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European Fixed Income in Focus:

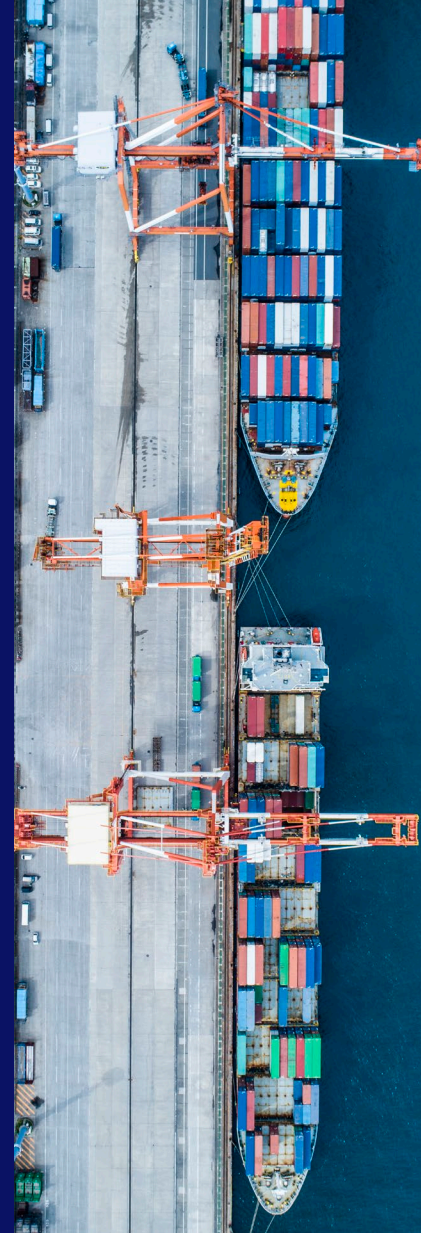
Outlook, Risk and Portfolio Intelligence

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Three key take-aways

1

Credit risk outlooks for the US and Europe have diverged, and notable differences exist between public and private firms, large vs small, and across sectors. Idiosyncratic risks abound.

2

Early warning signals have helped identify cases like First Brands, and can potentially enhance portfolio returns by avoiding credit events. Idiosyncratic risks are detectable.

3

EDF-X valuation metrics, together with early warning signals, inform portfolio strategies that have been shown to outperform benchmark indices. Avoid losses from idiosyncratic risks.

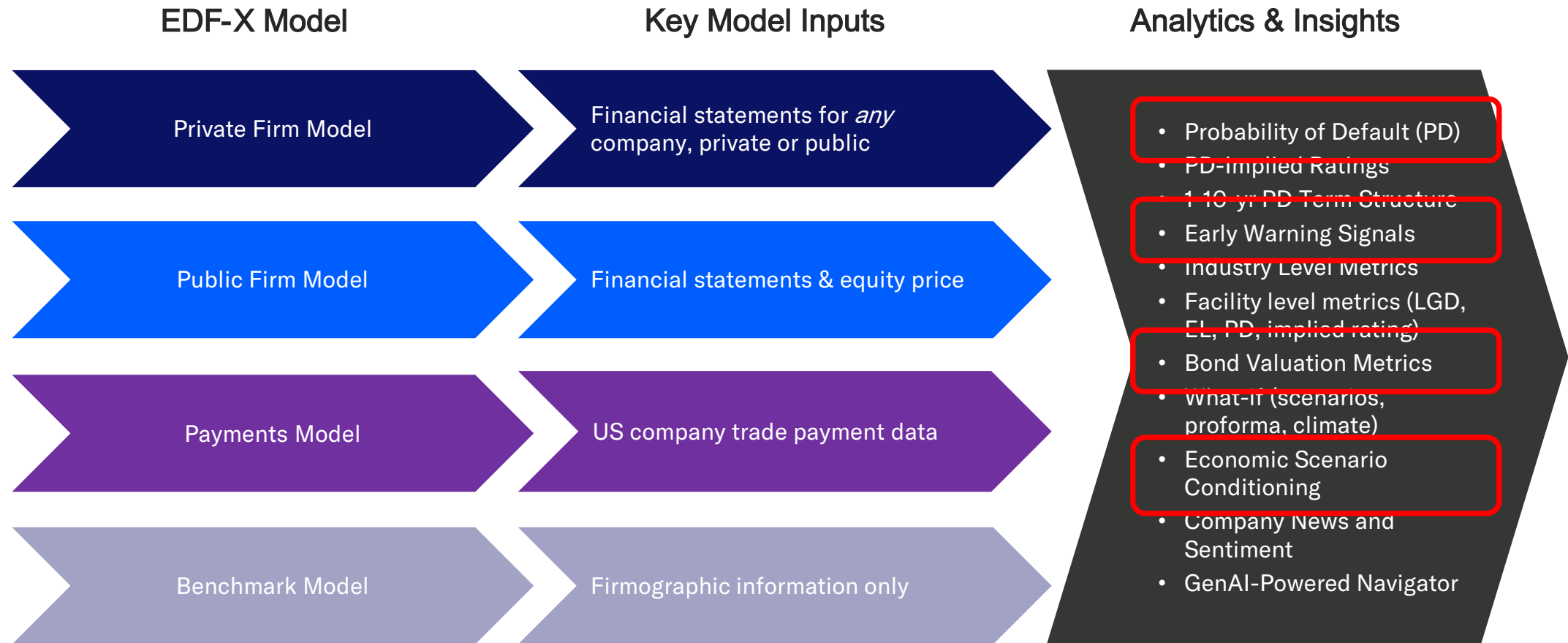
“Without better insight into the performance of underlying credits, ... [investors] could be caught unaware by a dramatic rerating of credit risks...”

– IMF, [The Rise and Risks of Private Credit](#)



Effective portfolio management depends on timely signals

Measure, monitor, and price risks with EDF-X

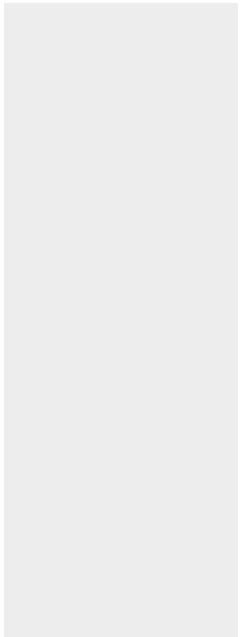


US credit risk outlook: worsening into 2026, then improving

EDF-X PDs help predict aggregate default rates

Average PD for all US public companies vs. Moody's spec-grade loan default rate, actual and projected

Average PD for high-yield US public companies vs. Moody's spec-grade bond default rate, actual and projected



Data sources: Moody's EDF-X.

Across sectors, US credit risk has generally improved

With credit risk levels likely to stay elevated, spotting idiosyncratic risks is key

Average PDs have fallen relative to year-ago levels



Data source: Moody's EDF-X.

Average PD for listed US automotive companies has risen sharply against the broad corporates group.

The credit risk outlook for Europe is relatively brighter

Average PDs have been trending down since 2023 – except for listed companies

Average PD for UK listed companies continued to rise as private company risk was improving.

Average PD for European* listed firms is now significantly higher than for private companies.

* Europe includes: UK, Sweden, France, Germany, Italy, Spain, Finland, Switzerland, Norway, Greece Belgium

Data source: Moody's EDF-X.

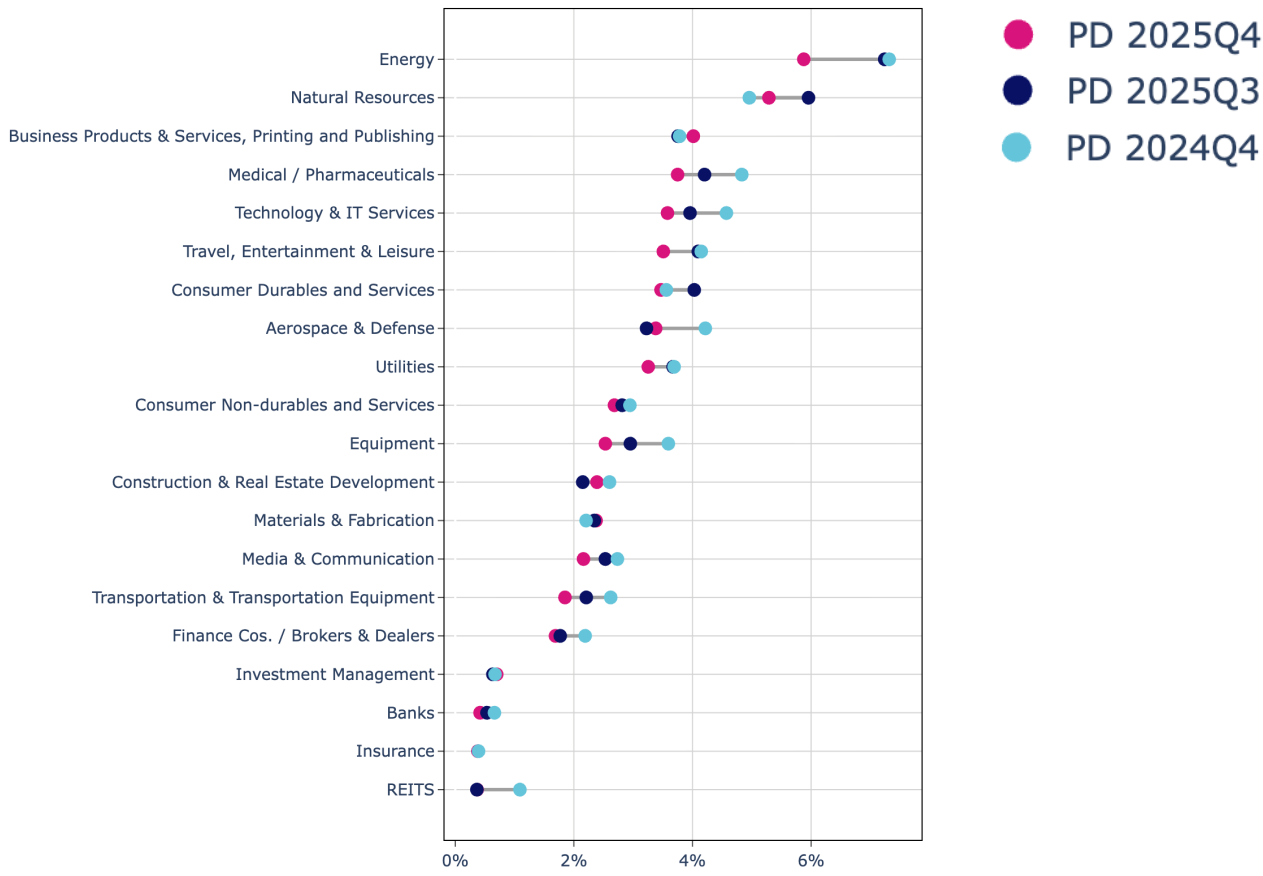
Credit risk continues to improve for European companies

Average PDs by sector show consistencies across public and private companies

Average PDs for UK listed companies.



Average PDs for European* listed companies.



* Europe includes: UK, Sweden, France, Germany, Italy, Spain, Finland, Switzerland, Norway, Greece Belgium

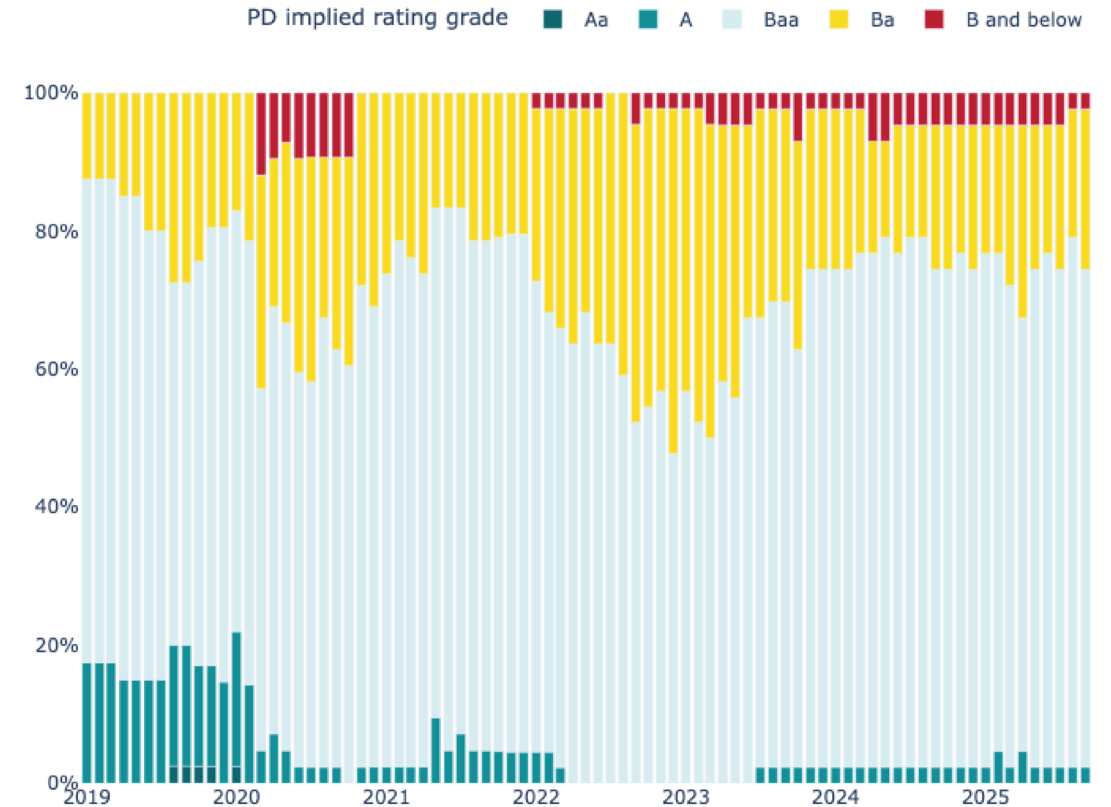
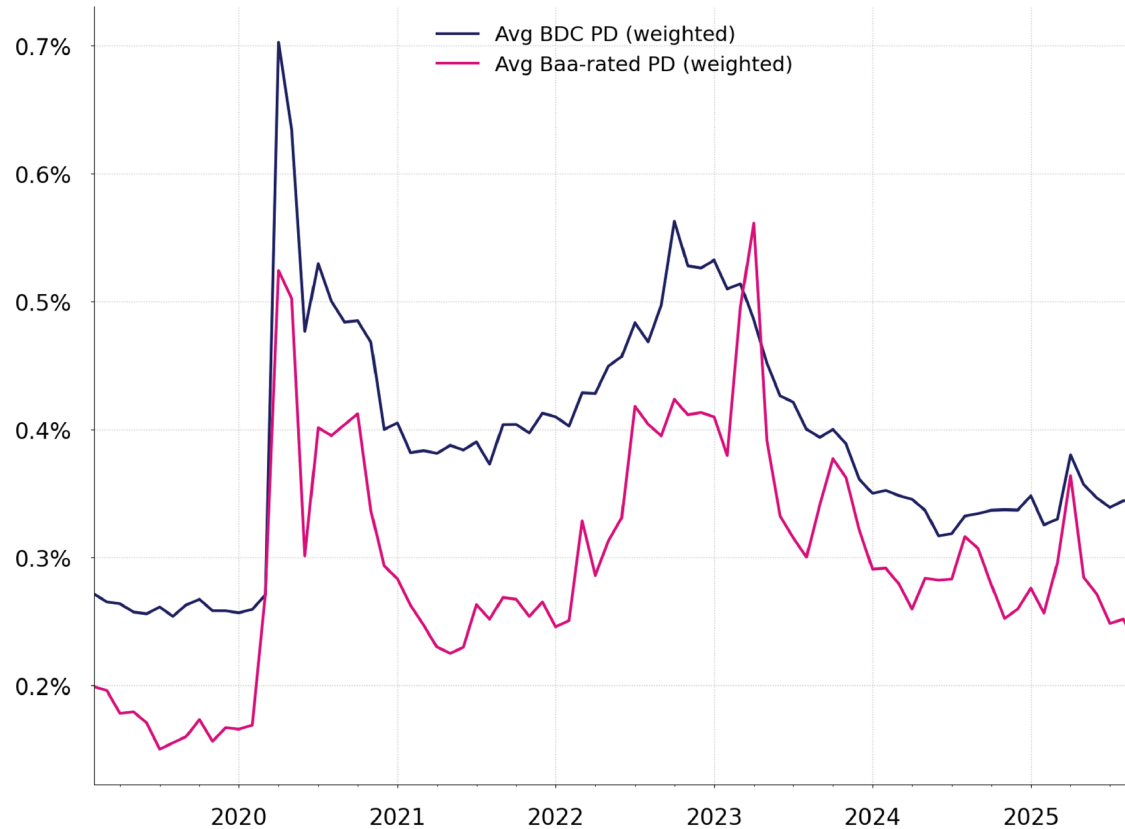
Data source: Moody's EDF-X.

Private credit risk has been resilient so far

Average PDs and PD-implied ratings for BDCs compare favorably to Baa corporates

Weighted average PD for 47 public BDCs vs. average PD for Baa-rated public companies.

Distribution of PD-implied ratings for 47 public BDCs, monthly



Data source: Moody's EDF-X. The average PDs represent the 12-month ahead expected probability of default.

What's the risk in private credit?

There's no accurate measure of market default risk in private credit, but we can infer trends

Distressed exchanges as a share of all credit events have materially increased over the past 25 years.

When distressed exchanges are stripped out, the current credit environment looks much more benign.

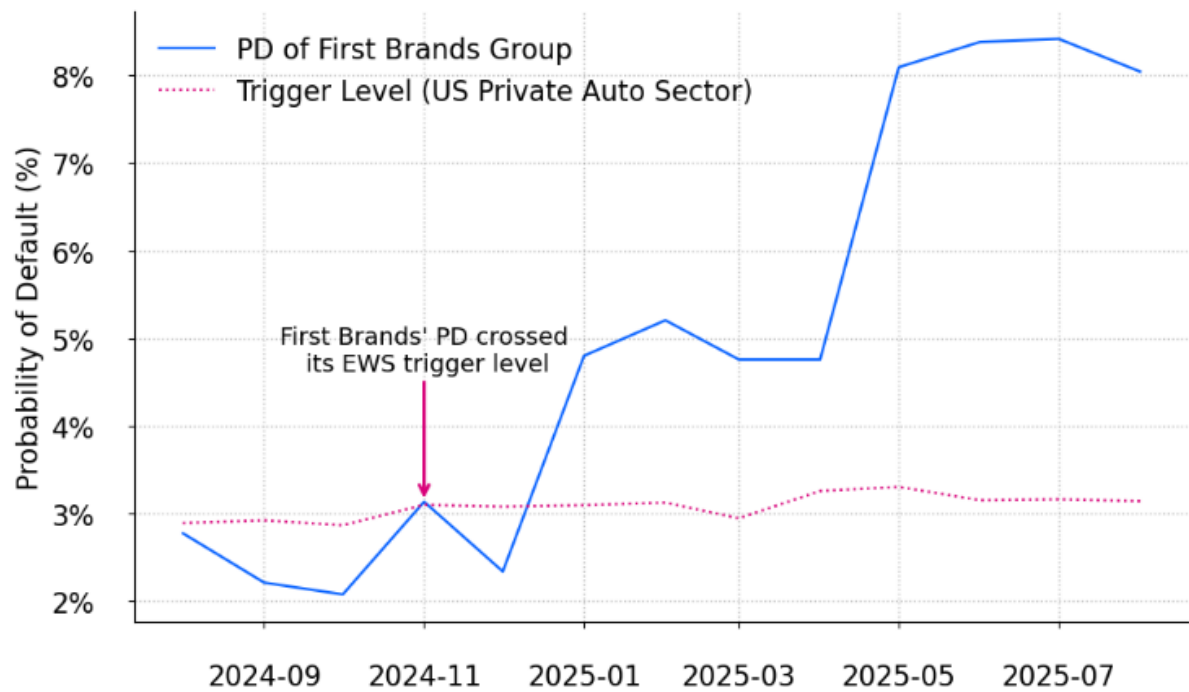
* 2025 YTD annualized

Data source: Moody's Ratings, author's calculations.

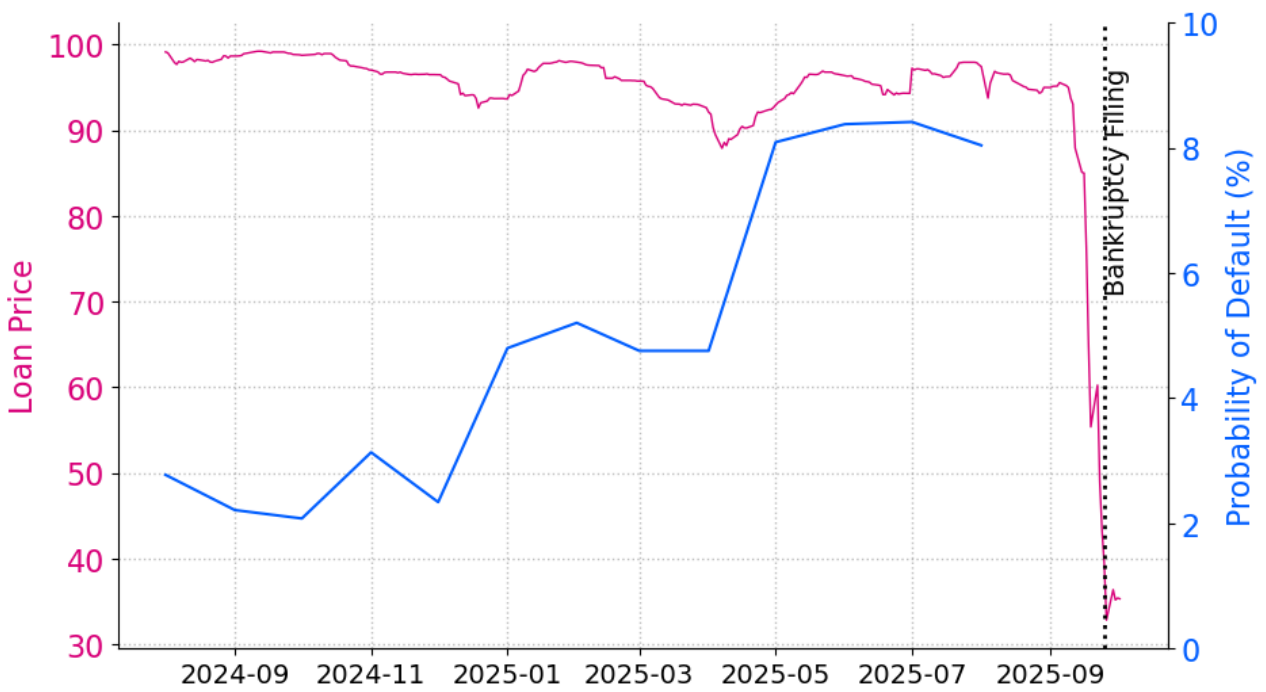
Wake up call: First Brands bankruptcy

While the market was pricing First Brands a performing credit, Moody's EWS was signaling distress

First Brands breached its early warning trigger level in November 2024



Moody's EDF-X payments PD doubled twice before material price declines



When is a default not a default? Take your PIK

PIKing by Modivcare presaged its eventual bankruptcy

Modivcare's PD quadrupled before it began to PIK.
Following PIK, the value of its loan fell from 83 to 55

Signs of emerging distress started as early as June 2023, more than two years before its bankruptcy filing

Bankruptcy

June 2023 PD exceeds early warning trigger level

Bankruptcy



Data sources: Moody's. The average PDs represents the expected probability of default 12 months from now.

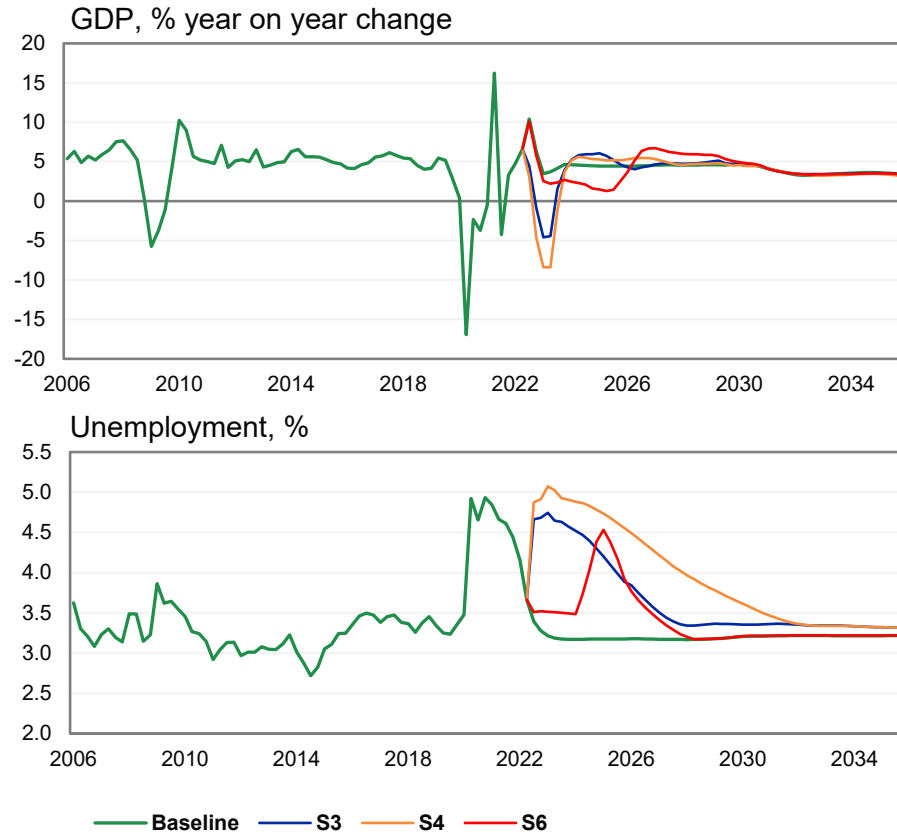
Stressed PDs enable scenario analysis & early warning

Assess the impact of macro shocks on company-specific credit risk

Given a set of macro forecasts...

....we calculate company-specific scenario-conditioned PDs.

Scenario-conditioned PDs for Volvo AB



Data source: Moody's EDF-X.

Find potential risks with scenario-conditioned early warning

Percent of European listed companies with high or severe early warning signals by industry sector

Industry Sector	Current	Baseline Scenario	Recession Scenario (S3)
Aerospace & Defense	29%	29%	31%
Banks	20%	13%	27%
Business Products & Services, Printing and Publishing	29%	30%	32%
Construction & Real Estate Development	17%	17%	22%
Consumer Durables and Services	36%	34%	42%
Consumer Non-durables and Services	22%	23%	32%
Energy	38%	37%	37%
Equipment	17%	17%	17%
Finance Cos. / Brokers & Dealers	23%	19%	26%
Insurance	15%	15%	16%
Investment Management	5%	5%	9%
Materials & Fabrication	24%	24%	38%
Media & Communication	36%	34%	41%
Medical / Pharmaceuticals	35%	39%	45%
Natural Resources	35%	33%	36%
REITS	7%	7%	10%
Technology & IT Services	21%	23%	27%
Transportation & Transportation Equipment	24%	25%	35%
Travel, Entertainment & Leisure	24%	29%	32%
Utilities	22%	24%	41%

* Europe includes: UK, Sweden, France, Germany, Italy, Spain, Finland, Switzerland, Norway, Greece Belgium

Data source: Moody's EDF-X.

An effective EWS creates significant process efficiencies & reduction in credit losses

To test the effectiveness of our EWS, we created a model portfolio of global high-yield bond exposures

Year 2008

Unit exposure

Proportional sector allocation (no index matching)

50% LGD

Results:

Loss rate for no EWS 8X higher than EDF-X EWS

Loss rate for random watchlist 5.5X higher than EDF-X EWS

Key statistics:

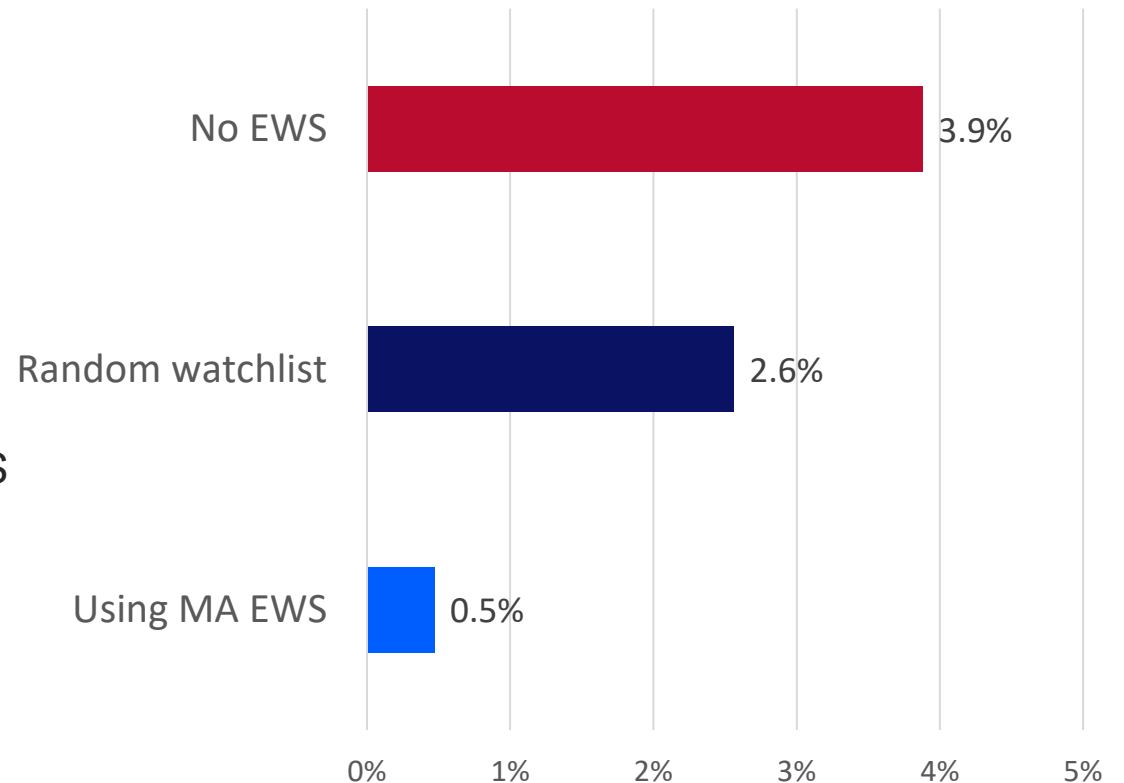
Portfolio default rate = 7.8%

Portfolio Positive Signal Rate = 34%

MA EWS true positive rate = 88%

MA EWS true negative rate = 72%

Portfolio Loss Rate



Deterioration Probability & Alpha factor

Metrics for identifying potential ratings changes and under/over-valued bonds

Deterioration probability (DP) shows the 1-year ahead probability of a rating downgrade.

Ratio of high DP to low DP 12-month forward change in issuer ratings

Alpha factors identify potentially undervalued bonds that may deliver superior risk-adjusted cumulative returns.

$$\text{Alpha Factor} = \frac{\text{Option Adjusted Spread}}{\text{Fair Value Spread}}$$

Alpha Factor > 1 undervalued

Alpha Factor < 1 overvalued

Downgraded \longleftrightarrow Upgraded

Data source: Moody's EDF-X.

High-AF, low-DP portfolios outperform benchmark indices

Cumulative total returns (January 2007-October 2024)

From each index (USIG or EUIG), we construct a value-weighted, sector-neutral portfolio at the beginning of each month: (1) bonds with an issuer rating of A3 or higher, (2) exclude bonds with an issuer DP in the top decile, and (3) select bonds with an AF in the top quintile of duration and sector.

US investment-grade portfolio

Europe investment-grade portfolio

Data source: Moody's EDF-X.



Q&A

Resources



Access Moody's private credit insights.



Learn more about Moody's credit risk assessment capabilities.

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