

Investment Research

Alternative Investment Fund Research Methodology



Introduction

BondAdviser's Alternative Investment Fund Research Methodology is designed to **minimise bias** in delivering a **process driven** approach to assessing qualitative and quantitative traits of investment products. BondAdviser produces research reports on funds that invest in a portfolio of global credit and debt-like alternative assets. Our research is typically solicited by funds that desire process-driven, impartial research to provide investors or internal advice on how to better structure and operate the fund. The ultimate purpose of the report is to provide investors with a **transparent** and **in-depth understanding of risks** pertaining to the fund and the **confidence to understand the investment**. Our fund research reports are **not price-based recommendations**, nor explicit comparisons on like-for-like funds. Rather they summarise our due diligence which incorporates our implicit expectations of ex-ante risk and return. The process is robust and replicable with the **same standardised steps taken across all funds**, ensuring an objective analysis. Each step of the process is outlined in this document. We strive for transparency and as such we welcome feedback and encourage all those with questions to be in [contact](#).

The initial screening of funds and assets is based on an amalgamation of globally recognised, best practice approaches to securities as defined by the Financial Services Council (FSC), Alternative Investment Managers Association (AIMA) and the International Organisation of Securities Commissions (IOSCO).

All portfolio assets and managers must meet minimum requirements as outlined in our initial due diligence questionnaires. Detailed interviews, operational checks, process documentation and data collection then follow. Each of these steps helps to ensure that our **recommendations are consistent** and are based on a comprehensive understanding of the key drivers of the underlying market segment, the investment manager and broader portfolio.

The fundamental basis of the assessment process is our Five Pillar Analysis: the framework is designed to understand the complexities of each fund. This initially requires review of the fund's Strategy & Performance, Processes & Policies, Risk Management, and Governance. Our final pillar, Quantitative Analysis examines the ex-ante expected returns of individual securities in the portfolio at a point in time using proprietary Monte Carlo modelling. This process allows for standardised analysis across assets in the fixed income and debt-like alternative universe.

Upon completion of the Five Pillar Analysis, the fund is set against our objective Assessment Criteria to ensure a simple, recognisable and consistent recommendation scale is attained. Based on Assessment Criteria, the fund will be assigned a rating of "Screened Out", "Approved", "**Recommended**" or "**Highly Recommended**" after the **independent input of each analyst** and **unanimous ratification of the Product Committee (PC)**.

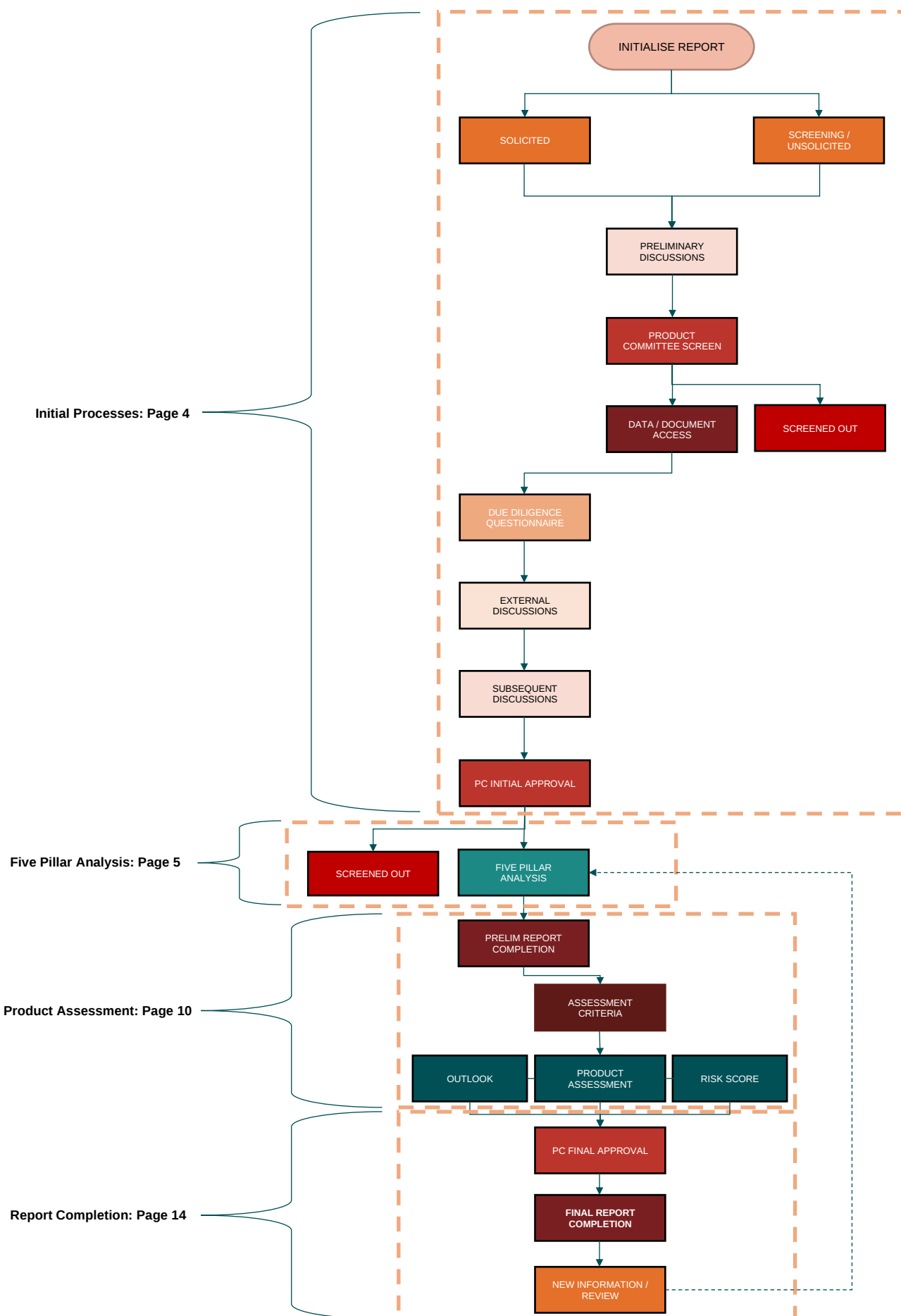
Should new information warrant a review of the research report, BondAdviser will initiate an update on the initial report. This and any subsequent reports will involve the same fundamental analysis approach. However, they may provide a more succinct update to the fund, as often the investment processes and other facets of the fund will not have changed.

The types of funds covered by BondAdviser are those with portfolio holdings which can be objectively tested via our Five Pillar Analysis, with the final pillar – Quantitative Analysis - being the significant hurdle here. Portfolio holdings that are unable to be modelled via a Monte Carlo simulation based on default probabilities are excluded from our research. As a result, assets must be debt, or have debt-like characteristics in order to be covered by our research.

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Simplified Process Flow Diagram



Initial Processes

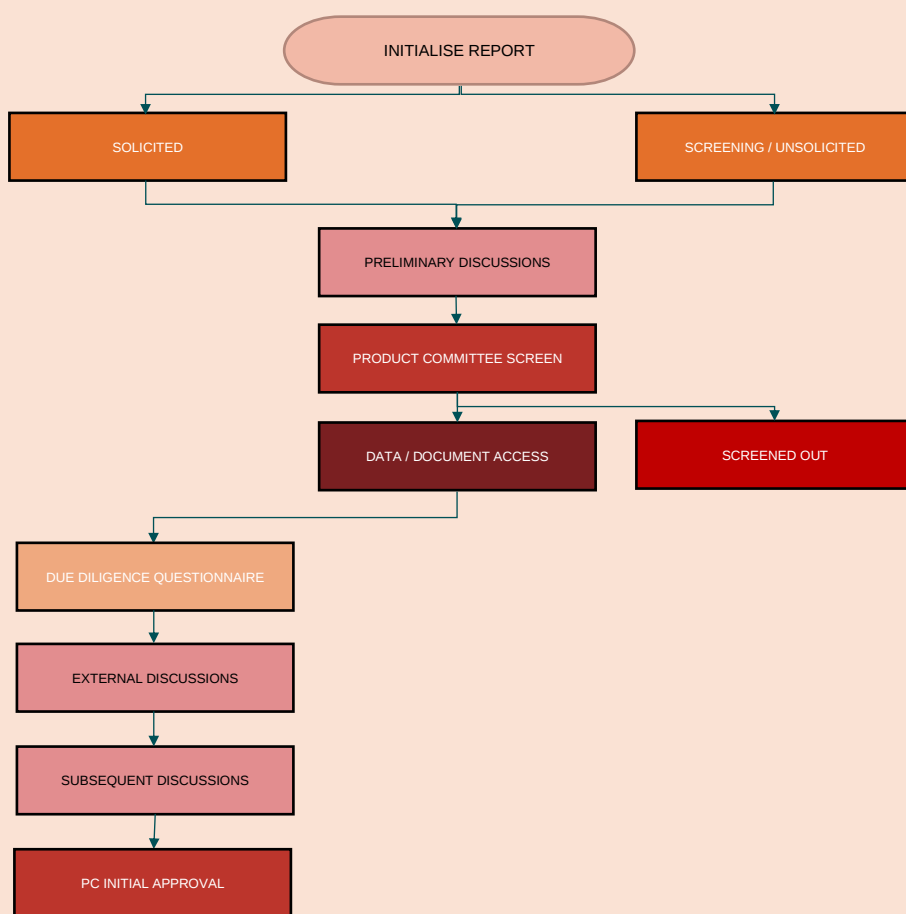
A fund manager will typically engage BondAdviser to write a research report on their fund after initial discussions, at which point BondAdviser would provide the manager a standardised Client Service Agreement should the fund be suitable for our Five Pillar Analysis on first principles. Upon receipt of the signed Agreement, all relevant parties enter into **Preliminary Discussions**. Prior to beginning any research, BondAdviser requires familiarity with the fund's service providers including lawyers, custodians, auditors and other relevant parties, along with the term each party has been appointed.

If the **Product Committee Screen** finds that the fund does not breach any of BondAdviser's protocols, passes an internal ESG screen, and has no reputational issues, the PC will engage BondAdviser's research team to initiate the **Data Collection** process. The research team will request data in a standardised template including its portfolio holdings, historical financials, returns and governing documents.

Fund managers then complete a detailed **Due Diligence Questionnaire**, providing the information required by BondAdviser's analysts to understand the inner workings of the fund. BondAdviser may engage with any of the fund's lawyers, auditors, custodians or valuers for **External Discussions** as required. If any further information or clarity is required from the fund manager/s, **Subsequent Discussions** will be arranged.

Considering all of the gathered information, the Product Committee determines if the fund passes our minimum standards. If not, the fund will be screened out. This second PC meeting is the **Initial Approval** of the research report.

Figure 1. Initial Processes



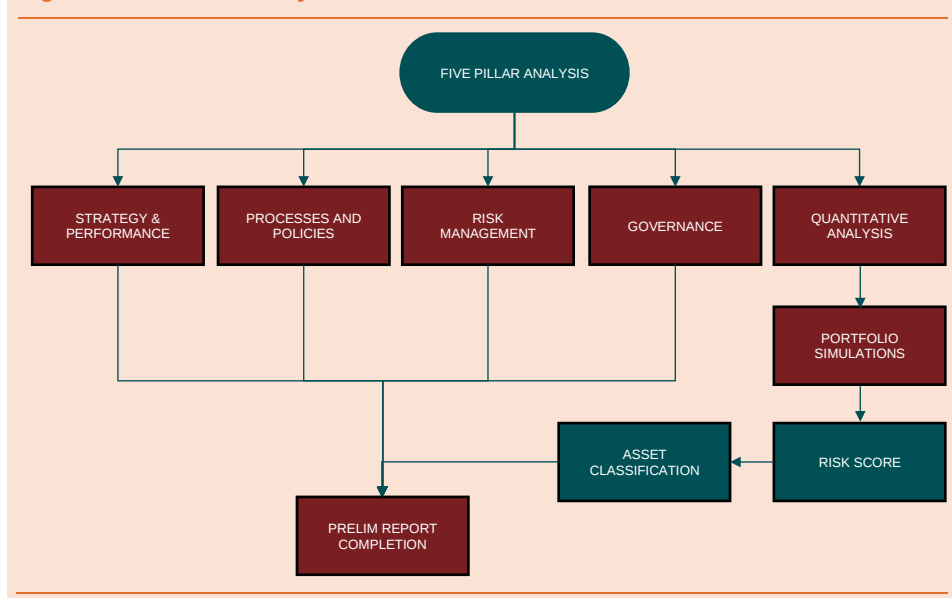
Five Pillar Analysis

Our focus is on delivering the highest quality data, research and insights so that investors can make **well informed investment decisions**. At the centre of our approach is a proprietary 5-pillar process for analysing funds in a rigorous and disciplined manner. The five factors comprise features of a fund which we believe are critical to success.

Our ability to provide a **clear and concise investment recommendation** on the very diverse and unique funds within our coverage universe is a key benefit of our research process. We **simplify an otherwise complex procedure** for investors into a simple, recognisable, and consistent recommendation scale.

We use a **bespoke combination of qualitative assessments and forward-looking quantitative analysis**. In our experience, *most other research is backwards looking*, which naturally limits its usefulness. By combining our deep understanding of debt markets and their emergent trends with *our extensive modelling and forecasting capabilities*, we aim to solve this limitation and provide meaningful, risk-adjusted prospective recommendations for investors.

Figure 2. Five Pillar Analysis



Strategy & Performance

Investment Strategy and Performance is where a top-down approach is taken to assess what the fund sets out to achieve and historically how the fund's performance compares relative to its respective benchmarks. In this crucial first pillar, we identify the market segment that the fund specialises in, the risk level of the fund, its historical or expected returns and the fund's investment strategy.

Of key importance at this step is identifying the type of borrowers/securities the fund will target, the creditworthiness of these borrowers/securities, where in the capital structure the fund intends to invest in, security/structure of the securities/loans, and how diverse the portfolio will be. Additionally pertinent to Strategy & Performance is the effect of optionality on returns and the subsequent variance in returns whereby alternative investment funds may attach equity-like investments and options to loans.

Processes & Policies

Processes & Policies analyses the managers' portfolio construction process and the subsequent monitoring of that portfolio once established. This can typically be quite granular, evaluating the steps taken for origination and execution of securities and loans, along with how any poorly performing securities and loans are managed. For instance, if loans are typically brought to the fund by third parties, it is critical to understand their motivation, especially when considering how a bad debt would be managed between the parties.

It is also important to provide prospective investors with insight into the fund's policies on leverage, maximum and minimum weights by credit rating, obligor and industry, foreign currency exposure and any potential issues to do with liquidity upon exiting the investment.

Risk Management

Our assessment of risk management considers credit, optionality, and liquidity risk. However, we also recognise operating risk is always present and this is considered throughout each report. Due to the asymmetric nature of credit investment, we view effective risk management as underpinning success.

Credit risk primarily refers to credit migration risk (the deterioration in the credit quality of an investment) default. A deterioration in credit quality would see security and loan values fall, flowing through to lower value of the fund's units and possibly the ability to pay distributions. Factors of a fund we look for that support credit risk mitigation are a thorough screening process when selecting investment opportunities, external parties being involved in the due diligence process, the nature of arrangement (i.e. loans being bilateral rather than syndicated), and of course seniority and security of the loans. Additional factors include regular accounts from borrowers along with diversity of the fund portfolio by both size (dollar) and by the borrower's industry.

Liquidity risk for the fund is comprised of two elements: (1) is able to meet investor redemptions (in open-ended vehicles); and (2) that it is able to provide liquidity to borrowers on request (in the lending strategies) within the loan commitment period.

Fund liquidity risk concerns any lock up periods, the expected horizon to optimise returns and how often an investor could potentially liquidate their positions. There is also risk built into some credit funds that investors with liquidated positions may be forced to place their units into a run-off. This is where investors wait to receive the full value of their units as the loans of the fund are repaid. This is in contrast to a Fund having a cash allocation to meet fund liquidity concerns as they come due.

Loan liquidity risk is the ability of a Fund to meet undrawn commitments to borrowers as they are drawn. The fund has two main options here in order to meet borrowers demands; hold cash or use a revolving loan facility. Failure to strike the balance between a large cash drag on returns and the fees on access to a revolving loan facility is where a Fund may be too cash heavy or overextend itself.

Governance

Governance is critical to successful investment stewardship and hence we look to understand where the relevant parties to the fund fit and assess appropriate suitability in order to make a view on responsible allocation and oversight of capital. Additionally, we provide investors with a simplified explanation of what can often be quite a convoluted legal structure. This section of the research report provides an understanding of the fund's governing documentation as well as its custodian, trustee, investment manager and other related parties.

It is here that we also analyse how the portfolio, and more so, each loan is valued. Based on AASB and IFRS accounting standards, all assets fall under three categories outlined in the *Asset Classification* section on Page 8 of this document. For loans that are not available for sale or traded actively, valuation can be subjective as loans are rarely impaired. In these circumstances, we prefer to see an independent expert engaged to procure the valuation of assets, rather than the fund manager, who likely has a bias to not downgrade loans until there is a very high chance of loss.

Quantitative Analysis

A key differentiator to BondAdviser's Alternative Investment Fund Research offering is our proprietary Quantitative Analysis, where **we simulate 12-month forward expectations of fund risk and returns under different scenario conditions without any bias towards the manager**. Many other research offerings are exclusively backwards looking in nature, nor do they have the requisite expertise, infrastructure, and resources to formulate forward looking expectations of return.

This analysis is best thought of as an expected credit loss model, where manager skill is unaccounted. In other words, the model assumes the manager's skill is only as good as the market. Realised performance, which is different to these expectations, can be thought of as an accurate proxy for alpha – especially in sub-asset classes where appropriate benchmarks are difficult to find. This realised alpha gives an indication of how the fund is expected to perform relative to the market, based on similar conditions.

BondAdviser's Portfolio Simulator is a **stochastic Monte-Carlo model**. It **prices single assets** based on simulated input conditions; this is then **aggregated on a portfolio level**. Key inputs are credit migration probabilities, yield curves and recovery distributions. By default, these **inputs are empirically based** – however inputs can be Bayesian if desired. The simulator is useful for formulating expectations of return and understanding tail risk, in terms of counterparty, credit, seniority, and duration.

Typically, we will perform at least two scenario simulations: baseline and distressed, however, where there is more uncertainty in the modelling, we may perform additional scenarios as required in order to better understand sensitivities in the portfolio. For each set of assumptions, **each individual asset is simulated at least 10,000 times** per scenario.

Risk Score

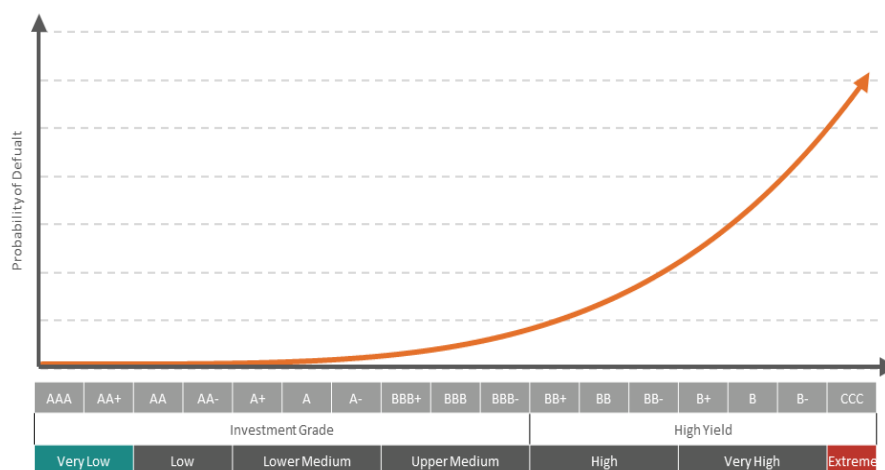
Our Risk Score is aligned to the same methodology that is utilised in BondAdviser's single-instrument reports. It is not a credit rating and should not be used as such.

- **AAA** – Very Low
- **AA** – Low
- **A** – Lower Medium
- **BBB** – Upper Medium
- **BB** – High
- **B** – Very High
- **CCC** – Extreme
- **D** – Default (Fund Closed)

Our overall Risk Score is driven by the underlying assets of a fund coupled with our quantitative analysis. It is mutually exclusive to the Product Assessment. For example, it is possible for a fund to be Highly Recommended and have a risk score of Extreme.

This could occur where the fund invests in riskier credit assets, but we are very confident of its capability to meet or exceed its benchmark target. Conversely, a fund comprising mostly of government bonds may hold a Risk Score of Very Low, but its governance processes, history, and controls are not as strong as its peers and warrant only an Approved assessment. The Risk Score and Product Assessment provide two useful inputs for investors to make decisions in accordance with their own risk profile.

Figure 3. BondAdviser Fund Risk Assessment Curve



Diversification is a significant factor taken into account when assessing the Risk Score of a fund. We calculate a fund's diversification by dividing a single portfolio company's drawn capital over the fund's total drawn capital. If a newly established fund (less than 18 months of operations) has an expected average counterparty exposure in 12 months' time of greater than 20%, or an existing portfolio currently has an average counterparty exposure of greater than 20%, the Risk Score will be notched down one full rung.

On the other hand, an established fund with an existing high level of diversification primarily consisting of loans could be notched up by a full rung should the average counterparty exposure be less than 2.5%, with no single exposure above 5% of drawn capital. For bonds, this requirement is stricter, given the mark-to-market sensitivity: the average counterparty exposure must be less than 2.0%, with no single exposure above 5%.

We note that relatively high (>70%) industry concentration could overwrite any ability for a diversification-related Risk Score uplift. This is a function of systemic diversification not being provided.

Asset Classification

We broadly adhere to international and Australian accounting standards along with global best practice in designating assets according to their place in the fair value hierarchy defined in International Financial Reporting Standard 13 (IFRS13) - Fair Value Measurement (Australian version – AASB 13). All assets designated as "Credit" fall under three categories based on market observability as outlined below:

- **Level 1 (Active Markets)** - Assets that have quoted prices in active markets, providing the most reliable evidence of fair value. As a result, transactions for these assets can generally occur at this price as at the measurement date. Domestically, typical examples of Level 1 assets include Australian Government Commonwealth bonds, listed debt and hybrid instruments and RBA repo-eligible financial instruments.

- **Level 2 (Non-Active Markets)** - Assets that have observable prices (directly or indirectly), not included within the Level 1 category (i.e. not quoted on an exchange). Assets referencing credit spreads and interest rates would qualify if the input were observable for the full tenor. This category generally encompasses credit markets which have limited secondary market activity such as corporate bonds, subordinated debt, and syndicated loans.
- **Level 3 (Illiquid and Alternative Credit)** – Assets that have mostly unobservable inputs and hence valuation models are used, driven in part by assumptions and expectations. There may be an independent overlay and a model risk adjustment to derive an exit (market) price. A limited secondary market is typical, and these assets are often referred to as alternative credit. Examples of this segment include “structured” credits such as the junior tranches of RMBS, CMBS and ABS, along with bilateral private debt investing.

Where a fund has multiple classifications on the individual assets of its portfolio, we determine a classification by weighted average.

Product Assessment

Preliminary Report Completion

After the pillar-based analysis is complete, the research report enters preliminary completion stage. The subsequent steps are almost exclusively objective to ensure minimal bias or conflict in the Outlook, Product Assessment, and Risk Score.

Assessment Criteria

The Assessment Criteria is a series of sequential objective questions where each desired answer leads progressively closer to our top rating of “Highly Recommended”. The rating scale is Screened Out, Approved, Recommended, and Highly Recommended.

1. Does the fund provide adequate data, documents, and maintain adequate systems?
Yes: Continue to Question 2
No: **Screened Out**
2. Are the fund's processes and policies fit for purpose?
Yes: Continue to Question 3
No: **Screened Out**
3. Is the structure of the fund fit for purpose?
Yes: Continue to Question 4 (now *at least* Approved assessment)
No: **Screened Out**
4. Does the fund (or an equivalent feeder Fund with similar management and strategies that does not require FX hedging) have a track record of greater than two years?
Yes: Continue to Question 5
No: **Approved**
5. Are the results for Quantitative Analysis materially worse than the purported average credit quality of the fund?
Yes: **Approved**
No: Continue to Question 6
6. Has the fund's (or an equivalent feeder Fund with similar management and strategies that does not require FX hedging) NAV return exceeded its target return for the last 24 months? * ^
Yes: Continue to Question 7
No: **Approved**
7. Is the fund's documentation, systems, processes, and representations of an excellent standard?
Yes: Continue to Question 8
No: **Approved**
8. Does BondAdviser expect continued outperformance of the fund's target return?
Yes: Continue to Question 9 (now *at least* Recommended assessment)
No: **Approved**
9. Are the fund's processes and policies the best in class?
Yes: Continue to Question 10
No: **Recommended**

10. Is the fund's structure best in class?

Yes: Continue to Question 11

No: **Recommended**

11. Does the fund have a track record of greater than five years?

Yes: Continue to Question 12

No: **Recommended**

12. Has BondAdviser been able to conduct continuous due diligence and research on the fund for a period greater than four years?

Yes: **Highly Recommended**

No: **Recommended**

The above steps are incorporated into the Product Assessment and contextualised with the Outlook and Risk Score. Consideration into each step need not be discussed as part of the research report.

** Funds with rolling 24-months of outperformance relative to its target return may not qualify for a Recommended Product Assessment. If the funds under management (FuM) during this period of outperformance are less than \$100m and the fund is attempting to drastically increase in size (by 200% or more), the Product Assessment will be Approved. This is to facilitate a comparison of results where time is needed to invest in new assets and to ensure that the fund's strategy does not change as it scales. Exemptions to this default Product Assessment may be applied where performance is calculated in accordance with GIPS.*

^ Equity-like illiquid assets that are marked to market less regularly than the credit assets of a Fund will produce capital returns that are outliers from the regular income returns. As these equity-like components can be part of a Fund's strategy, we assess rolling returns by smoothing the capital aspect of the return back to when those assets were last remarked. This contributes (positively or negatively) to historical returns that were exclusively income returns but now include the capital return component of a Fund's strategy.

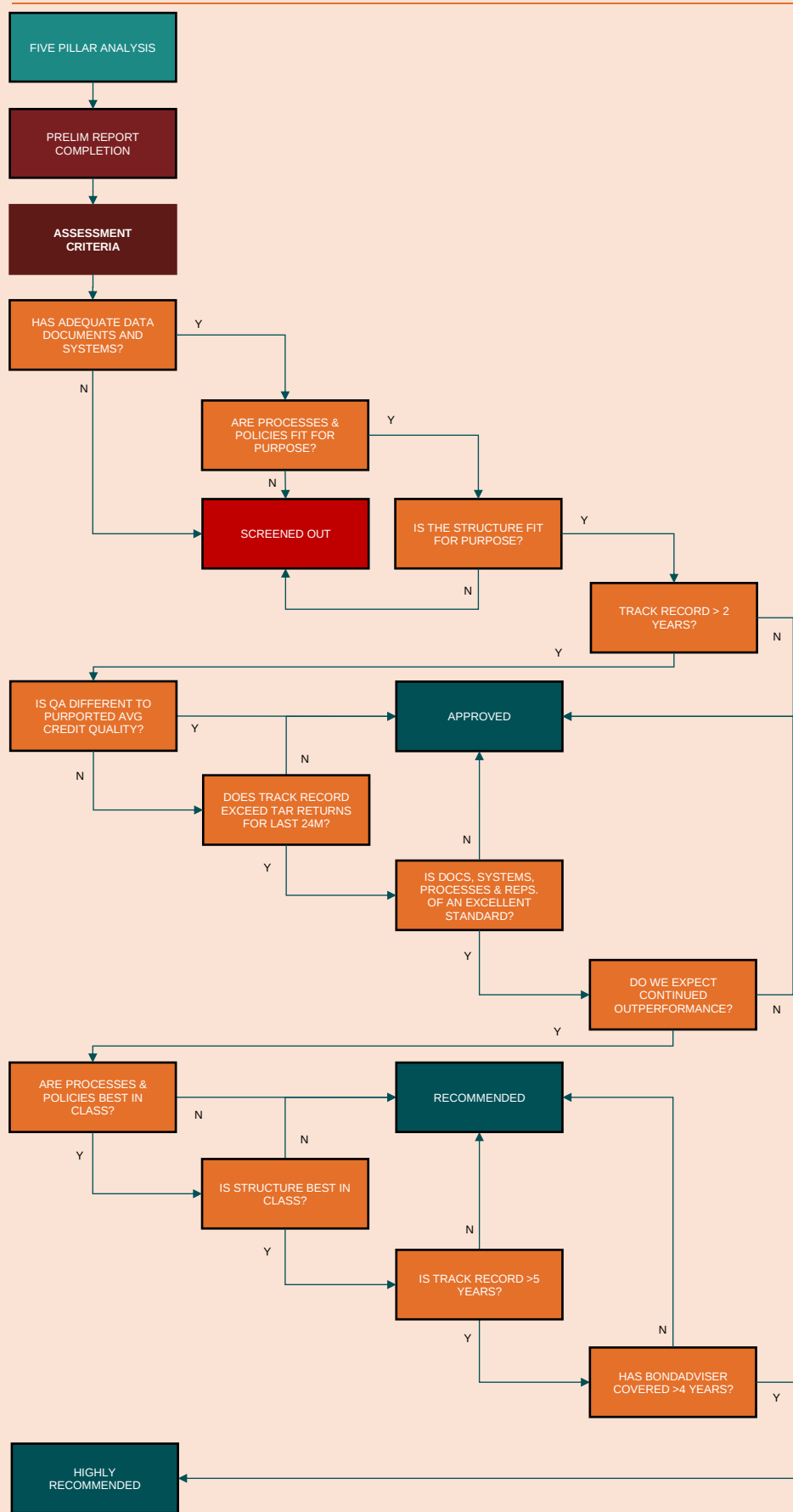
Product Assessment

The BondAdviser Product Assessment is the culmination of our research process applied to our pillar-based research approach. We conclude whether a fund is Screened Out, Approved, Recommended, or Highly Recommended as broadly defined below:

- **Screened Out** – The fund does not (or no longer) satisfies our minimum criteria for research inclusion. Where research has been discontinued, a fund will remain in the Screened Out pool for a period of 24 months, after which it will no longer be provided any classification.
- **Approved** – Our research allows us to conclude that the fund manager, governance structure, policies, and procedures appear to be sound and capable of managing the fund adequately to target its benchmark.
- **Recommended** – We have a reasonable expectation that the fund will achieve and outperform its target benchmark.
- **Highly Recommended** – We believe that superior skills, systems, and processes mean that the fund has a high likelihood of meeting and probably exceeding its benchmark target. Note that we only publish Highly Recommended assessments after issuing multiple reports over an extended period of time.

The Product Assessment is an unbiased rating predicated on our expectations of the fund based on the information provided to us by the fund and the Research Team's analysis of this information.

Figure 4. Assessment Criteria



Report Completion

Outlook

The Outlook is where our subjective expectations for the fund over the short-term are summarised in a rating of either deteriorating, stable, or improving as broadly defined below:

- **Deteriorating** – Either (1) the fund's performance or the risks pertaining to the fund are expected to worsen in the short-term, or (2) we subjectively expect the Product Assessment to fall in the next 12-24 months.
- **Stable** – Either (1) the fund's performance and risks pertaining to the fund are not expected to change drastically from current levels in the short-term, or (2) we subjectively expect the Product Assessment to remain unchanged for 12-24 months.
- **Improving** – Either (1) the fund's performance is expected to improve or the risks pertaining to the fund are expected to lessen in the short-term, or (2) we subjectively expect the Product Assessment to rise in the next 12-24 months.

The Product Assessment is tied to, but not influenced by, the Outlook rating for the fund. For instance, an "Approved" Product Assessment along with an "Improving" outlook would be an indicator that in a future review of the fund, there is potential for an upgrade in Product Assessment to "Recommended". An "Improving" fund is likely close to meeting the assessment criteria for a step above its current rating but is subject to a time or process hurdle which precludes an upgrade. Similarly, a "Deteriorating" fund is likely at risk of maintaining the sufficient required assessment criteria at its current Product Assessment level and could be subject to a downgrade at an upcoming review.

Product Committee Final Approval

The Product Committee review the report and question the research team. For final approval to be provided, 100% of voting members on the Product Committee need to approve the report. If the PC cannot arrive at unanimous approval, an iterative process begins where the fund can be either Screened Out, or resubmitted with an updated analysis, Outlook, Product Assessment or Risk Score, where subsequent unanimous PC approval can be sought.

Final Report Completion

After actioning any comments from the Product Committee, a redacted version of the research report will be provided to the fund for fact-checking and then subsequently published externally or internally depending on preference and use of the fund. BondAdviser can and does provide private recommendations to funds.

New Information / Review

Depending on the fund itself, the research team will re-engage the fund to collect the data necessary to provide a comprehensive report update on a quarterly or annual basis. Reviews are additionally undertaken upon material corporate actions. Report updates purport to highlight specific changes in the funds' process, performance, and other substantial variations. After collecting the relevant data and reasserting confidence in the fund, subsequent reviews commence at the Five Pillar Analysis step.

Figure 5. Report Completion

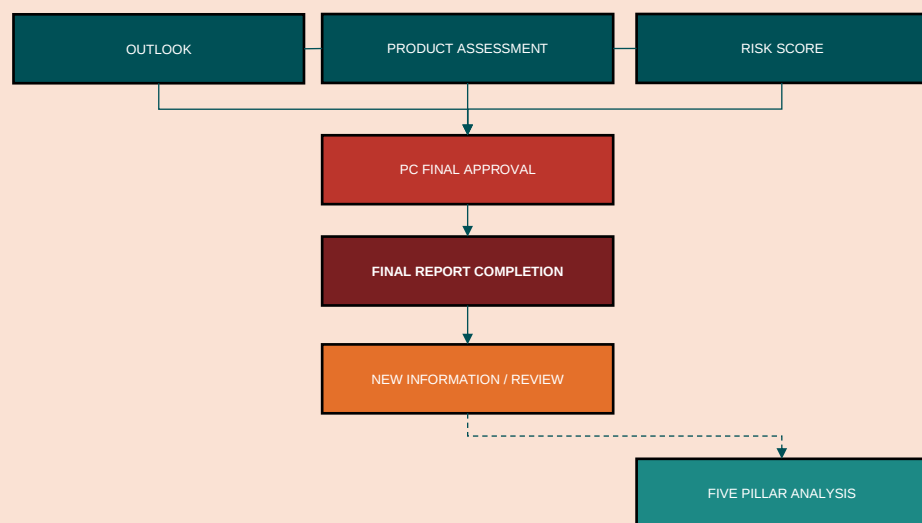
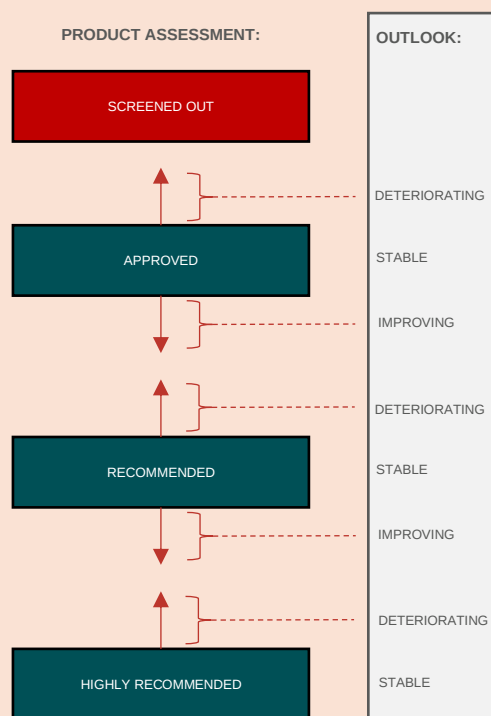
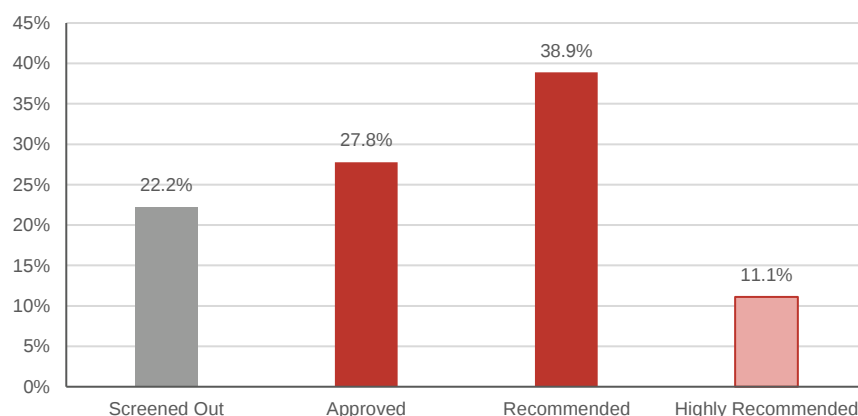


Figure 6. Product Assessment and Outlook Scale

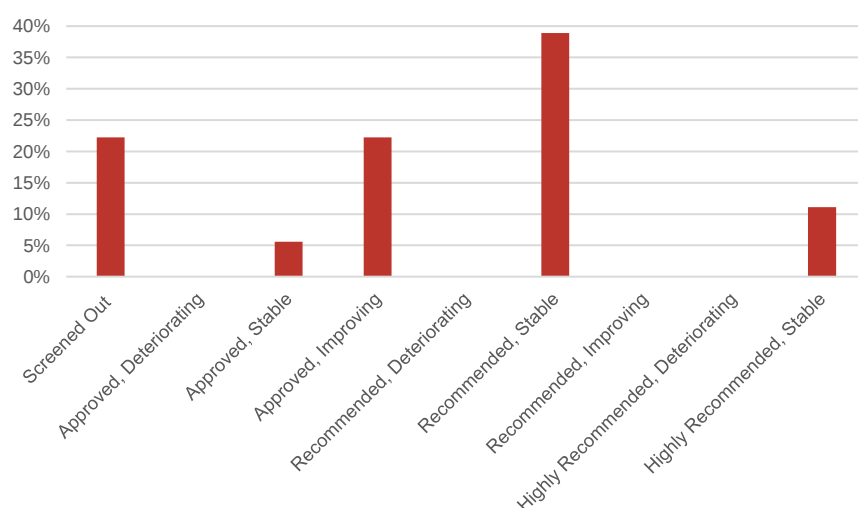


**Figure 7. BondAdviser Alternative Investment Fund Research:
Product Assessment Universe Distribution – September 2022**



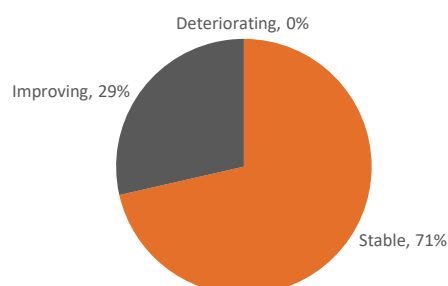
Source: BondAdviser. As at 5 September 2022.

**Figure 8. BondAdviser Alternative Investment Fund Research:
Product Assessment and Outlook Universe Distribution – September 2022**



Source: BondAdviser. As at 5 September 2022.

**Figure 9. BondAdviser Alternative Investment Fund Research
Outlook Universe Distribution – September 2022**



Source: BondAdviser. As at 5 September 2022.

General Disclosures

BondAdviser has acted on information provided to it and our material is subject to change based on legal offering documents. This material is for informational purposes only.

This information discusses general market activity, industry or sector trends, or other broad-based economic, market or political conditions and should not be construed as research or investment advice.

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We do not guarantee the currency of the report. If you would like to assess the currency, you should compare the reports with more recent characteristics and performance of the assets mentioned within it. You acknowledge that investment can give rise to substantial risk and a product mentioned in the reports may not be suitable to you.

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