

**MOODY'S**  
RATINGS

CFG EMEA – Leveraged Finance

**Frankfurt Roundtable**  
**April 2026**



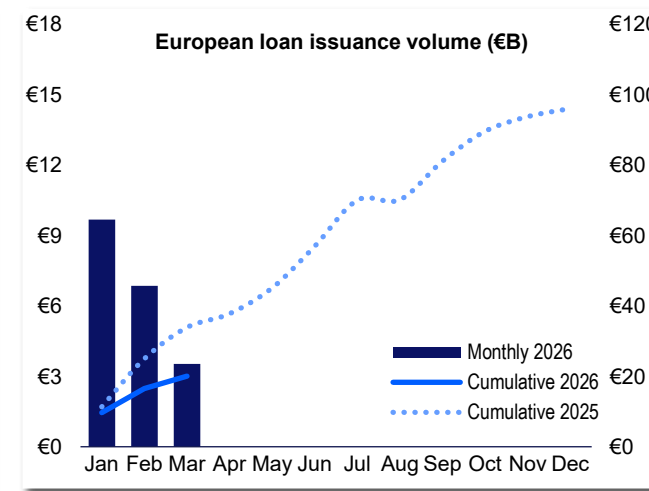
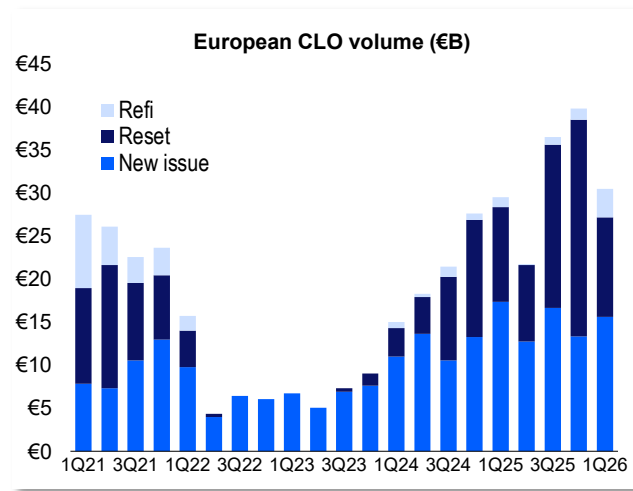
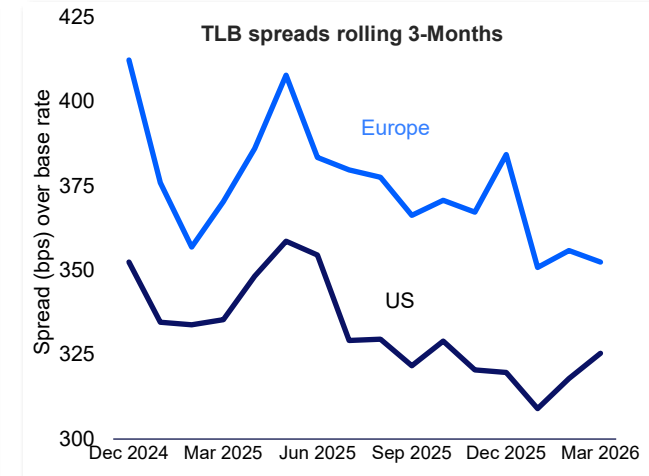
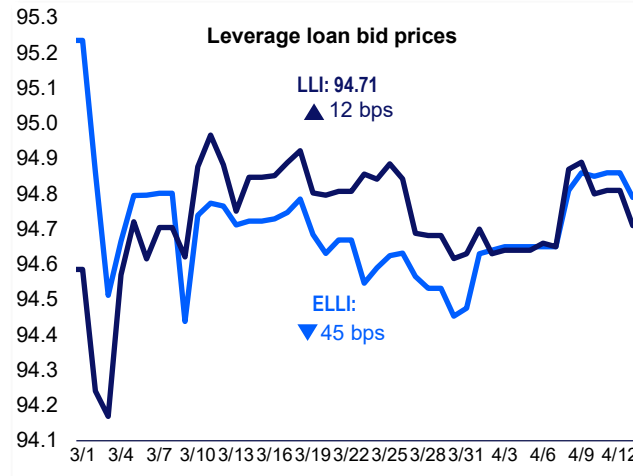
# EMEA LevFin Perspectives

# EMEA Leveraged Finance 2026 Perspectives (I/IV)

Spirits dampened, but markets remain resilient for now



- After sharp initial drawdowns, **Leveraged loan and high yield bond indices** have largely recovered to pre-war levels
- New LevFin issuer transactions relatively muted, but many issuers returning to market have pushed through transactions
- **Borrowing costs** ticked up slightly but remain low compared to two years ago
- Investor demand is resilient and **liquidity** pools are larger than in previous crises: record levels of CLO creation, direct lending, opportunistic funds and increasingly, a growing Nordic bond market
- Biggest risk is the return of **high interest rate** regimes caused by anchoring of inflation expectations



Source: Pitchbook LCD

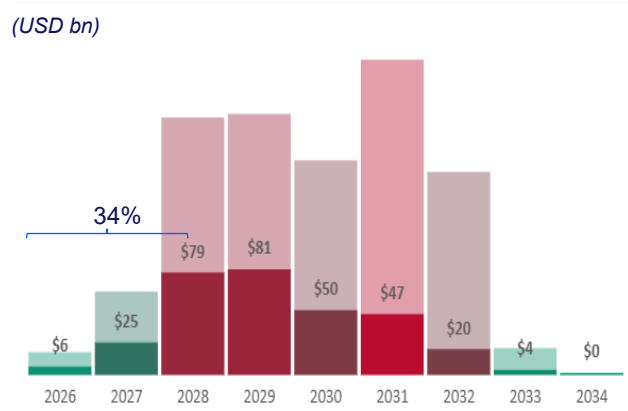
# EMEA Leveraged Finance 2026 Perspectives (II/IV)

## Issuance to be led by refinancing, carve-outs until stabilization



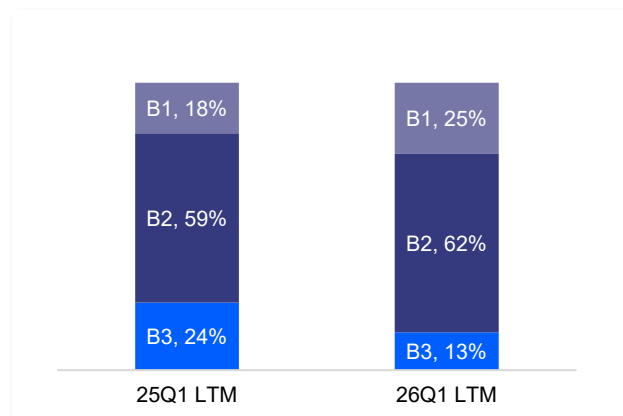
- Refi activity was strong in 2025, driven by opportunistic transactions. **2028-29 maturity wall** will provide structural support despite slow progress in 26Q1
- **M&A** picked up modestly in 2025. Some mega, higher rated deals highlights in 26Q1. Meaningful recovery is likely post market stabilization. Share of new issuer B3s decreased
- **Carve-outs** are the flavour of the season: sponsors are seeing opportunities in high quality business segments perceived to be unloved by IG conglomerates. Typically have strong investment theses, but lack of diversification is a key business risk. *Eg – BASF Coatings, Castrol, Reckitt Consumer Health.*
- Diverging market: Stronger credits continue to access capital at relatively tight spreads; Weaker credits face widening spread

EMEA maturity profile for B3 or lower rated issuers  
26-28 maturities account for 34% of total

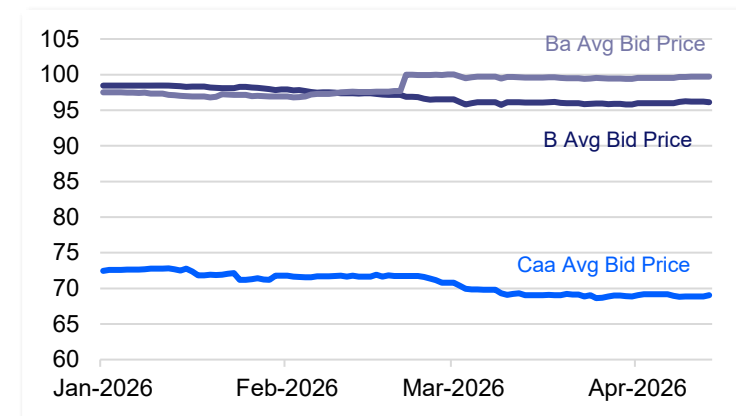


Dark colour = B3 and below, Red = next 5-year maturity wall

Share of B3 new ratings decreased



Average bid price difference widened



# EMEA Leveraged Finance 2026 Perspectives (III/IV)

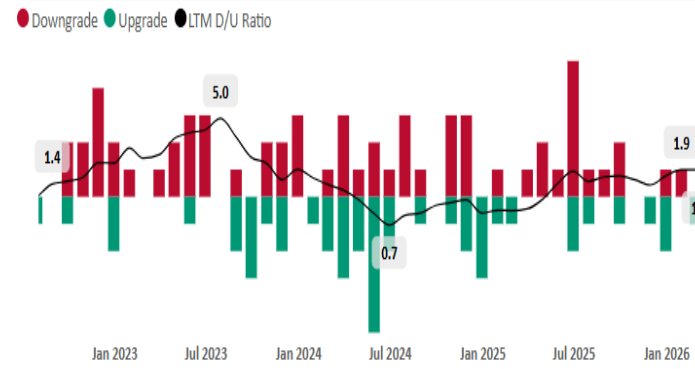
## Credit quality will see more dispersion



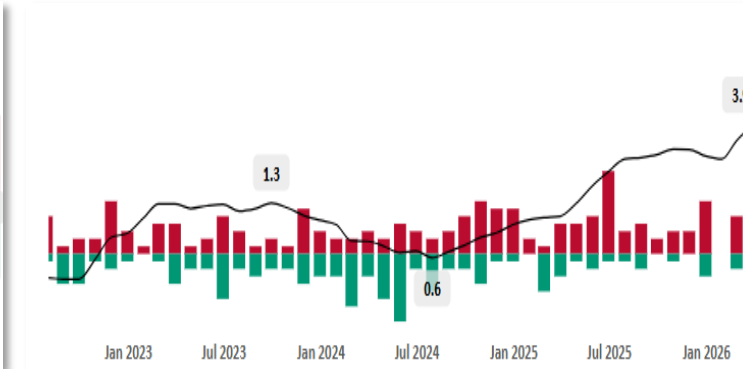
- The many exogenous shocks of the last few years created their cohorts of ‘winners’ and ‘losers’. The twin shocks of 2026 – **AI anxiety** and **Middle East war**, will lead to another such divergence
- We expect certain pockets of the software sector to be under pressure, along with energy intensive sectors like Airlines, Chemicals, and Building Materials. Aerospace & Defense, Upstream E&Ps will benefit (*slide 11*)
- Issuers with pricing power, resilient supply chains, long-term tailwinds, and correctly-sized balanced sheets will continue to outperform
- Over-levered balance sheets, weak business models with high operating leverage, and issuers with little cushion under free cash flow generation are likely to suffer (*slide 13*)

Recent trends of downgrades versus upgrades by industry for global issuers

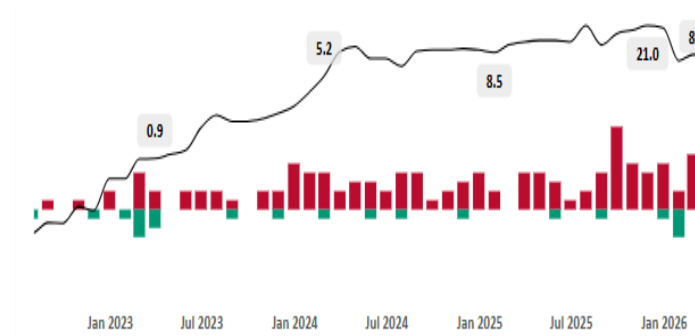
Software companies had more downgrades than upgrades



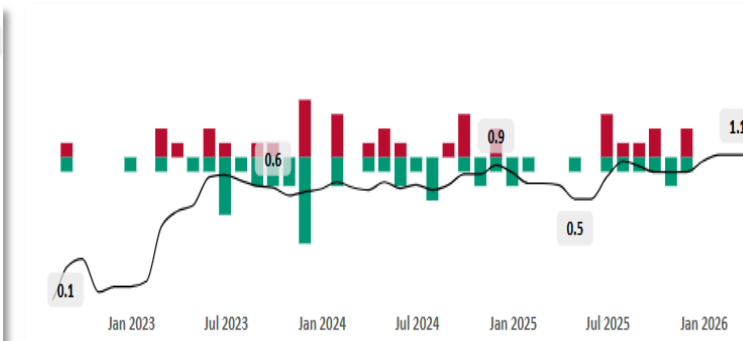
So did Building materials



Chemicals continued to suffer



Airlines had balanced downgrades vs upgrades



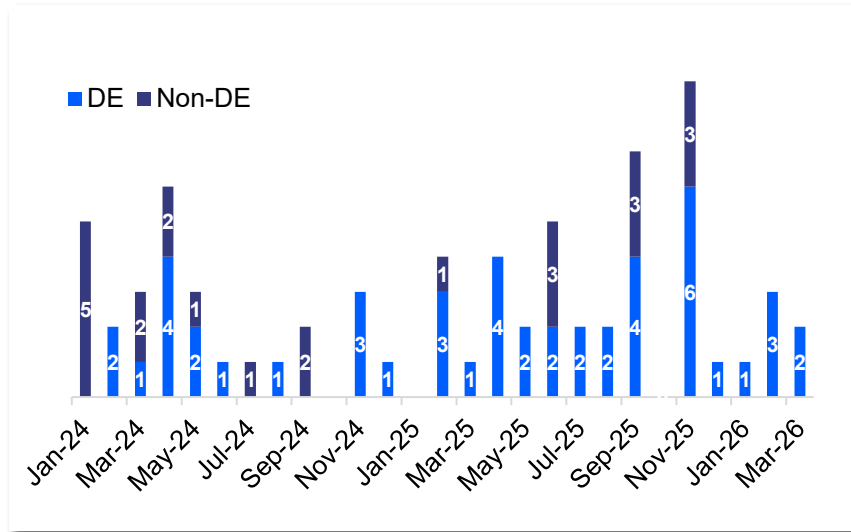
# EMEA Leveraged Finance 2026 Perspectives (IV/IV)

## Defaults will continue to be driven by distressed exchanges (DE)

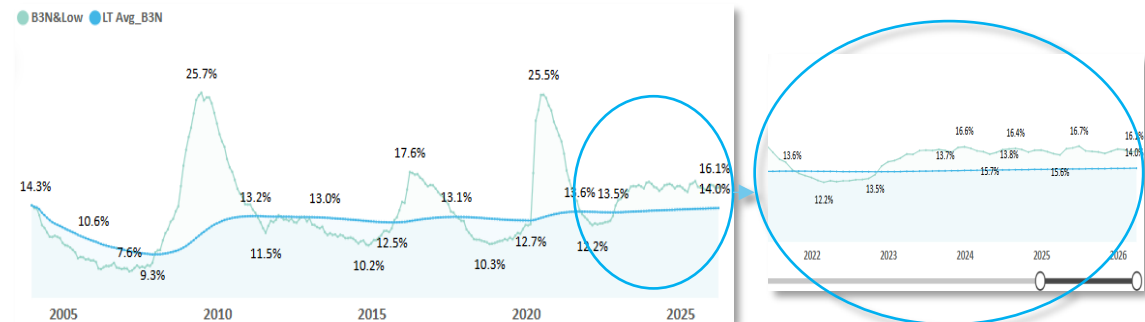


- Defaults to remain idiosyncratic under our base scenario. Issuers and sponsors willing to address liquidity or capital structure problems earlier. Therefore, share of **DE defaults** will stay elevated
- B3 negative and below ratings have been above the LT average for the last 3 years; liquidity scores also remain stable suggesting a similar level of defaults (see slide 8 for **default rate forecast**)
- Higher uncertainty in macro economic outcomes makes default forecasting more difficult

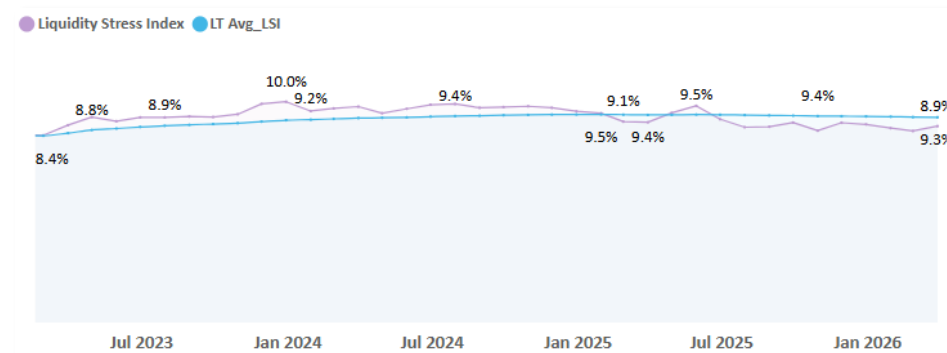
DE accounted for 77% in EMEA over the last twelve months



Share of B3 Negative is higher than long term average

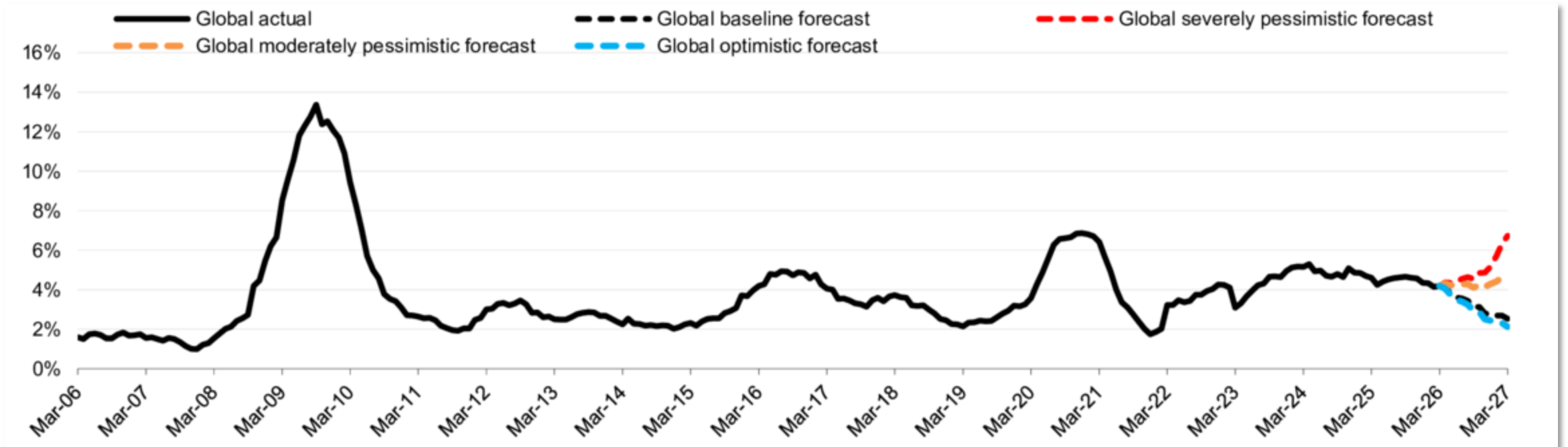


Liquidity stress index in line with long-term average



# Global spec grade default rate

DE dynamics and geopolitical tensions will influence default trajectory



Region	Apr-2026	May-2026	Jun-2026	Jul-2026	Aug-2026	Sep-2026	Oct-2026	Nov-2026	Dec-2026	Jan-2027	Feb-2027	Mar-2027
Global	4.1%	3.8%	3.6%	3.6%	3.4%	3.1%	3.1%	2.8%	2.8%	2.7%	2.7%	2.5%
US	4.9%	4.5%	4.2%	4.1%	4.0%	3.7%	3.6%	3.3%	3.2%	3.1%	3.1%	2.8%
Europe	3.7%	3.8%	3.5%	3.4%	3.4%	2.8%	2.9%	2.6%	2.7%	2.8%	2.7%	2.6%



# Middle East Crisis – Moody's Ratings Views

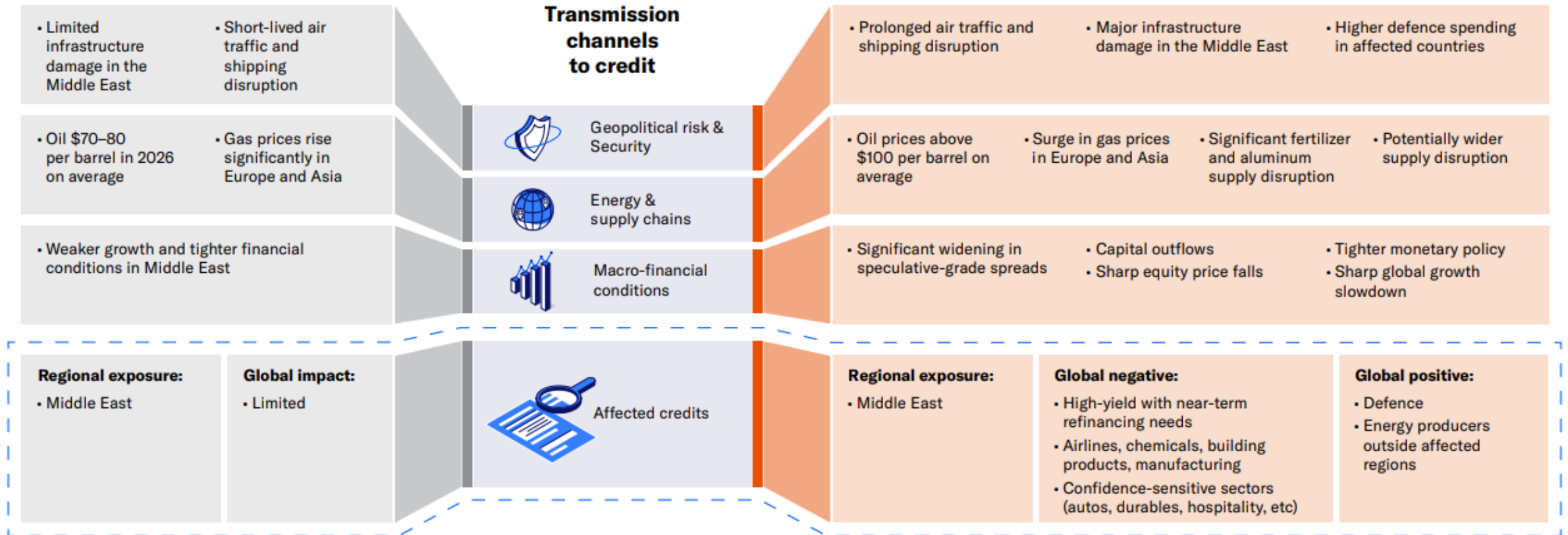
# Middle East conflict: Scenarios and risk channels

## BASELINE

Short-lived disruption to Strait of Hormuz and no major damage to key energy assets

## DOWNSIDE

Strait of Hormuz closure beyond 4-6 weeks or lasting damage to energy assets causing sustained energy shortages



Source: Moody's Ratings

Note: Scenarios are illustrative and not probability weighted. Outcomes across transmission channels are not binary: some effects may materialise even if others do not.

# Sector exposures to the Middle East crisis

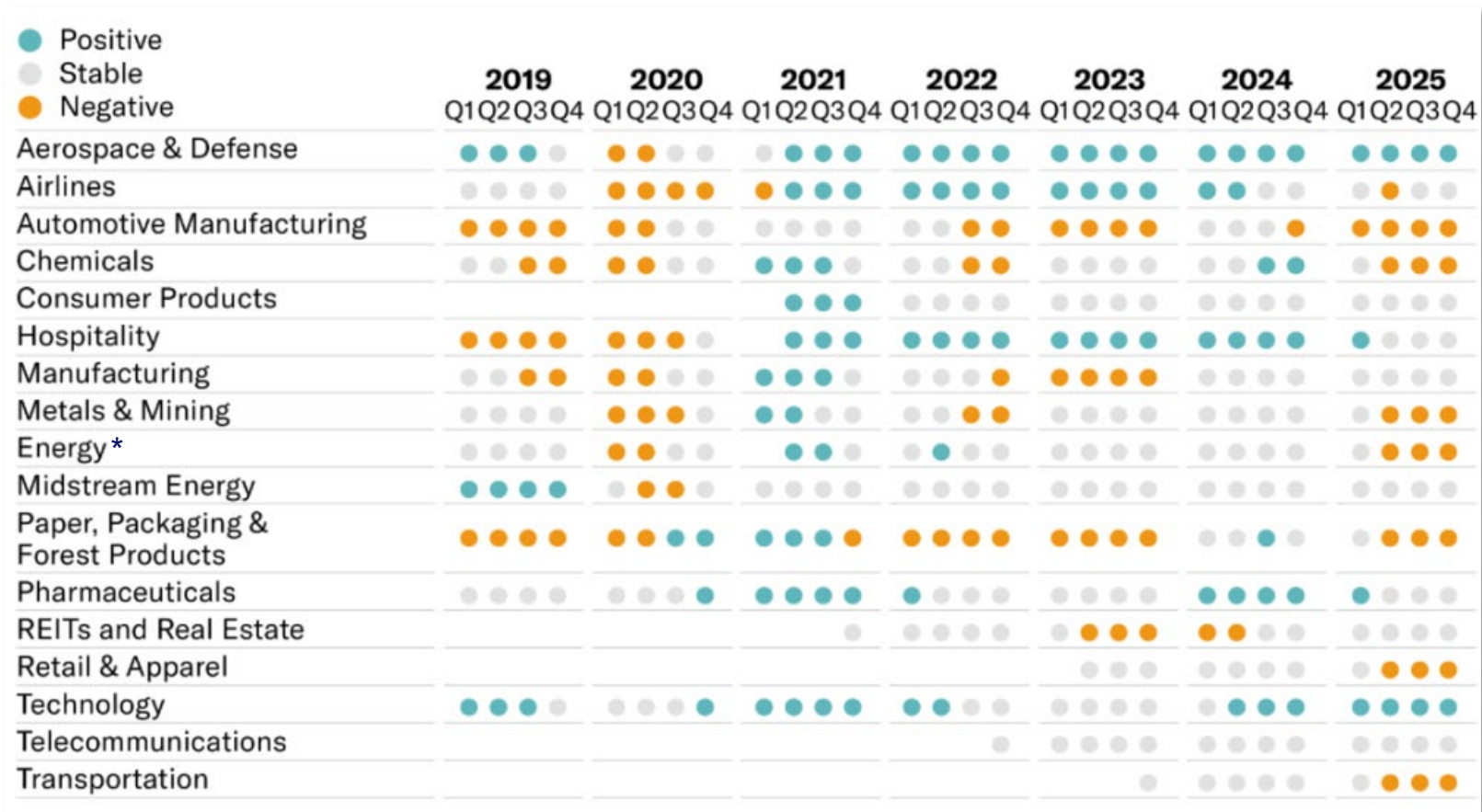
Highest credit risks concentrated in airlines, building products and chemicals

**Credit exposure:** ● Negative ● Moderate ● Non-material ● Positive

Sector	Impact assessment	Sector	Impact assessment
Airlines	●	Retail & apparel	●
Building products	●	Trading companies	●
Chemicals	●	Transportation	●
Automotive manufacturing	●	Healthcare - medical devices	●
Construction and homebuilding	●	Healthcare - services	●
Consumer products	●	Midstream energy	●
Hospitality	●	Pharmaceuticals	●
Manufacturing	●	Tech services and software	●
Media	●	Technology - hardware	●
Metals & mining	●	Telecommunications	●
Paper, packaging & forest products	●	Aerospace & defense	●
Protein	●	Energy	●
REITs & real estate	●		

# ISOs signal trade, economic and geopolitical uncertainty

7 negative, 8 stable and only 2 positive sector outlooks as of December 2025



Duration of energy disruption and instability will determine credit effects of Iran conflict. A prolonged period of impaired maritime flows would challenge **energy-intensive sectors across Europe and Asia**, especially those with limited pricing power and immediate refinancing needs.

Ongoing stress and reduced earnings growth from i) **still-high interest rates, inflationary risks, declining consumer confidence and geopolitical tensions**

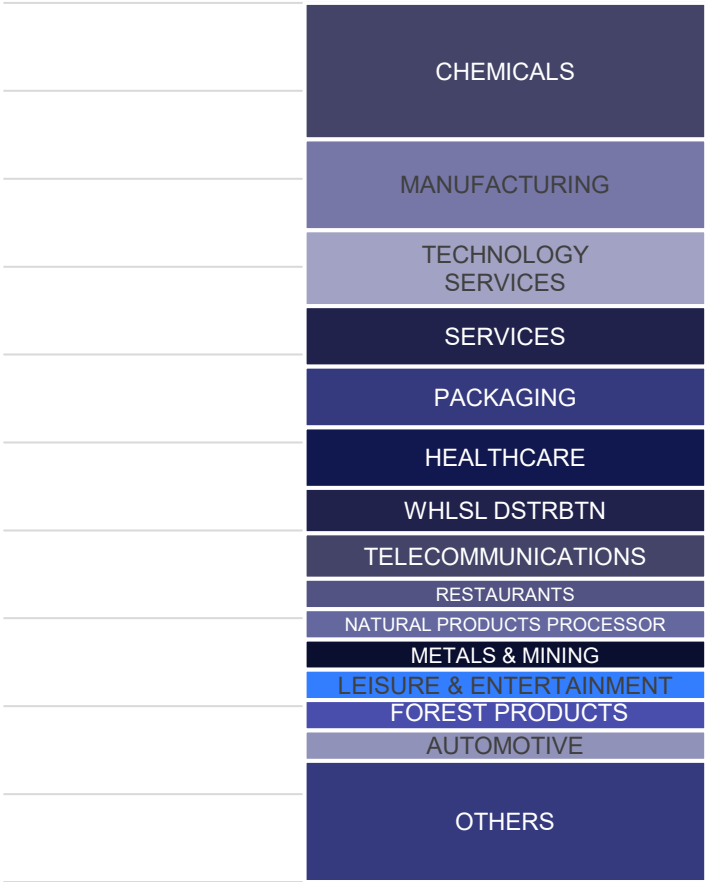
Median profit expansion forecast remained at 3.0% EBITDA growth for the next 12 months, still below its historical range.

\*Global Energy outlook changed to Positive in 26Q2

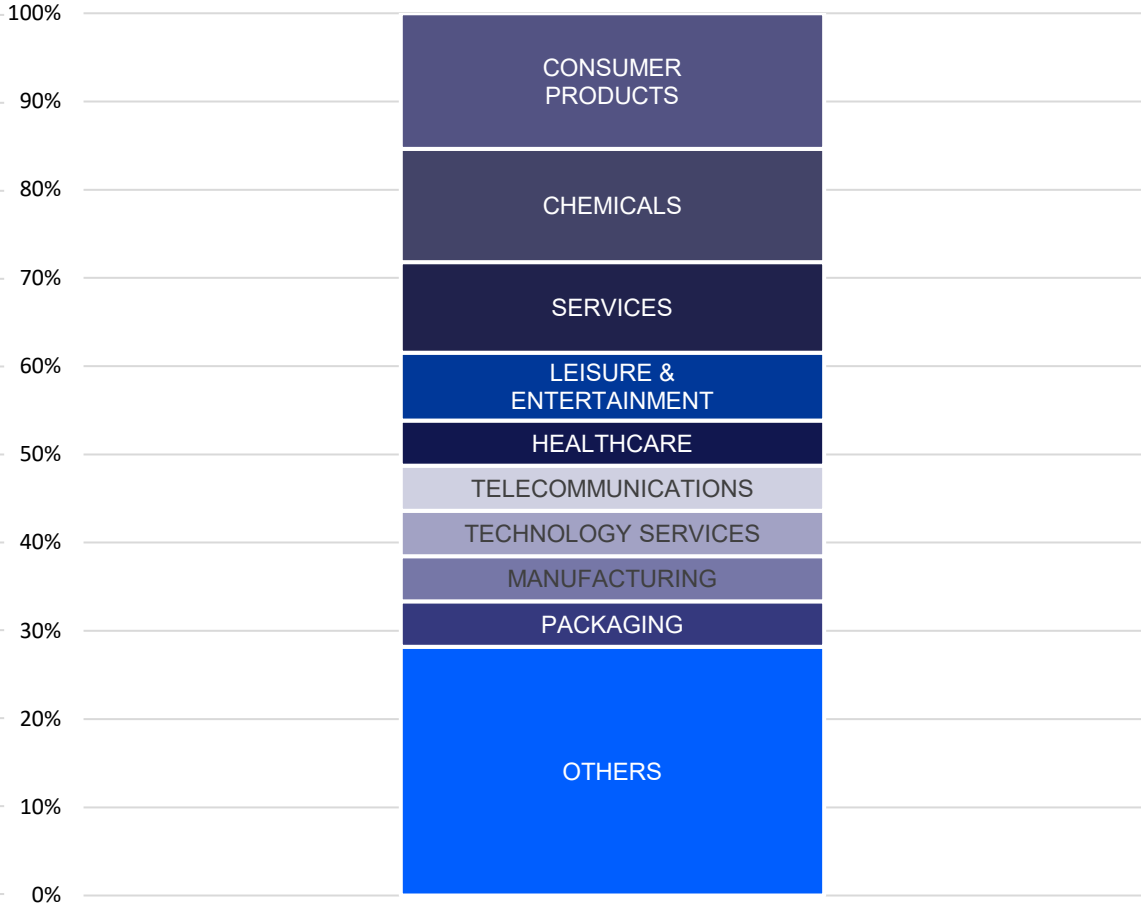
# LevFin EMEA issuers with limited credit buffers will be tested

(as of March 2026)

67 issuers with Caa/Ca ratings



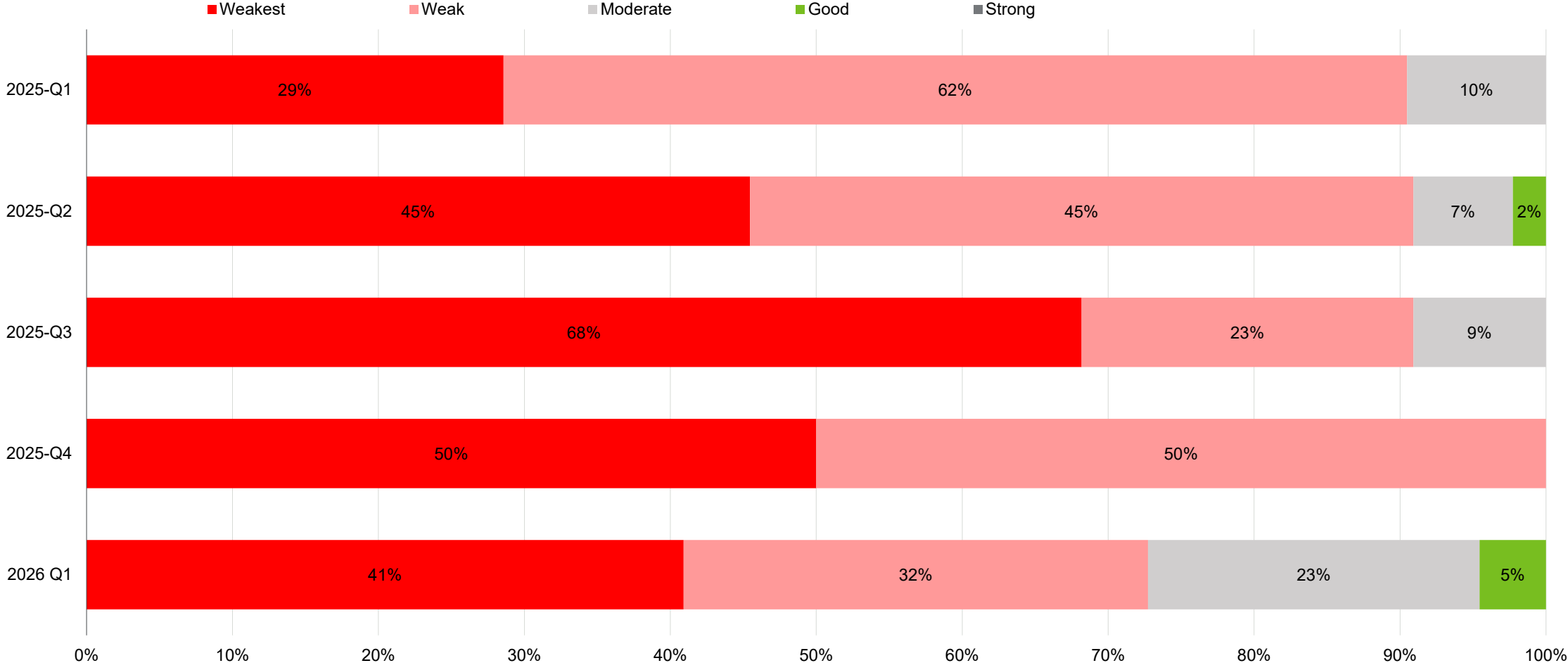
39 issuers with B or below ratings & weak liquidity



**MOODY'S**  
RATINGS

**Covenants as Credit Architecture**

# High-yield bonds still dominated by weak/weakest covenant packages



## Restricted Payments

### Prohibition:

4 restricted payments + PE equity

### Proviso:

- No default
- \$1 debt test is met
- 50% CNI
- Other standard additions

### Permission:

- General carve-out
- Leverage-based RPs

### Permitted Investments (carve-outs to restricted investments):

- General
- Investments in URS, JVs and/or similar businesses

## Asset sales

### Prohibition:

No asset sales

### Proviso:

- FMV and 75% cash
- Debt repayment
- Reinvestments

### Permission:

- General asset sale carve-out
- Asset sale proceeds can be used for RPs if leverage ratio test is met

## Debt

### Prohibition:

No incurrence of debt

### Proviso:

\$1 debt test: FCCR and/or leverage ratio test

### Permission:

- Credit facility debt (bonds and loans)
- General
- Capex
- Contribution debt
- Acquired/acquisition finance debt
- Local lines of credit
- Available RP amount

## Liens

### Prohibition:

No secured debt

### Proviso:

Unless:

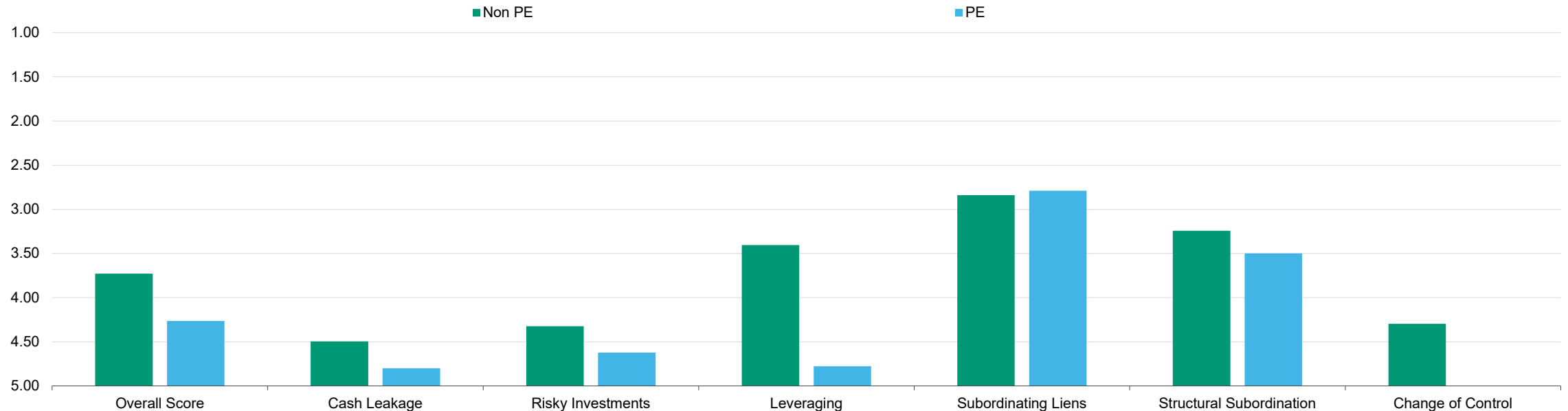
- equal and ratable or
- permitted liens (PL) or
- if Notes are secured, permitted collateral liens (PCL)

### Permission:

Specified PL and PCL carve-outs, including a general PL basket and often a general PCL basket

# Subordination Protection: the last substantive safeguard

PE deals scored weaker than non-PE deals in all six risk categories, aggregated over the last three years



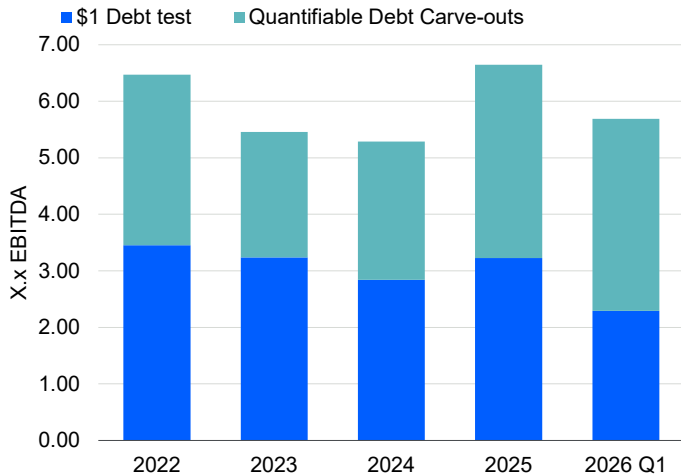
→ Change of control averaged a '5.00' for PE as seven out of nine have portability

→ Debt capacity significantly higher for PE bonds and include FCCR/LRT \$1 debt test

# Debt capacity stabilises, including secured debt

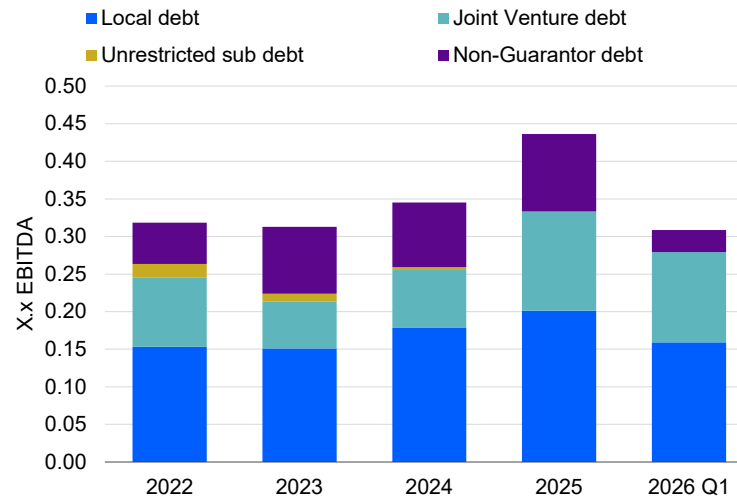
## All debt capacity probably above a maintainable threshold

- Average issue date leverage 2026 Q1 is 4.1x
- Average potential total debt: 5.6x
- 100% of EBITDA incremental credit facility debt capacity becomes standard



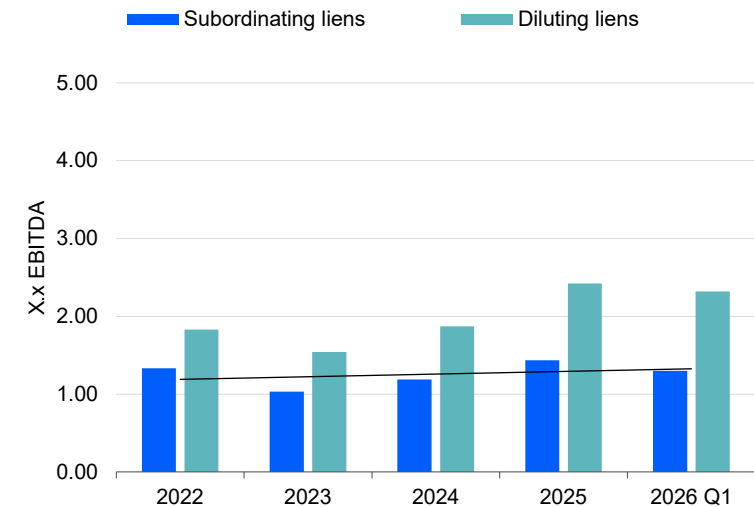
## Subordinating debt capacity remains marginal

- Stand alone structural subordinating debt capacity remains below 0.5x
- Non guarantors can incur debt in 64% of all \$1 debt tests on a capped and uncapped basis



## Debt secured by non-collateral still restricted

- Non-collateral: capacity hovers at 1.0x
- Dilution: most bonds remain secured on shares, bank accounts and intercompany receivables



# Debt senior to the structure: ‘priming’ debt

Issuers can jeopardise creditors’ positions with removal of security limitations

## Drafting

Increase in size of general permitted lien/permitted collateral lien

Increase in number of permitted debt carve-outs that can be secured

Allow all debt to be secured that can be incurred under debt covenants

## Risk

### **Collateral package:**

US lenders receive first lien on most assets, while European lenders rely on structural security only; which falls short of a robust collateral package

### **Asset transfer:**

Risk of most valuable assets transferred to third parties. New debt outside the restricted group can be pledged with valuable tangible and intangible assets, such as intellectual property

# Misleading leverage ratio calculations disguise true position

## Fall away provisions can be accessed with more Issuer discretion

### Debt - the numerator:

- The definition of debt is a legal definition, not an accounting term
- Issuers therefore can decrease the debt figure under the documentation for purposes of calculating capacity under the covenants by excluding potentially material debt such as all revolving debt and debt incurred for “working capital purposes”

### EBITDA - the denominator:

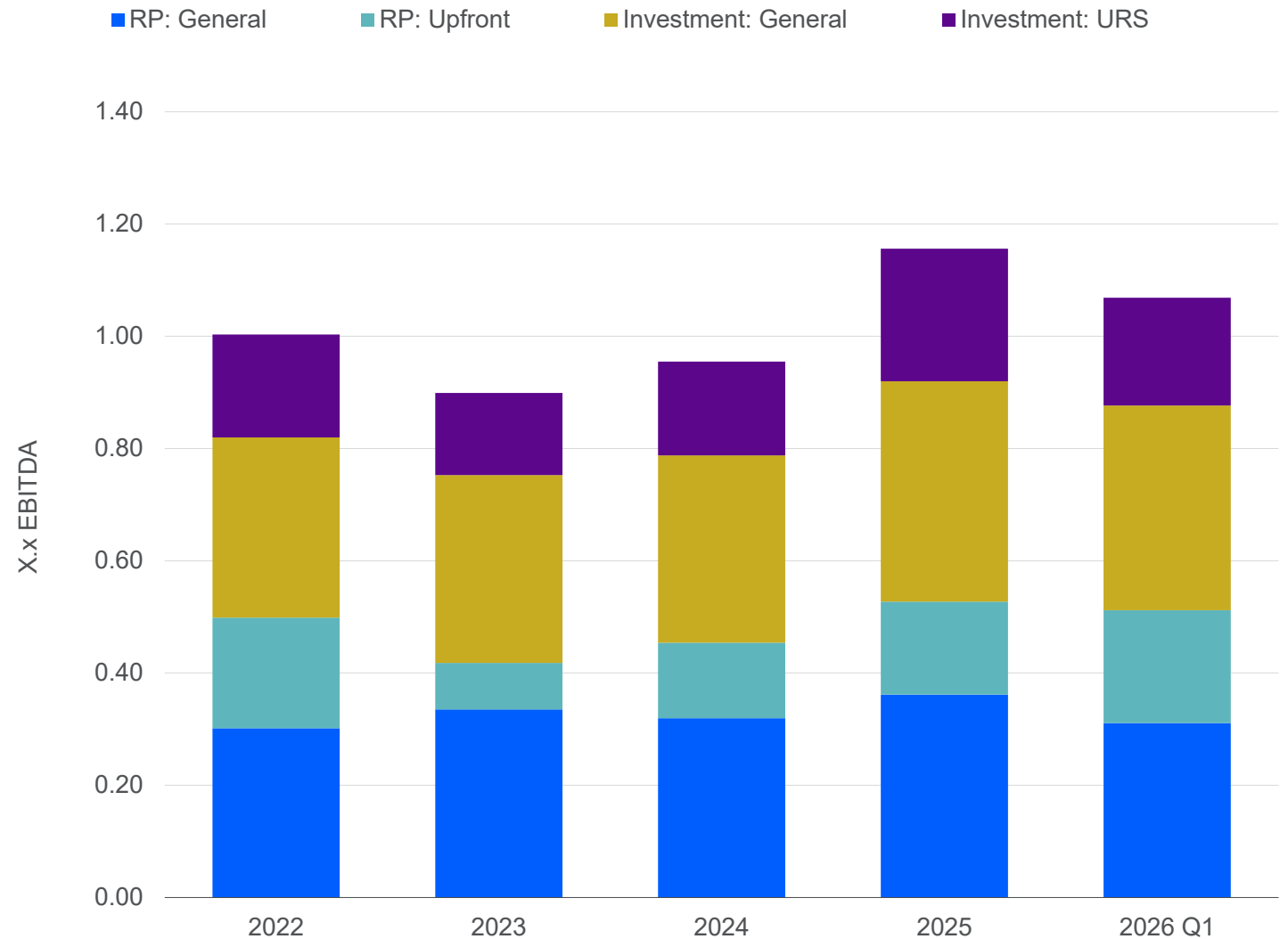
- Adjusted EBITDA should reflect recurring cash flow available to service debt
- Speculative, generic and/or non-cash add-backs allow management discretion in adjusting covenant cash flow, for example **business optimization expenses or cost savings and synergies**
  - Adjusted EBITDA feeds into carve-outs and ratios making both more flexible
  - **HY bonds and most leveraged loans are cov-lite (e.g., no financial maintenance covenant)**; add-backs provide issuers with flexibility to operate without tripping any obligations to creditors – including flexibility to take actions that can increase credit risk

# Cash and value leakage abounds

Significant day one capacity to move value out of the restricted group

Capacity could be used to repay PIK or to pay shareholder dividends

Source: Moody's Ratings



# Evolution of “asset sale” blockers: drop-down

Unrestricted subsidiary	Unrestricted subs: cap	Unrestricted sub: NG	JVs
J Crew	Envision	Pluralsight	Xerox
Prevents raising liquidity via asset transfers (drop-down), usually intellectual property is the only asset restricted	Gives clarity to investors on asset transfer capacity	Limits investments or asset transfers to non-guarantor restricted subsidiaries	Adds ‘special controlled’ entity to Pluralsight restrictions
See Next slide	. . .in no event shall the Borrower or its Restricted Subsidiaries make any Investments in, or other Restricted Payments to, Unrestricted Subsidiaries . . . the greater of (x) \$10,000,000 and (y) 10% of Four Quarter Consolidated EBITDA.	no Credit Party shall make an Investment or other transfer of Material Intellectual Property to any Non-Guarantor Subsidiary or to any Unrestricted Subsidiary	. . .the Company or any of the Guarantors shall not make any disposition of any Material Intellectual Property to any non-guarantor; any unrestricted subsidiary or any Special Controlled Entity  "Special Controlled Entity" refers to any person that the Issuer or any of its subsidiaries owns or holds majority of the economic interests in or otherwise controls, other than a restricted subsidiary
2017	2022	2024	2026

# Intellectual property is not always equal

		ISABEL MARANT	WAGAMAMA	A&K Travel Group Holdings Ltd	Capsugel	GOLDEN GOOSE
YEAR		2023	2025	2026	2026	2026
APPLICATION	Transfer	✓	✓	✓	✓	✓
	Designation	✓	✓	✓	✓	✓
ASSET	Material Asset			✓	✓	✓
	Type of asset	Isabel Marant, Marant Etoile, Marant	Wagamama	Assets material to the business as of the issue date		
DEFINITION MATERIAL IP	Threshold			Determined by management		
	Not defined					
PERMITTED TRANSACTION	Licensing					
	OCB					
	No MAE				✓	✓

Source: Moody's Ratings

# Intellectual property not always equal

A&K: “Material Assets” means any assets and rights to use such assets (which may subsist on or after the Issue Date), including the trademarks, brand names, patents and other intellectual property rights and interests (including publication and distribution rights), which are material to the business of the Issuer and its Restricted Subsidiaries, taken as a whole, and which are required in order for the Issuer and its Restricted Subsidiaries to carry on their business, taken as a whole, as it is being conducted on the Issue Date (as determined in good faith by the Board of Directors or a member of senior management of the Issuer).

Capsugel and Golden Goose: “Material Intellectual Property” means the intellectual property required in order to conduct the business of the Group in all material respects as it is being conducted on the Acquisition Closing Date to the extent that failure to own, or have such intellectual property licensed to it, would have a Material Adverse Effect.

- provided, that any Investment consisting of the transfer of any Intellectual Property to an **Unrestricted Subsidiary** shall not constitute a Permitted Investment
- be permitted to transfer, sell, contribute or otherwise dispose of (including by way of designation of a Restricted Subsidiary as an **Unrestricted Subsidiary**), or exclusively license, any Material Intellectual Property to any Unrestricted Subsidiary
- the brand names “XXXX,” as evidenced by the trademarks and associated logos and symbols in respect thereof, whether registered or unregistered;
- any intellectual property owned by any member of the Group that the Company determines in good faith to be material and necessary to the operation of the business of the Group, taken as a whole

# Frequent LMT protections

Loss of value

## J.Crew

Prevents raising liquidity via asset transfers (*drop-down*)

Loss of value

## Envision

Gives clarity to investors on drop-down capacity

Loss of priority

## Serta

Prevents altering creditor hierarchy (*uptiering/priming*).  
What's an open market purchase?

Loss of guarantees

## Chewy

Prevents financial engineering with the sole purpose of releasing guarantors

Loss of recoveries

## At Home

Prevents creditors from having dual claims on the same collateral (*double dip*)

Loss of voting rights

## Incora/Wesco

Prevents vote rigging

# Investor pushback focused on hot button topics

## Examples of areas investors have achieved success

### No priming and/or structurally subordinated debt

Non-guarantor debt incurrence caps introduced to limit structural subordination

Caps reduced and ratios tightened

### Portability

Eliminating the leverage-based test that allowed a change of control without triggering the 101% put to noteholders

Leverage ratio threshold is being tightened, so that the ratio test is more difficult for the Issuer to meet

### EBITDA and financial calculations

Caps introduced or decreased

Time horizon added or shortened

Removal of high-water marking permission\*

### IP/asset sale blocker

Language added to block transfers of material IP/key assets to an URS - but beware; IP blockers vary widely

Caution: IP blockers offer widely differing protective features

### Restricted Payments and Permitted Investments

RP and PI carve-outs: Caps reduced and ratios tightened

Lessons from Altice France not learned:

No tightening of conditions for use

Backdating of builder basket continues

# Nordic bond loans

# Key points to consider

**Financial maintenance test:**  
highly issuer specific; no clear trend

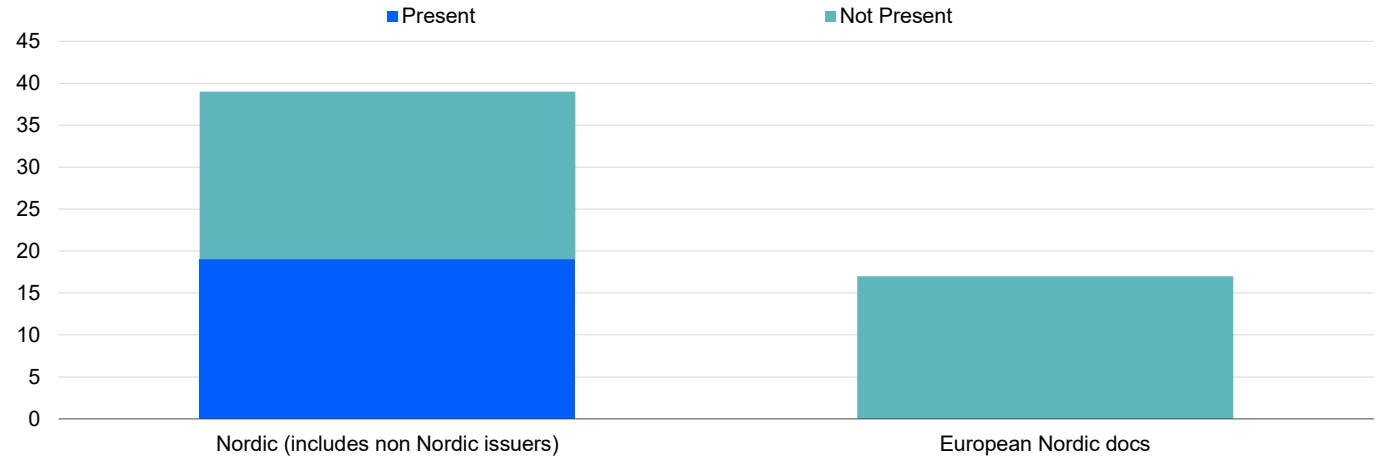
**Debt incurrence test:**  
not dominated by FCCR plus leverage ratio; negotiated on an issuer-by-issuer basis

**Incorporation of SFA:**  
seasoned issuers in the non-Nordic market have incorporated by reference 'standard' spec grade covenants

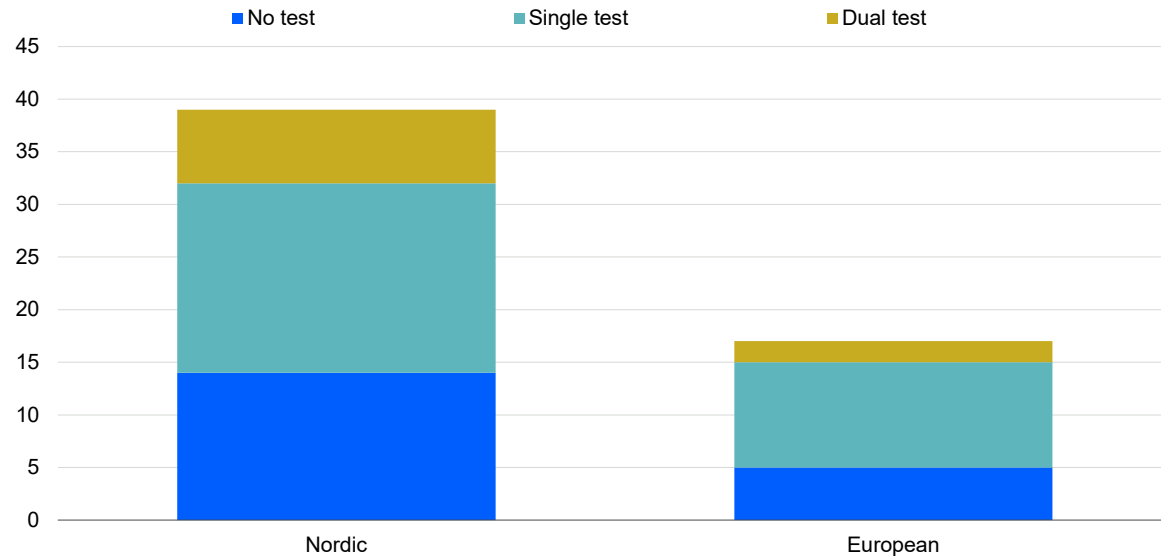
**Unrated:**  
bonds clearing through Nordic systems are typically unrated

**Disclosure:**  
Listing occurs 12-months after closing; absence of MD&A; consider level of alternative public disclosure

## Frequency of financial maintenance test: 2021 – 2026 Q1

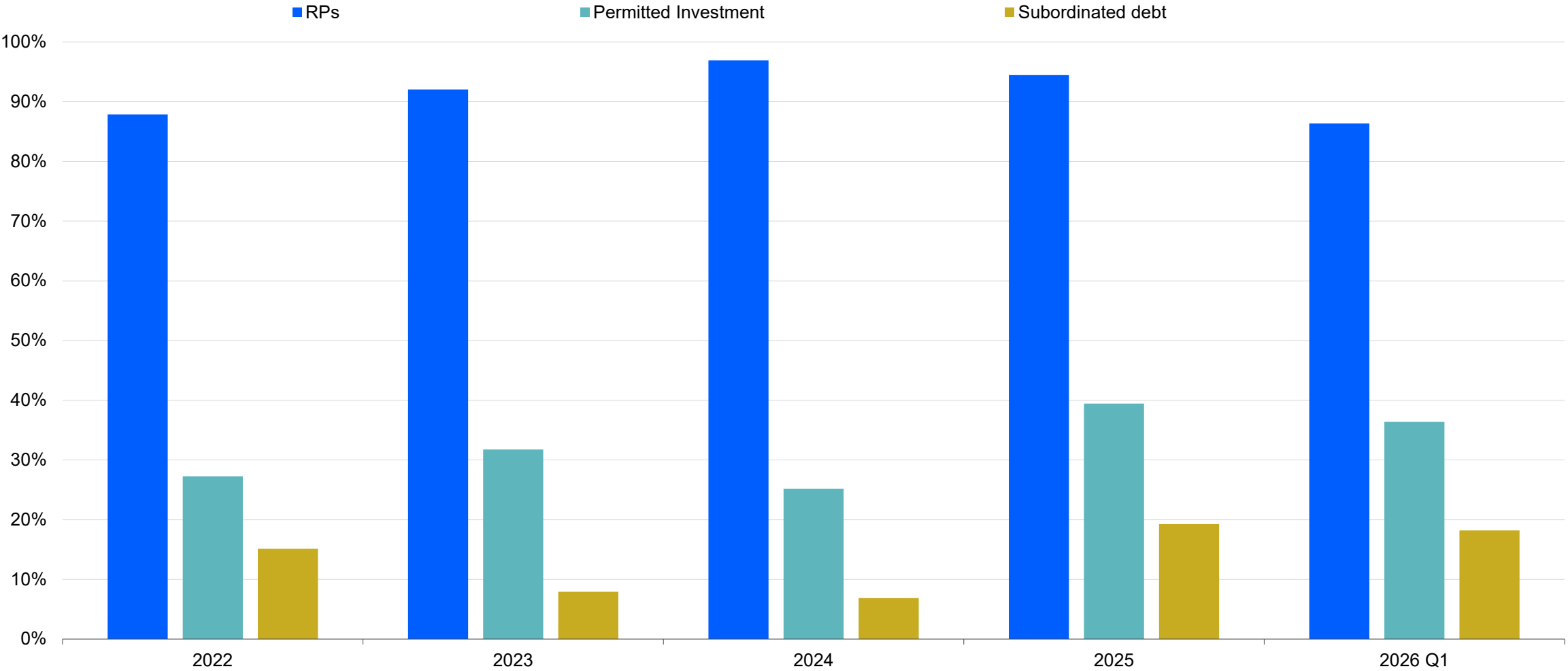


## Frequency of debt incurrence test: 2021 – 2026 Q1



# Cash Leakage

# Leverage-based fall away covenants remain prevalent



Source: Moody's Ratings

# Case Study

# La Doria: actions taken without breach of covenants

## April 2024:

€525 million SSFRNs: raised to repay existing debt and fund a shareholder payment of around €125 million

Significant pushback: IP blocker added; CF reduced; portability removed; EBITDA capped

€85 million ssRCF

Net leverage: €421million; 3.2x of structuring EBITDA

**April 2024: B1 first time rating to the SSFRNs; B1 CFR**

## June 2025

€675million SSFRN: proceeds used to repay existing €650 million SSFRN with some cash on balance sheet to pre-fund bolt on acquisition

ssRCF: upsized to €122.5 million

Net leverage: €622m; 3.4x of structuring EBITDA

**June 2025: B1 SSFRNs; B1 CFR**

## October 2024:

Acquired Pastificio di Martino Gaetano e F.lli S.p.A. and Clas S.p.A. using ssRCF capacity

€122.5 million tap of SSFRNs: used to repay drawing under the RCF and pre-fund future bolt on acquisition.

Net leverage: €500m; 3.2x of structuring EBITDA

# The long game: Ardagh's LMTs

## Key maneuvering by Ardagh Group S.A. of Ardagh Metal Packaging (AMP)

2021

### DOWN-DROP

Ardagh Group designates AMP as an unrestricted subsidiary – permitted under its existing high yield bond covenants.

April 2024

### PARI PLUS

- ✓ Apollo provides new €790m *pari plus* senior secured term loan to AIHS\*
- ✓ On-lends €755m to Ardagh Group to redeem €750m of senior secured notes due 2025
- ✓ New loan is secured by intercompany loan to Ardagh Group **AND** its stake in AMP.

### HUNTER GATHERER

- ✓ Apollo, at the same time, provides a \$250m-equivalent senior secured exchange term loan to AIHS.
- ✓ Apollo can exchange holdings/purchases of ARD Finance's PIK toggle notes and Ardagh Group's SUNs due 2027 for new senior secured exchange notes at an exchange rate equal to the purchase price plus a premium.

Mar - Nov 2025

### RECAPITALIZATION TRANSACTION

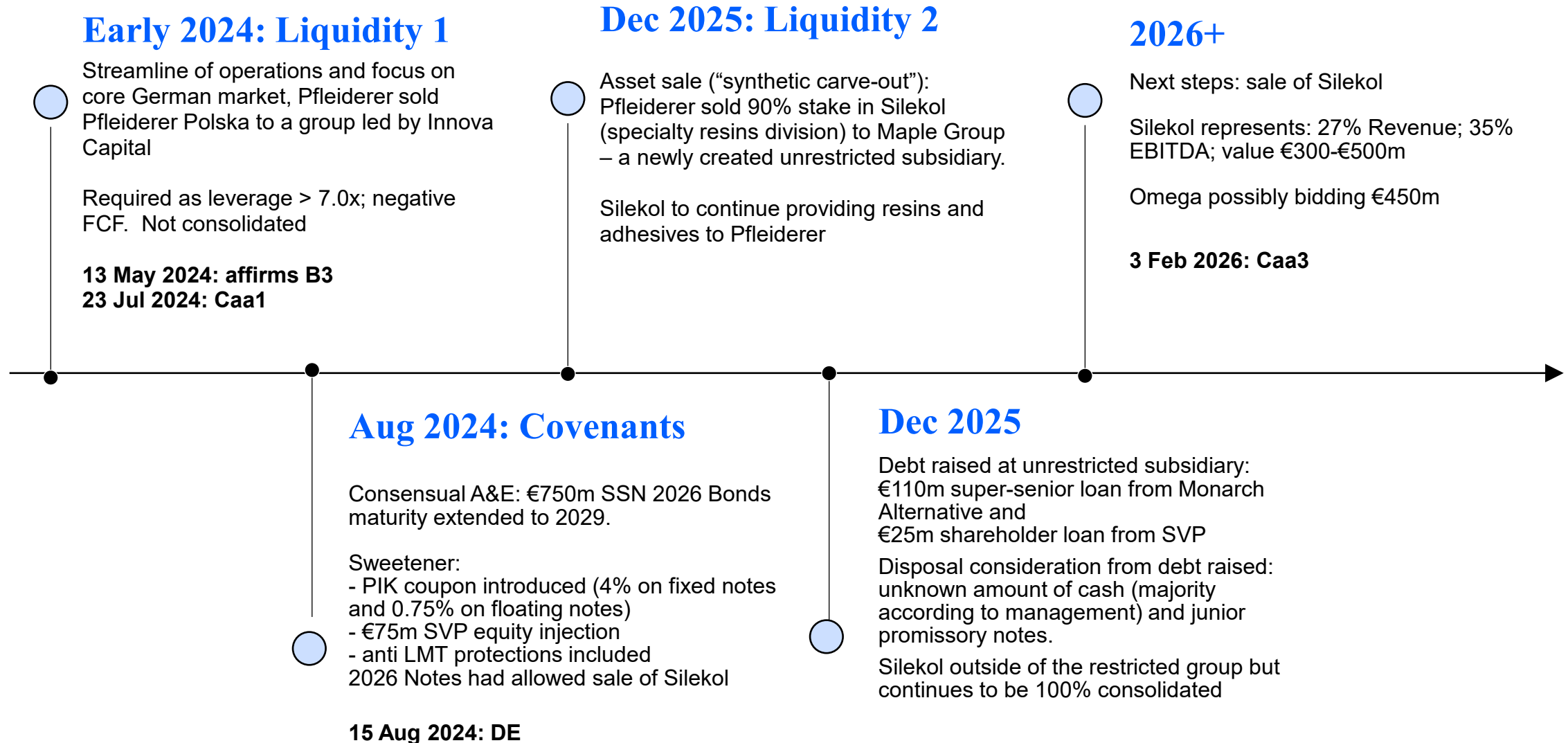
Murmurings of a potential divestment of AMP. Lawsuit filed in NY SC by Arini and Canyon challenging AMP's 2022 transfer to AIHS

99% of the SSNs and SUNs consent to recapitalization.

Final transaction includes debt-for-equity swap handing control to the SUNs (92.5%) and PIKs (7.5%). AMP remains an unrestricted sub, with Ardagh Group's stake transferred to holders of SUNs and PIKs. Also includes new first lien 9.5% SSNs due 2030.

**\*Borrowings undertaken by the Ardagh Investments Holdings Sarl (AIHS), a subsidiary which holds the Ardagh Group's 76% common equity stake in AMP as well as 100% of its preferred equity (€250m).**

# Pfleiderer: sale of assets for liquidity



© 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](http://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 657AFSL 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.