

# Rating Methodology Alternative Investments // Open-

**Ended Real Estate Funds** 

August 2023

#### **Contacts**

Sonja Knorr Managing Director +49 30 27891 141 s.knorr@scopeanalysis.com Hosna Houbani, CFA Director +49 69 6677389 55 h.houbani@scopeanalysis.com

Stephanie Lebert Senior Director +49 69 6677389 44 s.lebert@scopeanalysis.com



## Alternative Investments // Open-Ended Real Estate Funds

## **Table of Contents**

1.	Introduction				
2.	Scope of application and rating opinions				
3.	Overview of rating methodology for open-ended real estate funds				
4.					
4.1	Portfolio analysis and portfolio score				
	4.1.1	Property portfolio			
	4.1.2	Sustainability	7		
	4.1.3	Financial structure	7		
4.2	Management score				
	4.2.1	Scope's Asset Management Rating	8		
	4.2.2	Fund management assessment	9		
4.3	Risk-return ratio1				
4.4	Analysis of structure- and sector-specific factors1				
5.	Rating definition and rating scale for AIFs				
5.1	Rating definition				
5.2					
5.3	Rating changes and reviews				
5.4	Additional comments1				
5.5	Risk classification				



#### Alternative Investments // Open-Ended Real Estate Funds

#### 1. Introduction

This document explains the methodology used by Scope to rate open-ended real estate funds, a type of alternative investment fund (AIF). It covers the analytical framework in detail as well as the primary drivers in the rating process.

The principles around the rating process and methodology for open-ended real estate funds apply for all Scope Group entities. These can be found under 'Governance and Policies' (Download).

#### 2. Scope of application and rating opinions

The following methodology can be applied to all open-ended real estate funds which make equity investments and whose individual investors do not have a fixed investment horizon. The methodology can therefore be applied irrespective of the fund's target investors or their respective regulatory requirements. For Germany, the methodology focuses on open-ended real estate funds for retail and/or institutional investors (Spezialfonds) as per the German Capital Investment Code (KAGB).

These ratings provide an opinion on an open-ended real estate fund's risk-return profile, based on its portfolio and investment strategy, and thus provide a ranking of various funds with respect to these parameters.

#### 3. Overview of rating methodology for open-ended real estate funds

The rating process takes into account qualitative and quantitative criteria, allowing for a high degree of objective comparability across this fund segment.

The analysis comprises the following elements:

**Portfolio analysis:** This evaluates the risks faced by the underlying assets in the portfolio. As a first step, a quantitative analysis is performed whereby properties and rental contracts are extensively examined in terms of the specific risks, such as those related to the assets' economic and location-related parameters, as well as risks around the portfolio's structure and rental parameters.

Risk factors related to sustainability and financial structure are also assessed. The three assessments together yield the portfolio score for each open-ended real estate fund (see Figure 1).

Asset and fund management analysis: In the asset and fund management analysis, management performance is assessed both at the level of the managing company (Kapitalanlagegesellschaft (KAG) or Kapitalverwaltungsgesellschaft (KVG) in Germany) and at the level of the individual investment fund. The so-called management score forms the result of this segment. Together, the portfolio and management scores provide the risk score for the fund (see Figure 1).

August 2023 3/13



## Alternative Investments // Open-Ended Real Estate Funds

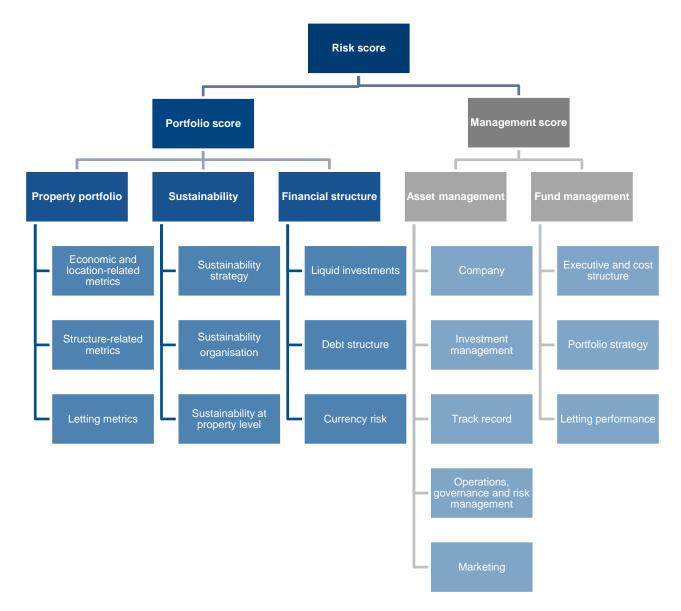


Figure 1: Diagram of the rating methodology for open-ended real estate funds – Source: Scope Fund Analysis

**Risk-return ratio:** The calculated risk score of each fund is translated into an individual risk-adjusted return benchmark using a mapping table. The better the risk score, the lower this benchmark is. The benchmark is then compared with the actual fund-specific return achieved, resulting in the fund rating proposal to the rating committee - see Section 4.3.

**Entity and sector analysis:** Scope also performs a qualitative assessment of so-called special items such as market influences, the situation of individual funds, or their specifics in the context of liquidity management. In the rating committee, the qualitative assessment may lead to a final fund rating deviating from the rating proposal due to the structure- and sector-specific analysis.

August 2023 4/13



#### Alternative Investments // Open-Ended Real Estate Funds

#### 4. Rating methodology for open-ended real estate funds

#### 4.1 Portfolio analysis and portfolio score

#### 4.1.1 Property portfolio

In the property portfolio analysis, which is the key element of the portfolio score, Scope calculates the risk scores for each component of the portfolio. The scores are then aggregated to yield an overall portfolio score.

#### **Economic and location-related metrics**

For this area, Scope analyses three sub-criteria: sovereign risk, portfolio diversification, and the properties' micro locations.

When assessing country-specific metrics, and hence sovereign risk, Scope applies risk indicators developed by its real estate research division (Scope Global Real Estate Monitor), which publishes annual reports on each country and highlights the static and cyclical risk factors in the real estate markets. Such indicators include, among other things, economic and fiscal stability, legal certainty and political risks, as well as real estate-specific factors such as supply risks or the development of the property market. The risk values of each country are weighted by the properties' market values and summarised at fund level.

In the diversification assessment, Scope examines allocations by geographies, markets, and property usage types. Scope assesses market diversification by considering the portfolio's allocation by continents, countries and cities. Cities are graded A, B, C or lower, based on parameters such as the size of the local real estate market and the turnover rates of floor space.

Office market characteristic s	General considerations	Stock of office space	Turnover rate	Prime rents
A locations	Metropolis with a degree of international importance	Over 7m sq m	Over 150,000 sq m	Over EUR 20/sq m
B locations	Big cities of national and regional importance	Over 2m sq m	Over 35,000 sq m	Over EUR 15/sq m
C locations	Cities of predominantly regional importance	Under 2m sq m	Under 35,000 sq m	Under EUR 15/sq m

Table 1: Cities classified by office market – Source: Scope Fund Analysis

Scope evaluates the diversification of property usage types by examining at high level the different segments' allocation (e.g. office, retail, residential) alongside the specifics of the individual segment. This allows Scope to determine, among other things, whether the segments' cycles are lagged, synchronised or independent of the general business cycle. In addition to the risk structure from the classic types of usage, the risks from the tenants' industry structure also have a particularly relevant influence. For example, the developments in the retail sector are very different. For example, the textile retail trade is currently particularly influenced by e-commerce. This structural change leads to a significantly increased rental price risk and consequently to a valuation risk for properties that are particularly affected by this. Scope therefore not only focuses on the respective type of usage, but also makes additional granular distinctions within this type of usage, thus also subjecting the industry structure of the tenants to an evaluation.

In addition, Scope classifies the portfolio in terms of the location's quality, i.e. A, B and peripheral locations. A-grade locations generally exhibit prime rental levels and are the most fungible. B locations are often relatively more stable in terms of rental growth, especially during financial crises, but exhibit higher vacancy rates and limited fungibility. Peripheral locations are relatively higher risk regarding vacancies and fungibility, particularly for office properties. The evaluation of a location's quality is based primarily on fungibility, with the best rating assigned to A locations. The higher the share of properties in B or peripheral locations, the lower the rating. Location quality is also considered in the context of property usage type. For example, a property with excellent transport connections in a top logistics hub represents an A location within this property usage type.

August 2023 5/13



## Alternative Investments // Open-Ended Real Estate Funds

#### Structure-related metrics

This analytical area is based on the property's age and size.

The assessment of a property's age is guided by the principle that the older the asset, the higher the risk. As the property becomes older, maintenance costs and the need to update fittings increase. Due to rising technical demands and the need for flexibility in building use, office properties often have to be modified extensively after 10 years.

In order to analyse property size, Scope compares properties of the same size class and usage type in the context of their respective markets. Scope's analysis uses data from its own real estate research as well as from external providers. The more liquid a location's market, the lower the risk for the fund. For properties valued at more than EUR 150m, information on market liquidity and average building size in the respective market is especially important. Also, when a property's market value exceeds EUR 250m, the number of potential buyers decreases. This has a negative effect on fungibility, which in turn increases risk.

#### **Letting metrics**

Scope assesses five sub-criteria for this analytical area: the occupancy rate, residual terms of letting contracts, single-tenant risk, concentration risk and valuation risk.

The higher the occupancy rate, the better the assessment. Assuming a constant portfolio composition, a consistently high occupancy rate over time indicates good tenancy management. A transaction policy that is well managed in terms of strategy can also maintain a high occupancy rate.

Long residual terms for letting contracts help secure rental income for the fund – so long as tenants are creditworthy. Scope assesses the structure of the contracts' residual terms as well as the distribution of lease maturities. If an above-average number of leases are due to expire over the next three years, cash flow-related risks generally increase over the short term. These risks relate to potential costs for letting or structural modifications, or to rental levels, which may fall to the lower market rate.

A tenant generating more than 85% of net target rental income for a given property is classified as a single tenant. When assessing single-tenant risk, Scope only considers leases that expire within the next three years.

The risk increases if a large share of income is concentrated on a small number of tenants. When assessing the property portfolio Scope also takes into account the concentration risk of the top-five and top-ten tenants by net target rental income.

The valuation level of fund properties can represent a risk for the fund's price, especially during market downturns. The use of conservative methods to calculate market value lowers this risk. Also, the larger the share of properties acquired when markets were high or overpriced, the greater the adjustment to align with a sustainable market level. Scope therefore examines the valuation level of the properties themselves. Scope determines market value by comparing current multipliers as a ratio of market value versus net target rental income in terms of property usage type.

#### Special cases and departures from Scope's portfolio assessment

Scope analysts may depart from the established procedure for weighting the various criteria, particularly sub-criteria, if a fund exhibits special characteristics. This particularly applies to the diversification assessment. In the case of smaller funds, diversification risk takes on greater significance and may therefore be given greater emphasis in the analysis.

The methodology covers heterogeneous commercial real estate portfolios as well as homogeneous portfolios, such as those composed solely of residential properties. In the case of residential property portfolios, the assessment of residual lease terms is adapted to the properties' turnover rate, in view of the unlimited nature of these leases.

August 2023 6/13



## Alternative Investments // Open-Ended Real Estate Funds

#### 4.1.2 Sustainability

The sustainability of a property is of central importance both in the investment process and within the framework of inventory management. In order to reflect that relevance for open-ended real estate funds, Scope has created a separate rating component for sustainability. The assessment of sustainability has three elements: sustainability strategy, sustainability organisation, and sustainability of the property portfolio.

#### Sustainability strategy

To start with, Scope checks whether the management company has a defined sustainability strategy and how it documents that strategy; in particular whether an annual sustainability report is issued. Scope then examines the reasonableness of the sustainability strategy, both in general as well as specific to the portfolio. Special emphasis is placed on the extent to which the strategy is implemented as well as the effect of this strategy on the portfolios under management. Among other things, Scope assesses the type and scope of certification in the portfolio, as well as the requirements set by the management company over acquisitions and existing assets.

#### Sustainability organisation

The consistency with which sustainability is integrated throughout the real estate value chain is decisive for this analytical area. Significant aspects include acquisition and disposal planning, technical due diligence, and risk controlling. To evaluate the degree to which the strategy is implemented, Scope analyses the organisational structure and how sustainability aspects are applied to acquisitions. In this regard, Scope examines the size of the sustainability budget and whether a system for comparing properties exists (e.g. with respect to carbon dioxide emissions).

#### Sustainability of the property portfolio

According to the EU taxonomy, properties are defined as "sustainable" if they are among the top 15% in terms of primary energy consumption. However, there is currently still a lack of comprehensive data, for example from energy suppliers, for a reliable peer group comparison.

As part of Scopes' sustainability assessment, 17 quantifiable criteria are therefore evaluated at individual property level to arrive at an assessment for the entire portfolio.

In the context of this assessment, a well-designed building from an energy point of view is characterised by the fact that it fulfils the requirements of economy, user comfort and health with the lowest possible total energy demand (including construction, use and disposal). In this respect, newly planned properties are at an advantage. However, existing properties can also be optimised in terms of their technical equipment and thus consumption can be reduced. The first step is therefore always comprehensive consumption recording, which in future must be achieved across the board in cooperation with the tenants in order to initiate the desired optimisation measures and make energy/CO<sub>2</sub> reductions measurable at all.

The individual criteria examined are subdivided into object-related criteria in the area of "substance and value retention" and predominantly consumption-related criteria for sustainable management (resource management).

In the area of "substance and value retention", criteria such as the public transport connection of the properties, building equipment suitable for disabled persons or the charging possibilities within the framework of electric mobility are registered and evaluated. The area of resource management covers, for example, the recording and level of CO2 emissions or the creation of possibilities for recording and evaluating consumption data at tenant level.

#### 4.1.3 Financial structure

Scope uses three categories to rate financial structure: liquid investments, debt structure and currency risk.

#### Liquid investments

Adequate liquidity is extremely important for the flexibility of open-ended real estate funds – even with the introduction of the KAGB.

When assessing liquidity structure, Scope examines the amount of liquid assets in the fund, the ease with which these can be liquidated, and the associated investment risk. Bank credit balances generally rank highest as these are readily convertible into

August 2023 7/13



## Alternative Investments // Open-Ended Real Estate Funds

cash. However, Scope analysts also consider whether the fund's overnight and time deposits are diversified across different banks in addition to assessing the creditworthiness of these banks. Money market instruments and securities held by a fund are evaluated based on available external ratings for those investments. The higher the rating, the better the evaluation. If liquidity is placed into mutual funds, this is assessed based on Scope's rating methodology for mutual funds (Download).

#### **Debt structure**

In this panel, two main points are examined: the loan balances and the term to maturity. Scope's analysis of loan balances is based on the principle that the lower the leverage ratio, the lower the risk to the fund and, by implication, the higher the flexibility in terms of taking out new loans. For the term to maturity, a longer term leads to a better assessment. Scope pays particular attention to flexibility with regard to fixed rates for loans. If a property has to be disposed of quickly, long-term fixed-rate loans, particularly those arranged in a high interest rate environment, are a disadvantage.

#### **Currency risk**

Open (i.e. unhedged) foreign exchange positions are assessed according to the principle that the smaller the open position, the lower the exposure to adverse currency movements. Scope looks at the open position's average value in the 12 months before the assessment date, as well as their minimum and maximum values.

#### 4.2 Management score

Scope believes that good management is a major driver of the success of an investment. High-quality management can reduce risks and increase opportunities. When rating open-ended real estate funds, Scope examines management quality from two standpoints: Scope's Asset Management Rating (AMR), which evaluates the overall structure of the management company; and the fund management assessment, which deals solely with individual funds.

As part of this process, Scope draws explicitly on its own published Asset Management Ratings.

If a company has not been assigned such a rating, Scope will perform an assessment whose structure is based on criteria used for its Asset Management Rating.

#### 4.2.1 Scope's Asset Management Rating

The Asset Management Rating by Scope is the result of the agency's critical and objective assessment of key elements impacting the asset manager's ability to perform in the investors' interest. It therefore provides information which is essential to the investment decision

The assessment follows a scorecard approach divided into five different panels:

- Company
- Investment management
- Investment track record
- Governance, risk management and ESG
- · Distribution and client services

The evaluation is carried out using a scorecard approach, with the help of a large number of qualitative and quantitative individual criteria. One to four points are awarded for each criterion, depending on the quality, with one point corresponding to the institutional minimum standard and four points standing for excellent quality. If a manager does not meet the minimum institutional standard for a particular sub-criterion, zero points are awarded. Severe failure to meet this minimum standard can also result in negative individual scores. The weighted average score over all criteria will then translate into the suggested AMR for the alternative investment manager. The ultimate AMR is assigned by a rating committee and typically reviewed annually or as triggered by events and/or material developments. In the case of three or more individual criteria with zero or negative points, it is for the rating committee to decide whether the failures to meet the minimum institutional standard for the relevant individual criteria are serious enough to notch the AMR down or to limit the AMR altogether to the "CAMR" level (non-institutional standard), even if a rating of BBB-AMR or higher is derived from the weighted average score. The final AMR rating is assigned by a qualified majority vote of the Rating Committee.

August 2023 8/13



## Alternative Investments // Open-Ended Real Estate Funds

The valuation is always carried out in the context of the relevant peer group, so that a high degree of consistency and comparability across a broad spectrum of asset managers is ensured. Scope always classifies the individual criteria of the methodology according to the basic idea of the respective individual criterion in order to do justice to different asset classes. In individual cases, this may result in a deviation from the rating calibration presented.

The rating scale used for AMR is provided in Figure 2. The AMR is produced via a scoring model. Asset managers that meet the minimum institutional standard are rated between AAAAMR and BBB-AMR. A score of CAMR is given if these minimum standards are not met. Ratings below BBB-AMR are extremely unusual as such low-quality companies are unlikely to commission an external AMR (due to the negative effect the resulting score would have on their fund ratings).

Refer to www.scopeexplorer.com for the detailed AMR methodology.

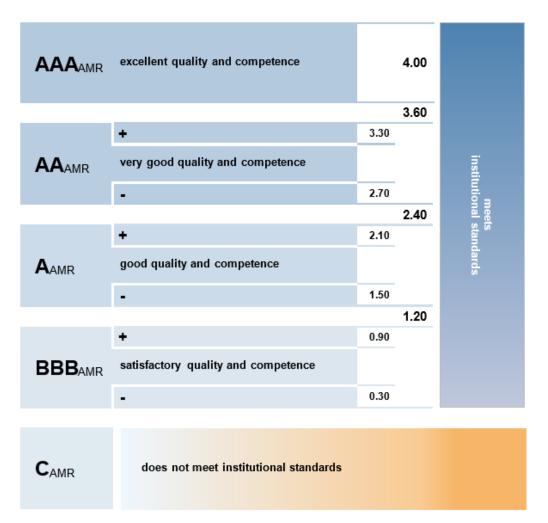


Figure 2: Rating scale for Asset Management Rating - source: Scope Fund Analysis

#### 4.2.2 Fund management assessment

Scope's fund management assessment reflects its experience in the real estate industry as well as the structure and continuity of fund management. The portfolio's strategy and past performance are also taken into account in this area. Further relevant points include transaction and letting performance in the preceding fiscal year, trends in occupancy rates, the share of properties with high vacancy rates, and the fund's cost structure.

Together, the Asset Management Rating and the fund management assessment provide the overall management score for a fund. The portfolio score (through the analysis of the property portfolio, sustainability and financial structure) together with the management score, result in an overall risk score for the fund. This approach assumes that management of above-average quality tends to reduce a fund's risk, whereas lower-quality management will increase risk.

August 2023 9/13



## Alternative Investments // Open-Ended Real Estate Funds

#### 4.3 Risk-return ratio

Scope determines the risk-return ratio based on the historical returns of each fund. The period considered is congruent to the minimum holding period for investors. This is currently two years for German retail funds.

The risk score of each fund determined from the previous sections is translated into an individual risk-adjusted return benchmark using a mapping table. The better the risk score, the lower this benchmark is. The benchmark is then compared with the actual fund-specific return achieved, resulting in the rating proposal for the rating committee. The final fund rating is assigned by the rating committee and may differ from the quantitative rating proposal.

The more a fund outperforms its benchmark, the better its return is assessed. If the two figures are roughly commensurate, Scope assigns a neutral score, whilst failure to achieve the benchmark would trigger a negative assessment.

If the product is still in the ramp-up period, Scope uses a preliminary rating to determine the risk/return ratio on the basis of the return achieved to date and the forecasts for the portfolio assessed. After the end of the second full fiscal year, an initial rating can be assigned. Preliminary ratings are possible at the latest until the end of the ramp-up period.

#### 4.4 Analysis of structure- and sector-specific factors

In addition, qualitative factors which may, in part, have a substantial impact on the fund's risk-return profile are taken into account. These factors can lead to an adjustment of the rating result by the rating committee if their impact is expected to be substantial. This is particularly likely if the risk analysis was not able to quantitatively capture these factors to an adequate degree. For example, the loss of a fund's main distribution channel may lead to the loss of investor groups or to liquidity problems.

#### Structural and legal risks

The liquidity management of investment companies is an example of a factor that can influence a rating independently of quantitative analysis. This includes how the distribution network is structured and managed, the composition of the investor base (institutional vs retail), and the proportion of pre-KAGB investors (which can redeem shares immediately) relative to post-KAGB investors (which have to give notice of redemption).

For example, German retail funds with a high proportion of pre-KAGB investors are seen as higher risk than funds designed with the new rules in mind. This is because pre-KAGB investors can liquidate up to EUR 30,000 every six months and thus regularly liquidate a large part of the total investment amount per investor immediately. Investors that purchased fund shares or reinvested distributions after the KAGB's introduction must observe a two-year minimum holding period as well as a one-year cancellation period. This affords fund management more flexibility with regard to liquidity management.

Scope also examines the fund's liquidity ratio and changes in this ratio, as well as credit facilities which can be used to manage liquidity. Any liquidity risk identified in Scope's analysis will adversely affect the rating outcome.

Any risks related to the fund's regulatory environment (depending on the jurisdiction) are also considered.

#### Risks specific to the fund or sector

In this area Scope identifies risks that may arise from significant shifts in the market. Examples include risks related to funds in ramp-up phase that are acquiring assets in an overheated market; and any investment/divestment barriers, for example, through changes in fund taxation or in the relevant property markets.

August 2023 10/13



#### Alternative Investments // Open-Ended Real Estate Funds

#### 5. Rating definition and rating scale for AIFs

#### 5.1 Rating definition

Scope's AIF ratings for open-ended real estate funds assess a fund's ability to generate risk-adjusted returns.

A rating becomes effective as soon as the rating report is published, remaining valid until a rating update is released (usually a year later). During this period, the relevant factors are regularly monitored. Scope reserves the right to suspend or adjust ratings in the event of changes.

Each rating report is published on the online platform "ScopeExplorer" (formerly "Alternative Investments Platform") upon completion of the rating procedure. See <a href="https://www.scopeexplorer.com">www.scopeexplorer.com</a> to access the relevant methodology and the rating outcomes.

#### 5.2 Rating scale for AIFs

AIFs can be assigned ratings from aaaAIF to dAIF, with notch-specific adjustments applied for ratings from aaAIF to bAIF. The AIF suffix highlights the applicability of these ratings to AIFs as defined in EU directive 2011/61/EU.

<b>aaa</b> AIF	Funds rated in this category are expected to produce an <b>excellent</b> risk-adjusted return based on quantitative and qualitative factors.		
<b>aa</b> AIF	Funds rated in this category are expected to produce a <b>very good</b> risk-adjusted return based on quantitative and qualitative factors.		
<b>a</b> AIF	Funds rated in this category are expected to produce a <b>good</b> risk-adjusted return based on quantitative and qualitative factors.		
bbb <sub>AIF</sub>	Funds rated in this category are expected to produce a <b>balanced</b> risk-adjusted return based on quantitative and qualitative factors.		
<b>bb</b> AIF	Funds rated in this category are expected to produce a <b>modest</b> risk-adjusted return based on quantitative and qualitative factors.		
<b>b</b> AIF	Funds rated in this category are expected to produce a <b>very modest</b> risk-adjusted return based on quantitative and qualitative factors.		
CCCAIF	Funds rated in this category are expected to produce a <b>poor</b> risk-adjusted return based on quantitative and qualitative factors.		
CCAIF	Funds rated in this category are expected to produce a <b>poor</b> risk-adjusted return combined with a <b>very likely risk of a capital loss</b> based on quantitative and qualitative factors.		
CAIF	Funds rated in this category are expected to produce a <b>poor</b> risk-adjusted return combined with a <b>high risk of a substantial capital loss</b> based on quantitative and qualitative factors.		
<b>d</b> AIF	Funds rated in this category are expected to produce a negative return		

Table 2: AIF rating scale - source: Scope Fund Analysis

#### 5.3 Rating changes and reviews

Scope's ratings on open-ended real estate funds are updated regularly, usually once a year. Unless otherwise indicated, Scope also monitors such funds in the interim. If specific events detected in the monitoring process suggest that a rating change may be appropriate, Scope places the rating on review while it evaluates the impact of these events. When such events occur, Scope communicates on <a href="https://www.scopeexplorer.com">www.scopeexplorer.com</a> that the fund has been placed on review, and indicates the possible change to the rating (to positive, negative, or stable). The process may, in some cases, result in the initial rating being affirmed without a change.

#### 5.4 Additional comments

Scope's ratings on open-ended real estate funds are generally subject to monitoring. For isolated cases in which there is no monitoring, this will be indicated in the rating report.

August 2023 11/13



## Alternative Investments // Open-Ended Real Estate Funds

In the case of preliminary ratings, which are assigned to funds that are yet to have a two-year performance record, the rating score is preceded by a (P).

#### 5.5 Risk classification

As a guidance, Scope will classify the fund in one of five risk categories for financial instruments, with 1 being lowest risk and 5 being highest risk. The risk classification is based on each fund's risk score, which is determined within the scope of the rating.

Risk class	Risk characteristics	
1	Low risk	
2	Moderate risk	
3	Increased risk	
4	High risk	
5	Very high risk	

Table 3: AIF risk classes - source: Scope Fund Analysis

August 2023 12/13



#### Alternative Investments // Open-Ended Real Estate Funds

#### Scope Fund Analysis GmbH

#### **Headquarters Berlin**

Lennéstraße 5 D-10785 Berlin

Tel. +49 30 27891-0

info@scopeanalysis.com www.scopeexplorer.com

#### Frankfurt am Main

Neue Mainzer Straße 66-68 D-60311 Frankfurt am Main

Tel. +49 69 66 77 389-0

#### **Disclaimer**

© 2020 All rights reserved. Scope Fund Analysis GmbH is not a rating agency subject to Regulation (EG) Nr. 1060/2009 as amended by Regulations (EU) Nr. 513/2011, (EU) Nr. 462/2013 (together, 'the rating agency regulations') and is not registered as a rating agency subject to the rating agency regulations. Ratings of asset management companies, investment funds and derivative issuers are not ratings subject to the rating agency regulations and therefore cannot be used for regulatory purposes by credit institutions, investment firms, insurance companies, reinsurance companies, institutions for occupational pension provisions, management and investment companies, managers of alternative investment funds, and central counterparties. Ratings by Scope Fund Analysis GmbH are not a recommendation to purchase or sell an investment product and do not express an opinion over the value or the quality of investment funds, derivative issuers and management companies. Scope Fund Analysis GmbH ensured as far as possible that the information underlying the rating is of satisfactory quality and comes from reliable sources, but did not verify each item of information as specified in the sources independently. Scope Fund Analysis GmbH prepares, with the necessary duty of care, its independent and objective ratings as of the date the ratings are issued. Future events are therefore regarded as uncertain. Forecasts are based on estimates; hence, a rating does not represent a factual claim, but merely an opinion, which can also subsequently change and result in a rating adjustment. Scope Fund Analysis GmbH is therefore not liable for damages resulting from decisions made from using the issued rating. The rating can only be seen by all involved parties as a factor in the investment decision and cannot replace the investor's own analyses and assessment. The rating therefore only represents an opinion on quality and does not under any circumstances provide a judgement on the risk-return profile of an investment and makes no indication as to whether involved parties will: make a profit, have invested capital returned or enter into specific risks of liabilities by investing in the investment fund. The information and data included herein is protected by copyright and other laws. To reproduce, transmit, transfer, disseminate, translate, resell, or store for subsequent use for any such purpose the information and data contained herein, contact Scope Fund Analysis GmbH at Lennéstraße 5 D-10785 Berlin.

August 2023 13/13