**Annex – Question 20. Table on eligible assets UCITS EAD.**

For the purposes of Question 20, please complete the table below with the requested information, taking into account the instructions provided in the footnotes. After having completed the form, please save the document (according to the following convention: “ESMA\_Q20\_nameofrespondent”) and upload it online at <https://www.esma.europa.eu/press-news/consultations/call-evidence-review-ucits-eligible-assets-directive>under the heading *‘Your input - Consultations’*, as an Annex to the Reply Form. In case you upload a pdf file, please choose an editable form.

General remarks:

The data and responses provided regarding the specified assets are presented for ESMA's deliberation. The contributions from EFAMA should be regarded as overarching considerations pertinent to the particular asset classes. Consequently, these reflections should **not be construed as a consensus by EFAMA and its members that all the listed assets qualify as suitable investments for UCITS**. In particular, the data regarding existing direct/indirect exposures to these asset classes should not be viewed as representative of EFAMA’s membership.

As ESMA has requested respondents to consider points such as liquidity, availability of a reliable valuation, etc., in the context of this question, we have set out some broader general remarks on these points to be kept in mind when considering our asset-specific comments.

Regarding **liquidity**, we have set out below any asset-specific considerations in the table below. As a general remark though, we wish to highlight thatfor any funds investing a significant portion into the below asset classes referred to in Question 20, the portfolio manager is expected to ensure they can manage liquidity on a day to day basis respecting the contractual constraints of the UCITS (redemption frequency, notice period, available LMTs). The appropriateness of the notice period, the redemption frequency and the list of available LMTs are also independently assessed during the risk assessment analysis by the risk management function. This is performed prior to the launch of the UCITS considering the proposed investment policy of the fund, all assets types permissible by prospectus and included in the model portfolio.

Regarding the availability of a **reliable** **valuation**, as a general remarkapplicable to all asset classes, we refer to our overview on the valuation process, including embedded due diligence, as provided in Question 10.

Regarding **risk management**, managers have noted that as part of their risk management process, for certain asset classes, such as a number of those indicated in Question 20, a dedicated risk questionnaire would be provided to the portfolio manager which could, as a result, lead to additional risk measures being included in the risk management process of the UCITS (e.g. additional trigger risk monitoring).

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| **Asset class[[1]](#footnote-2)** | **Merits of allowing direct UCITS exposures** | **Merits of allowing *indirect* UCITS exposures[[2]](#footnote-3)** | **Extent/amount of existing UCITS exposures[[3]](#footnote-4)** | **Additional comments[[4]](#footnote-5)** |
| 1. Loans[[5]](#footnote-6) | *See additional comments in Appendix 1.*  (1) Diversification in issuer type, as the type of issuer will differ to those of standard bonds, complementing traditional credit exposure.  (2) It provides access to an established market, e.g. in line with the requirements of the US Investment Company Act of 1940 for standardised loans, especially senior/leveraged loans.  (3) Where the UCITS is invested in assets related to the issuer, it can benefit the portfolio to permit the UCITS to assist in restructuring actions of that issuer through participating in loans it issues.  (4) Loans provide potential for higher yields to investors, relative to public credit such as IG and HY bonds, with insultation from the price-effects of rate duration, owing to their floating-rate nature.  (5) There is well-established liquidity. In the large-cap, leveraged loan market, over 90% of loans are daily tradeable via more than 20 OTC trading desks. However, we note that settlement times in European leveraged loans can be longer than bonds given the absence of an exchange, though developments in the US loan market suggest a potential for European settlement times to reduce. European loan market trading liquidity is strong, consisting of secondary trading activity (at around 30% annual turnover) and inherent prepayment features of the asset class (around 25% average per annum).  Our view is that asset managers should be in a position to develop market understanding and approaches to risk management regarding the selection of loans, including regarding their transferability and liquidity. | Indirect exposure can be obtained via, for example, an SPV, a derivative instrument, a CLO tranche, loan participation note or a loan originating AIF.  Indirect exposure can provide a more diversified exposure to the underlying loans, though please note our general remarks on the pros/cons of indirect exposure at Question 21. Where indirect exposure is via CLOs, credit risk can be reduced via the IG CLO tranche investment. | The below figures are **not representative** of all EFAMA members.  For direct exposure to loans, responding members reported from 0 – 1%.  With respect to CLOs specifically, those who responded reported that exposure can usually range from 5 – 35%, whether direct or indirect. We note that dedicated funds can have up to 100% exposure. | **Regulator views**: there is divergence as to whether loans can be considered transferable securities and as regards their treatment by national competent authorities.  In line with ESMA’s request, we have set out below any specific characteristics of the underlying markets in terms of obtaining reliable valuation information, liquidity, etc. Please note in the context of our general remarks, above the table.  **Liquidity**: For loans, we understand that the bank loans market, in particular for broadly syndicated loans, appears to have deep liquidity, and to exhibit features similar to the corporate high yield market. Another comparable market is for floating rate notes (which are UCITS eligible), to which loans share some structural similarities and credit risk similarities, though that market is quite small and concentrated in a comparison to the European loan market. In terms of liquidity guardrails, some members report limiting overall loan exposure (e.g. between 2 – 15%) and bearing in mind longer settlement timeframes for disposal of this asset (likely more than 7 calendar days). Participation notes and CLOs tend to be structured to provide greater liquidity than direct investment in loans, with CLOs in particular being traded in secondary markets.  **Reliable Valuation**: In exceptional circumstances the mark to model valuation methodology can be utilised. In these circumstances the valuation is based on independent pricing from a large selection of brokers (more than 20 in Europe). The valuation model calculates the present value of predicted cash flows using a discount curve that incorporates the creditworthiness of the borrower. The model also takes into account the scheme of redemption, coupon payments, interest curve and discount spread of each loan. Reliability of the valuation is ensured by determining that the pricing process is separate and distinct from the investment units, use of a third-party valuation agent and administrator, and valuation inputs are consistent.  **Other**: we note also differences between loans and CLOs. Loans provide the fund recourse to the borrower and underlying assets in the event of default, while a CLO operates like a note and, depending on the tranche, would provide principal and interest payments. |
| 2. Catastrophe bonds (‘Cat bonds’) | *See additional comments in Appendix 2.*  (1) Low correlation to the broader financial market, being related instead to natural disasters, reduces risk through diversifying the portfolio.  (2) They bring potential for higher yields to investors even in low or negative interest rate environments, having higher interest rates compared to similarly rated traditional corporate bonds. This can be seen for example through the Swiss Re Global Cat Bond Total Return Index, which shows annual positive returns in 16 of the 17 past years, tracking the aggregate performance of all USD, EUR and JPY denominated CAT bonds, capturing all ratings, perils and triggers.  (3) Low volatility of returns in comparison to other financial assets.  (4) Structured to provide a fixed and floating rate of return, with the former reflecting risk premium and the floating being compensation for collateralisaton. Includes prevailing money market rates in overall returns and reduces exposure to mark to market adjustments when interest rates rise.  (5) Low duration, which reduces risk.  (6) In terms of broader financial stability and resilience of societies towards climate change, cat bonds play an important role in addressing exposure growth, demographic trends and environmental and climate changes. The ECB and EIOPA in April 2023 noted in their joint discussion paper on reducing the climate insurance protection gap that catastrophe insurance is key to mitigating macroeconomic losses following extreme climate-related events. As only a quarter of climate-related catastrophe losses are insured in the EU, this can increase government debt burdens and also pose financial stability risk. It recommends that the use of financial markets to transfer risks via cat bonds can support the reinsurance of these risks. | Members noted indirect exposure through other CIUs, following a fund-of-funds structure, has been quite common and provide similar benefits to direct exposure to cat bonds, namely diversification and attractive yields. | Dedicated cat bond UCITS typically consist of only cat bonds and cash, with cash accounting for 3 – 15% of the UCITS and cat bonds accounting for the remainder (85 – 97%).  The market for cat bond UCITS has grown since 2010 to over USD 12bn, with 16 UCITS Cat Bond Funds available as at May 2024. | **Liquidity**: there is an active secondary market with main traders including Aon Securities, Guy Carpenter Securities, Gallagher Re Securities, Royal Bank of Canada, Goldman Sachs, Guggenheim Securities, Tulet Prebon, BNPP and Swiss Re. Also, the short-term nature of the bond implies a high turnover in the market per year, while almost 15 years of history indicates that cat bonds funds have been able to serve the market throughout natural disasters such as Covid-19 and hurricanes. Asset turnover in the cat bond market (traded volume, maturities, coupons) is similar to the volume observed at the NYSE under normal circumstances.  **Reliable Valuation**: please note our general comments regarding managers’ practices for obtaining a reliable valuation. For cat bonds specifically, a valuation is obtained by assessing the expected payout of the cat bond, which is based on the probability of occurrence of the trigger event, structure of the bond and current market conditions. Managers would tend to value the bonds weekly and on the last business day of each calendar month. Pricing sources would include pricing sheets from the main brokers (Aon Securities, Guy Carpenter Securities, Gallagher Re Securities, or IDC, Swiss Re, ICE, JPM or BNP Paribas) and, as an additional source, secondary market trades that are captured in TRACE.  **Other risk management**: full or partial loss of capital is possible on the occurrence of a “trigger event”. This risk is mitigated by: (i) a stringent legal framework, in terms of contractually defined perils, triggers, loss calculation mechanisms, (ii) availability of third party models coupled with in-house tools to assess risk (it is critical to ensure the catastrophe model is accurate in estimating the severity and frequency of the trigger event, and periodically reviewed and updated); (iii) delegating investment decisions to managers with the necessary risk and model specific, actuarial, structural and legal know-how plus a proven track record; (iv) diversifying the fund by reference to peril, geographic region, lines of business (e.g. commercial, residential, etc), and the loss trigger mechanism (indemnity-based, parametric, etc.).  Other risk-management points to note are the structure of the SPV, providing bankruptcy remoteness from the sponsor, as well as the investment of principal in high quality securities as collateral such as MMIs or TBills. |
| 3. Contingent Convertible bonds (‘CoCo bonds’) | (1) Higher yields than traditional bonds in addition to consistent returns. They can be particularly interesting in the context of HY management or HY diversification of an IG fund.  (2) Diversified senior exposures provide attractive relative value along the capital structure.  (3) Conversion to equity can reduce credit risk for investors by strengthening the resilience of the issuer in instances of stress – where the issuer’s position improves, the conversion to equity at a favourable ratio offers a potential for capital appreciation.  We believe a 100% allocation to a diversified portfolio of coco bonds should be permissible – this would level the playing field with existing UCITS ETFs which track coco indices. | Indirect exposure can provide access to a broadly diversified universe and expertise if not available internally. | Dedicated financial subordinated funds can have up to 50% or even over 75% exposure.  We have observed other funds having no more than 10 – 20% depending on the risk profile. | **Regulator views**: there is divergence as to the treatment of coco bonds by national competent authorities. Additional scrutiny is required, for example, by the AMF in France and by the Central Bank of Ireland.  **Liquidity**: while less liquid than traditional bonds, coco bonds are very liquid, being actively traded in primary and secondary markets. The liquidity of the coco bond will depend on factors such as the credit rating of the issuing financial institution and the complexity of the conversion mechanism. Coco bonds are large issues, unlike securities with similar yields rated B, and carry a lower risk than equities.  **Reliable Valuation**: we refer to our general remarks on the practice of obtaining a reliable valuation. As listed instruments, there generally exist multiple contributors and generic contributions from data providers by which to value coco bonds, and the manager must assess whether these are representative of the market (for example, we note data vendors such as ICE, Markit, Refinativ). There is no market-standard valuation model – the use of a theoretical model is useful in particular, where market price is not available. This could take the form valuing a portfolio of equity derivatives which generate the same cash flow as the coco bond, or valuing an ordinary bond and discounting for the risk of conversion. Checking at least weekly the consistency of prices derived from marked to market against marked to model permits managers to monitor deviations and to conduct a more in-depth analysis in the event of a significant deviation (e.g. 10% for less liquid cocos). The French AMF requires a specific agreement, whereby UCITS managers must establish risk monitoring arrangements which include a counter-valuation process, to permit a better understanding of the drivers of the underlying market/transactional price used to value the asset and its consistency.  **Other risk management**: the risks inherent to coco bonds is that their coupon payments are discretionary and may be cancelled at any time for any reason, as well as their possibility to be written down or converted into equity upon the occurrence of a given trigger. Given the complexity of coco bonds, these risks are managed by UCITS managers using a multi-factor analysis to properly analyse and value their associated risks – analysing the trigger level to assess the exposure of the bond to conversion risk, rating of the instrument (if available), frequency of coupon payments, etc. Coco bonds are standardised and regulated, with a decade of track record. The liquidity and credit risk of these issuers are monitored by the portfolio manager and analysts as for all other issuers and the current regulation seems satisfactory on these instruments. |
| 4. Unrated bonds | (1) Higher yields and diversification compared to traditional bonds. This is in part because it permits the UCITS manager to gain exposure to markets which have been overlooked or are not available in the rated bonds market, or to issues which are too new or small to have the resources to obtain a credit rating, in which the manager has sufficient internal expertise to conduct its own due diligence and assessment of the creditworthiness of the bond or has closer familiarity with the issuer. These could be a portion of a well-diversified high yield portfolio.  (2) Gains may be realised whether the manager considers that the bond may obtain a rating in the future, increasing its value.  (3) It does not automatically oblige the manager to divest where the rating of a bond it holds has been withdrawn. | Indirect exposure may be obtained by, for example, convertible notes. | We observe typically from 0 – 5%, in some cases up to 10%, in a cross-section of our membership. | **Reliable Valuation**: where the unrated bonds still has pricing vendor coverage, the procedure as outlined in our general remark above applies. If there is no price coverage, the valuation team will do the research, discuss with portfolio manager and fair value the position.  **Other risk management**: as the creditworthiness of these bonds has not been assessed by a major credit rating agency, the UCITS manager must internally assess the risk of default of the issuer and broader risk of the bond following an internal rating policy, which is in any case required in accordance with the CRA Directive (Directive 2013/14/EU). This is managed by having sufficient expertise at the level of the UCITS manager to assign an accurate internal rating to come to a proper conclusion of inherent credit risk. The liquidity and credit risk of these securities are monitored by portfolio manager and analysts as for all other issuers and the current regulatory elements seem satisfactory on these instruments. |
| 5. Distressed securities | (1) UCITS managers are not automatically obliged to sell any bonds which have unexpectedly defaulted or been downgraded and which may potentially recover.  (2) Securities acquired in a distressed state allow for potentially higher yields where purchased at an undervalue and where the issuer may recover, in which the manager may play an active role e.g. through being involved in restructuring. They provide a risk/return profile similar to equities with a limited downside and a significant upside if a proper restructuring solution is found.  (3) As there is no official definition of distressed investments, UCITS are obliged to have exposure to distressed investments simply by benchmark universes – as normal high yield benchmarks and ETFs do have exposure to distressed assets (defined as rated below CCC-). |  | Some of our members have reported typical exposures of well below 10%, commonly between 0 – 5%.  Exposure to distressed securities would typically be found in UCITS marketed as High Yield and Opportunistic. | **Liquidity**: a distressed security will typically be less liquid than an IG security, being mostly traded OTC as opposed within formal exchanges, with the pool limited to more specialised investors, lower trading volumes and more price volatility given the uncertain nature of the issuers financial condition. However, distressed securities defined by a certain rating are not necessarily trading illiquid or at distressed prices. Managers can ensure holding distressed securities does not impact the ability to meet redemptions by limiting their holding of this asset type, regular monitoring and stress testing at asset and portfolio level, staggering the maturity of the securities, etc.  **Reliable Valuation**: where the distressed security still has pricing vendor coverage, the procedure as outlined in our general remark above applies. If there is no price coverage, the valuation team will do the research, discuss with portfolio manager and fair value the position. |
| 6. Unlisted equities[[6]](#footnote-7) | (1) Potential for high returns, where the company grows and may ultimately be acquired for a premium or become listed. Selective private investing can deliver superior long-term investment results to fund investors and has directly and indirectly enhanced public equity investing, e.g., deeper knowledge about disruptive technologies and business models on the horizon. Once combined with long-term investment horizon and with a disciplined internal process carefully considering the risks of exposures to such assets, investing in this asset class can lead to important investment opportunities allowing identification and access to exceptional private companies with high odds of growth and becoming successful public companies.  (2) Exposure to unlisted equity can be created passively, through a corporate debt restructuring involving debt-for-equity swaps – this will provide positive optionality, so there is a potentially strong inventive to keep those assets in the best interests of the investors. A specific example of this is Russian securities, which are now no longer listed, however UCITS managers still hold them and must be able to trade them OTC.  This market has grown in importance as a source of capital formation and value-creation over the last 20 years, with mutual funds in recent years having engaged in increasingly more private investing to capture this value creation. | Indirect exposure can be obtained via, e.g., rights and convertibles. | A cross-section of our members have reported exposures of below 5%. | **Liquidity**: as these are not listed on public exchanges, these assets are less liquid than listed equities. Guardrails applied to this asset class can include the implementation of ‘traffic light systems’ coupled with periodic assessments and reporting to the senior management.  **Reliable Valuation**: in case of no price coverage, internal valuation processes can be established to fair value the position. Along with potential and regular official accounting information.  **Other risk management**: some of our members report that they typically only invest if there is a commitment to list or be publicly traded within 1 year. |
| 7. Crypto assets[[7]](#footnote-8) | We believe this topic is too broad and nuanced to comprehensively address within the context of this consultation. Regulatory and market practice is still developing in this area.  Related to this, it is important to differentiate between sub-categories of crypto-assets, in particular those within the scope of MiCAR and those within the scope of MiFID II. When it comes to tokenising an eligible asset (i.e., representing its ownership rights using DLT), this could bring efficiencies to post-trade and compliance processes, via automation, smart contracts, identity verification. This is because DLT creates a single, digital record of ownership to verify ownership title and authenticity. It can also allow for greater liquidity by enabling fractional ownership in an underlying asset. We note our response to Question 25, below, suggesting to clarify via guidance that tokenization of an eligible asset would not impact the eligibility of that asset, in alignment with MiFID II.  With respect to cryptocurrencies, this raises important considerations which must be thoroughly considered. | Indirect exposure can be obtained via ETPs, investment in other CIUs, derivative products and thematic equities.  Without expressing a view on the appropriateness of exposure of UCITS to cryptoassets, we broadly recognize that indirect crypto asset exposure enables UCITS managers to gain exposure via traditional wrappers while removing certain challenges of direct investments – in particular:  (1) The need for a specialized crypto asset custody setup. Many custodians of UCITS funds are not yet able to offer this service, thus indirect crypto asset investments negate the requirement to onboard and due diligence a separate specialized crypto asset custodian.  (2) Access to crypto asset-specific liquidity venues. The liquidity of cryptocurrencies is spread across multiple, mostly crypto-specific, liquidity venues and traded against both fiat currencies and stablecoins. UCITS managers may not be able to efficiently access those crypto asset-specific liquidity venues, while crypto asset product structures do. | Very limited indirect exposure of <1% has been reported by certain of our members, having been gained via ETPs. | **Regulator views**: there is divergence as to whether crypto assets can be considered transferable securities. For example, ESMA’s guidelines proposal on MiCA Regulation recognise that certain crypto assets can be classed as financial instruments under MiFID II. in **Ireland**, the CBI recognises that tokenised traditional assets may have a different risk profile to other digital assets based on an intangible or non-traditional underlying. Regarding the latter, the CBI states it is highly unlikely to approve direct or indirect exposure by a UCITS in light of their potential for significant risk (liquidity, credit, market, operational, etc.). In **Luxembourg**, the CSSF in its 2024 FAQ on Virtual Assets states that UCITS are not allowed to invest directly or indirectly in virtual assets, though this prohibition does not apply to digital assets fulfilling the definition of financial instruments and such digital assets could potentially fall within the scope of eligible assets for UCITS. In **Germany**, [BaFin FAQ](https://www.bafin.de/EN/Aufsicht/FinTech/Kontaktformular/FAQ_Uebersicht/FAQ_Uebersicht_node_en.html) notes that UCITS are not permitted to invest directly in crypto assets such as Bitcoin, but may participate in the price development of crypto assets indirectly by means of delta-one certificates.  **Reliable Valuation**: other than asset-backed tokens, most digital assets do not have an inherent value based on underlying assets or potential cash flow they can generate. While most cryptocurrencies have self-imposed limits on their total supply which can help to maintain value, there is no consensus as to how to value cryptocurrencies and many have experienced high price volatility. For existing ETPs with a cryptocurrency underlying, the value is derived based on real-time trade prices from digital exchanges.  **Other risk management**: for cryptocurrency, custodial arrangements can be a source of risk, in particular risk of hacking. Securing the private keys that enable cryptoassets to be transferred from one party to another is central to safeguarding cryptoassets. High due diligence into the custodian and the digital wallet used will be central, and their procedures for safekeeping private keys. |
| 8. Commodities and precious metals[[8]](#footnote-9) | Our members have not indicated merits of obtaining direct exposure to commodities and precious metals. | These asset classes, as an underlying, have low or no correlation with traditional asset classes, diversifying the portfolio and reducing risk, while also providing a good hedge against inflation.  Our members report indirect holdings by way of ETF and commodity indices in particular. | Members have indicated to us that exposure is typically between 0 – 10%, gained indirectly.  For UCITS which are specialised in this asset class, the minimum indirect exposure (via derivative, ETC, ETF) can be at least 30%. | **Regulator views**: differing guidance notes have been provided by national competent authorities.  **Liquidity**: the main methods of indirectly investing in commodities and precious metals can be considered liquid. For ETFs and ETCs in particular, these are traded on major stock exchanges which provides high liquidity, while futures and options are traded on established, liquid exchanges.  **Valuation**: see our general remark above on valuation. Valuation of ETCs or ETFs is typically based on its market price, which is readily available. Precious metals vendors such as BBG (LBMA) have been noted as an example. |
| 9. Exchange-traded commodities (‘ETCs’) | (1) Commodities have low or no correlation to traditional securities, diversifying the portfolio and reducing risk, while also providing a good hedge against inflation.  (2) ETCs permit indirect exposure to the performance of commodities without direct physical ownership, and give investors the opportunity to invest in markets in which they usually don’t have a direct access to such as metals, energy, livestock and other commodities. Importantly, some ETCs on precious metals (such as gold) may bear lower risks than other ETCs, thanks to their structure similar to the one of some physical ETFs (with physical exposures kept on segregated accounts and a safe deposit box at an independent custodian). The structuring of ETCs is a key element to analyse before investing.  (3) ETCs invest in one commodity or in a basket of different commodities. The latter helps to diversify the portfolio between the different commodities. | Certain members have reported gaining indirect exposure via ETFs. | Typically between 0 – 10% | **Regulator views**: there is divergence as to the treatment of ETCs by national competent authorities.  **Liquidity**: ETCs are listed products and therefore benefit from liquidity on exchanges, but the main source of liquidity depends on the underlying liquidity. Therefore, it is important for each investor to analyse the ETC structure and underlying before investing.  **Reliable Valuation**: valuation of ETCs is typically based on its market price, which is readily available, and in line with the general procedure mentioned above. Given the distinct structures of ETCs across exchanges, it is important for each investor to analyse the ETC structure and underlying before investing. |
| 10. Real estate | We understand that exposure would typically be indirect. | Indirect exposure would typically be achieved via investment in a REIT or CIUs holding real estate.  Real estate can offer higher than average, consistent returns. It can provide income generation from rent as well as capital appreciation where the value of the property rises.  Correlation with traditional asset classes have historically been low, with returns generated being independent from stock market fluctuations.  Real estate can also be considered as a hedge against inflation. |  | **Liquidity**: REITs are highly liquid, as they are publicly traded. For CIUs, investing in real estate can provide periodic redemptions or may be closed ended; the liquidity of open-ended CIUs can be subject to market conditions. ABS, MBS and CLOs are traded in financial markets but their liquidity varies.  **Reliable Valuation**: REITs are publicly traded, and so their prices are publicly quoted and based on the market price of the shares of the REIT traded on the exchange. For a CIU invested in real estate, the value would typically be based on the CIU’s NAV which would in turn be based on the period determination of the manager of that CIU or a third party. For ABS, MBS, CLOs, they would be typically valued using a third party valuer or price provider to obtain their fair market value, based on interest rates, credit risk, the underlying property, etc. |
| 11. Real Estate Investment Trusts (‘REITs’) | (1) REITs provide the possibility of receiving a stream of income through dividends paid out by the REIT, with the income being generated through rent.  (2) They also allow for risk mitigation through diversification across different sectors and locations of real estate via a tax transparent vehicle, without requiring a direct ownership of the underlying real estate. The REIT structure exists in a number of EU and third country jurisdictions, and the regulation applicable to them provides safeguards for investor protection which is consistent with requirements for UCITS investing in transferable securities.  (3) REITs are more flexible than investing in physical real estate, avoiding the time and high cost associated with purchasing real estate.  (4) Investing through a REIT provides economies of scale, permitting access to classes of property usually reserved for investors with a significant capital, such as commercial real estate. | We have noted indirect exposure being obtained through other UCITS. | Exposure can typically be up to 5 – 10%, though we note some UCITS with exposure of between 80 – 97%. | **Liquidity**: REITs are listed and traded on stock exchanges, providing high liquidity.  **Reliable Valuation**: as REITs are publicly traded, the procedure follows that for exchange traded products.  **Additional note:** It is worth noting that a REIT is typically a designation granted to listed companies that receive the majority of their income as rent from real estate, providing favourable tax treatment provided certain conditions are met. Some REITs are categorised as AIFs, while others will not due to having a commercial purpose (e.g. the management of the property). |
| 12. Special Purpose Acquisition Companies (‘SPACs’) | (1) Potential for increased returns where the target private company grows following its IPO.  (2) Provides a mechanism for UCITS to invest in innovative or high-growth private companies, or those within emerging sectors or markets, which may otherwise be inaccessible. |  | Exposure can typically be up to 5 – 10% | **Regulator views**: some Member States have issued specific guidance on this asset class. For example, the CSSF notes that SPACs can be eligible investments provided that at any point of their life cycle they qualify as a transferable security. It requires the UCITS to first perform a detailed risk assessment covering all material risks to which the UCITS will be exposed, and to in principle limit exposure to max. 10% of the UCITS’ NAV and to be appropriately disclosed in the UCITS perspective.  **Liquidity**: SPAC investments can be traded in the same manner as normal common stock when they are publicly listed companies on a stock exchange. The main difference being that they have no operations and are a vehicle which uses an IPO to raise capital to acquire another company down the line.  **Valuation**: as a publicly traded company, where the SPAC is exchange traded, the procedure for valuing an exchange traded product is followed.  It is reported by some members that risks associated with investing in SPACs are managed by limiting the percentage of possible investments (e.g., the CSSF limits exposure to 10% of the UCITS NAV) and ensuring appropriate disclosure in the prospectus. |
| 13. EU AIFs[[9]](#footnote-10) | (1) Investing in an AIF permits exposure to a diversified portfolio of underlyings to which the UCITs may not be able to obtain direct exposure. This can bring diversification benefits and a higher return potential. For example, large-scale projects such as real estate or infrastructure. For real assets in particular, AIFs generally offer a high degree of stability and profitability regardless of e.g. interest rates.  (2) Higher returns may also be generated by virtue of the flexibility of AIF managers in their investment approaches (e.g. leverage and short selling strategies) as well as the expertise of AIF managers in this domain.  (3) The regulation of AIFs via the AIFMD provides increased investor protection. | Our members have reported typically direct exposure. In some cases, indirect exposure is obtained through other fund of EU AIFs. | Typically up to 5 – 10%. | We refer to our answer to Question 14 above, regarding the considerations relevant to whether UCITS funds should be able to invest in certain open-ended AIFs.  **Valuation**: we refer to our general remarks above regarding obtaining a reliable valuation. with sources of pricing specific to EU AIFs including Bloomberg, Six-Financials, etc. |
| 14. Non-EU AIFs | (1) Investing in an AIF permits exposure to a diversified portfolio of underlyings to which the UCITs may not be able to obtain direct exposure. This can bring diversification benefits and a higher return potential.  (2) Higher returns may also be generated by virtue of the flexibility of AIF managers in their investment approaches (e.g. leverage and short selling strategies) as well as the expertise of AIF managers in this domain. |  | Between 0 – 10% | **Valuation**: we refer to our general remarks above regarding obtaining a reliable valuation. with sources of pricing specific to EU AIFs including Bloomberg, Six-Financials, etc. |
| 15. Emission allowances | (1) Low correlation to traditional securities, diversifying the portfolio. It can also represent a hedge where the UCITS is exposed to sectors which are sensitive to, e.g., carbon pricing or regulation.  (2) Possibility for capital appreciation, as the value of these assets can fluctuate based on factors such as regulatory changes and supply and demand.  (3) These assets may also be compatible with the Article 8 or 9 strategy of a UCITS fund. | Indirect exposure can be obtained through ETCs.  Indirect exposure can avoid the potentially significant operational and regulatory hurdles to direct exposure due to the requirement to have a Union Registry account (an electronic system used to track the issue, transfer and cancellation of emission allowances under the EU Emissions Trading System) and the operational expertise required to manage the account. Additionally, the purchase and sale of emission allowances may require specific regulatory permissions. |  | **Liquidity**: these assets are traded on established markets and are therefore liquid. The degree of liquidity will depend on factors such as trading volume and the size of the pool of potential investors. Managers also have regard to the seasonality of liquidity, which can vary depending on compliance deadlines and expected regulatory changes.  **Reliable Valuation**: as emission allowances are traded on exchanges, a source of valuation will be the market price of the asset obtained from financial data providers or the exchange itself. The UCITS manager may also look to the market value of the asset. |
| 16. Delta-one instruments | (1) Efficient and cost-effective exposure to the underlying without requiring direct ownership of those securities. This is particularly useful to access markets and sectors that would otherwise be difficulty or expensive to access.  (2) They permit the UCITS to hedge against specific risks as well as providing diversification. |  |  | We refer to our answers to Question 13.  **Liquidity**: these instruments are typically traded on major exchanges and are therefore highly liquid. There are also active secondary markets for delta one instruments.  **Valuation**: Delta-one instruments can take the form of exchange-traded instrument, instruments traded with CCPs and OTC instruments; in each case, the manager will follow the relevant approach for valuation, with the sources being defined within the manager’s pricing matrix. |
| 17. Exchange-traded notes (‘ETNs’) | ETNs can provide exposure to underlying assets or benchmarks which may otherwise be difficult for the UCITS to access. | We have not been notified of indirect exposures. | Some of our members reported direct exposures of typically less than 5%. | **Liquidity**: ETNs are traded on major exchanges, which provides liquidity, and there is also a secondary market for ETNs.  **Reliable Valuation**: following the general valuation policy, some of our members report that ETNs are considered within the category of ETFs for valuation purposes, with price sources including Bloomberg, Six-Financials. |
| 18. Asset-backed securities (‘ABS’) including mortgage-backed securities (‘MBS’) | (1) Exposure to a wide, diversified range of underlying assets in a cost-effective manner, such as household loans, loans to corporates, loans benefitting from public guarantees.  (2) Consistent receipt of income through interest and principal payments.  (3) Potential for higher yields than other fixed-income securities, depending on the tranche selected.  (4) The ability to choose the relevant risk/return profile by investing in the appropriate tranches, ranging from AAA to unrated. | Derivatives of ABS are possible (e.g. US To-Be-Announced MBS), which can carry the benefits of, in some cases, increased liquidity and therefore reactivity in investment/divestment choices. Non-funded derivatives can also preserve cash in the UCITS. | We are aware of up to 10% exposure in certain UCITS funds, and in a small number of UCITS exposure via direct and indirect means can range from 10% and, in one noted case, may amount to 100%. Some members have managed for nearly two decades UCITS specialised in this asset class, thus mainly invested in securitisations. | **Liquidity**: liquidity has been stable and resilient in recent years, with a high trading ratio, indicating a large proportion of ABS offered for sale are ultimately traded. Supply volumes for ABS ranges from €60 – €100bn per year. Average BWIC volumes (the most common method of selling ABS) stand at around €900m per month with a trading ratio around 90%. This proved resilient during the recent liability-driven investment crises in the UK whereby even with a surge in supply from large UK asset managers, trading ratio remained above 80%. The liquidity of AAA ABS is considered equivalent to that of IG credit.  **Reliable Valuation**: pricing sources for ABS include Bloomberg BVAL, ICE, Refitiniv/IHSMarkit. |
| 19. Other relevant asset classes (please specify) | **Private Credit**: similar to our remarks above with respect to loans, there may be merit to permitting exposure. This would be subject to the imposition of maximum limits on illiquid investments as outlined above regarding loans as well as other additional guardrails.  **Sukuks**: as sukuks represent an increasingly significant segment within fixed income indices, we would welcome consideration as to the conditions whereby sukuks can be considered eligible for investment by UCITS. Sukuks are financial certificates similar to bonds, however they are structured in quite diverse, bespoke ways in order to comply with Sharia law’s prohibition on the charging or paying of interest. These bespoke designs can render them technically ineligible for investment by UCITS. |  |  |  |

A graph of a graph with a black background

Description automatically generated with medium confidence**Appendix 1a – CLOs**

The CLO market has evolved considerably over the past decade, now representing almost $1.2tn USD. As it now represents a strategic asset class for a diverse range of investors (banks, pension funds, family offices, insurance companies, etc.), with growing interest from many large institutional investors, this has impacted the liquidity and price behaviour of CLOs. Primary market supply in Europe typically yields volumes of €15 – 25bn per annum supported by a well-functioning secondary market, in ordinary market conditions.

As mentioned in our answer above, the below graph depicts Bids Wanted in Competition (BWIC) volumes for European and US AAA CLOs since 2011 (giving an approximation of the secondary volumes in CLOs), showing consistent increase in volume. As noted above, during recent stress events (Covid-19, March-April 2020, and UK LDI, September-October 2022) the trading ratio remained at a high level.

A graph of different colored lines

Description automatically generatedThe CLO market has indeed proven resilient through multiple recessionary periods. The graph below shows CLO and corporate default rates, based on S&P’s annual study *“Default, Transition, and Recovery: 2023 Annual Global Leveraged Loan CLO Default And Rating Transition Study”* dated 27 June 2024. In 2023, 8 tranches of CLOs defaulted, all of which were deals originated post the 2008 global financial crisis and all of which were US CLOs issued in 2013 and 2014 rated BB and B. Out of over 23,000 CLO tranches rated by S&P globally, only 81 experienced a default (0.34%).

In the above-mentioned annual study, S&P also comments that the annual CLO default rates have remained generally steady throughout the sector's history, with the annual default rate remaining below 0.5%.  There have not been any defaults of investment-grade ('BBB-' or higher) CLOs since 2010 and no US or European leveraged loan CLO tranche originally rated 'AAA' has ever defaulted.

A graph with blue lines and orange lines

Description automatically generatedS&P also show that historical Global Sub-IG CLO default rates are incredibly low compared to Global Sub-IG Corporate Bonds (see the graph to the right). The annual global default rate for speculative-grade CLOs peaked in 2002, at 2.53% while it peaked at 10% for speculative-grade corporates. Since 2002, the annual default rate for speculative-grade CLOs globally has stayed below 1%. This is well below the long-term average annual default rate of close to 3.5% for speculative-grade corporate entities

In the US, CLO ETFs are the newest investor in the CLO market and have grown rapidly. They already have almost $14bn AUM with more than 50% of that volume being added this year. The largest CLO Mezz ETF, JBBB also just exceeded $1bn AUM.

A blue and white table with numbers and text

Description automatically generated

**Appendix 1b – European Loans**

European loans (Credit Suisse Western European Leveraged Loan Index) exhibit low correlation to equities (S&P 500 index), government bonds (ICE BofA Euro Government Index) and investment grade bonds (ICE BofA Euro Corporate Index). Furthermore it exhibits moderate correlation to European HY bonds (ICE BofA European Currency Non-Financial High Yield 2% Constrained Index), as demonstrated by the below matrix over a 10 year period. This means leveraged loans can provide a diversification benefit to a traditional portfolio asset allocation, whilst providing a yield premium.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **10 Yr Correlation** |  | **CSLLET** | **CSLLLT** | **HPIC** | **H0A0** | **ER00** | **C0A0** | **EG00** | **G0Q0** | **SPX** |
| **Credit Suisse West Euro Leveraged Loan Index All Denominations** | **European Loans** | **CSLLET** | **1** | **0.96** | **0.63** | **0.74** | **0.64** | **0.54** | **0.23** | **-0.11** | **0.57** |
| **Credit Suisse Leveraged Loan Index** | **US Loans** | **CSLLLT** | **0.96** | **1** | **0.65** | **0.79** | **0.6** | **0.5** | **0.19** | **-0.17** | **0.6** |
| **ICE BofA European Currency Non-Financial High Yield 2% Constrained Index** | **European HY** | **HPIC** | **0.63** | **0.65** | **1** | **0.82** | **0.63** | **0.67** | **0.3** | **0.18** | **0.73** |
| **ICE BofA US High Yield Index** | **US HY** | **H0A0** | **0.74** | **0.79** | **0.82** | **1** | **0.77** | **0.73** | **0.43** | **0.18** | **0.8** |
| **ICE BofA Euro Corporate Index** | **European IG** | **ER00** | **0.64** | **0.6** | **0.63** | **0.77** | **1** | **0.83** | **0.8** | **0.45** | **0.63** |
| **ICE BofA US Corporate Index** | **US IG** | **C0A0** | **0.54** | **0.5** | **0.67** | **0.73** | **0.83** | **1** | **0.71** | **0.7** | **0.57** |
| **ICE BofA Euro Government Index** | **EUR Govies** | **EG00** | **0.23** | **0.19** | **0.3** | **0.43** | **0.8** | **0.71** | **1** | **0.7** | **0.36** |
| **ICE BofA US Treasury Index** | **US Govies** | **G0Q0** | **-0.11** | **-0.17** | **0.18** | **0.18** | **0.45** | **0.7** | **0.7** | **1** | **0.11** |
| **S&P 500 Index** | **Equities** | **SPX** | **0.57** | **0.6** | **0.73** | **0.8** | **0.63** | **0.57** | **0.36** | **0.11** | **1** |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Source: Bloomberg** | | | |  |  |  |  |  |  |  |  |

**A graph of different colored lines

Description automatically generated**The European loan market has well-established liquidity. The graph to the right depicts the bid/offer spread for European and US loan flow-names (the most highly traded names within the asset classes) from 2007 to 2023 being a key indicator of market liquidity and transaction costs. Although crisis periods (2008 financial crisis and 2020 Covid-19 pandemic) caused significant spikes in spreads, these have remained stable under most market conditions, highlighting the strong ability to execute against investment opportunities.

The graph below depicts the level of natural liquidity generation from European leveraged loans on an annual basis from asset repayments alone. Whilst there are some periodic spikes in certain years, for example in 2021 post Covid when a natural market rebalancing occurred given difficulties of issuing new credits in 2020, the overall trend shows a strong stable level of liquidity generation. On average over the almost 20 year period the asset class has repaid c.25% year -on-year highlighting a strong ability to recover and perform strongly under various market conditions.

**A graph of a market repayments

Description automatically generated**

The graph below shows the performance of European Loans (Credit Suisse Western European Leveraged Loan Index) on an annual basis since inception in 1998. The asset class has delivered resilient returns lower volatility returns over more than 25 years, with only 3 years in this period delivering negative returns. In addition, the asset class has shown a strong ability to recover with a positive mean reversion. It has never delivered two years of consecutive negative returns and drawdowns have always been balanced out by a stronger performance the following year.

**A graph with numbers and a black background

Description automatically generated**

**Appendix 2 – Catastrophe Bonds**

Expanding on the merits of allowing direct UCITS exposures outlined in our response above, the following additional observations can be made:

(i) CAT bonds have consistently demonstrated low correlation with other asset classes over the past 20+ years, evidenced by two key factors: i) correlation matrices comparing CAT bonds with other asset classes, and ii) performance analysis during drawdown scenarios, such as the Global Financial Crisis and the COVID-19 pandemic, which highlight their resilience during periods of distress in traditional financial markets. The ECB and EIOPA have noted in their [Discussion Paper on Policy Options to reduce the climate insurance protection gap](https://www.ecb.europa.eu/pub/pdf/other/ecb.policyoptions_EIOPA~c0adae58b7.el.pdf) (April 2023) that *“Investors in cat bonds benefit from low correlation with equity and credit markets. As such, cat bonds can provide useful diversification, particularly during episodes of crisis and high market volatility.”* Similarly, BaFin, in its publication on [Advantages and risks of transferring insurance risks to the capital markets](https://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Fachartikel/2013/fa_bj_2013_06_alternativer_risikotransfer_en.html) (2013) has noted that the risks attached to cat bonds “*commonly exhibit a low correlation with other established risks on the capital markets (zero beta assets). That allows them to structure their portfolios more efficiently from a risk/reward viewpoint.”* Since the financial crisis, the search for true diversifiers in traditional asset portfolios has influenced investors to turn to cat bonds. Taking this liquid alternative investment away from investors will leave smaller investors with little else but equities, bonds and cash.

**A graph of different colored lines

Description automatically generated**The performance of CAT bonds, as evidenced by the **Swiss Re CAT Bond Total Return Index** (see graph to the right, source: Bloomberg) has been attractive compared to other asset classes. CAT bonds have demonstrated a positive contribution to portfolio performance, highlighting their merit relative to other investment options.Also the correlation of CAT Bonds vs. other asset classes is low as evidenced by the correlation matrix below (source: Bloomberg).

A screenshot of a computer screen

Description automatically generated(ii) CAT Bonds help to close the protection gap. Increasing the availability of reinsurance capacity makes insuring risks easier and more affordable. The ECB and EIOPA in their [Discussion Paper on Policy Options to Reduce the Climate Insurance Protection Gap](https://www.ecb.europa.eu/pub/pdf/other/ecb.policyoptions_EIOPA~c0adae58b7.el.pdf) (April 2023) propose a "ladder approach" in which private (re)insurance serves as the first line of defense for covering losses from climate-related natural disasters, while the use of financial markets to transfer risks through cat bonds is suggested to support the reinsurance of such risks. The graph below, taken from that paper, illustrates the proposed ladder approach, which includes the role of CAT bonds.

The ECB and EIOPA note that “c*apital market instruments, such as cat bonds, can complement insurance schemes to provide prompt liquidity for reconstruction after disasters. They can also help to pass on part of the tail risk assumed by private (re)insurers and/or PPPs to capital markets. Capital market instruments, which are often used together with traditional reinsurance, provide two key benefits: (i) diversification in the form of an alternative source of capital and (ii) a lower premium for overall coverage.”* They suggest that *“Policy measures could be undertaken at both national and EU level to foster greater and more effective use of cat bond markets in both the private and public sector, thereby helping to reduce the climate insurance protection gap.”*

(iii) The role cat bonds play in enhancing the resilience of societies, including in developing countries, has been recognised by the World Bank, which, through its International Bank for Reconstruction and Development (IBRD), has issued several CAT bonds aimed at insuring infrastructure losses following natural catastrophes. CAT bonds issued by the IBRD often serve as diversifiers in UCITS CAT bond funds. Without UCITS eligibility, the IBRD would be unable to rely on the CAT bond market as a significant source of capacity. This is reported also in the report, cited above, by the ECB and EIOPA. The World Bank has now facilitated USD 4.8bn in CAT Bonds,[[10]](#footnote-11) with the following CAT Bonds having so far been issued by the IBRD:



(iv) CAT Bonds help to make the insurance industry more resilient. Typically sitting at the upper end of a cedents reinsurance program, they provide a valuable source of claims paying capacity in very severe scenarios and hence help to keep the insurance and reinsurance industry solvent during these scenarios.

A graph showing a line graph

Description automatically generatedIn terms of the extent/amount of existing UCITS exposures,the market for UCITS CAT Bond Funds has grown since 2010 to over USD 10bn. At the end of 2023, there were 14 UCITS CAT Bond Funds, with 2 additional funds having since been launched. About a quarter of all outstanding cat bonds is held by UCITS regulated cat bond funds.[[11]](#footnote-12) Since 2010, this market has grown strongly. As of December 31st, 2023, total assets under management (AuM) of all cat bond UCITS funds reached $10.9 billion, in a $45 billion CAT bond market (Source: Artemis.bm).

A graph of a number of numbers

Description automatically generated with medium confidenceWith respect to liquidity, there is a strong secondary market for cat bonds, which operates as an OTC market with brokers primarily based in the US and Europe. US brokers typically report their trade volumes to TRACE. The daily traded volumes in the cat bond market from April 9 to June 14 are depicted in the chart on the right (Source: Bloomberg). During this period, TRACE reported 832 trades with a total volume of USD 2.6 billion, representing approximately 5% of the entire cat bond market.

In addition to the traded volumes reported via TRACE, there are trades conducted by European brokers that are not reported. Cat bonds typically have a maturity of 3 years, meaning that one-third of the entire cat bond market matures each year, generating significant additional cash flows for fund managers. At the current market size, these maturities account for approximately USD 15 billion in annual cash flows. Additionally, fund managers receive coupon income on their investment, currently accounting for approximately another USD 6 billion. Considering both reported and unreported trading volumes, as well as the substantial cash flows from cat bond maturities and coupon income, cat bond UCITS funds benefit from ample liquidity throughout the year to honour redemptions.

1. ESMA acknowledges that most of the asset classes listed below have not been clearly defined in EU legislation and this might be a source of divergent interpretations and misunderstandings. Where possible, ESMA invites stakeholders to specify their understanding or definition of the relevant asset classes under the “additional comments” box. [↑](#footnote-ref-2)
2. Where relevant, please distinguish between indirect exposures via instruments such as delta-one instruments, exchange-traded products, derivatives, or AIFs (EU or non-EU). [↑](#footnote-ref-3)
3. Please share any available data or estimates that help to assess the amount or extent to which there are existing UCITS exposures (distinguishing between direct and indirect, where possible) to these asset classes. Where no reliable data is available, ESMA would appreciate receiving estimates in terms of numbers and/or percentages of UCITS exposed to these asset classes and what is the average proportion in the relevant portfolios. Any additional data and insights on strategies, techniques and instruments used to gain exposure to these asset classes would be also highly appreciated. [↑](#footnote-ref-4)
4. Please include under this column any other evidence or views that you would like to share. [↑](#footnote-ref-5)
5. Where relevant, please distinguish between leveraged/structured loans, collateralised loan obligations (CLOs) and other types of loans or loan participations (please specify). [↑](#footnote-ref-6)
6. Where relevant, please distinguish between equity instruments issued by (1) private companies and (2) shares in public companies that that are not listed. [↑](#footnote-ref-7)
7. Where relevant, please specify what type of crypto assets and whether the implementation of MICA will change anything in terms of your assessment. With respect to indirect exposures, ESMA is particularly interested in stakeholder input on exchange-traded products including ETFs with crypto assets as an underlying. [↑](#footnote-ref-8)
8. With respect to indirect exposures, ESMA is particularly interested in stakeholder input on ETFs with commodities/precious metals as underlying. Please note that under the current UCITS rules, precious metals and certificates representing them are not eligible (Article 50(2)(b) of the UCITS Directive). [↑](#footnote-ref-9)
9. Where relevant, please distinguish between different types of AIFs (e.g. open-ended, closed-ended) and investment strategies (e.g. real estate, private equity, hedge funds). [↑](#footnote-ref-10)
10. https://www.artemis.bm/news/world-bank-has-now-facilitated-over-us-4-8bn-in-catastrophe-bonds/ [↑](#footnote-ref-11)
11. Source: Plenum Investments Ltd. CAT Bond Funds (UCITS) – Market Survey, Risk Rewards, Risk Patterns. June 2024. Available via email to: [info@plenum.ch](mailto:info@plenum.ch). [↑](#footnote-ref-12)