



Deutsche Bank European CLO Total Return Indices

Frequently Asked Questions

SECTION 1: Index Questions

1. What is the Deutsche Bank European CLO Total Return Index?

The Deutsche Bank European Collateralised Loan Obligation Index (DB € CLO) is a rules-based total return benchmark for broadly syndicated, arbitrage Euro-denominated CLO debt.

2. What is the coverage of the European CLO universe?

DB € CLO will offer comprehensive coverage of European CLO debt, tracking approximately 95% of the €220bn European CLO debt stock as-of 1 January 2024.

3. How many indices are there?

Six key sub-indices at launch, categorised by original rating (AAA to B), alongside an aggregate DB € CLO TRI. At present, this includes over 500 deals 3,000 tranches, managed by 66 managers. Additionally, clients will be able to request custom indices delineated by categories such as reinvestment end date and CLO manager.

4. How far back is DB € CLO history available?

The DB € CLO will offer history back to the start of 2018.

5. Does Deutsche Bank have other structured finance indices?

It is envisaged this will be the first in a series of complementary indices from Deutsche Bank geared towards the global structured finance market.

6. What experience does Deutsche Bank have on index creation?

DBIQ is Deutsche Bank's in-house Index Administrator, calculating over 5,000 indices across all asset classes. It has a 23-year track record of delivering innovative indices including the first enhanced roll commodity indices, multi-strategy FX and equity indices and fixed income forward rate bias and carry indices.

7. How are bonds for DB € CLO selected?

Bonds are selected monthly based on a set of membership rules. All bonds meeting the rules are included.

8. What are the membership rules?

A complete set of membership rules are available [here](#). Examples include but are not limited to: securities must be floating-rate, have at least one rating from Moody's, S&P or Fitch rating agencies, and be priced by PSL.

9. How do I obtain index history?

DB € CLO history will be available via a variety of sources including SFTP, email, and Bloomberg, by typing DBCLO or DBIQ [GO]. Deutsche Bank also partners with distribution vendors including Aladdin, Rimmes, and Factset.

€220bn
Total Notional

500+
CLO Deals

3,000+
CLO Tranches

66
CLO Managers

Jan 2018
Start Date

DBIQ
Index Administrator

PSL
Pricing Provider

DBIQ [GO]
Bloomberg

AAA, AA, A,
BBB, BB, B,
Aggregate
Indices



10. How do bonds enter and exit DB € CLO?

Entry and exit is based on a set of inclusion rules. Typically, a bond will enter DB € CLO at the end of the month in which it first settles. It will exit the index at the end of the month that it redeems or refinances.

11. What happens to a bond in DB € CLO when it is reset or refinanced?

The bond will be repaid and exit at month end at the redemption price, following reset or redemption. New bonds may enter the index at the month end following settlement, assuming inclusion criteria is met.

12. What happens to a bond following an event of default?

Such bonds will be excluded from DB € CLO at the end of the month.

13. What happens if a bond is upgraded or downgraded?

DB € CLO use original rating, so a change in rating does not result in a bond switching index. Custom indices based on current rating can be made available upon request.

14. What happens to a bond if its manager is acquired?

If the bond continues to meet the inclusion criteria, it will continue to be included.

15. Are fixed-rate tranches included?

No – fixed-rate tranches are specifically excluded.

16. How are delayed-draw notes treated?

Delayed-draw tranches are excluded from the index. This continues to remain the case once they are drawn down.

17. Are X, Z, or Combination Notes included?

No – fee tranches and combo notes are specifically excluded.

18. Are equity tranches included?

No – DB € CLO is comprised of European CLO debt tranches only. Equity tranches are specifically excluded.



SECTION 2: Underlying Constituent Pricing

PSL CLO TRI Team

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19. Where are the valuations for constituents sourced?

Deutsche Bank has partnered with PSL, a leading provider of structured finance valuations that provides daily pricing on CLO tranches.

20. How many valuations does PSL provide?

PSL provides daily valuations on every index constituent in the defined European CLO universe, which currently stands at over 3,400 unique securities. PSL leverages its proprietary evaluated pricing technology to price tens of thousands of securities across 40 asset classes globally on a daily basis.

21. How does PSL obtain pricing data?

PSL has developed an algorithmic pricing platform which is capable of pricing entire structured finance asset classes. European CLOs are a key focus– the team have many years of experience pricing CLOs and have access to an extensive archive of historical market data.

22. How does PSL value CLOs?

CLOs and the wider structured finance market are complex – liquidity can be sporadic and there can be many idiosyncrasies in the way deals are both structured and managed. PSL derives daily valuations for entire asset classes by performing statistical analysis on the liquid portion of the market to establish the relationship between credit fundamentals and market sentiment in the form of discount margin implied from market observations and projected cash flows. Machine learning is used to identify the relationship between credit fundamentals and DM, that can then be translated across to the illiquid space of the market, thereby deriving evaluated pricing surfaces, which enable the valuation of both liquid and illiquid securities.

23. Where are direct pricing observations sourced?

PSL receives direct market colour from sources such as dealer runs, third-party vendors, and regulatory reporting.

24. Is the pricing algorithm fixed or does it evolve in response to market conditions?

The pricing algorithm automatically evolves as new market data is received.

25. How do assumptions on call optionality change?

Call assumptions are largely automated. If a bond has direct observations, PSL can often imply the market consensus on the call assumption. If no direct colour, the call assumption is a function of the bond's discount margin relative to the coupon margin, and structural aspects of when a bond can be called.

26. Are bid, offer, or mid prices used?

All market observations are adjusted to a mid-level to normalise the different types of observations. A time-decay function is applied to account for more



recent observations having greater relevance. Different weightings are also applied to different types of observations – for example, actual trades have highest weight, and two-ways have higher weight than one-sided quotes, etc.

27. Are constituent prices clean or dirty?

For the DB € CLO TRI calculation, bonds are bought into the index at their dirty mid-price. The total return price is the sum of the dirty mark-to-market of all the constituents, plus any cash distributions, divided by the initial investment amount. Index customers can receive bid, mid, offer, clean and dirty prices subject to their licensing agreement.

28. Can valuations be challenged?

Yes, valuations can be challenged. If the challenge is agreed, the valuation will be updated going forward. Historical corrections for the index usage are subject to an error policy. Where an error does occur, any error discovered within one week is corrected. Errors in history are assessed against a threshold to determine the need to restate. A range of quality control checks are in place to capture clear errors prior to index publication to minimise errors before they ever reach the index publication. PSL is audited on these controls as part of its ISAE 3402 certification.

29. How is a bond priced if it has not had any recent market colour?

Evaluated prices are created every day for each security, regardless of whether securities have observable market colour using our algorithmic pricing methodology outlined in question 22 above.



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