

CREDIT OPINION

28 August 2026

Update



Send Your Feedback

RATINGS

JAB Holding Company S.a r.l.

Domicile	Luxembourg
Long Term Rating	Baa1
Type	LT Issuer Rating - Fgn 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

Sebastien Cieniewski +48.22.6570.160
Senior Vice President
sebastien.cieniewski@moody's.com

Karen Berckmann, +49.69.70730.930
CFA
Exec Dir-Ratings
karen.berckmann@moody's.com

Dmitrijus Pavlovas +49.69.70730.865
Ratings Associate
dmitrijus.pavlovas@moody's.com

CLIENT SERVICES

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

JAB Holding Company S.a r.l.

Update to credit analysis following affirmation of Baa1 rating and change of outlook to stable from negative

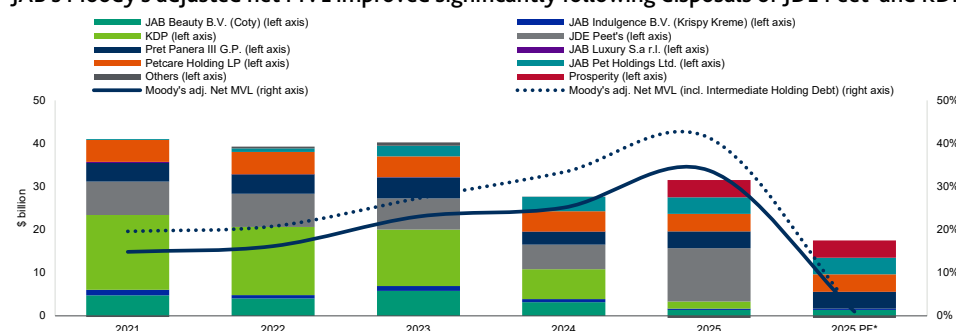
Summary

The Baa1 rating of [JAB Holding Company S.a r.l.](#) (JAB, Baa1 stable) reflects its excellent liquidity following the disposal of [JDE Peet's N.V.](#) (JDE Peet's, Baa3 negative) in April 2026 and the sale of its remaining stake in [Keurig Dr Pepper Inc.](#) (KDP, Baa3 stable) in June 2026. The company used part of the sale proceeds for debt reduction, including the completion of a €1.1 billion debt tender in June 2026. Pro forma for these transactions, JAB's cash balance approximately equalled its outstanding debt as of 31 December 2025 and Moody's adjusted net market value leverage (net MVL) was 1.0%. We expect JAB to maintain a conservative financial policy consistent with the tightening of its reported loan-to-value ceiling to 15% from 20% and commitment to strong investment-grade credit ratings. JAB's entry into life insurance provides sector diversification and complements the consumer-focused assets because these businesses have different interest-rate sensitivities.

However, JAB's dependence on cash distributions from private assets following the exits from JDE Peet's and KDP weakens credit quality. Management expects these investments to generate approximately \$350 million in 2027 and \$400 million in 2028, but there is limited historical evidence of the sustainability of these distributions. Considering interest income and JAB's operating expenses, we forecast Moody's interest coverage at around 2.0x over the next 2-3 years. The lower share of listed assets reduced portfolio transparency, although regulatory requirements support greater disclosure of the insurance business relative to its other private assets. The share of listed assets could improve if the company executes on stock market listings of National Veterinary Associates (NVA) and Panera Bread.

Exhibit 1

JAB's Moody's adjusted net MVL improved significantly following disposals of JDE Peet' and KDP



* Pro forma for the disposal of JDE Peet's which closed on 1 April 2026, disposal of the remaining 4.3% stake in KDP on 11 June 2026, repayment of \$3.9 billion of Acorn Holdings B.V. (AHBV) debt, and €1.1 billion of bonds repurchased through tender offer in June 2026.

Sources: Company data and Moody's Ratings

Credit strengths

- » Excellent liquidity position following disposals closed in H1 2026 leading very low Moody's net MVL
- » Expectation for JAB to maintain a conservative financial policy based on tightening of the company' reported loan-to-value ceiling to 15% from 20% and commitment to strong investment grade ratings.
- » Reduced complexity following repayment of debt at intermediate company AHBV
- » Life insurance complements consumer portfolio.

Credit challenges

- » Limited track record of dividend income from private assets which account for the vast majority of JAB's investment portfolio
- » Limited portfolio transparency with private assets accounting for approximately 90% of portfolio value
- » Pressure on valuations of [Coty Inc.](#) (Ba1 negative) and Krispy Kreme Inc

Rating outlook

The stable outlook reflects our expectation that JAB's portfolio composition will remain broadly stable following a period of significant asset rotation, and that the company will progressively offset the loss of distributions from its recently exited businesses through increasing dividend income from its private investments, in particular pet care and pet insurance assets. We also expect portfolio transparency to gradually improve through potential public listings, and for JAB to maintain a conservative financial policy.

Factors that could lead to upgrade

We could upgrade the ratings if JAB demonstrates a sustained reduction in leverage, with net MVL maintained below 10% on a sustained basis; develops a track record of meaningful and predictable dividend distributions from its private investments; maintains interest coverage at or above 3.0x on a sustained basis; and improves portfolio transparency through a higher proportion of listed assets while maintaining strong liquidity.

Factors that could lead to downgrade

We could downgrade the ratings if net MVL increases sustainably above 15%; interest coverage remains well below 2.0x on a sustained basis; the company does not materially improve the transparency of its portfolio; or liquidity weakens materially. Any material change in financial policy, such as a significant increase in debt at either the holding company level, intermediate holding companies, or operating companies may lead to negative pressure on the ratings. Negative pressure may also arise if shareholder distributions exceed excess cash generated at the holding company after operating and interest expenses on a sustained basis.

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.com> for the most updated credit rating action information and rating history.

Key indicators

Exhibit 2

JAB Holding S.a r.l.

	2021	2022	2023	2024	2025	2025 PF*
Gross Asset Value in \$ billion	40.7	39.3	40.2	27.6	30.9	17.0
Net MVL	19.6%	20.8%	27.3%	33.4%	41.3%	1.0%
Interest Coverage	1.9x	4.0x	3.1x	1.6x	1.2x	1.2x

* Pro forma for the disposal of JDE Peet's which closed on 1 April 2026, disposal of the remaining 4.3% stake in KDP on 11 June 2026, repayment of \$3.9 billion of Acorn Holdings B.V. (AHBV) debt, and €1.1 billion of bonds repurchased through tender offer in June 2026.

Source: Moody's Ratings

Profile

JAB is a privately held investment holding company focused on long-term investments in consumer and insurance businesses. Major investments include veterinary care, pet insurance, restaurant, and beauty businesses, as well as life insurance operations through JAB Insurance. JAB is majority owned by Agnaten SE and Joh. A. Benckiser Sàrl with management holding a minority stake.

JAB's key investments as of 31 December 2025 pro forma for the disposals of JDE Peet's and KDP include:

1. [Coty Inc.](#) (Ba1 negative, ~52% ownership), a global beauty company with leading positions in fragrances, cosmetics and skincare.
2. Pret Panera Holdings (~70% ownership) – a restaurant and coffeehouse platform with stakes in Pret A Manger, Panera Brands and Espresso House.
3. Petcare (~38% ownership) – veterinary care through its investment in National Veterinary Associates (NVA).
4. Pet insurance (35%) through Independence Pet Holdings (IPH) in North America and Pinnacle Pet Group in Europe.
5. Krispy Kreme (~43% ownership) – a global doughnut retailer and sweet treats brand.
6. JAB Insurance (100% ownership) – a life insurance, annuity and retirement services platform.

Detailed credit considerations

Asset rotation in 2025 and 2026; insurance exposure with Prosperity reduces consumer concentration

JAB has been executing its strategic repositioning as a diversified investment holding company under its "JAB 3.0" strategy by establishing dual core segments focused on consumer-related end markets and insurance sectors. The diversification into insurance materialized with the closing of the acquisition of Prosperity Life Group (Prosperity) in September 2025 for a consideration of approximately \$3.3 billion and the smaller acquisition of Family Life earlier in April 2025. Prosperity, through its wholly owned Bermuda exempted company and wholly owned US insurance subsidiaries, offers a wide range of insurance products including life insurance, annuities, and supplemental health insurance products, as well as reinsurance solutions.

The insurance business, which reported \$33 billion of assets at the end of 2025 and accounted for approximately 20% of JAB's portfolio value, improves diversification because insurance and consumer businesses have different interest-rate sensitivities. JAB Insurance's profile is supported by strong capitalization, with all entities reporting risk-based capital (RBC) ratios above 400% at year-end 2025 and total capital surplus of over \$1.5 billion. Despite the scale added through the Prosperity acquisition, JAB's Insurance platform remains relatively small compared with larger, more established life insurance peers. We expect JAB Insurance will need to continue investing in distribution, product breadth, and overall franchise scale to strengthen its competitive position and fully realize management's ambition of building a leading global insurance platform. JAB announced additional bolt-on acquisitions of Columbian Mutual Life (US) and Utmost Life & Pensions (UK) which are yet to close.

JAB's foray into the insurance business is not completely new, as it has already consolidated the pet insurance market in North America and Europe since 2019. However, the pet and life insurance businesses are two very distinct activities given the short tail (pet) and

long tail (life) risk exposures in each of those regulated entities. As with JAB's previous investment theme around consumer goods and services, the holding company has hired seasoned professionals to run its insurance and asset management businesses.

Disposals of JDE Peet's and KDP significantly decreased the scale of JAB's Consumer segment and proportion of listed assets

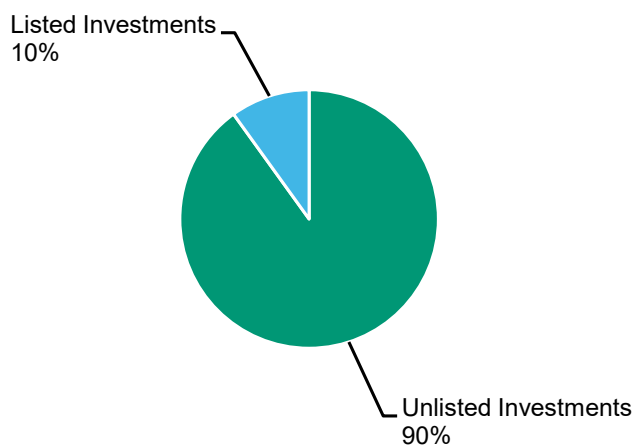
JAB generated meaningful gains with the disposal of JDE Peet's to KDP. In April 2026 JAB received large net cash proceeds of approximately \$8.5 billion (after the repayment of \$3.9 billion debt at AHBV), and subsequently sold down its remaining 4.3% stake in KDP in June 2026 for approximately \$1.8 billion. The sale of JDE Peet's and KDP resulted in a significant decrease in the scale of JAB's investment portfolio to around \$17 billion as of the end of 2025 on a pro forma basis from around \$31 billion excluding those transactions as well as a reduction in the weight of the Consumer segment in the portfolio mix to 76% from 87% as of the same date.

The asset rotation increased JAB's share of unlisted assets to 90% of portfolio value as of the end of 2025 on a pro forma basis from 49% as of the same date on a reported basis. Private assets are typically less transparent than listed assets in terms of reporting and valuation purposes and this is reflected by a relatively weaker score for the Investment Portfolio Transparency factor in the scorecard. We expect transparency to improve as JAB advances the potential initial public offerings of National Veterinary Associates (NVA) and Panera Bread. Furthermore, regulatory requirements necessitate a significant amount of disclosure for the insurance business relative to a typical privately held corporate asset.

The increase in the proportion of private assets within JAB's portfolio was also driven by the significant decline in the market valuations of the company's only remaining listed companies, Coty Inc. (Ba1 negative) and Krispy Kreme Inc, which have been facing operational challenges and weaker consumer market conditions. The companies have responded by implementing value creation initiatives, including management and board changes, to improve performance and enhance shareholder value. On the other hand, both the pet care and pet insurance businesses have good long term growth prospects. We expect their continued profitable growth will support improving dividends, and, in turn, interest coverage, over the next several years.

Exhibit 3

Proportion of listed and unlisted assets (2025 PF*)



* = pro forma for the disposal of JDE Peet's which closed on 1 April 2026, disposal of the remaining 4.3% stake in KDP on 11 June 2026.

Source: Company data

The increase in unlisted assets not only reduces portfolio transparency but also limits our ability to independently assess the credit quality of a large part of JAB's portfolio. Following the disposals of JDE Peet's and KDP, the portfolio consists predominantly of unrated private assets, with limited publicly available financial information. While JAB disclosed its calculations of net leverage metrics for several key investments in April 2025, including Krispy Kreme, Panera Brands, Pret A Manger, and NVA/Ethos, the absence of full financial statements constrains our assessment of their underlying credit quality.

Dependence on private asset distributions with limited historical track record

Historically, KDP and JDEP were pivotal in generating dividend income for JAB. Following the sale of these assets, JAB will depend on cash distributions from private assets. Although management expects these investments to generate approximately \$350 million in 2027 and \$400 million in 2028 mainly from the pet care and pet insurance businesses, there is limited historical evidence supporting the sustainability of these distributions compared with those previously received from listed portfolio companies.

We project Moody's interest coverage to remain around 2.0x over the next two to three years, supported by projected dividend income from private assets, meaningful interest income generated from JAB's sizeable cash balance following the disposals of JDE Peet's and KDP, and declining holding company operating expenses.

Expectation that JAB will maintain a disciplined financial policy supported by a more conservative leverage target

The sale of JDE Peet's and the subsequent disposal of KDP significantly strengthened the company's balance sheet and liquidity profile. The transactions generated aggregate net cash proceeds of approximately \$10.3 billion (after the repayment of debt at AHBV), which the company has used to reduce debt, as evidenced by the €1.1 billion tender offer completed in June 2026. On a pro forma basis as of 31 December 2025, adjusted for the completed JDE Peet's and KDP disposals as well as the €1.1 billion debt tender completed in June 2026, JAB's cash balance increased to approximately \$9.6 billion, broadly matching outstanding debt and reducing Moody's-adjusted net MVL to 1.0% from 33.4% in 2024.

The Baa1 rating and stable outlook assume that JAB will maintain a conservative financial policy. This expectation is supported by the company's revised financial policy announced in April 2026, which lowered the reported loan-to-value (LTV) ceiling to 15% from 20%, while reaffirming management's commitment to maintaining interest coverage above 1.0x (as defined by the company by dividend income + interest income divided by interest expense) and preserving strong investment-grade credit ratings. JAB intends to operate with a prudent buffer below the max LTV ceiling to absorb market fluctuations, including foreign-exchange movements. In addition, liability management transactions completed in June and July 2026 reduced outstanding debt by approximately \$2.1 billion, further evidencing the company's focus on balance sheet strength. The repayment of debt at AHBV also reduced structural complexity and improved transparency in JAB's leverage profile.

ESG considerations

JAB Holding Company S.a r.l.'s ESG credit impact score is CIS-3

Exhibit 4

ESG credit impact score

CIS-3

Score



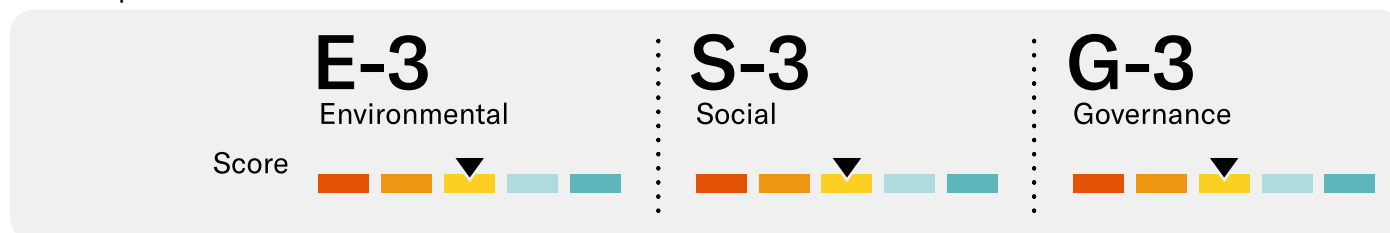
ESG considerations have a limited impact on the current rating, with potential for greater negative impact over time.

Source: Moody's Ratings

JAB's **CIS-3** indicates that ESG considerations have a limited impact on the current credit rating with potential for greater negative impact over time. JAB has indirect exposure to environmental and social risks through its investee companies. This reflects the exposure of investments in consumer-related end markets.

Exhibit 5

ESG issuer profile scores



Source: Moody's Ratings

Environmental

JAB has moderate environmental risk exposure through its petcare, restaurant and consumer products investments, primarily reflecting natural capital, waste and pollution and supply-chain sustainability considerations. This exposure has decreased following the disposals of JDE Peet's and KDP and is partially mitigated by JAB's growing investments in life insurance businesses, which have limited direct operating environmental impacts, although these businesses retain some exposure to environmental risks through their long-term investment portfolios, including real estate and other long-duration assets.

Social

JAB's social risk factors are largely in line with those of its investees, reflecting the company's indirect exposure to social risks across its portfolio – exposure to social risks including through responsible production has decreased following the disposals of JDE Peet's and KDP. Social risks primarily stem from its consumer-facing businesses and encompass moderate exposure to customer relations, responsible production, human capital management, and health and safety considerations. JAB's growing investments in life insurance increase exposure to customer relations, product governance, data privacy and cybersecurity risks, while benefitting from favourable demographic trends, including an ageing population and rising demand for retirement and protection products.

Governance

Although improved with the repayment of debt at AHBV, JAB's organizational structure remains complex, with minority investors at certain intermediate holding company levels. Additional governance considerations include limited disclosure regarding the credit profile of most of unlisted investments, and JAB's relatively limited track record in insurance. JAB's Insurance business has the same level of transparency as public assets given its regulatory disclosure requirements. Governance considerations are also influenced by board and management turnover across several portfolio companies. These risks are mitigated by JAB's demonstrated ability to rotate assets in its portfolio, including the sale of its stakes in JDE Peet's and KDP, experienced senior management team, and strengthened financial policy, including the recent tightening of its financial leverage target to 15% net debt to portfolio value and demonstrated use of cash to repay bonds during 2026.

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.

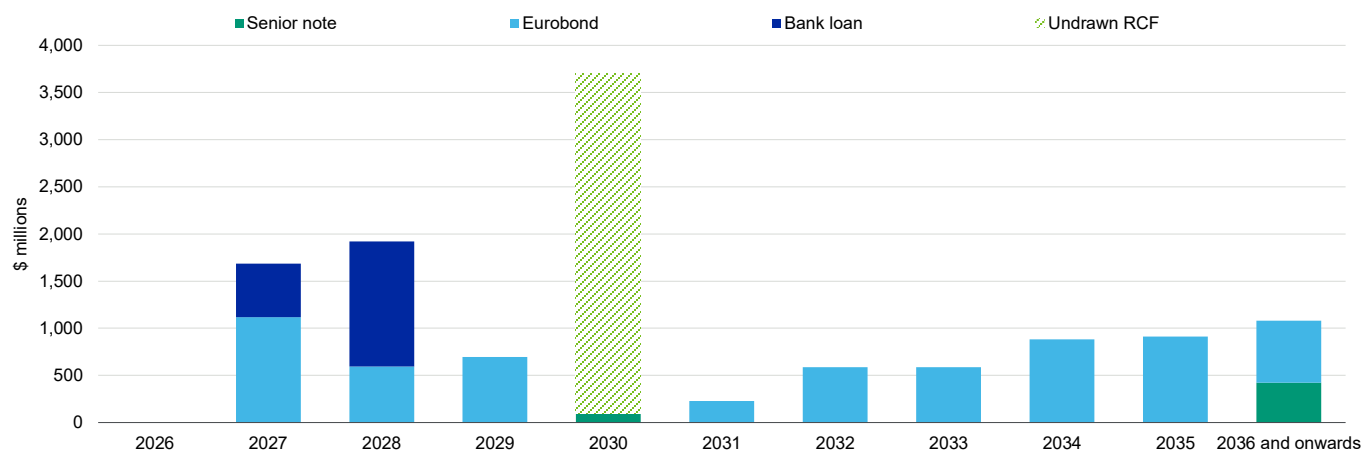
Liquidity analysis

JAB has an excellent liquidity profile, reflecting its large cash balance following recent disposals. In addition, the company has \$3.6 billion equivalent of undrawn committed credit facilities expiring in 2030. JAB has a well-spread maturity profile.

Exhibit 6

JAB has well-balanced maturity profile

Debt maturity profile (As of December 2025 PF*)



* = pro forma for the €1.1 billion bond repurchase completed in June 2026 and the c.\$0.8 billion notes tender offer completed in July 2026.

Source: Company data

Structural considerations

Excluding the guarantor, the intermediate holding companies within the JAB Group and JAB's investments do not provide guarantees to the issuer of the bonds. The payment of interest and debt at the issuer is therefore dependent on timely reception of dividends from its investments, which are mostly controlled. This control gives JAB the ability to declare the dividend levels; the ability to monetise its investments via a disposal or an IPO; and, where possible, the upstreaming of cash from majority-owned investments. All debt is held and raised by the issuer.

Methodology and scorecard

The principal rating methodology used in this rating was our Investment Holding Companies and Conglomerates rating methodology. Based on scorecard factors as of 31 December 2025 on a pro forma basis for the disposals of JDE Peet's (including the repayment of \$3.9 billion of debt at AHBV) and KDP, and the repurchase of €1.1 billion of notes through tender offer in June 2026. Our forward view considers the repurchase of c.\$0.8 billion of notes through tender offer in July 2026. In our current and forward view, the scorecard-indicated outcome is in-line with the assigned rating.

Exhibit 7

JAB Holding Company S.a r.l.

Investment Holding Companies Industry Scorecard *	Current December 31, 2025		Moody's 12-18 Month Forward View **	
	Measure	Score	Measure	Score
Factor 1: Investment Strategy (10%)				
a) Investment Strategy	Baa	Baa	Baa	Baa
Factor 2: Asset Quality (40%)				
a) Asset Concentration	Baa	Baa	Baa	Baa
b) Geographic Diversity	Baa	Baa	Baa	Baa
c) Business Diversity	Baa	Baa	Baa	Baa
d) Investment Portfolio Transparency	Ba	Ba	Ba	Ba
Factor 3: Financial Policy (10%)				
a) Financial Policy	Baa	Baa	Baa	Baa
Factor 4: Estimated Market Value-based Leverage (Mvl) (20%)				
a) Estimated Market Value-Based Leverage	Aaa	Aaa	Aaa	Aaa
Factor 5: Debt Coverage And Liquidity (20%)				
a) (FFO + Interest Expense) / Interest Expense	1.2x	B	1.6x - 2.0x	B
b) Liquidity	Aaa	Aaa	Aaa	Aaa
Ratings				
a) Scorecard-Indicated Outcome		Baa1		Baa1
b) Actual Rating Assigned				Baa1

*All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology. LTM = Last 12 months.

**Moody's forecasts are Moody's opinion and do not represent the views of the issuer (as applicable).

Source: Moody's Financial Metrics™ and Moody's Projections

Appendix

Exhibit 8

Peer comparison

JAB Holding Company S.a r.l.

(in \$ millions)

	JAB Holding S.a.r.l	Investor AB	Groupe Bruxelles Lambert	Criteria Caixa
Rating & Outlook	Baa1 Stable	Aa3 Stable	A1 Stable	A3 Stable
Country of Domicile	Luxembourg	Sweden	Belgium	Spain
	As of December 2025 PF*	As of September 2025	As of March 2026	As of June 2025
Total Portfolio Value	17,006	98,371	14,170	42,257
Cash	9,604	2,449	4,441	1,450
Asset Concentration (Top 3 Assets)	45%	43%	37%	67%
Proportion of Listed Assets	10%	87%	48%	90%
Company Guidance / Financial Target	MVL < 15%	MVL in the range of 0% - 10%	MVL below 10%	Target MVL of max 10%
Net Market Value Leverage (MVL)	1%	3%	-10%	11%
(FFO + Interest Expense) / Interest Expense*	1.2x	11.2x	8.6x	8.2x

* Pro forma for the disposal of JDE Peet's which closed on 1 April 2026, disposal of the remaining 4.3% stake in KDP on 11 June 2026, repayment of \$3.9 billion of Acorn Holdings B.V. (AHBV) debt, and €1.1 billion of bonds repurchased through tender offer in June 2026.

Sources: Company data and Moody's Ratings

Exhibit 9

JAB net MVL calculation reconciliation

USD millions	Economic Ownership in %	Market Cap.	Dec-25 PF*		Dec-25 PF*
Market Value				Fair Value Approach per JAB	
Company				Company	
Coty	51.5%	2,703	1,392	Coty	1,393
Krispy Kreme	43.3%	498	299	Krispy Kreme	298
Total Listed Assets			1,691	Total Listed Assets	1,691
Pret Panera	69.7%		3,903	Pret Panera	5,404
Petcare	38.3%		4,059	Petcare	10,597
Pet Holding (insurance)	35.0%		3,825	Pet Holding (insurance)	10,928
Prosperity	100.0%		4,027	Prosperity	4,027
Other Unlisted Investments			(498)	Other Unlisted Investments	(498)
Total Unlisted Assets			15,315	Total Unlisted Assets	30,458
				Total Portfolio Value before Non-controlling Interests (NCI)	32,149
				NCI	(14,928)
Total Portfolio Market Value (Moody's adj.)			17,006	Total Portfolio Fair Value reported by JAB adjusted for NCI	17,221
Net Debt				Net Debt	
Gross debt			9,771	Gross debt	9,771
Cash			9,604	Cash	9,604
Net debt			168	Net debt	168
Net MVL (Moody's adjusted)			1.0%	JAB Stand-Alone LTV adjusted for NCI	1.0%

* Pro forma for the disposal of JDE Peet's which closed on 1 April 2026, disposal of the remaining 4.3% stake in KDP on 11 June 2026, repayment of \$3.9 billion of Acorn Holdings B.V. (AHBV) debt, and €1.1 billion of bonds repurchased through tender offer in June 2026.

Sources: Company data and Moody's Ratings

Ratings

Exhibit 10

Category	Moody's Rating
JAB HOLDING COMPANY S.A R.L.	
Outlook	Stable
Issuer Rating	Baa1
JAB HOLDINGS B.V.	
Outlook	Stable
Bkd Senior Unsecured	Baa1

Source: Moody's Ratings

© 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 1493236

CLIENT SERVICES

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