

CREDIT OPINION

10 September 2026

Update



Send Your Feedback

RATINGS

Groupe des Assurances du Credit Mutuel

Domicile	Strasbourg, France
Long Term Rating	A3
Type	Senior Unsecured - Dom Curr
Outlook	Stable

Please see the [ratings section](#) at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

Contacts

Guillaume Lucien-Baugas +33.1.5330.3350
 VP-Ratings
guillaume.lucien-baugas@moody.com

Mikhail Panasiuk +33.1.5330.3442
 Sr Ratings Associate
mikhail.panasiuk@moody.com

Benjamin Serra +33.1.5330.1073
 SVP-Ratings
benjamin.serra@moody.com

CLIENT SERVICES

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

Groupe des Assurances du Credit Mutuel

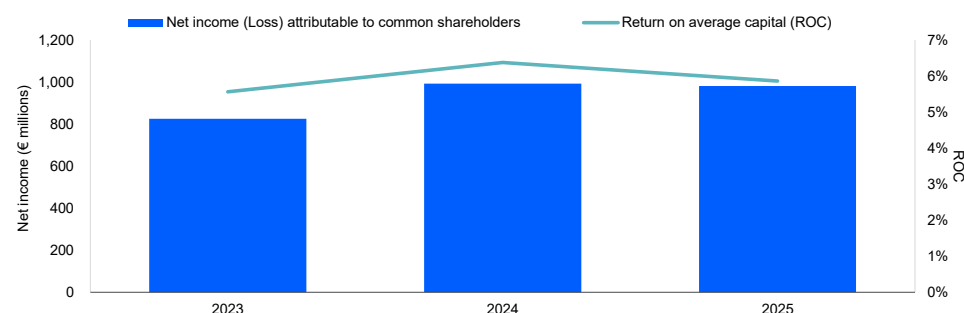
Update to credit analysis

Summary

The ratings of [Groupe des Assurances du Crédit Mutuel](#) (GACM), whose main operating entities ([ACM VIE SA](#) and [ACM IARD SA](#)) reflect the group's good profitability, strong bancassurance franchise in France, low overall product risk profile, and very strong capitalization. These strengths are partly offset by GACM's limited geographic diversification, an elevated high-risk assets ratio, and the still high weight of traditional savings products in its life business. Going forward, we expect this solid financial profile to be maintained, in particular the high level of Solvency II ratio and steady improvement of profitability.

Exhibit 1

Net Income and Return on Capital



Sources: Company reports, Moody's Ratings

Credit strengths

- » Good level of profitability overall
- » Strong insurance franchise of one of the leading bancassurers in France, benefiting from a very granular network of mutualist banks for its products' distribution
- » Low risk profile, especially in non-life due to a focus on retail risks
- » Very strong level of Solvency II ratio

Credit challenges

- » Little geographic diversification outside France, as domestic premiums still account for approximately 98% of the total and plans to expand further in Germany and Belgium will take time to deliver
- » Relatively elevated high-risk assets ratio due to exposure to equities and real estate investments
- » High weight of traditional saving business recently reinforced by the shift back to euro-funds in inflows

Rating outlook

The stable outlooks on GACM, ACM VIE SA and ACM IARD SA reflect our expectation that the group will maintain a solid financial profile over the next 12-18 months, including strong profitability and a strong Solvency II ratio after dividend payments.

Factors that could lead to an upgrade

Upward pressure on GACM's ratings could arise from:

- » a significant increase in market shares domestically and/or successful international expansion, while maintaining a good level of business diversification, earnings and capitalization, and
- » a Solvency II ratio sustainably above 250%.

Factors that could lead to a downgrade

Alternatively, downward pressure on the ratings could arise from:

- » a material deterioration in profitability as evidenced for example by a Return-on-Capital (Moody's calculation, 5-year average) below 5% for a prolonged period, or
- » a weakening capitalisation, as evidenced by a Solvency II ratio declining sustainably below 200%.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moody's.com> for the most updated credit rating action information and rating history.

Key indicators

Exhibit 2

Groupe des Assurances du Credit Mutuel [1][2]	2025	2024	2023	2022
As Reported (Euro Millions)				
Total Assets	156,967	146,559	142,605	133,941
Total Shareholders' Equity	11,898	10,983	11,064	10,722
Net Income (Loss) Attributable to Common Shareholders	985	996	828	817
Gross Premiums Written	17,563	15,245	13,888	13,202
Net Premiums Written	17,563	15,245	13,888	13,202
Moody's Adjusted Ratios				
Goodwill & Intangibles % Shareholders' Equity	27.6%	25.6%	25.4%	22.7%
Financial Leverage	14.1%	15.9%	10.9%	12.2%
Total Leverage	39.7%	41.9%	44.6%	47.8%
Earnings Coverage	19.1x	21.0x	27.7x	28.4x

[1] Information based on IFRS17 financial statements as of the fiscal year ended 31 December. [2] Certain items may have been relabeled and/or reclassified for global consistency.

Sources: Company reports, Moody's Ratings

Profile

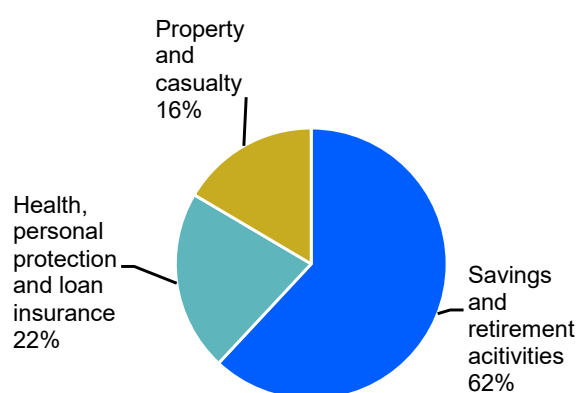
GACM is the holding company for the insurance activities of most of the French mutualist bancassurance group Crédit Mutuel's regional federations (six largest bancassurers and eleventh-largest insurer in France), including those which form [Crédit Mutuel Alliance Fédérale](#).¹ Its activities represented 7% of CMAF's revenues and 22% of CMAF's business unit net income in 2025.² Total revenues in 2025 amounted to €17.6 billion (+15% vs. 2024), and remained predominantly skewed toward France (98% of total) despite expected growth in Belgium, and Germany. In addition, €1.8 billion of commissions were paid to CMAF's banking network in 2025 (+4.2% compared to FY 2024). The group also owns participations in Canada (10% of Desjardins Assurances) and in Tunisia (30% of Astree Assurances).

GACM's business mix is balanced, with the bulk (62%) of gross written premiums stemming from savings and retirement activities, 22% from health, personal protection and loan insurance, and 16% from property and casualty (P&C) based on year-end 2025 results.

Exhibit 3

Insurance revenue by segment, December 31, 2025

Total insurance revenue: €17.6 billion



Sources: Company reports, Moody's Ratings

Detailed credit considerations

Market position: Large French bancassurer with a strong position both in life and P&C

Our assigned score of A is in line with the unadjusted score and reflects GACM's very strong domestic franchise in France (11th largest insurer by premium³ and among the top 6 bancassurers). Similarly to most bancassurers, GACM also holds a particularly strong position in loan insurance (3rd largest by premiums), savings (5th largest⁴) and in segments connected to banking products in general, including motor and property, supported by high penetration rates in the banking network.

Going forward we consider that GACM is well positioned as a bancassurer to continue to develop its market share in the fragmented French insurance market, as evidenced by the group's capacity to significantly grow the number of its contracts over the last years (+1.5 million contracts in 7 years). For example, P&C premiums continued to record a very positive performance in 2025 (+9.2% YoY), driven primarily by price adjustments, while portfolio growth in professional lines also contributed. GACM is also growing its supplementary health offering. We expect that this positions the group well to continue gaining market share in France, although competitive intensity remains high in health and protection. We also expect GACM's German franchise to expand gradually, thanks to the progressive ramp-up of creditor insurance through the Targobank channel as a flagship product.

Distribution: Controlled proprietary distribution through the bank's own channels remains a core credit strength

Our assigned score of A is in line with the unadjusted score and reflects the group's diversified, flexible, and large distribution capacities. The overwhelming majority of business is generated through the proprietary bancassurance channels (96% of gross written premiums in 2025), in particular through the franchises of Crédit Mutuel ('CM') and [Crédit Industriel et Commercial](#) ('CIC', Aa3/A1, baa1⁵). Credit Mutuel's domestic branch network is highly granular and fully-controlled. Its well-trained proprietary salaried network is a key strength of the bank and consequently also a strength for GACM. We expect this to remain the key driver of both growth and customer retention going forward.

Bank branches typically see more frequent client interactions than traditional insurers, and branch staff are often incentivized to sell in-house insurance products. GACM's above-average growth in home and motor insurance, along with rising client penetration rates, reflects this focus. This aligns with CMAF's 2024–2027 strategic goal to equip 8 million customers with insurance by 2027. As of YE 2025, we estimate that 96% of premiums are distributed directly through CM or CIC branches or other distribution partners in France (such as Cofidis for consumer products, or monabanq on the direct, digital channel) and outside France (Beobank in Belgium, and Targobank in Germany). We continue to view this strong distribution infrastructure as one of GACM's main competitive advantages.

Product risk and diversification: Strong diversification overall through solid product mix, low risk profile especially in P&C

Our assigned score of A is in line with the unadjusted score, as business diversification is strong for the group, despite a historically stronger footprint in life insurance, as it is generally the case for bancassurers in France. Revenues are well balanced between the life (62% of gross written premiums for FY 2025) and the non-life segment (38%). This business mix provides meaningful diversification of earnings and limits dependence on any single line, while the group's non-life exposures remain predominantly retail and therefore relatively granular. Nevertheless, geographic diversification remains low, although the group continues to expand its international presence through Belgium and Germany, but this will take time to be meaningful for the rating. The exposure to Canada through the minority shareholding of Desjardins Assurances is noticeable in profits however, with approximately 9% of the 2025 net income streaming through this entity.

In P&C, we consider the risk profile to be low overall because the group remains focused on personal lines and smaller-ticket commercial business. An exception is French motor third-party liability, which is long-tail and exposed to legal inflation, making ultimate costs harder to estimate. However, motor insurance accounts for only 23% of non-life gross written premiums. Other exposures include property (20%), health (15%), income protection (11%), and loan protection, which remains the largest at 31%⁶. At the same time, the group is developing selected reinsurance acceptances and German business, which modestly increase complexity and execution risk, but also improve diversification.

GACM is gradually also expanding into SME and agricultural risks, with its multi-risk corporate portfolio growing by 9% in contract volume and 14.7% in premiums year-on-year (as of YE 2025). This development moderately increases business risk, reflecting lower risk granularity in SME exposures and higher sensitivity to climate-related risks in agriculture; however, the impact remains contained given the group's focus on small businesses and its still limited exposure.

In life insurance, product risk remains higher than in non-life because traditional savings still account for a large share of reserves and inflows (80% of technical provisions, and 81% of net inflows in 2025). However, this risk is mitigated by the very low average minimum guaranteed rate (around 0.13% at year-end 2025), and by the still sizeable profit-sharing reserve equivalent to 5.9% of reserves. In addition, the group is actively steering new business toward unit-linked products, which represented almost 30% of gross inflows in H1 2026.

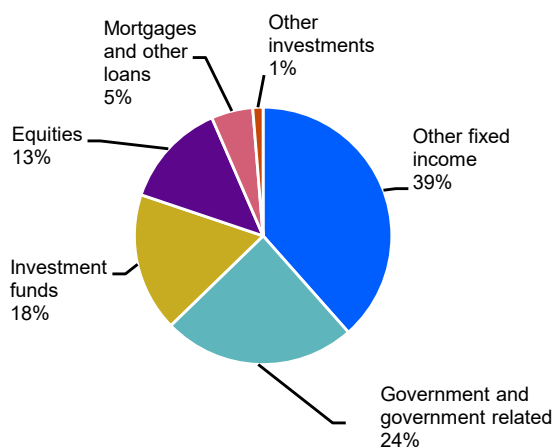
Asset quality: High-risk assets exposure remains a relative constraint

The assigned score of A reflects an upward adjustment from the raw B score, driven by GACM's stable and relatively conservative investment strategy, as well as the risk-sharing features with policyholders embedded in French life insurance contracts. At year-end 2025, fixed-income assets represented 78% of total invested assets excluding unit-linked. The bond portfolio remains well diversified across sovereign (34%), corporate (26%), financial (24%) and public sector issuers (16%), with more than 95% rated investment grade. Equity exposure remains relatively high at over 14% of total assets, largely through direct holdings. Unrealised gains continued to improve and amounted to €6.2 billion at year-end 2025, up from €5.1 billion in 2024, as gains on equities and by a lesser extent real estate more than offset bond related unrealized losses. However, as interest rates begin to rise in 2026 and financial markets are more volatile, assets values may decline in 2026.

Exhibit 4

Investment portfolio, December 31, 2025

Total investment portfolio: €152.6 billion

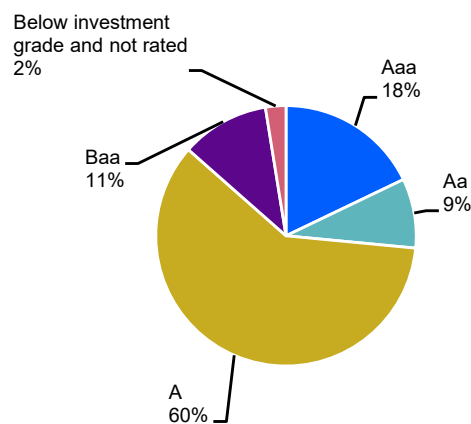


Source: Company reports, Moody's Ratings

Exhibit 5

Fixed income by rating, December 31, 2025

Total fixed income portfolio: €85.3 billion



Source: Company reports, Moody's Ratings

Capital adequacy: Very sound and stable solvency levels despite sizeable exceptional dividends in the recent years

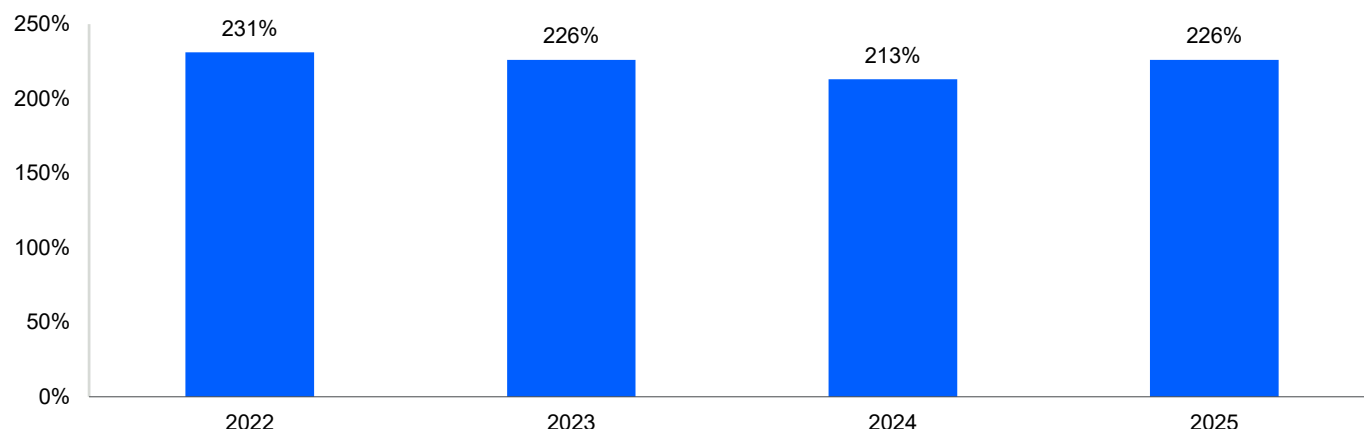
Our assigned score of A is in line with the unadjusted score, which reflects GACM's strong capitalization as evidenced by the solid Solvency II ratio of 226% at year-end 2025 (standard formula, excluding transitional measures, up from 213% in 2024). This was due to stronger own funds vs. a slightly reduced solvency capital requirement. As of end-June 2026, the ratio remained stable at 227%. Furthermore, capital is well distributed across the group, with life entities carrying particularly strong solvency ratios (ACM Vie SA at 301% at YE 2025, ACM Vie Mutuelle at 319%) while the P&C entity remains the lowest-capitalised within the group (ACM IARD at 150%).

GACM paid a €1.0 billion exceptional dividend in 2024 as part of its capital management strategy, but distributions normalized in 2025 with an ordinary dividend of €336 million. We expect future dividend payments to remain broadly consistent with management's objective of balancing shareholder remuneration with the preservation of strong capitalization and solvency levels.

As is the case for many French life insurers, GACM's Solvency II ratio remains sensitive to financial market movements. A 20% decline in equity markets or a 75 basis point widening in sovereign spreads would reduce the ratio by approximately 1 and 8 percentage points, respectively. Nevertheless, we expect capitalization to remain comfortably above 200% (as under the group's ORSA central scenario)

over the next few years, even after dividend distributions. Therefore, we continue to view capitalization as a key strength of the group's credit profile.

Exhibit 6

Solvency ratio evolution over time

Sources: Company reports, Moody's Ratings

Profitability: Diversification is key for insurance result development, driven by resilient life earnings and further price increases in P&C

Our assigned score of A is adjusted downwards from the raw Aa score, reflecting that although GACM's profitability is solid, it remains influenced by market-related volatility in life earnings and nat cat events in non-life. Profitability slightly declined in 2025, with a return on capital (Moody's) of 5.9% as against 6.4% in 2024. Net IFRS profit declined marginally by 2% year-on-year to €979 million, mainly reflecting (i) a weaker financial result of €362 million, driven by IFRS 17 accounting treatment of savings-related investment performance and realized losses on the fixed-income portfolio, and (ii) the exceptional corporate tax payment of €126 million.

The most important positive change in 2025 was the recovery in P&C profitability. Insurance result in property insurance rose to €228 million from a near-breakeven level in 2024, and the combined ratio improved by 8.1 points to 92.1%. This improvement was driven by tariff increases, the higher Cat Nat surcharge, stable expenses and favourable development on prior-year claims. Claims frequency in motor has also declined in 2025 and early 2026, although claims inflation remains present.

Life and creditor-related earnings remained supportive. Life insurance gross inflows reached a record €10.9 billion in 2025, while the life insurance result increased to €511 million and CSM rose strongly by 27% compared to 2024, following rising interest rates. By contrast however, insurance results in health, protection, and creditor segments decreased by 23% to €402 million, driven by higher disability claims frequency in the home-loan creditor portfolio, but we consider this to be one-off.

Looking ahead, we expect profitability to remain sound, but some pressure on 2026 earnings may arise if catastrophe losses revert closer to normalized levels compared to the exceptionally low nat cat claims in 2025. The development of SME solutions (largely dominated by P&C, health and protection) which generated €1.1 billion revenues in 2025 (+8.1% vs. 2024) could contribute positively to the results in the coming years. In the life segment, stable interest rates and reduced surrender risk compared to 2022–2023 should also support earnings.

Liquidity & Asset Liability Management: Low liquidity risk and strong ALM capabilities

Our assigned score of A is in line with the unadjusted score, supported by a stable liquidity ratio (Moody's calculation), estimated just below 2x in 2025, which remains strong for the rating category. Liquidity is further supported by the large share of fixed-income assets in the portfolio, the group's capacity to manage surrenders through policyholder participation.

A key support for liquidity and ALM in the life segment is the group's sizeable profit-sharing reserve, which represented 5.9% of euro-fund reserves at year-end 2025, alongside an average credited rate of 2.8% on euro funds. This reserve was still built up in 2025 despite

record euro-fund inflows, which underlines the group's flexibility in managing customer behaviour and surrender risk. The average guaranteed rate on the back book remains very low (less than 0.15%), which also limits risks.

Reserve Adequacy: Strong track record of favorable reserve development

Our assigned score of Aa is aligned with the raw Aa score reflecting progressive improvement of the net loss reserves evolution and peers comparison, despite the inflation risk on motor and long-tail P&C reserves. We consider GACM's reserve adequacy to be fairly strong and its reserve policy to be prudent as evidenced by the group's ability to consistently release reserves through the cycle.

At the same time, we recognise that parts of the portfolio, in particular bodily injury-related motor claims and weather-related business, remain exposed to inflation and event risk. Even so, the group's track record of releases through the cycle remains supportive of the current reserve adequacy assessment.

Financial Flexibility: Moderate and improving leverage profile

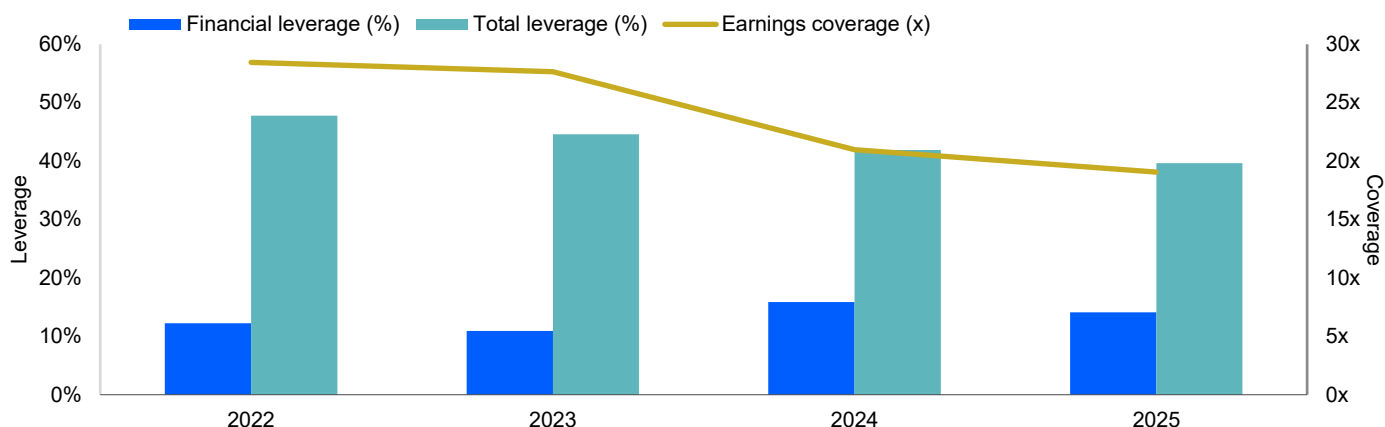
Our assigned score of A is adjusted downward from the raw Aa score, reflecting the group's still meaningful level of total leverage despite strong earnings coverage and improving financial leverage metrics. Financial leverage (Moody's calculation) improved to 14.1% in 2025 from around 16% in 2024, supported by higher shareholders' equity and continued growth in contractual service margin balances. Earnings coverage remained strong at around 24x.

Total leverage remains elevated partly because it includes repo liabilities associated with the group's securities lending activities. These transactions are excluded from Moody's financial leverage calculation and therefore have a limited impact on our assessment of the group's underlying debt burden.

Debt maturities remain manageable, with no significant maturity before 2029. We view GACM's strong internal capital generation and ability to fund growth while maintaining strong solvency levels as the key supports for its financial flexibility. We therefore expect financial flexibility to remain consistent with the current assessment over the next few years.

Exhibit 7

Financial flexibility



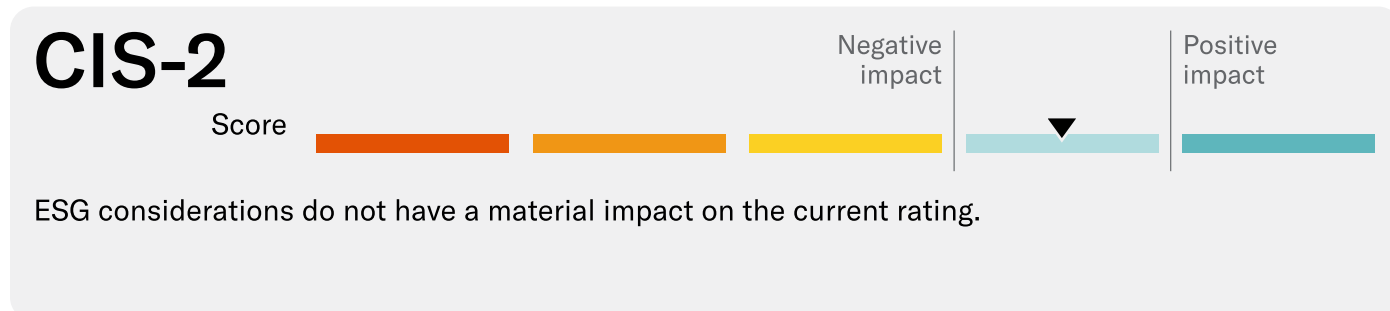
Source: Company reports, Moody's Ratings

ESG considerations

Groupe des Assurances du Credit Mutuel's ESG credit impact score is CIS-2

Exhibit 8

ESG credit impact score

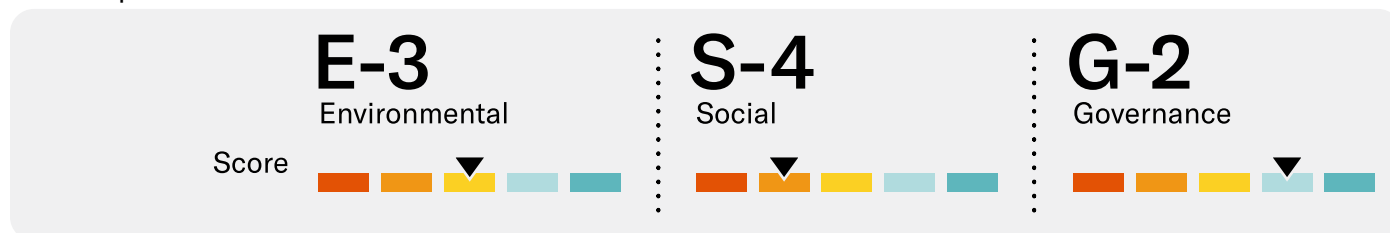


Source: Moody's Ratings

Groupe des Assurances du Credit Mutuel (GACM)'s **CIS-2** indicates that ESG considerations do not have a material impact on the current rating. The group's high level of capital and strong diversification mitigate physical climate risk, carbon transition risk, customer relations risk and societal trend risk.

Exhibit 9

ESG issuer profile scores



Source: Moody's Ratings

Environmental

GACM faces moderate environmental risks overall, with a moderate exposure to physical climate risks through its P&C activities, although natural catastrophes are largely covered by reinsurance treaties. It also has moderate exposure to carbon transition risk through the long-duration assets held in its investment portfolio and inherent asset leverage, especially in its life insurance business. Nonetheless, GACM is actively engaged in further developing its comprehensive risk management and climate risk reporting frameworks, and increasing the alignment of its business with the transition to a low-carbon economy.

Social

GACM is exposed to high customer relations risk, in relation to the sale of its products and the significant interaction with its retail customers, particularly in its life and health insurance businesses. Rising digitization and interconnectedness of devices will also increase customer privacy and data security risks. Demographic and societal trends can make the operating environment more challenging, including giving rise to societal risks related to the high level of government scrutiny on the insurance business in France.

Governance

Governance risks have no material impact on the current rating of GACM, and we consider its risk management, policies and procedures are in line with industry best practices. Financial strategy and risk management policies are strong and the group aims to maintain a strong solvency and demonstrates solid ALM policies. Management has also demonstrated a strong track record of achieving strategic, operational and financial objectives.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click [here](#) to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Support and structural considerations

GACM's Baa1(hyb) subordinated debt rating is consistent with our standard notching practices for debts issued by insurance holding companies. The Baa1(hyb) rating reflects (i) the subordinated ranking of the notes, (ii) the mandatory coupon deferral mechanism in case of breach of the solvency capital requirement (SCR) or minimum capital requirement (MCR), and (iii) the cumulative nature of deferred coupons, in case of deferral. The notes, which bear a 20.5-year maturity, qualify as Tier 2 capital under Solvency II.

GACM's A3 senior unsecured debt rating reflects Moody's Ratings standard notching practices for such instruments issued by holding companies in jurisdictions where group regulation is in force.

Rating methodology and scorecard factors

Exhibit 10

Rating Factors

Financial Strength Rating Scorecard [1][2]	Aaa	Aa	A	Baa	Ba	B	Caa	ScoreAdj	Score
Business Profile								A	A
Market Position and Brand (20%)								A	A
-Relative Market Share Ratio			X						
Distribution (5%)								A	A
-Distribution Control	X								
-Diversity of Distribution					X				
Product Focus and Diversification (10%)								A	A
-Product Risk - P&C		X							
-Product Risk - Life					X				
-Product Diversification	X								
-Geographic Diversification					X				
Financial Profile								A	A
Asset Quality (10%)								Ba	A
-High Risk Assets % Shareholders' Equity					269.9%				
-Reinsurance Recoverables (or Reinsurance Contract Assets) / Shareholders' Equity	1.5%								
-Goodwill & Intangibles % Shareholders' Equity		27.6%							
Capital Adequacy (15%)								A	A
-Shareholders' Equity % Total Assets			7.0%						
Profitability (15%)								Aa	A
-Return on Capital (5 yr. avg.)			5.9%						
-Sharpe Ratio of ROC (5 yr.)	1442.9%								
Liquidity and Asset/Liability Management (5%)								A	A
-Liquid Assets % Liquid Liabilities			X						
Reserve Adequacy (5%)								Aa	Aa
-Net Loss Reserves Development / Beginning Net Loss Reserves (5 yr. wtd. avg.)		-4.1%							
Financial Flexibility (15%)								Aa	A
-Financial Leverage		14.1%							
-Total Leverage				39.7%					
-Earnings Coverage (5 yr. avg.)	24.0x								
Operating Environment								Aaa - A	Aaa - A
Preliminary Standalone Outcome								A2	A1
Other Considerations									
Management, Governance and Risk Management									
Accounting Policy & Disclosures									
Sovereign & Regulatory Environment									
Standalone Scorecard-indicated Outcome									A1
Support									
Nature and Terms of Explicit Support									
Nature and Terms of Implicit Support									
Scorecard-indicated Outcome									A1

[1] Information based on IFRS17 financial statements as of fiscal year ended 12/31/2025. [2] The Scorecard rating is an important component of the company's published rating, reflecting the standalone financial strength before other considerations (discussed above) are incorporated into the analysis.

Source: Moody's Ratings

Ratings

Exhibit 11

Category	Moody's Rating
GROUPE DES ASSURANCES DU CREDIT MUTUEL	
Outlook	STA
Subordinate	Baa1 (hyb)
Senior Unsecured (Domestic)	A3
ACM VIE SA	
Rating Outlook	STA
Insurance Financial Strength	A1
ACM IARD SA	
Rating Outlook	STA
Insurance Financial Strength	A1

Source: Moody's Ratings

Endnotes

- [1](#) [Banque Fédérative du Crédit Mutuel](#) (deposits Aa3 stable, senior unsecured debt A1 stable, Baseline Credit Assessment a3) is one of the main rated entities of Crédit Mutuel Alliance Fédérale.
- [2](#) Referring to Groupe Credit Mutuel consolidation perimeter, the contribution of insurance business to the total net banking income and total net income (excluding minority interest) was 9.3% and 27.2%, prior to inter-sector eliminations.
- [3](#) As reported by L'Argus de l'Assurance, « Classement 2025 des 20 premiers groupes d'assurance en France » based on 2024 premiums.
- [4](#) Source: 2024 ranking from 'L'Argus de l'Assurance', year-end 2023 premiums and year-end 2023 reserves for savings insurance / Opinion Way barometer.
- [5](#) The bank ratings shown in this report are the bank's deposit rating, senior unsecured debt rating and Baseline Credit Assessment.
- [6](#) Including external reinsurance accepted, which concerns the creditor insurance portfolio marketed in Germany

© 2026 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT CONSTITUTE OR PROVIDE LEGAL, COMPLIANCE, INVESTMENT, FINANCIAL OR OTHER PROFESSIONAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES OR OTHERWISE MAKES AVAILABLE ITS MATERIALS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND MATERIALS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR MATERIALS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT. FOR CLARITY, NO INFORMATION CONTAINED HEREIN MAY BE USED TO DEVELOP, IMPROVE, TRAIN OR RETRAIN ANY SOFTWARE PROGRAM OR DATABASE, INCLUDING, BUT NOT LIMITED TO, FOR ANY ARTIFICIAL INTELLIGENCE, MACHINE LEARNING OR NATURAL LANGUAGE PROCESSING SOFTWARE, ALGORITHM, METHODOLOGY AND/OR MODEL.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating or assessment is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the credit rating or assessment process or in preparing its Materials.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating or assessment assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it. MCO and all MCO entities that issue ratings under the "Moody's Ratings" brand name ("Moody's Ratings"), also maintain policies and procedures to address the independence of Moody's Ratings' credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at ir.moody.com under the heading "Investor Relations — Corporate Governance — Charter and Governance Documents - Director and Shareholder Affiliation Policy."

Moody's SF Japan K.K., Moody's Local AR Agente de Calificación de Riesgo S.A., Moody's Local BR Agência de Classificação de Risco LTDA, Moody's Local MX S.A. de C.V., I.C.V., Moody's Local PE Clasificadora de Riesgo S.A., Moody's Local PA Clasificadora de Riesgo S.A., Moody's Local CR Clasificadora de Riesgo S.A., Moody's Local ES S.A. de CV Clasificadora de Riesgo, Moody's Local RD Sociedad Clasificadora de Riesgo S.R.L. and Moody's Local GT S.A. (collectively, the "Moody's Non-NRSRO CRAs") are all indirectly wholly-owned credit rating agency subsidiaries of MCO. None of the Moody's Non-NRSRO CRAs is a Nationally Recognized Statistical Rating Organization.

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657 AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for India only: Moody's credit ratings, Assessments, other opinions and Materials are not intended to be and shall not be relied upon or used by any users located in India in relation to securities listed or proposed to be listed on Indian stock exchanges.

Additional terms with respect to Second Party Opinions and Net Zero Assessments (as defined in Moody's Ratings Rating Symbols and Definitions): Please note that neither a Second Party Opinion ("SPO") nor a Net Zero Assessment ("NZA") is a "credit rating". The issuance of SPOs and NZAs is not a regulated activity in many jurisdictions, including Singapore.

EU: In the European Union, each of Moody's Deutschland GmbH and Moody's France SAS provide services as an external reviewer in accordance with the applicable requirements of the EU Green Bond Regulation. JAPAN: In Japan, development and provision of SPOs and NZAs fall under the category of "Ancillary Businesses", not "Credit Rating Business", and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used

within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

REPORT NUMBER 1475492

CLIENT SERVICES

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