a default of a A, AA, or AAA-rated CLO in Europe, even during the Global Financial Crisis (GFC).<sup>1</sup> Figure 7 helps to illustrate why this has been the case. It shows the various debt tranches in a European CLO overlaid with historic rolling sub-IG default rates and estimated cumulative losses (assuming a 60% recovery rate on defaulted loans). The cumulative loss line peaks at nearly 16%, materially below the level needed to impact the value of a typical A-rated tranche. With 40% credit enhancement to a typical AAA CLO, this would also imply losses of more than two and a half times the GFC peak level are needed to start to incur a potential loss on a AAA-rated bond.

Even in environments of high default rates, structural protections in CLOs, such as capturing excess spread to absorb the impact of portfolio loan losses and covenants (or triggers) that control principal cashflows, have helped to materially reduce losses to BBB and BB-rated tranches. Factoring in more conservative assumptions – a 55% recovery rate on defaulted loans – cumulative defaults would need to reach around 33% (final column) before a BBB tranche incurs its first unit of principal loss (Figure 7).

**Figure 7: Historical Cumulative Loan Losses vs CLO Tranche Protection**

Source: Moody's Investors Services \*\*Credit Suisse/UBS, as at 31 December 2024.

Notes: \*For illustrative purposes only. Cumulative loss rate was calculated based on cumulative defaults and 60% recovery rate. Breakeven cumulative defaults: the cumulative defaults structures need to experience so that CLO tranches incur a first €1 euro of principal loss without accounting for excess spread and by assuming a more conservative 55% recovery rate on defaulted loans.

**Past performance does not predict future returns.**

<sup>1</sup>Source: S&P Global, as at 31 December 2025, reflecting CLO default rates 2001 to 2025.

## Liquidity also tested in times of stress

Liquidity has also held up well in the ABS sector during market stress, such as during the pandemic, recent tariff- and conflict-induced volatility, or the UK LDI-related turmoil in 2022. In the case of the latter, where interest rates had risen sharply, pension schemes often looked first to sell down floating rate assets to avoid crystallising larger capital losses in fixed rate bonds. While this resulted in a spike in European securitised trading volumes, this was absorbed by a range of investors. This is reflected in the publicly reported trading volume in the market, 'Bids Wanted in Competition' (BWIC or auction processes run by end investors to sell bonds), with volumes providing a good indication of secondary market trading activity and liquidity (Figure 8).

**Figure 8: BWIC trading volumes evidence liquidity**



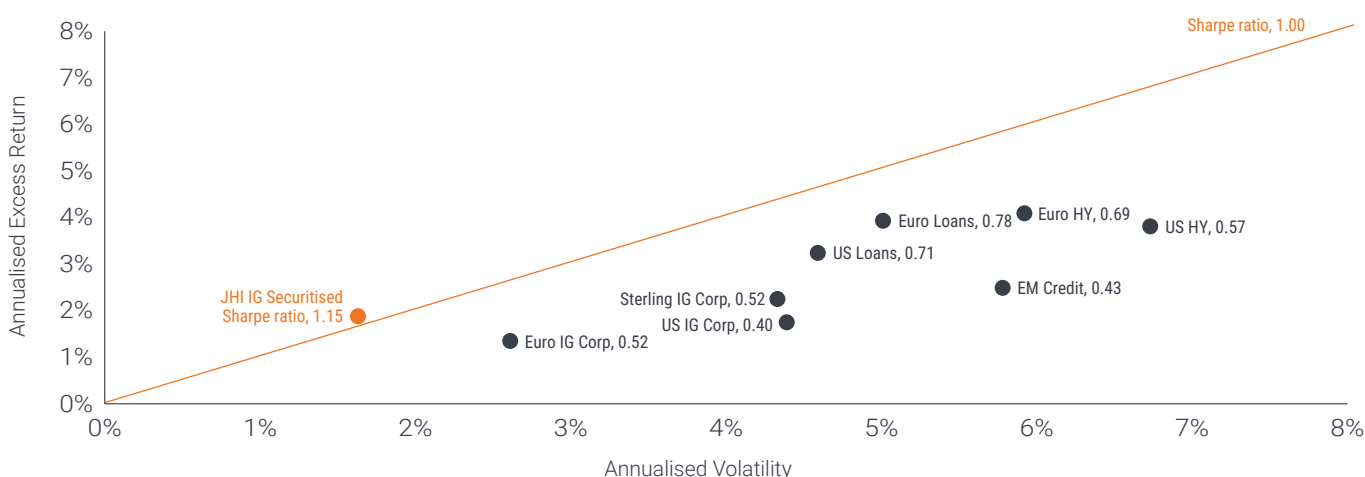
Source: Janus Henderson Investors, Deutsche Bank as at 31 July 2026.

The subsequent dislocation in securitised investment prices saw the likes of bank treasuries and even private equity firms step in to pick up what remained fundamentally high-quality assets, but at attractive discounts. Around €13 billion of European securitised investments were sold over four weeks from the end of September and volumes were absorbed well.<sup>2</sup> This shows how the securitised market can absorb significant supply (over a very short space of time) and provide liquidity to investors when they need it most.

## Strong risk-adjusted returns

Turning from a short-term to a more long-term perspective, Figure 9 shows the excess returns, volatility and Sharpe ratios for various credit indices and the Janus Henderson IG Securitised representative account over the past 14 years. IG Securitised has delivered strong risk-adjusted returns compared to major fixed income credit sectors. This highlights the benefit of introducing securitised to a portfolio to capture long-term stability in returns.

**Figure 9: Historically strong-risk-adjusted returns delivered by securitised versus other fixed income**



Source: Janus Henderson Investors, Bloomberg, ICE BofA, Credit Suisse, as at 30 June 2026. Indices: ICE BofA corporate bond indices, Credit Suisse leveraged loan indices, JPM EUR CLO AAA 2.0, prev Citi index. JHI IG Securitised: Janus Henderson Asset-Backed Securities representative account, Gross of fees in EUR. Index: ESTR (Euro Short-term rate). The data shown is of the Asset Backed Securities portfolio sleeve of the Janus Henderson Horizon Total Return Bond Fund up to September 2020 and Janus Henderson Asset-Backed Securities Fund thereafter, to demonstrate the Securitised team's performance track record and is for illustrative purposes only. The fund managers have been running this portfolio sleeve since March 2012. Note that any differences among portfolio securities currencies, share class currencies and costs to be paid or represented in currencies other than your home currency will expose you to currency risk. Costs and returns may increase or decrease as a result of currency and exchange rate fluctuations. Notes: Returns are hedged to EUR, gross of fees. Volatility is based on standard deviation. Numbers represent Sharpe Ratios calculated by dividing Excess Returns by Volatility. Index returns are hedged to EUR.

**Past performance does not predict future returns.**

<sup>2</sup>Source: Janus Henderson Investors estimates and BWIC volumes between 30 September 2022 and 21 October 2022.

## An active approach to a broad opportunity set

Investing in securitised offers distinctive benefits through active management, which is crucial, in our view, due to the nuances of investing in the securitised market over and above conventional fixed income. The specialist nature of securitisations demands experienced and expert handling.

Active management in this context involves detailed and multi-layered analysis, essential for a comprehensive review of the risk-return profiles, structural mechanics of securities, underlying collateral and counterparties. Such thorough due diligence is necessary not only to effectively evaluate opportunities and risks in a structured way, but also to comply with stringent European Securitisation Regulations.

Moreover, adapting Environmental, Social, and Governance (ESG) frameworks to the specific characteristics of securitisations is vital. For example, understanding Scope 3 emissions linked to securitisation adds another layer of analysis but is critical for informed investment decisions, prudent risk management and directing engagement where there is influence over financed emissions.

In terms of risk management more generally, active management involves continuously stress-testing investments and analysing critical metrics to ensure stability and performance under even the most severe scenarios.

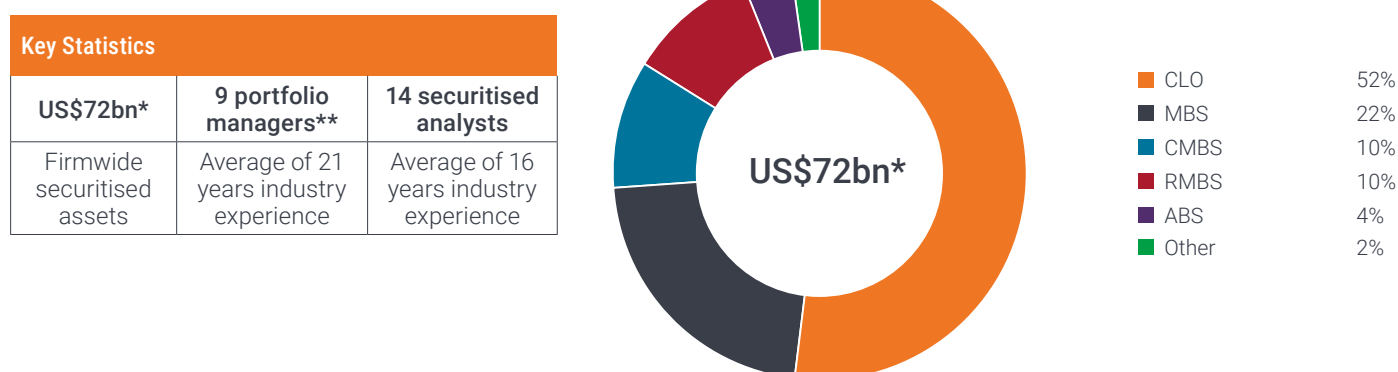
Furthermore, an active approach allows for dynamic allocation within a portfolio, identifying relative value opportunities across different sectors and capital structures. This flexibility aids in optimising portfolio allocation to capitalise on the most attractive investment opportunities, such as in specific markets like Australian securitised denominated in euros.

## High quality income, diversification and resilience

- **Securitisations serve as a valuable diversifier**, reducing risks in core fixed income portfolios due to their amortising structures, shorter durations and exposure to 'real economy' and consumer-driven risks. European securitised has performed well, offering strong risk-adjusted returns compared to IG corporate bonds without liquidity concerns, even during market stress. Having traded thousands of securitisations since the start of the GFC, we have not had any concerns over market liquidity.
- **Investors benefit from securitised** due to its **defensive nature** and **a broad opportunity set** as well as **attractive relative value**. Capturing attractive credit spread is important in a rate declining environment, as spread becomes a larger proportion of the overall yield of a fixed income investment. Securitised offers better spreads compared to similarly-rated corporate bonds, historically lower default rates, and more attractive risk-adjusted returns (higher Sharpe ratios). It is a misunderstood asset class, but misconceptions should not deter investment.
- **Specialist expertise can help navigate the nuances of the market**. It enables investors to effectively evaluate risk against opportunity, adhere to regulatory standards, integrate ESG considerations effectively, and ultimately achieve long-term stability and diversification of returns. In other words, maximise the benefits of securitised.

## Janus Henderson global securitised capabilities

Figure 10: Firmwide securitised assets



Source: Janus Henderson Investors, as of 30 June 2026, unless otherwise noted.

Note: \*Firmwide securitised AUM shown includes securitised sleeves within other fixed income portfolios, including; Core Plus, Multi-Sector Credit, Multi-Asset Credit, Total Return Bond, and Short Duration Bond. \*\*Portfolio managers (PM) also perform dual PM and analyst roles. Note three PMs are included in our analyst count.

Investment team



**Denis Struc**  
Portfolio Manager  
21 years industry experience



**Ian Bettney**  
Portfolio Manager  
26 years industry experience



**Shakil Shah**  
Client Portfolio Manager  
15 years industry experience

|                           | Corporate Credit ▾                                                                                                         | Securitised ▾                                                                                                                          | Emerging Markets Debt ▾                                                                                                        | Quantitative ▾                                                                                                                  |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| GLOBAL RESEARCH PLATFORMS | 22 analysts<br>20 years average experience<br><br><b>Mike Talaga, CFA</b><br>Global Head of Credit Research                | 14 analysts<br>15 years average experience<br><br><b>John Kerschner, CFA</b><br>Global Head of Securitised Products, Portfolio Manager | 5 analysts<br>22 years average experience<br><br><b>Jacob Ellinge Nielsen</b><br>Portfolio Manager                             | 23 professionals<br>13 years average experience<br><br><b>Erin Noel, CFA</b><br>Global Head of Quantitative Fixed Income        |
| KEY INVESTMENT PARTNERS   | <b>Fixed Income Trading</b> <ul style="list-style-type: none"><li>21 traders</li><li>21 years average experience</li></ul> | <b>Fixed Income Risk Management</b> <ul style="list-style-type: none"><li>6 analysts</li><li>18 years average experience</li></ul>     | <b>Equity Central Research</b> <ul style="list-style-type: none"><li>38 analysts</li><li>17 years average experience</li></ul> | <b>Responsibility Team</b> <ul style="list-style-type: none"><li>33 professionals</li><li>10 years average experience</li></ul> |

Source: Janus Henderson Investors, as of 30 June 2026.  
Note: Analysts include individuals who are considered both analysts and portfolio managers. Years of experience refers to industry experience.

FOR MORE INFORMATION, PLEASE VISIT [JANUSHENDERSON.COM](http://JANUSHENDERSON.COM)

**Janus Henderson**  
INVESTORS

### Important information

Certain information contained herein (the "Information") is sourced from/copyright of MSCI Inc, MSCI ESG Research LLC, or their affiliates ("MSCI"), or information providers (together the "MSCI Parties") and may have been used to calculate scores, signals, or other indicators. The Information is for internal use only and may not be reproduced or disseminated in whole or part without prior written permission. The Information may not be used for, nor does it constitute, an offer to buy or sell, or a promotion or recommendation of, any security, financial instrument or product, trading strategy, or index, nor should it be taken as an indication or guarantee of any future performance. Some funds may be based on or linked to MSCI indexes, and MSCI may be compensated based on the fund's assets under management or other measures. MSCI has established an information barrier between index research and certain Information. None of the Information in and of itself can be used to determine which securities to buy or sell or when to buy or sell them. The Information is provided "as is" and the user assumes the entire risk of any use it may make or permit to be made of the Information. No MSCI Party warrants or guarantees the originality, accuracy and/or completeness of the Information and each expressly disclaims all express or implied warranties. No MSCI Party shall have any liability for any errors or omissions in connection with any Information herein, or any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

The views presented are as of the date published. They are for information purposes only and should not be used or construed as investment, legal or tax advice or as an offer to sell, a solicitation of an offer to buy, or a recommendation to buy, sell or hold any security, investment strategy or market sector. Nothing in this material shall be deemed to be a direct or indirect provision of investment management services specific to any client requirements. Opinions and examples are meant as an illustration of broader themes, are not an indication of trading intent, are subject to change and may not reflect the views of others in the organization. It is not intended to indicate or imply that any illustration/example mentioned is now or was ever held in any portfolio. No forecasts can be guaranteed and there is no guarantee that the information supplied is complete or timely, nor are there any warranties with regard to the results obtained from its use. Janus Henderson Investors is the source of data unless otherwise indicated, and has reasonable belief to rely on information and data sourced from third parties. **Past performance does not predict future returns. Investing involves risk, including the possible loss of principal and fluctuation of value.**

Not all products or services are available in all jurisdictions. This material or information contained in it may be restricted by law, may not be reproduced or referred to without express written permission or used in any jurisdiction or circumstance in which its use would be unlawful. Janus Henderson is not responsible for any unlawful distribution of this material to any third parties, in whole or in part. The contents of this material have not been approved or endorsed by any regulatory agency.

Janus Henderson Investors is the name under which investment products and services are provided by the entities identified in the following jurisdictions: (a) **Europe** by Janus Henderson Investors International Limited (reg no. 3594615), Janus Henderson Investors UK Limited (reg. no. 906355), Janus Henderson Fund Management UK Limited (reg. no. 2678531), Tabula Investment Management Limited (reg. no. 11286661), (each registered in England and Wales at 201 Bishopsgate, London EC2M 3AE and regulated by the Financial Conduct Authority) and Janus Henderson Investors Europe S.A. (reg no. B22848 at 78, Avenue de la Liberté, L-1930 Luxembourg, Luxembourg and regulated by the Commission de Surveillance du Secteur Financier); (b) the **U.S.** by SEC registered investment advisers that are subsidiaries of Janus Henderson Group Ltd.; (c) **Canada** through Janus Henderson Investors US LLC only to institutional investors in certain jurisdictions; (d) **Singapore** by Janus Henderson Investors (Singapore) Limited (Co. registration no. 199700782N). This advertisement or publication has not been reviewed by Monetary Authority of Singapore; (e) **Hong Kong** by Janus Henderson Investors Hong Kong Limited. This material has not been reviewed by the Securities and Futures Commission of Hong Kong; (f) **South Korea** by Janus Henderson Investors (Singapore) Limited only to Qualified Professional Investors (as defined in the Financial Investment Services and Capital Market Act and its sub-regulations); (g) **Japan** by Janus Henderson Investors (Japan) Limited, regulated by Financial Services Agency and registered as a Financial Instruments Firm conducting Investment Management Business, Investment Advisory and Agency Business and Type II Financial Instruments Business; (h) **Australia and New Zealand** by Janus Henderson Investors (Australia) Limited (ABN 47 124 279 518) and its related bodies corporate including Janus Henderson Investors (Australia) Institutional Funds Management Limited (ABN 16 165 119 531, AFSL 444266) and Janus Henderson Investors (Australia) Funds Management Limited (ABN 43 164 177 244, AFSL 444268); (i) the **Middle East** by Janus Henderson Investors Middle East Limited (DIFC branch), regulated by the Dubai Financial Services Authority as a Category 4 licensed entity. This document relates to a financial product which is not subject to any form of regulation or approval by the Dubai Financial Services Authority ("DFSA"). The DFSA has no responsibility for reviewing or verifying any prospectus or other documents in connection with this financial product. Accordingly, the DFSA has not approved this document or any other associated documents nor taken any steps to verify the information set out in this document, and has no responsibility for it. The financial product to which this document relates may be illiquid and/or subject to restrictions on its resale. Prospective purchasers should conduct their own due diligence on the financial product. If you do not understand the contents of this document you should consult an authorised financial adviser. No transactions will be concluded in the Middle East and any enquiries should be made to Janus Henderson. We may record telephone calls for our mutual protection, to improve customer service and for regulatory record keeping purposes.

**Outside of the U.S.:** For use only by institutional, professional, qualified and sophisticated investors, qualified distributors, wholesale investors and wholesale clients as defined by the applicable jurisdiction. Not for public viewing or distribution. Marketing Communication.

Janus Henderson® and any other trademarks used herein are trademarks of Janus Henderson Group Ltd. or one of its subsidiaries. © Janus Henderson Group Ltd.