

XAIA INVESTMENT Perspectives

October 01, 2025

Duct Tape Economics Empirics of distressed exchanges

Philipp Graxenberger, Josef Pschorn

Defaults in the current cycle have shifted away from bankruptcies toward liability management exercises (LMEs) and distressed debt exchanges (DDEs). These transactions are often perceived as value-preserving because they extend maturities and provide temporary liquidity relief. However, empirical evidence – including rating agency studies and the extensive research of Edward Altman – indicates that they rarely achieve durable balance sheet repair. Approximately half of DDEs relapse into a subsequent restructuring (DDE2), typically with significantly lower recoveries.

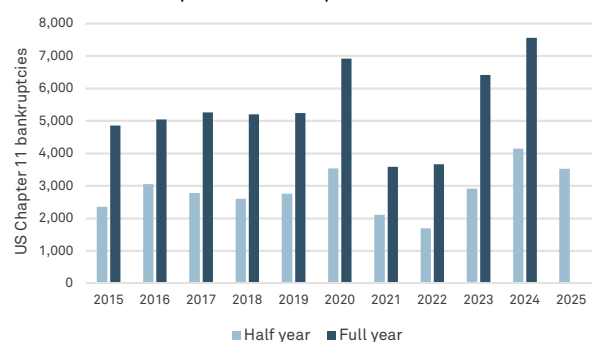
For investors, this dynamic underscores the negative convexity inherent in such instruments: coupons and short-term price stability create the illusion of safety, while probability-weighted outcomes skew toward loss. The critical determinants of performance are therefore entry price, structural protections, and the avoidance of repeat-distressed cases, rather than average yield metrics. Importantly, these lessons extend to private credit, where borrowers often resemble typical DDE candidates and loans are generally originated at par. Without the cushion of discounted entry and with limited liquidity, private credit investors are directly exposed to the same asymmetry — bond-like optics, but equity-like risk.

From Bankruptcy to Exchange

U.S. corporate bankruptcies accelerated in 2024, reaching the highest annual tally since 2010. In Europe, the picture is similar: England & Wales saw the most company insolvencies since 1993, Sweden the highest bankruptcies since the 1990s, France and Belgium posted sharp increases, and most other countries are trending upward¹.

FIGURE 1: BANKRUPTCIES RIPPING

Number of US Chapter 11 bankruptcies



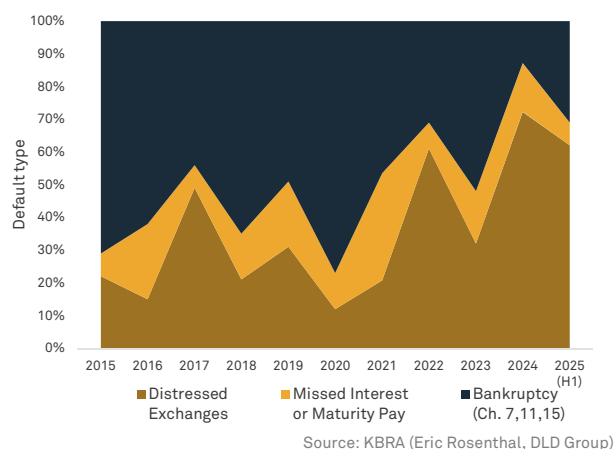
Source: Bankruptcy.com

Despite this deterioration, large capital structures with traded bonds/loans have often avoided formal bankruptcy in favor of LMEs and DDEs, which rating agencies typically classify as selective defaults. In 2024, distressed exchanges accounted for a record share of global defaults (c. 60%+), a pattern that has persisted into 2025.

¹ https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Quarterly_registrations_of_new_businesses_and_declarations_of_bankruptcies_-_statistics

FIGURE 1: FROM BANKRUPTCIES TO DISTRESSED EXCHANGES

US High Yield Bonds (HY) Defaults 2015 – 2025 (H1)



LMEs/DDEs can be potent tools if they right-size leverage. Cyclical funding issues (market dislocations or sector troughs) may be bridged with maturity extensions and temporary coupon relief; structural capital-structure problems require deeper solutions (e.g., debt-for-equity swaps, new-money infusions) to restore sustainable leverage.

Empirics of Distressed Exchanges

At first glance, DDEs seem effective: maturities are extended, coupons adjusted, and the bankruptcy headline is avoided. However, these outcomes are durable only if the capital structure is truly reset. In reality, most companies delever insufficiently, leaving little breathing room and setting the stage for renewed distress.

Empirically, repeat distress is common: multiple studies show high follow-on default rates after distressed exchanges. Moody's notes that around half of DDEs end in another restructuring/bankruptcy, and S&P documents elevated repeat-default shares over the subse-

quent 2–4 years. This is consistent with Edward Altman's empirical findings²: distressed exchanges are associated with higher short-term recoveries than bankruptcies, but also with higher repeat-default rates, resulting in lower cumulative value capture for investors.

The Return Math

Investors can be misled by a "fool's yield": attractive yields that don't compensate for default and weak recovery. The following stylized example shows how meagre the returns can be, despite seemingly attractive yields:

- Year 0: Buy bond at 100c, 6% coupon.
- Year 1 (DDE1): Collect 6c coupon; bond is reset to 70c.
- Years 2–3: Assume ~6c more coupons in total.
- Outcomes by Year 3:
 - 50%: No DDE2 → 70c + 12c coupons = 82c.
 - 50%: DDE2 at 25c → 25c + 12c coupons = 37c.
- Expected value: $(82 + 37)/2 = 59.5c$, $\approx -15\%$ IRR p.a. over ~3 years.

If investors manage to enter at 60c before DDE1, the headline yield looks attractive and the DDE1 mark-to-market uplift provides temporary relief. But once repeat-default risk are accounted for, the expected value again converges to ~60c – effectively break-even IRR.

The CCC lens confirms this: historical one-year default probabilities for CCC-rated bonds are in the range of 25–30%, with cumulative defaults exceeding 50% over three years and approaching 70% over five. Even with average recoveries in the mid-30s, expected returns are marginal or negative – precisely the pattern observed when DDE credits relapse.

TABLE 1: FOOL ME ONCE, SHAME ON YOU. FOOL ME TWICE, SHAME ON YOU.

The Fate of High-Yield Bond Distressed Exchanges

Time Post DDE	% of DDE Bankrupt	% of DDE Missed Interest	% of DDE 2nd DDE	Sum of Events	Cumulative
1–12 Months	10.5%	2.9%	14.6%	28.1%	28.1%
13–24 Months	6.4%	1.8%	5.3%	13.5%	41.5%
25–36 Months	2.3%	1.8%	2.9%	7.0%	48.5%
37–48 Months	0.6%	1.8%	2.9%	2.9%	51.5%
49–60 Months	0.6%	1.6%	0.6%	1.8%	53.2%
Total	20.9%	8.2%	24.5%	53.2%	53.2%

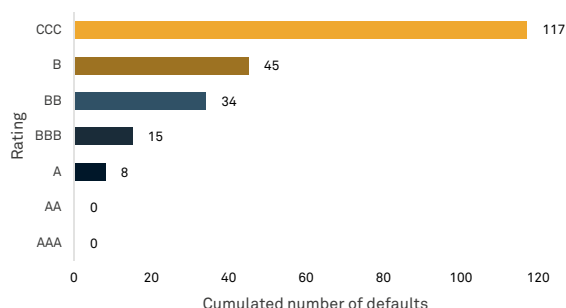
Source: KBRA (Eric Rosenthal, DLD Group)

² https://www.dt.mef.gov.it/export/sites/sitodt/modules/documenti_en/news/news/UnlockingTheCrediCycle_BeyondtheZScore-Altman-June-19-2025.pdf

Recent evidence from Europe reinforces this point: more than 50% of corporate defaults were rated CCC as early as 180 days before default. While this statistic is somewhat skewed by financial-sector failures during crises, it highlights the predictive power of CCC ratings and their close association with distressed exchanges.

FIGURE 1: EXPLAIN FAT TAILS TO A 5Y-OLD

Cumulated number of defaults in European credit markets (2005-2025)



Source: Bank of America, own calculations

Investment Implications

For investors, three lessons follow:

1. Entry price and selection are decisive. While stressed/distressed bonds can deliver equity-like returns (12-15%), these outcomes require buying sufficiently low and avoiding the large share of losers inherent in the CCC cohort.
2. Capital-structure bifurcation is stark. New-money first-lien or DIP financings at low LTV can provide attractive entry points, as seen in Adler, Ardagh, and Atos. By contrast, rolled-over or mid-level paper is path-dependent: unless purchased at deep discounts, the high incidence of relapse implies poor expected outcomes even when short-term optics improve.
3. Process trades often disappoint – but the opportunity set improves afterwards. Many investors buy distressed paper hoping for a “10-point pop” once a restructuring closes, even if it is only a duct-tape fix. While immediate bankruptcy risk may fade, post-restructuring oversupply of new bonds often caps prices, preventing realization of those gains. Yet one overlooked point is that post-LME bonds frequently re-emerge with real covenants and clearer creditor protections, allowing businesses and credits to be valued on fundamentals again – as before creditor-on-creditor violence became common. This creates an attractive opportunity set for disciplined investors going forward.

Parallels to Private Credit

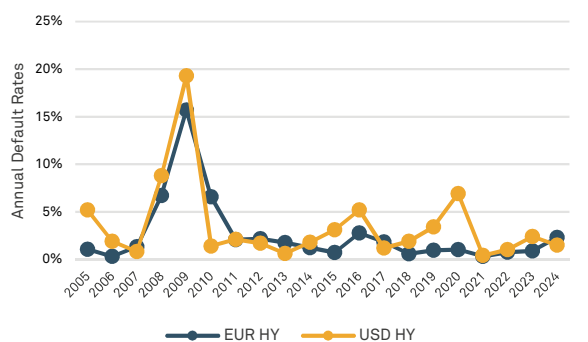
Much of this analysis extends to private credit. While private loans often feature stronger covenants and fewer lenders – making enforcement less about ‘covenant-lite’ and more about lender willingness to act – the parallels are clear. Many lenders prefer to extend and amend rather than crystallize losses, echoing public DDE dynamics. The key vulnerability is the entry point. Private loans are almost always originated at par and are typically illiquid. This exposes portfolios to negative convexity: upside is capped (par + coupon at best), while downside can be large if borrowers enter distress. Unlike public distressed traders, private lenders cannot buy at discounts or exit easily post-restructuring. Without disciplined underwriting, structural protections, or senior positioning, assets that appear bond-like may in practice deliver equity-like losses.

The Bigger Picture

From 2009–2025, default rates were unusually low by historical standards, yet recoveries remained weak — a troubling sign if growth slows materially. Combined with the rise of DDEs as the dominant form of default and the high relapse rates documented by Altman and others, the CCC/DDE space displays negative convexity: upside capped, downside accelerating on relapse.

FIGURE 1: CREDIT STRESS: NOWHERE TO BE FOUND

Annual default rates for EU/US HY bonds



Source: Bank of America

In this environment, success is not about capturing the average but about avoiding losers. For allocators across public and private markets, the playbook is consistent: buy sufficiently low, favor structures with real seniority and low LTV, and treat duct-tape exchanges for what they are – optics that rarely translate into durable economics. At the same time, once LMEs are completed, the re-emergence of bonds with enforceable covenants and clearer capital structures may restore a more attractive investment universe, allowing credits to be valued on fundamentals again.

About the Authors



Philipp Graxenberger
Portfoliomanagement
Tel +49 89 589275-122
Philipp.Graxenberger@xaia.com



Josef Pschorn
Portfoliomanagement
Tel +49 89 589275-126
Josef.Pschorn@xaia.com

Philipp Graxenberger and Josef Pschorn oversee Alternative Credit Strategies at XAIA Investment, specializing in identifying inefficiencies in the credit market, particularly within complex capital structures and special situations. Their expertise spans credit arbitrage, relative value, special situations, and restructurings.

Disclaimer

This document is published for the reader's personal and general information only and without any obligation, whether contractual or otherwise. It does not constitute and may not be construed as investment advice. All information contained herein is based on carefully selected sources which are considered to be reliable. However, XAIA Investment GmbH, Munich, cannot guarantee that it is correct, complete or accurate in all respects. Any liability or warranty arising from this document is therefore excluded completely.

The information in this document about fund products, securities and financial services has only been examined to ensure it is in compliance with Luxembourg and German laws and regulations. In some legal systems, the circulation of information of this type may be subject to legal restrictions. The present information is therefore not intended for natural or legal persons whose place of residence or business headquarters is subject to a legal system which places restrictions on the circulation of information of this type. Natural or legal persons whose place of residence or business headquarters is subject to a foreign legal system should therefore familiarize themselves with said restrictions and comply with them as appropriate. In particular, the information contained in this document is not intended or designed for citizens or persons subject to the laws of the United Kingdom or the United States of America.

This document is neither an offer nor a request to submit an offer for the acquisition of securities, fund shares or financial instruments. An investment decision regarding any securities, fund shares or financial instruments should be made on the basis of the relevant sales documents (e.g. official offering documents and prospectuses), but not on the basis of this document under any circumstances.

All opinions expressed in this document are based on the evaluation of XAIA Investment GmbH at the original time of their publication, regardless of when this information was received, and may change without prior notice. XAIA Investment GmbH therefore expressly reserves the right to change opinions expressed in this document at any time and

without prior notice. XAIA Investment GmbH may have published other publications, which contradict the information presented in this document or lead to other conclusions. Such publications may be based on other assumptions, opinions and methods of analysis. The information given in this document may also be unsuitable for, or unusable by specific investors. It is therefore provided merely by way of information and cannot replace the services of a professional adviser.

The value of fund products, securities and financial services and the return they generate can fluctuate significantly. Investors may not recover the full amount invested. Past performance is not an indicator of future returns. No representation or warranty, express or implied, is provided in relation to future performance. Calculation of fund performance follows the so-called BVI method; simulations are based on time-weighted returns. Front-end fees and individual costs such as fees, commissions and other charges have not been included in this presentation and would have an adverse impact on returns if they were included.

This document is only intended for the use of those persons for whom it is intended and provided by us. It may neither be used by other persons nor forwarded or made accessible to them in the form of publications.

Nothing in this document is intended to provide or to replace tax advice and its content should not be relied upon to make investment decisions. This document is neither exhaustive nor tailored to the needs of any individual investor or specific investor groups. Investors should always consult their own tax adviser in order to understand any applicable tax consequences.

The contents of this document are protected and may not be copied, published, taken over or used for other purposes in any form whatsoever without the prior written approval of XAIA Investment GmbH.

© XAIA Investment GmbH 2025