Research paper

Credit Index Futures and ETFs – The indexed credit market primer

Architects of trusted markets EUREX

Credit Index Futures and ETFs – The indexed Credit Market primer

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Management summary

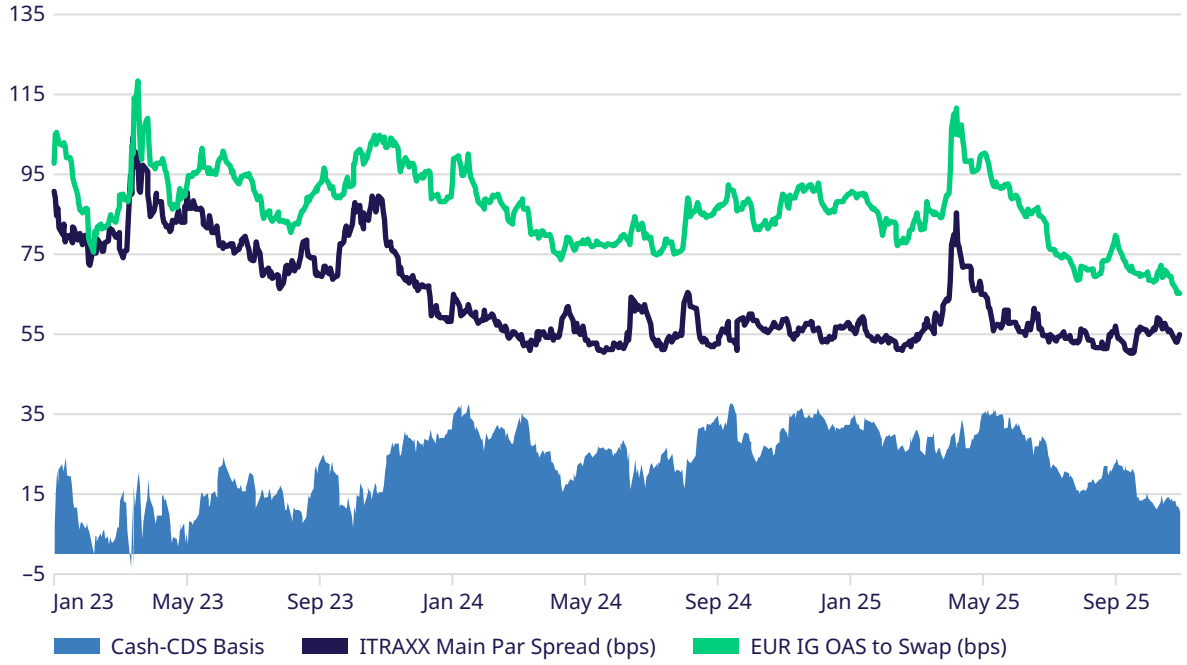
- **Credit Index Futures and ETFs provide access to indexed credit markets.**
- **Indexed Credit instruments are linked to the Cash bond markets and generally offer similar relative value.**
- **Illiquid cash bond baskets can be priced using futures and liquid components of the underlying index.**

Since the advent of fixed-income ETFs and portfolio trading in the late 90s and early 2000s, trading credit exposure through index products and workflows has gained popularity in Europe and the US. The rise of credit index futures, sparked by the launch of the EUR Investment Grade product by Eurex in late 2021, marks the culmination of this trend. Futures are highly transparent and capital-efficient, making them the ideal instrument for investors to deploy capital.

Credit Index Futures, ETFs, and cash-bond portfolio trades fundamentally differ from OTC products such as Credit Default Swaps (CDS) because they offer exposure to the overall development of the corporate bond market. CDSs, on the other hand, remove the duration component of the bonds and are less diversified, relying on a subset of the most liquid underlyings. The difference is staggering: While the broad Bloomberg EUR IG index has more than 3,000 components, the ITRAXX Main EUR IG CDS Index counts only 125 members.

These divergence in components introduces a basis risk of CDX versus cash bond portfolios, also known as the Cash-CDS basis. CDX are well known to price in substantially lower amounts of risk than broad market indices, and while developments are often similar, the basis can widen and tighten on a whim, exposing hedgers to excessive and unnecessary risk.

Figure 1: Cash-CDS Basis, ITRAXX Main and LECP Option adjusted Spread to the Swap Curve



Source: Bloomberg, Eurex

The trinity of indexed cash bond market trading

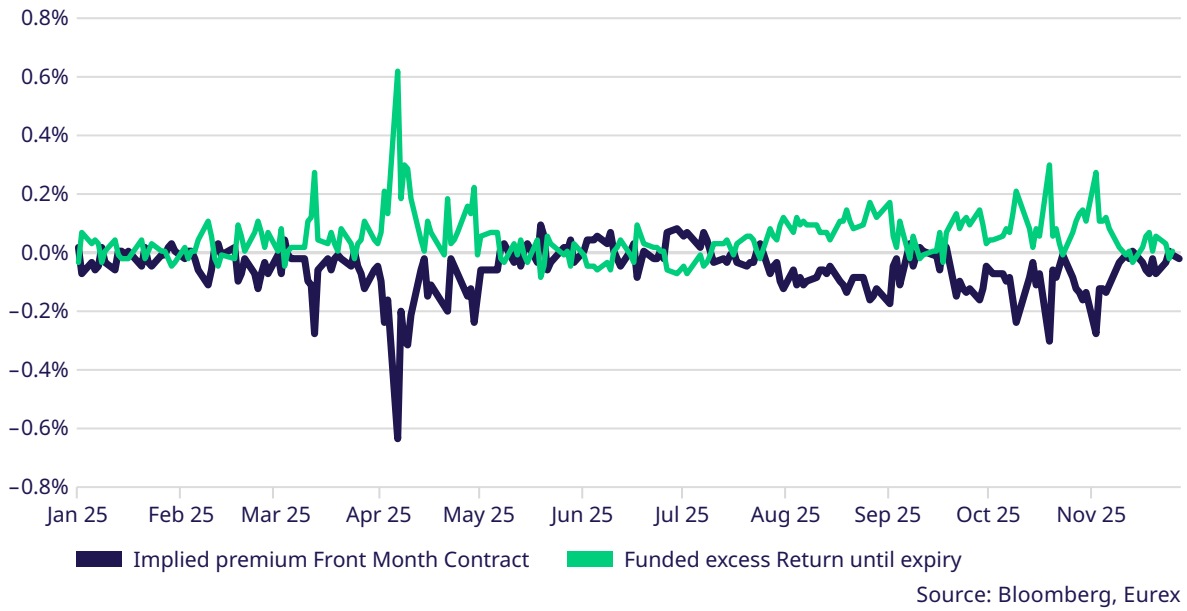
Credit Index Futures, ETFs and portfolio trades mark the trinity of real cash bond exposure. These markets move together, although long-term divergence can arise from differences in composition, total expense ratios for ETFs, and funding costs for futures. Aside from these minor long-term effects, the instruments may exhibit small price dispersions. For ETFs, this is reflected in the discount or premium to Net Asset Value (NAV), since these structures are simply wrappers around the redeemable cash bonds.

The mechanism to determine the relative value of futures versus the cash bonds works somewhat differently. Futures are unfunded instruments. To achieve economic equivalence between futures and bonds, one must adjust for the financing cost embedded in futures quotes, which are not present in bonds quotes. At expiry, where funding is zero, futures and bonds are typically quoted without any basis. To create a position similar to a future on a total return index, a market maker needs to follow three steps.

1. **Borrow money to buy the bonds in the underlying index.**
2. **Buy the underlying (or a replicating portfolio / ETF).**
3. **Reinvest the proceeds from the underlying back into the underlying.**

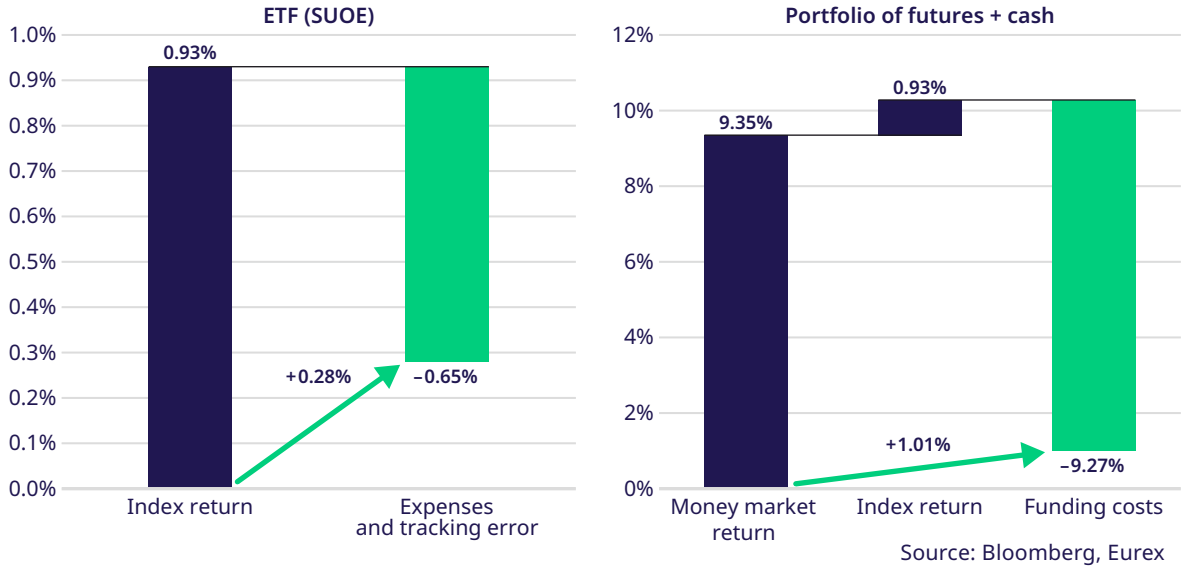
Upon expiry of the futures contract, the replicating portfolio is sold, and the borrowed funds are repaid, including interest due on the loan. This is the main factor affecting the basis during periods of positive interest rates, which increases the forward pricing of the futures. Furthermore, participants can lend the underlying asset acquired in step 2 through the securities lending market. This provides additional lending return, reducing the basis. It is important to distinguish the effect of these distributions from those generated by Step 3, as these do not feed into the total return index, while coupon payments, redemptions, etc. do.

Figure 2: Implied premium of futures (LXYA) versus underlying index and realized outperformance of a funded position versus the underlying until the expiry are almost inverse of each other.



Source: Bloomberg, Eurex

Figure 3: Long-term divergence in prices of Futures and ETFs are driven by funding costs and TER. Futures (LXYA) position fully funded through a money market allocation in ESTR (SOESTRON Index). ETF (SUOE LN) displayed as total return with gross dividends reinvested. Period 30 November 2021 – 28 November 2025.



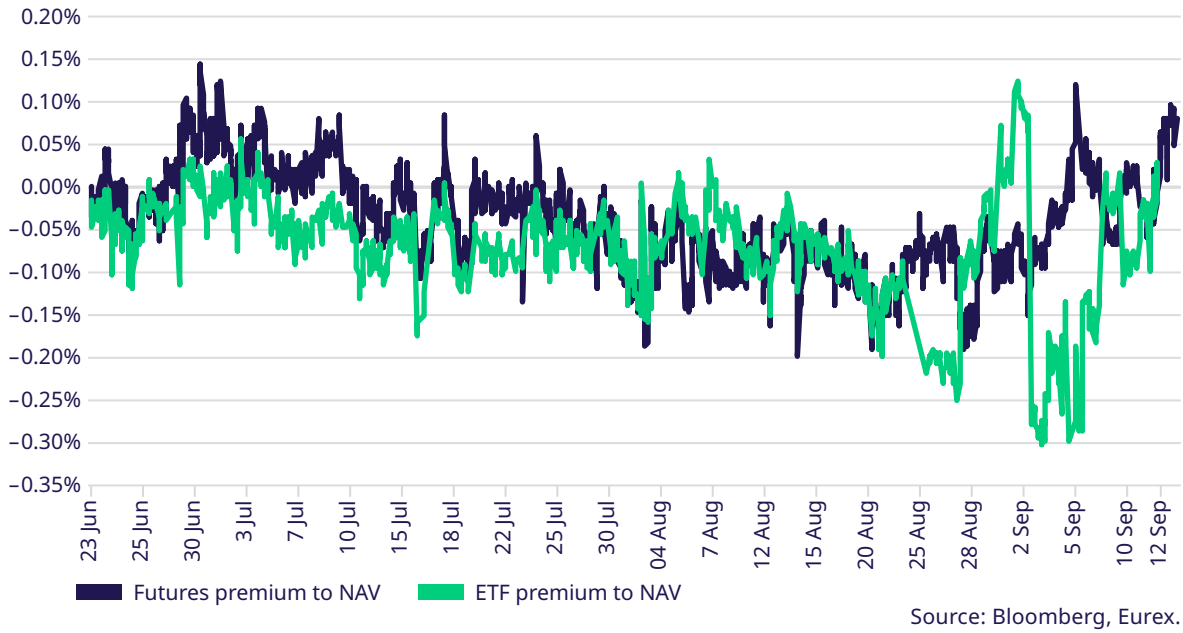
Source: Bloomberg, Eurex

Futures outperformance versus the underlying index can be achieved by entering futures positions and investing the money in cash when the contract is cheap and holding until expiry. Futures are unfunded products that incorporate funding costs into their relative pricing compared to the cash market. These funding costs are mostly influenced by money market and securities lending rates, but there is a residual component that determines the relative cheapness and amortizes over the lifetime of the contract. Lending rates and the residual component, in particular, drive outperformance compared to the index.

Embedding lending income in futures pricing often leads to outperformance relative to an ETF allocation without additional securities lending activity. Further long-term outperformance is driven by the total expense ratio (TER) paid to the ETF-issuer, although rolling costs (c.2bps per quarter) can offset this partially.

Both indexed credit instruments are tied to the cash market through the arbitrage mechanism but also keep each other in check. ETFs and Futures richness is closely aligned, and the opportunity for genuine short-term arbitrage vanishes in most cases when we factor in trading costs.

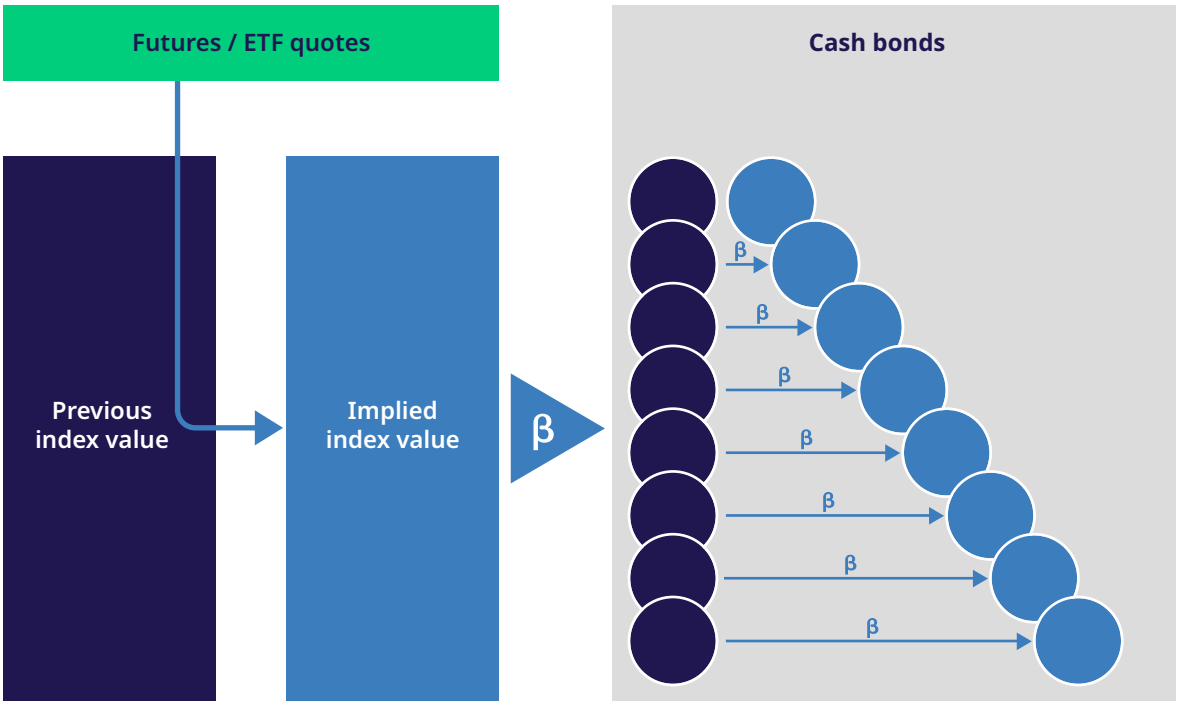
Figure 4: Implied Mid Price Premium of EUR IG futures (LXYA) and ETF (SUOE LN) to NAV in Q3 2025.



Source: Bloomberg, Eurex.

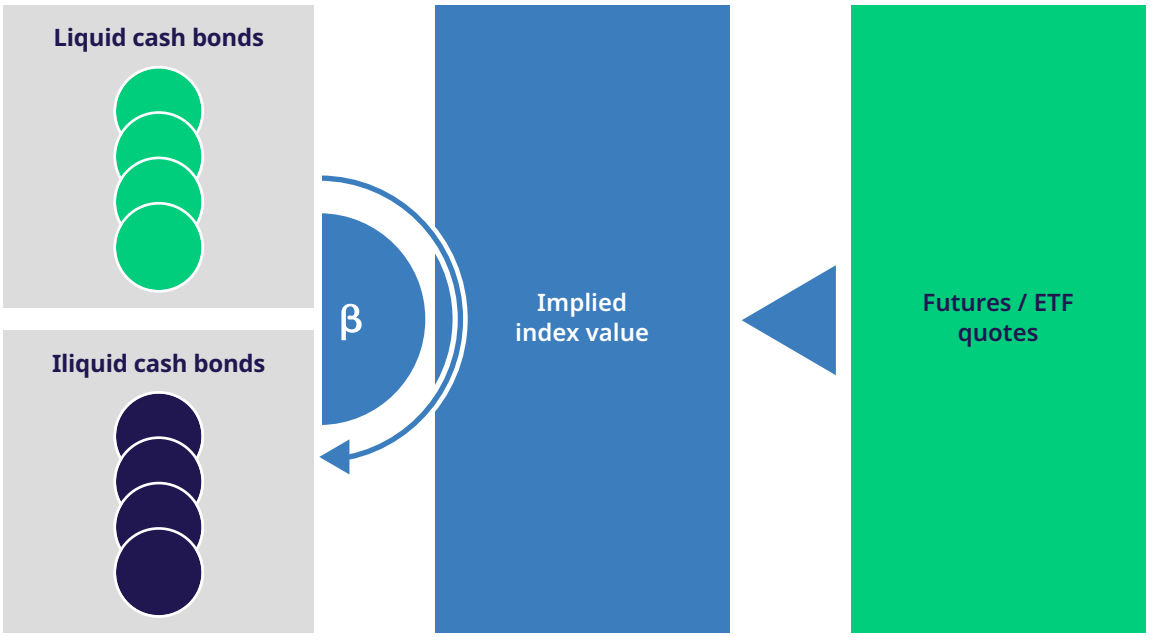
Reconciling cash market uncertainty with liquid index instruments

Figure 5: Futures and ETFs imply fair values for cash bonds in the index through statistical relationships.



How do you anchor two boats when you don't know the layout of the ocean floor? Both index futures and ETFs are liquid and transparent through tradable order books and are connected to the cash market via the arbitrage mechanisms specified above. But where exactly is the cash market priced at? Indeed, for the cash bonds composing the indices, the price picture is less straightforward. Activity is unevenly distributed among the various single names. While some of the more liquid issuers may trade regularly or even multiple times per day, other less-liquid issuers might not see any activity for a week or even longer. For these bonds, there are no regular price updates, and prices need to be estimated.

Figure 6: Liquid Cash-bonds imply pricing for illiquid cash bonds in combination with quoted Futures and ETFs through statistical relationships.



Indeed, the prices of the less-liquid component of the index can be updated by inferring them from the relationship versus the more liquid pillars of the trinity. We know where the index should be priced at, given the activity in futures and ETFs, and further see what is happening in the liquid component. The less liquid component needs to bring them back into line, such that futures and ETFs price at the same level as the total basket of both liquid and less liquid bonds. If we can trade the less liquid bonds at a significantly different level, then we have an arbitrage opportunity.

Secondly, there is the market signal inference of the bonds. We can estimate the market beta of each bond relative to the index level and other factors like sectors, countries, etc. These, too, can be inferred from adjacent markets, such as equities, government bonds, or derivatives. These should also align with the liquid pillars, as mispricing creates opportunities for statistical arbitrage.

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Published by
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www.eurex.com

ARBN Number
Eurex Frankfurt AG ARBN 100 999 764

Find out more online at www.eurex.com