Lonsec Research Process Document

Research Approach

11 | 2020

Contents

Why Lonsec?

Lonsec Research Pty Ltd ('Lonsec'), and its predecessors Lonsec and Lonsdale Securities, has been a provider of investment research to Australian financial planners since 1993.
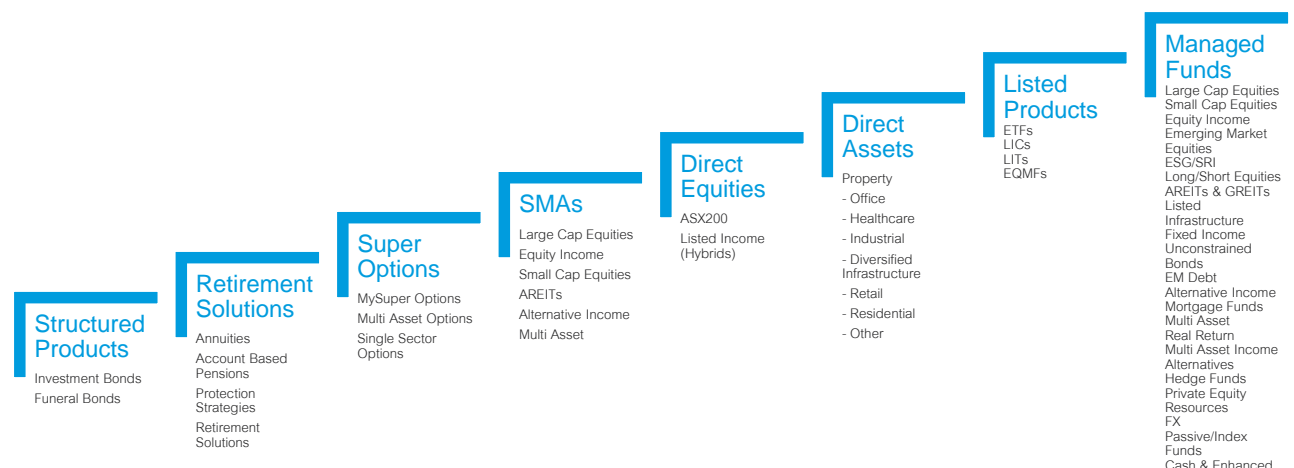
Lonsec's research enables licensees and investment committees to understand investment products and incorporate them into their Approved Product List, a pre-requisite for inclusion in model portfolios and investment recommendations by advisers.

Lonsec's seasoned research professionals can have deeper conversations with fund managers, to look behind the numbers and provide meaningful investment insights; we cut through the noise so that you don't have to, with Lonsec's analysts available and accessible if further information is required. Analysts take pride in their incisive and penetrating style of financial product analysis. Each team member has extensive experience in the financial services industry, with backgrounds spanning a variety of well-regarded funds management, banking and investment research houses. For more information about our team see Appendix A – Lonsec Research Team.

Lonsec's iRate research portal enables an adviser to filter the investment universe and construct portfolios aligned with client goals and preferences, enabling them to demonstrate how they're meeting their best interest duty.

Lonsec's iRate provides an unparalleled breadth and depth of qualitative research, including managed fund, listed product, super fund and super fund investment option research, accessible through a single portal, enabling an adviser to efficiently build a complete picture of a client's investment portfolio, to aid understanding and facilitate more informed and insightful conversations with clients.

Figure 1. Lonsec Research Offering

Structured Products
Investment Bonds
Funeral Bonds

Retirement Solutions
Annuities
Account Based Pensions
Protection Strategies
Retirement Solutions

Super Options
MySuper Options
Multi Asset Options
Single Sector Options

SMAs
Large Cap Equities
Equity Income
Small Cap Equities
AREITs
Alternative Income
Multi Asset

Direct Equities
ASX200
Listed Income (Hybrids)

Direct Assets
Property
- Office
- Healthcare
- Industrial
- Diversified Infrastructure
- Retail
- Residential
- Other

Listed Products
ETFs
LICs
LITs
EQMFs

Managed Funds
Large Cap Equities
Small Cap Equities
Equity Income
Emerging Market Equities
ESG/SRI
Long/Short Equities
AREITs & GREITs
Listed Infrastructure
Fixed Income
Unconstrained Bonds
EM Debt
Alternative Income
Mortgage Funds
Multi Asset
Real Return
Multi Asset Income
Alternatives
Hedge Funds
Private Equity
Resources
FX
Passive/Index Funds
Cash & Enhanced

Lonsec has in-built breadth and flexibility that has allowed us to re-position our research offering in line with emerging trends in the market.

In recent times the increase in listed products has seen Lonsec initiate coverage on a range of Exchange Traded Funds (ETFs), Listed Investment Companies (LICs), Listed Investment Trusts (LITs) and Exchange Quoted Managed Funds (EQMF) that are listed on the ASX and Separately Managed Accounts (SMA) that are listed on technology platforms.

Figure 2. Evolution in our Research offering
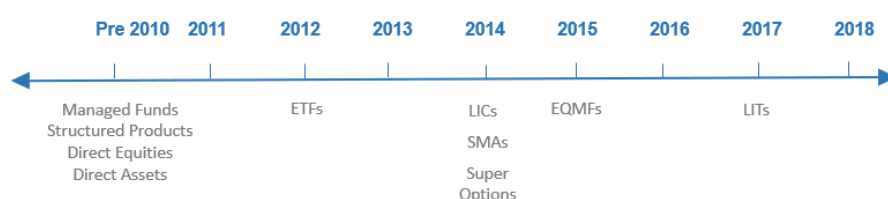
In addition, superannuation is a major component of many investor's wealth. Advisers are increasingly looking to independent research to assist clients wanting to manage or transition their superannuation savings. Further, as the baby boomers move from accumulation to decumulation, adviser interest in Retirement Solutions has grown. Lonsec has researched annuities products since 2011 and we continue to expand our coverage into new and innovative solutions for retirees and those transitioning to retirement. Lonsec remains committed to meeting the changing needs of advisers as they seek to solve a range of complex life stage problems for their clients.

Managing Conflicts of Interest

Business Model

Financial planners access Lonsec content under a 'pay for research' library model via our iRate platform or through feeds into financial planning software. Advisers may also engage Lonsec Investment solutions for a range of portfolio construction services from managed account solutions through to Investment Committee participation. The fee charged for these services is dependent on the level of engagement and service required.

Lonsec is transparent with its business model with financial advisers, fund managers and superannuation funds being the main sources of company revenues. Fund managers and product providers pay a fee to include their products in the Lonsec research agenda.

Management of Conflicts

Lonsec is aware of the inherent potential conflicts of interest associated with the provision of ratings and how we are remunerated for our services. Lonsec has in place a comprehensive set of policies, procedures and information barriers (both permanent and temporary) consistent with our regulatory obligations under Regulatory Guide 79, to manage either perceived or actual conflicts of interest.

These policies and procedures are designed to manage and control our conflicts including commercial, contractual and commissioning party relationships, fee structures, cross subsidisation and transparency in the ratings process.

Lonsec maintains a separate fund manager relationship team that deals exclusively with fund manager commercial contract negotiations. Lonsec's accounting team is responsible for invoicing of fund manager clients. **This commercial team is not involved in any aspect of the research process which determines a product rating**.

The Research Team is operationally separate from this commercial team, has no visibility of the commercial arrangements, and takes pride in, and stands behind, the team's opinions and ratings. Fund Managers are not to email or discuss any aspect of the commercial arrangements with any member of the Research Team.

Research Team remuneration is not directly linked to growth in product coverage, or company pricing strategies. There is, however, the industry standard 'group profitability' component to variable remuneration.

The Research Team is likewise operationally separate from Lonsec's Investment Consulting and managed account portfolio construction business which is housed in the Lonsec Investment Solutions business unit. Lonsec Investment Solutions has its own executive and management structure. Lonsec's Investment Consulting team is treated as a client and is not privy to rating changes until they are published.

Research analysts covering ASX 200 stocks and hybrids are also operationally separate from the Managed Funds Research team, who will in the course of their fund research be privy to portfolio holdings. Lonsec Research staff also receive training in procedures that include gifts and entertainment, conflicted remuneration, personal conflicts and personal trading.

Timing of Rating Reviews

In Cycle

All financial products are reviewed at least annually and generally according to internal asset class definitions. The Lonsec Research Team publishes an annual sector review calendar.

For new products, Lonsec will undertake a desktop review to determine the most appropriate peer asset class group. This will determine when the product first becomes eligible for consideration in the regular annual cycle.

Out of Cycle

Out-of-cycle reviews may be undertaken for financial products that Fund Managers want expedited outside of the regular sector timetable. Timing of out-of-cycle reviews is subject to the level of demand from Managers and analyst availability and are generally accommodated on a first come, first served basis. Indicative expectations of turnaround times are

- 4-6 weeks – Lonsec knows the investment management team and there is an established portfolio track record in place.

- 6-8 weeks – Manager and investment management team is new to Lonsec and product is lower in complexity or does not meet the definition of a hedge fund. LICs or LITs where Lonsec does not already have a high degree of familiarity.

- 8-12 weeks – Manager and investment team is new to Lonsec and is a hedge fund, private equity or private debt fund. LICs or LITs where Lonsec does not already have a high degree of familiarity.

Direct Assets reviews occur when the product is first submitted to Lonsec and thereafter on an annual basis for products that gain a rating of Investment Grade or above. Typically, a review will take 3-4 weeks.

Ongoing Monitoring

The rating of each financial product[1] is also monitored on an ongoing basis as part of Lonsec's continual contact and information exchange with Fund Managers. Fund Managers are required to inform Lonsec of any changes to factors including team additions or departures, changes to portfolio constraints and parameters, significant regulatory changes or changes to product fees or charges. Lonsec's analysts will consider changes in circumstance for materiality and monitor the situation closely as well as keep clients informed. Material changes will be formally reviewed immediately (at the time of the change) and any ratings updates communicated through Fund Viewpoints and the Daily Bulletin, as required.

For Direct Assets, 'closed-end' funds may be reviewed on a one-off basis with the rating applying for the initial capital raising period.

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[1] Excluding Structured Products. Structured product research reports are point-in-time reviews. Lonsec assumes no obligation to update its structured product research reports or provide ongoing research coverage or performance reporting.

Direct Assets 'open-end' funds will be monitored on an on-going basis and Fund Managers are required to inform Lonsec of any significant changes to factors including the portfolio of assets; gearing levels/debt terms; management team; liquidity features; fees and distribution levels.

Fund Watch

Changes in circumstance which are considered material may trigger a 'Fund Watch' rating, these may occur at any time throughout the year.

Lonsec aims to resolve Fund Watch ratings in liquid and deep asset classes (such as Australian Equities) within a month. There will be circumstances and/or asset classes where it is more appropriate to wait for a more fulsome resolution.

Research workflow sequence

The following diagram illustrates the workflow sequence for fund research.

Figure 3. Research Workflow Sequence

Operational Check

Research agreement

Data Collection

Desktop Review

Onsite Review

Peer review

Fund Review published
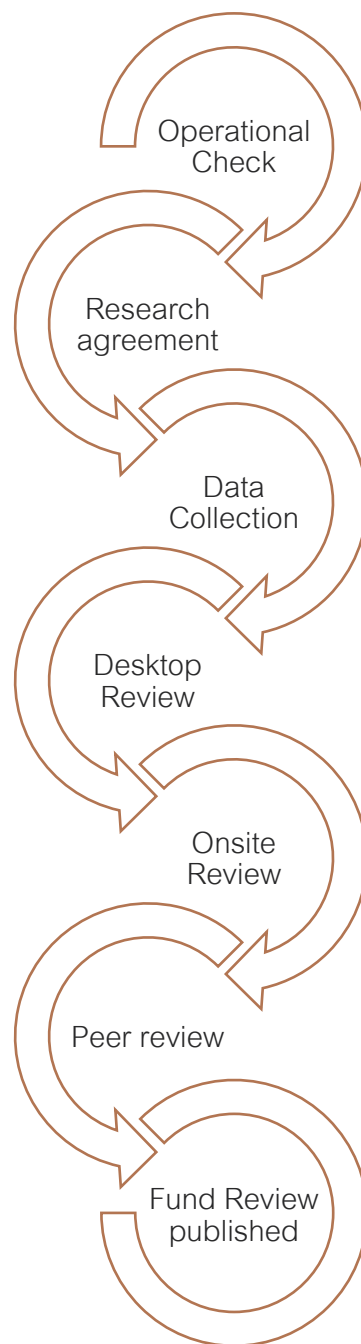
Pre-requisites to Research Commencing

Operational Check

New financial products must pass an operational check before being contracted to participate in the research process.

The Fund Manager must provide:

- The product's PDS (or for a Listed Investment Trust or Listed Investment Company raising a 'pathfinder' or substantially complete [typeset ready] prospectus or offer document).
- A due diligence document (in the Financial Services Council format or similar acceptable global standard) or Alternative Investment Management Association (AIMA) due diligence questionnaire (for hedge funds).
- Evidence that the product is seeded (unless an IPO) so that performance and product data can be provided to Financial Express.
- New manager questionnaire (if a new Fund Manager).

Scope of Research Universe and Filters

Lonsec considers Funds which pass the following filters.

Managed Funds

Lonsec has sought to provide the adviser community with research opinions on a wide range of financial product and has expanded its coverage list as the market for financial products has evolved.

However, there are certain products which Lonsec has historically assigned adverse (below investment grade) ratings or does not have the requisite expertise. For example, Lonsec is less likely to consider for its review process:

- Funds with a material (>25%) portfolio allocation to mezzanine property debt.

- Initial offerings for funds which may take more than six months to deploy capital ('Cash Boxes').

- Non-financial products including, but not limited to, art, collectibles, coins, cars or antiques.

Property and other Direct Assets

Lonsec is less likely to consider for its review process:

- Projects that are not Managed Investment Schemes (MIS).
- 'Cash Boxes' (with no identifiable assets).
- Short-term property development projects (especially high-density residential apartments).
- Funds with a large portion of assets earmarked for re-positioning and / or having substantial vacancy (even if covered by vendor guarantees).

Research agreement issued and executed

The research agreement must be executed, and the Fund Manager invoiced, before the research process commences.

Data Collection

Qualitative information is mostly collected in questionnaire format via Lonsec's online data portal. The data portal questionnaires are normally opened to Fund Managers for completion one to two months in advance of the site visits. Completion of the data portal requirements is a prerequisite to Lonsec analysts meeting with Fund Managers and Lonsec reserves the right to postpone the research meeting if data portal requirements are not met.

Quantitative information is sourced from Financial Express for Managed Funds. Other product quantitative information may be sourced from Bloomberg or SuperRatings which is a Lonsec group company. Managers must comply with the information requirements for unit pricing, distributions and other product data.

Direct Assets Managers will receive a list of Lonsec's required information, which may also include a template for Fund specific data to be filled in and returned.

Due Diligence

Desktop Review

Initial due diligence is conducted by the analysts on the data collected in the form of a desktop review.

The Direct Assets due diligence includes the analysis of a number of critical criteria, central to this is estimated total returns (internal rate of return) over ten years (and/or the expected initial term of the Fund). Should the product not meet Lonsec's criteria hurdles, this may lead to a 'Screened-Out' or 'Redeem' (subject to Lonsec's Peer Review process).

Onsite Review

Lonsec believes that there is value in meeting with Fund Managers in their offices where feasible. This allows for live demonstrations of trading and risk systems, spot checks of compliance frameworks and office layout. The research team travels extensively in Australia and offshore.

Formal face-to-face meetings are held with a range of key investment and operational personnel (risk, legal, compliance, trading & execution) with a minimum of two Lonsec research analysts (including at least one Senior Analyst) present.

Additional follow-up may be required; phone, video, email and further meetings may be requested.

Key points from this meeting are documented in analyst file notes, shared with the entire Research team via email and stored centrally so that all analysts attending the next stage – Peer Review (and those reviewing the Fund in subsequent years) can be fully informed.

Direct Assets reviews will usually also involve the inspection of physical assets as selected by Lonsec (mostly within Australia, but also offshore if required).

Standard Inputs

Standard inputs to the Research Process across most products include but are not limited to:

- Product Disclosure Statement (PDS).
- Financial Services Council (FSC) Questionnaire or similar RFP due diligence process document.
- Lonsec Data Portal (some typical items include but are not limited to team changes, historical portfolio holdings and attribution, historical exposures, distribution history and tax information).
- New Manager Questionnaire.
- Analyst file notes from face-to-face meetings, teleconferences and video conferences.
- Manager presentation material.
- Manager responses to follow-up questions.
- Performance and other quantitative data.

Additional inputs for Direct Assets/Property

- Fund Manager financial models.

- Asset valuation reports.
- Technical and due diligence reports.
- Gearing level; terms of bank debt, covenants and hedging.
- Fund Manager investment process and performance data.
- Biographies of key personnel.
- Constitution and Compliance Plan.

Additional Inputs for Structured Products

- Term sheets (if applicable).
- Loan agreements (if applicable).
- Fund Manager structure models.
- Internal modelling (if applicable).

Research Philosophy, Key Beliefs and Factors Assessed

Actively Managed Funds

Key Beliefs

Our research process is premised on the belief that managing money is a combination of 'art' and 'science'. We also believe that investment research should be forward-looking and qualitatively skewed. While we understand that there is more than one way to manage money, we believe there are several critical ingredients that combine to produce a quality financial product, most of which can be broadly categorised under 4P's; people, philosophy, process and performance.

We believe skilled active managers can add value over and above a benchmark where fees and costs are appropriate.

We seek to identify skilled fund managers that can add value across all stages of the investment process; research, portfolio construction, risk management and execution.

Fund managers must be accountable for the performance of their products and the investment team aligned to the end investor.

Additionally, we believe that:

- A financial product's risk and return objectives should be transparent, realistic and stated over an appropriate timeframe.
- Fees and hidden transaction costs can have a significant impact on investor outcomes.
- A financial product should be investor focused and designed to meet the needs and challenges facing retail investors.
- The incorporation of Environmental, Social and Governance (ESG) considerations into investment analysis by fund managers is likely to improve risk or return outcomes and should ultimately translate into a higher potential for a manager to achieve their investment objective.

Process

Lonsec's research process follows a structured framework of assessing a range of qualitative and quantitative factors and then scoring these attributes relative to both the financial product's stated objective and other financial products within the same sector. The research process we apply accommodates a range of investment approaches and styles.

Qualitative factors generally account for 80 percent of the rating for most mainstream asset classes, with Lonsec's assessment of people and process having the greatest impact on the research outcome. The qualitative assessment stage of the research process spans the range of inputs, including extensive contact with the fund manager and key investment professionals.

Within the quantitative component, generally contributing 20 percent of the research outcome, there is an emphasis on the quantum and consistency of returns, the degree of 'activeness' to deliver alpha, the volatility of returns and the defensiveness of the financial product over three years and beyond.

In specialised sectors and where relevant quantitative data or a peer group is unavailable, the research process may be 100% qualitative.

Figure 4. Managed Funds Process Overview
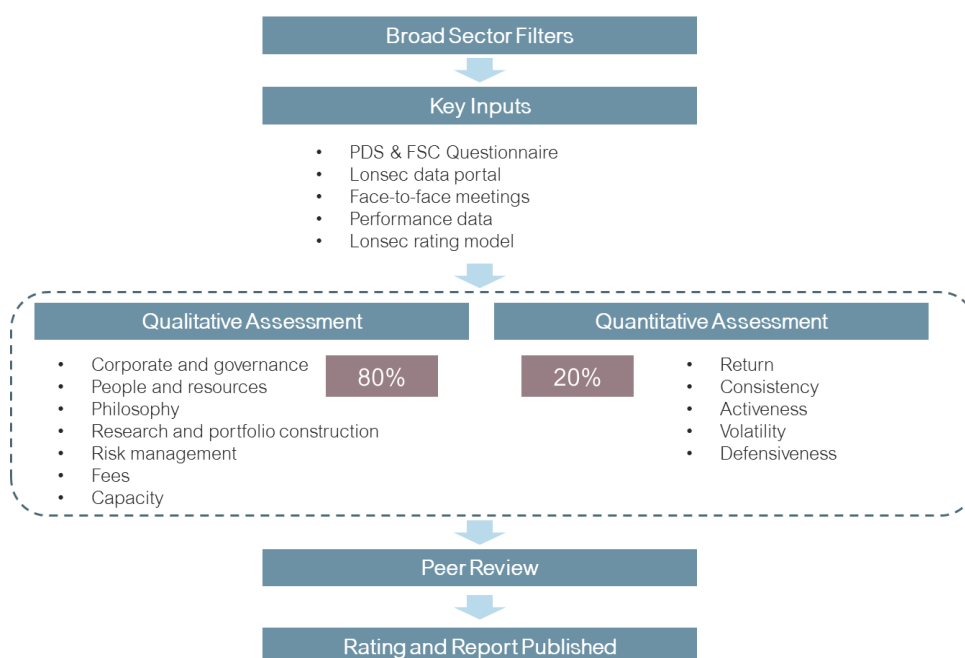
Factors Assessed

Lonsec has identified a range of key factors it believes improve the chances of a financial product delivering on its objectives. Each factor is assigned a proprietary weight and analysts will formally score the financial product against each of the criteria. Factors and weights are tailored to suit particular asset classes and are scored in the proprietary rating model by analysts who attend the site visit.

Below are some examples, but the list is by no means exhaustive.

Factor	Description
Corporate and governance/ people and resources	Assessed via contact with members of the investment team and senior executives, and considers: • Profitability, business ownership structure and track record. • Experience, team size, quality, stability, management of key person, risk, qualifications, track record, co-tenure, investment 'culture' and alignment of interests.
Philosophy (style)	• Considers the investment philosophy. • Is it clearly articulated? • Is it consistently applied? Is the fund 'true to label'? Lonsec considers key valuation metrics, performance in differing market conditions and output from style research tools. Holdings based style

analysis software (Style Analytics – formerly Style Research and Bloomberg) is utilised in this part of the process.
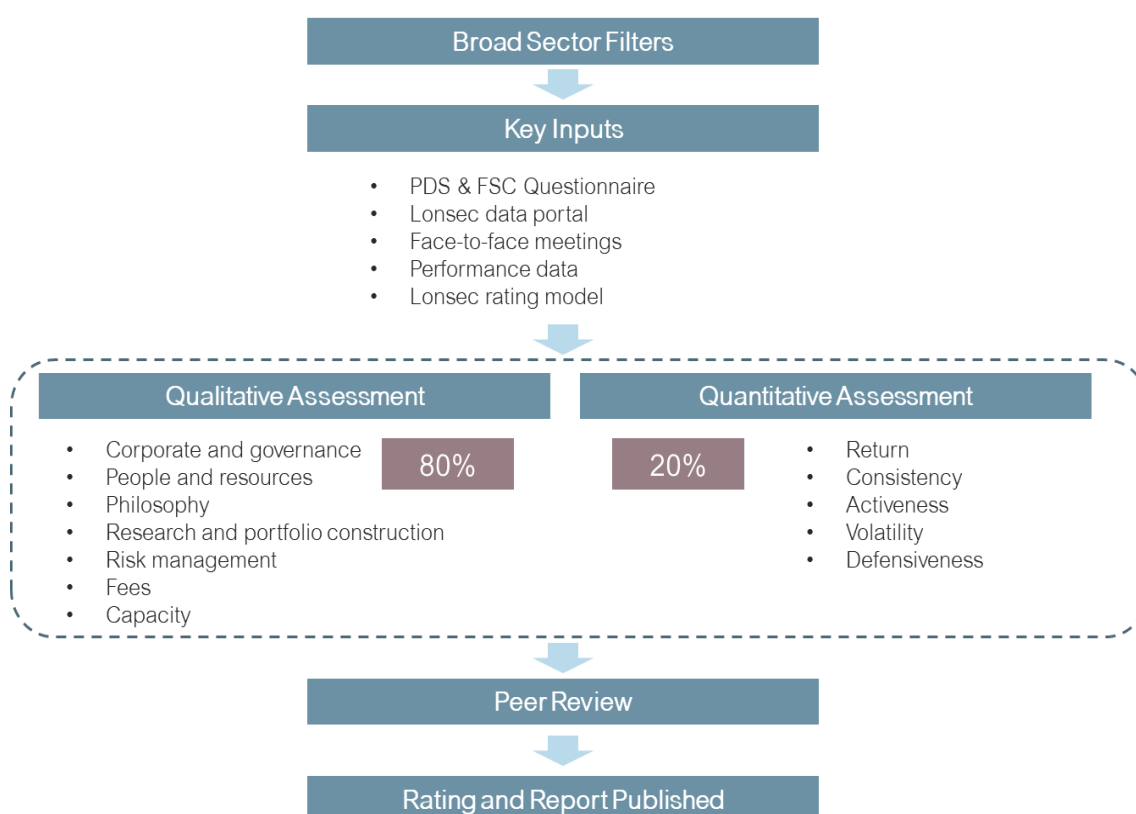
Research	• Idea generation. • Intellectual property. • Breadth and edge. • Investment tools - screening process, fundamental analysis, valuation methodology, efficacy of analysts' models. Lonsec typically requests that managers explain multiple investment theses as a means of demonstrating the investment process at work and gauging consistency with the fund manager's stated investment style and objectives.
Portfolio construction	Is there a clear link from the investment research to portfolio construction? • Buy and sell discipline. • Management of unintended bets. • Alignment with investment objectives.
Risk management	• Risk awareness throughout process. • Adherence to stop loss rules (if relevant). • Monitoring, accountability, methodology and frequency. • Pre- and post-trade compliance. • Tools. • Awareness and management of liquidity risk.
Fees	• Fees — management fees and any performance fees (balance of base and performance fee, appropriateness of hurdle rate). • Fees relative to investment objectives, alignment and fairness (both in sector relative and relative to portfolio management).
Capacity	In certain sectors, the quantum of assets under management relative to the size of the market invested in (i.e. the manager's 'capacity') is considered critical to the fund's ability to deliver alpha. Hence investor focus and evidence of adherence to capacity limits are key considerations in the rating.
ESG Factors	• ESG, Proxy voting and Engagement Policies and frameworks. • ESG integration into the investment process. • Active ownership including Engagement and Proxy voting activities. • Transparency and reporting on ESG related factors and implementation. • Disclosure seeking and industry collaboration activities.
Quantitative	Within the quantitative component, generally contributing 20 percent of the research outcome, there is an emphasis on the quantum and consistency of returns, the degree of 'activeness' to deliver alpha, the volatility of returns and the defensiveness of the financial product over three years and beyond.

Passive Funds

Lonsec retains discretion to determine whether a financial product is to be rated as an 'active' or 'passive' product. Whether there is some level of oversight or governance by the fund manager, or if the index / investment process is completely rules-based and non-discretionary, is very important in determining whether a financial product is active or passive. Some 'smart beta' approaches may be considered under a process which leverages off the expertise of analysts covering active managed funds if there is a level of discretion or judgement. Also, the efficacy of the index being tracked will form a key consideration of our research effort especially in an environment of ever-increasing index proliferation and complexity.

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The following research process is undertaken for passive funds, both ETFs and unlisted index managed funds.

Figure 5. Passive Funds Process Overview

Factor	Description
People and resources	- Adequate and suitably experienced resourcing to successfully implement and provide risk management oversight for passive funds. - Key person risk — this may be relatively low for index funds. - Quality of systems to efficiently track the index. - Quality of third-party service providers, including market makers, custodian and registry services. - Quality of Authorised Participants licenced to create and redeem units in the funds; how does the fund best ensure best execution? Is this monitored?
Indexation	- Is the index methodology used clear and concise and based on sound financial market principles? - Does the methodology incorporate sound risk management limits? Lonsec will carefully review the index methodology and seek to meet with the index provider especially when a fund seeks to track a bespoke or non-market cap weighted index.
Investment Approach	- Full replication, stratified sampling or derivative — is the method appropriate? - Clarity of index methodology / rules, is this consistent with the product objectives? - Are appropriate risk management measures built into the portfolio construction and investment process? - How frequently are the constituents re-balanced? How much notice does the index provider give?
Transparency	- Are the methodology and index constituents readily available and transparent? - How easily can the index be understood by investors? - How frequently is the Net Asset Value ('NAV') calculated? Can historical performance be readily downloaded? - Is the index calculation (including valuation of index constituents) performed externally or in-house? Is the calculation free of conflicts?

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Liquidity	• Number and quality of market makers.
	• What are market makers contracted to supply or provide? How are market makers monitored? Are they effective?
	• Are there structural issues with making markets around the underlying asset class?
	• Market capitalisation and market activity / market depth will also be taken into account.
	• Premium / discount to NAV.
ESG Factors	• Active ownership including engagement policies and proxy voting activities.
	• Transparency and reporting on ESG related factors and implementation.
	• Disclosure seeking and industry collaboration activities.
Fees	• Headline management cost.
	• Bid / offer spread on a relative basis and any other costs associated with investing in the product.
	• An assessment is made within each peer group; however, a comparison is made across the broader peer group to ensure fees are reasonable. For example, Australian equities index funds are compared to the broader Australian equities fund universe.
Lonsec view	• Conviction in the ability of the financial product to meet its objectives.
	• Takes into account the Fund Manager's focus on continuous improvement and thought leadership in running low cost, low tracking error index funds.
Performance	• A relative assessment of tracking error (that is, how closely the portfolio follows the index to which it is benchmarked) versus peers in the same sector.
	• For thematic or smart beta funds, how effective has the strategy been in meeting objectives.
	• New funds with limited or no track record and/or funds tracking indices with limited track record will receive a lower assessment until an identifiable track record has emerged.
	• Back-tests supporting new indices will be considered but a greater weight is assigned to 'live' trading performance.

Separately Managed Accounts

Key Beliefs

Lonsec recognises that Separately Managed Accounts ('SMAs') that are listed on technology platforms, are managed portfolios seeking to deliver on benchmark relative or objectives-based investment objectives over an investment cycle. Lonsec is also aware that these products are being delivered via different structures and platforms than a managed fund, which creates certain nuances which need to be incorporated in the ratings process.

Lonsec's managed fund research methodology has been tailored for SMAs. For example, the review process for SMAs must include an assessment of both the Model Portfolio manager's approach to engagement with various platform providers and its ability to monitor and manage slippage risk.

We also consider how suitable a particular strategy may be on a SMA platform. For instance, the requirement for most SMAs is for a high conviction and low turnover strategy as this minimises slippage caused by excessive trading. We believe that encapsulating these nuances in our research process is a direct source of value add for clients.

Process

Figure 6. SMAs Process Overview
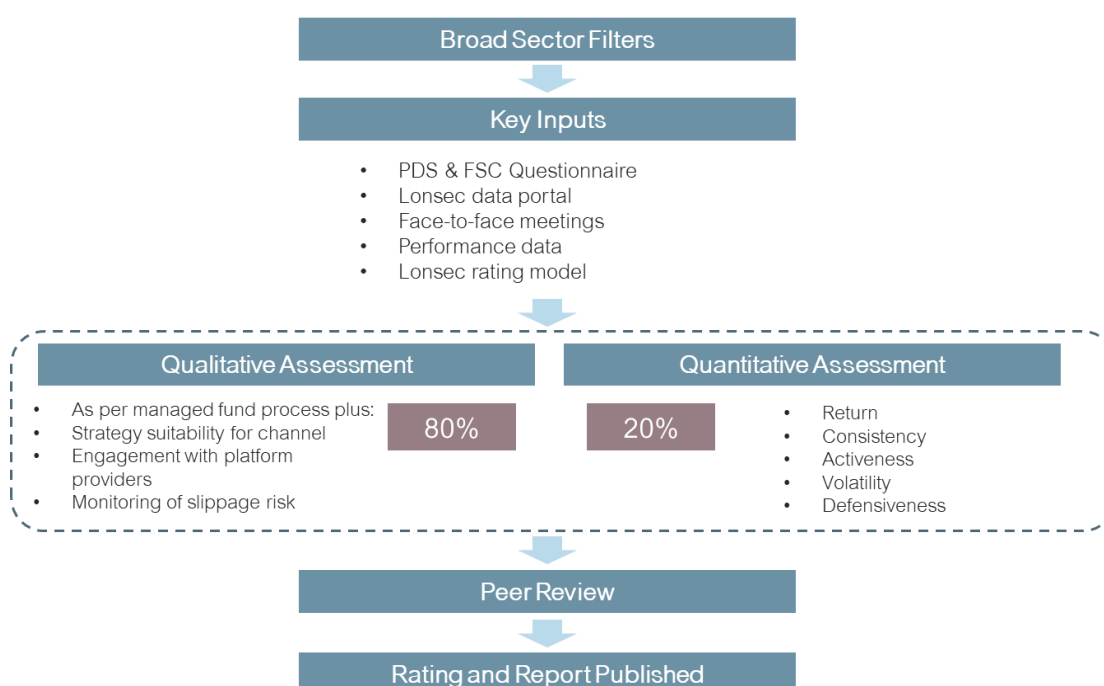
Factors Assessed

The qualitative and quantitative factors considered in assessing the active management process within SMAs are outlined in Active Managed Funds Research Approach.

In addition, Lonsec considers the following factors specific to SMAs:

- Strategy suitability for platform delivery.
- Engagement with platform providers.
- Monitoring of slippage risk.

Listed Products

Key Beliefs

Listed Investment Companies (LICs), Listed Investment Trusts (LITs) and Active ETFs that are listed on the ASX are professionally managed portfolios seeking to deliver on benchmark relative or objectives-based investment objectives over an investment cycle. These products are, however, delivered via different structures which creates research nuances which need to be incorporated in the ratings process.

Figure 7. Listed Product Channels

	LICs	LITs	ETFs	Active ETFs
Management	Active	Active	Passive / Index	Active
Corporate Structure	Company	Trust	Trust	Trust
Liquidity	Closed-ended	Closed-ended	Open-ended Market makers	Open-ended Market makers
Pricing	Can trade at premium or discount to NAV	Can trade at premium or discount to NAV	Trade at a relatively tight spread around NAV	Trade at a relatively tight spread around NAV
Execution	Live pricing on ASX	Live pricing on ASX AQUA	Live pricing on ASX AQUA	Live pricing on ASX AQUA
Disclosure	Only required to disclose NAV monthly. Not required to provide portfolio information	iNAV[2] and full portfolio quarterly within 2 months of quarter end	iNAV (some) and daily portfolio holdings	Daily NAV, iNAV Full portfolio quarterly within 2 months of quarter end
Retain Profits?	Yes	No	No	No
Premium / Discount to NAV?	Yes	Yes	No[3]	No[4]

Lonsec's core research approach for all listed products has been to use its wider managed funds methodology as the building block for the research process. This has then been specifically tailored for the nuances of each product structure. For LICs and LITs, this involves a recognition that such products are listed and trade at either a premium or discount to their net asset value over time. It also includes a recognition that LICs are companies which requires a separate assessment of their

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[2] Indicative Net Asset Value. The iNAV calculation is normally provided by a third-party calculation agent, who has access to the prices of the ETF's underlying securities and assets. The calculation agent uses market data feeds to determine the current market value of the assets of the ETF. This provides an investor with an independent indication of the 'fair value' of the ETF – in real time.

[3] While ETFs, can trade at premiums/discounts to NAV especially in dislocated markets, they are not as pronounced as in the case for LICs/LITs.

[4] While ETFs, can trade at premiums/discounts to NAV especially in dislocated markets, they are not as pronounced as in the case for LICs/LITs.

Board of Directors and governance framework. This also includes a standalone module which evaluates the 'structure' of these vehicles separately from the underlying investment capability.

On the flipside, Lonsec notes that active ETFs have the benefit of a market-making mechanism which means that an assessment of the efficacy of this is critical. This assessment includes whether the market making function is internal or external. Additionally, for active ETFs, there is a recognition that the efficacy of market-making is not uniform across all underlying asset classes or strategies. We believe that encapsulating this in our research process is a direct source of value add for clients.

We also look at the suitability of a particular strategy for the chosen channel. For example, for LICs there is an inherent recognition that the liquidity of the underlying strategy, reliance on trading gains for funding dividends, track record of the Board of Directors in capital management and size / liquidity of the 'head stock' are predictors in the likely trading profile for each LIC. This is factored into the evaluation of the 'structure.'

Process

The Lonsec Passive and Active Managed Fund Research teams collaborate on the review of these products including joint product meetings, peer review and report generation. Lonsec considers this approach to be the best use of its skillset, combining Listed Product specialists with the asset class specialists to provide the best rating outcome.

Figure 8. Listed Products Process Overview (ETFs)

Broad Sector Filters

Key Inputs

- PDS & FSC Questionnaire
- Lonsec data portal
- Face-to-face meetings
- Performance data
- Lonsec rating model

Qualitative Assessment	Quantitative Assessment
- As per managed fund process plus 80% - Trading at premium or discount - Market making mechanism - Liquidityf	20% - Return - Consistency - Activeness - Volatility - Defensiveness

Peer Review

Rating and Report Published

Figure 8A. Listed Investment Vehicle Process Overview

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                    ┌─────────────────────────┐
                    │   Broad Sector Filters  │
                    └─────────────────────────┘
                                 ▼
                    ┌─────────────────────────┐
                    │        Key Inputs       │
                    └─────────────────────────┘

                    •  Offer Document & Investment Process
                       Information
                    •  FSC Questionnaire
                    •  Lonsec data portal
                    •  Face-to-face meetings
                    •  Performance data

                                 ▼
   ┌──────────────────────┐          ┌──────────────────────┐
   │      Structure       │          │  Investment Strategy* │
   └──────────────────────┘          └──────────────────────┘

   • Price Divergence (30%)  ┌─────┐  ┌─────┐  • Qualitative Assessment (Capability) (80%)
   • Governance (30%)        │ 40% │  │ 60% │  • Quantitative Assessment (Performance)
   • Liquidity (25%)         └─────┘  └─────┘      (20%)
   • Secondary Market Support (15%)
                                              (*per Managed Funds approach)
                                 ▼
                    ┌─────────────────────────┐
                    │        Peer Review      │
                    └─────────────────────────┘
                                 ▼
                    ┌──────────────────────────────┐
                    │  Rating and Report Published  │
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Factors Assessed

Factors assessed in Actively Managed Listed Products

The qualitative and quantitative factors considered in assessing actively managed listed products are outlined in Actively Managed Funds

Factors assessed in Passive/Index Listed Products

The qualitative and quantitative factors considered in assessing passively managed listed products are outlined in Passive Funds

Factors specific to ETFs

- Trading at premium or discount.

- Market making mechanism.

- Liquidity.

Factors specific to Listed Investment Companies and Trusts

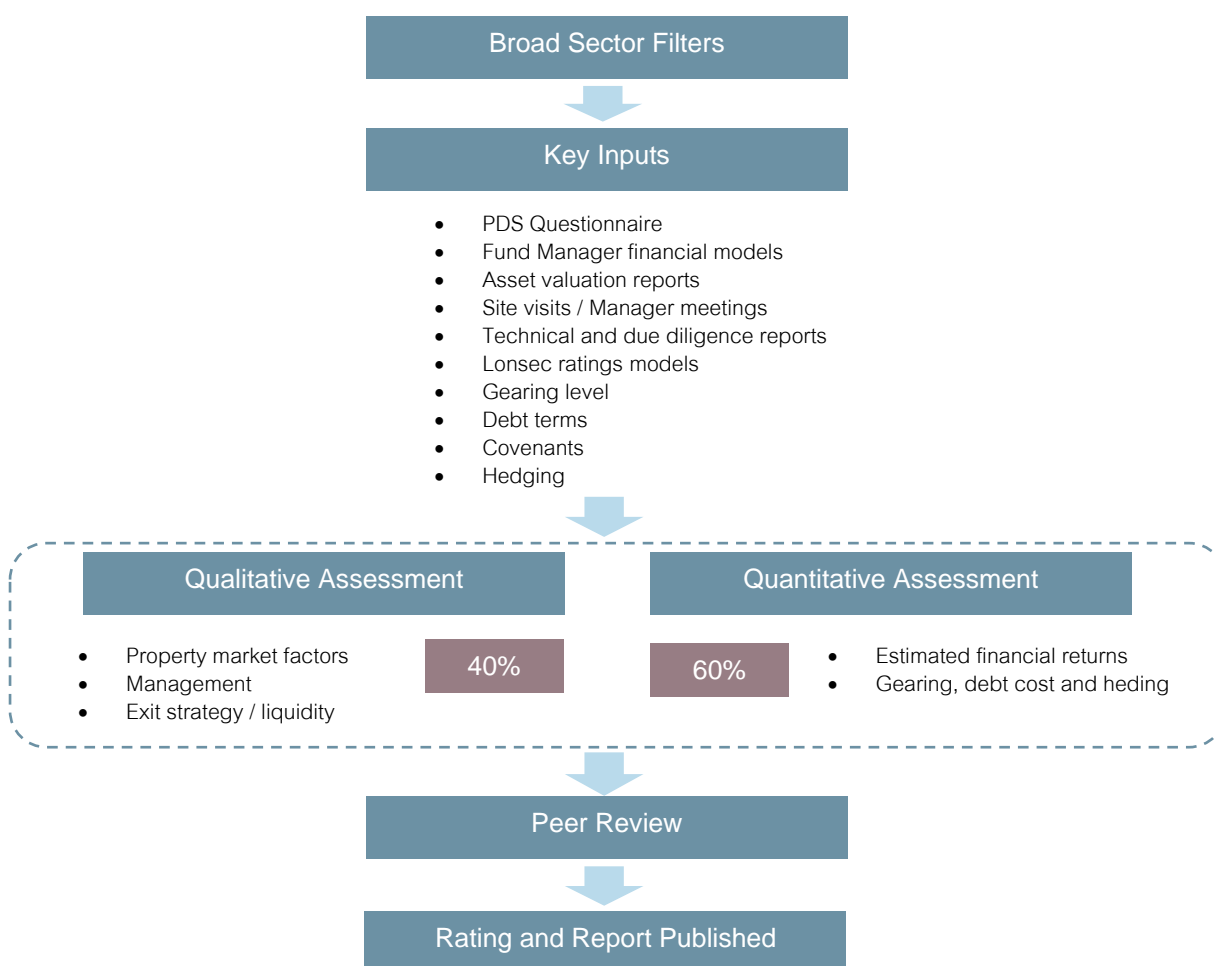| 'Structure' Factor	Description
Price divergence	Price divergence is designed to compare how closely the traded price (i.e. share or unit price) of a product has matched its underlying asset value (i.e. net tangible assets or net asset value) per security outstanding. Notably, this is not used as a measure of forward-looking value or a mean reversion signal. A closer tracking experience will be rewarded by this factor.
Governance	This considers the composition of the vehicle's governance structure. Specifically, analysts score the suitability and composition of the board (or responsible entity) and its relative alignment with investors.
Liquidity	This is designed to evaluate factors that are considered to influence an investor's ability to efficiently trade in the product. For instance, greater market caps are expected to improve the liquidity of a vehicle.
Secondary market support	Discretionary views on issues that can impact the success and relative trading performance of a product such as the distribution strategy and broker support.

Direct Assets Research in Detail

Key Beliefs

In assessing direct assets, Lonsec looks for quality assets that will generate recurring income streams with growth potential. We are focused on assessing performance over the expected life of a project and beyond, looking at both returns, and the level of risk assumed. We believe active management can add value and we look for the attributes of a capable investment team including appropriate size / resources, experience, style and processes.

Fund Managers must be accountable for the performance of their trusts. At the least, they must meet forecast distributions and we prefer a demonstrable record of out-performance in terms of total returns. We believe that remuneration of Fund Managers should be linked to investment performance and it is desirable for managers to co-invest alongside unitholders in the trusts they manage.

Figure 9. Direct Assets Process Overview

Broad Sector Filters

Key Inputs

- PDS Questionnaire
- Fund Manager financial models
- Asset valuation reports
- Site visits / Manager meetings
- Technical and due diligence reports
- Lonsec ratings models
- Gearing level
- Debt terms
- Covenants
- Hedging

Qualitative Assessment		Quantitative Assessment
- Property market factors - Management - Exit strategy / liquidity	40% 60%	- Estimated financial returns - Gearing, debt cost and heding

Peer Review

Rating and Report Published

Key Factors

The analysis of a financial product is an all-encompassing exercise, with the research team critically assessing a range of criteria within six major determinant categories:

Major Determinant Category	Criteria
Financial Returns	• Internal Rate of Return (IRR) — total return (fund returns after fees and costs). • Distribution yield (including level of income support). • Tax advantages. • Assumptions for vacancy, lease terms and capital expenditure. • Costs and fees relative to industry averages. • NTA and estimated time to breakeven.
Gearing and Debt	• Gearing, interest cost and hedging relative to industry averages. Head room to bank debt covenants. • Balance sheet.
Assets	• Asset attributes (including underlying business if applicable) • Tenant quality and diversity. • Look for comparative advantage / potential to add-value • Benchmarking of critical asset factors, such as Weighted Average Lease Expiry. • Regular valuation of assets (at least annually). • Diversification. • Exit strategy & liquidity mechanisms.
Management	• Experience. • Structure (prevalence of representatives on the Board or Investment Committee who are not part of the management of the fund manager). • Style / philosophy. • Compliance and related-party process. • Previous performance of all similar funds of manager. • Disclosure.
Market Analysis	• Market Risk. • Sector outlook. • Values / cycle.
Exit Strategy/liquidity	• Liquidity of assets • Liquidity mechanisms of the fund/trust • Exit strategy options

Risk factors in Direct Assets

The process of evaluating and rating a project involves the examination of risk factors that specifically relate to the project. These include operational, financial, liquidity and management risks.

A key part of this risk assessment is the assessment of the financial performance of the parent group of the responsible entity / fund manager. If this entity is an ASX-listed group, Lonsec will have access to the publicly available financial statements and operational announcements. If the group is privately owned, similar financial and operational information will be requested and included in the assessment of the project.

Updating information in Direct Assets

Lonsec tracks the performance of all relevant property, infrastructure or other funds that the fund manager is responsible for. In the first instance Lonsec considers the actual versus forecast distribution, secondly, total returns versus benchmark. It is the responsibility of the fund manager to provide this information to Lonsec, as well as to promptly notify Lonsec of any significant changes that materially — or may materially — affect the basis of a financial product recommendation.

Open-ended financial products

Each financial product is formally reviewed on an annual basis as part of Lonsec's review process. An agreement must be in place with the Manager. This involves on-site reviews with the fund manager, revisiting all qualitative and quantitative inputs and an in-depth peer review to ensure consistency and rigour of inputs across all financial products in the relevant sector.

The rating of each financial product is also monitored on a more informal, ongoing basis as part of Lonsec's continual contact and information exchange with fund managers.

Where there are changes at a fund manager, financial product or sector level, Lonsec's analysts monitor the situation closely and keep subscribers informed. Any material changes are formally reviewed immediately (at the time of the change) and ratings updates communicated through Fund Updates, as required.

Closed-end financial products

This term refers to traditional property or other syndicates that raise capital for a limited period to purchase specific assets and the syndicate / trust / fund has a specified investment term. Lonsec undertakes the same rigorous evaluation and ratings process as for open-end funds. Once an offer period finishes, the Lonsec rating effectively ceases. However, a new Lonsec rating may be applied if a roll-over of investor capital is proposed or a liquidity offer is made.

Lonsec monitors the performance of closed-end funds as part of a review of the fund manager's other financial products. After the initial capital raising, a formal Fund Update is not prepared unless there is an event that warrants Lonsec commenting on how this may affect the investment, and which recommends any action for investors to take. A formal agreement must be in place with the Manager.
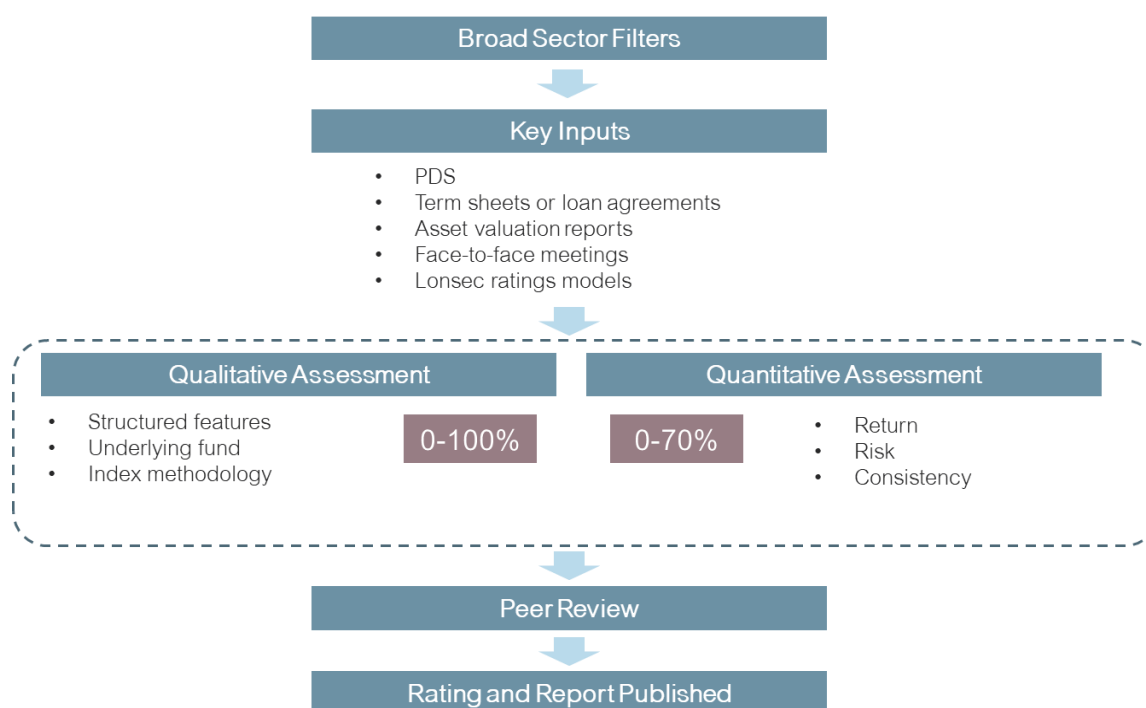
Structured Products

Key beliefs

The structured product needs to make investment sense — there must be a clear link between the structured product's objectives, expected risk and return, and the investor's risk profile.

Structured product managers should provide research supporting the logic and investment rationale of the structure and features of the structured product. It is preferable that this research be generated internally and be driven by a clear investment thesis.

A structured product's return, risk and correlation objectives should be transparent, realistic and stated over a timeframe appropriate for the underlying asset class / investment strategy.

The financial product structure needs to be efficient and in investors' best interests and be supported within the PDS by appropriate accounting, taxation and legal opinions.

Figure 10. Structured Products Process Overview

Broad Sector Filters

Key Inputs
- PDS
- Term sheets or loan agreements
- Asset valuation reports
- Face-to-face meetings
- Lonsec ratings models

Qualitative Assessment
- Structured features
- Underlying fund
- Index methodology

0-100%

0-70%

Quantitative Assessment
- Return
- Risk
- Consistency

Peer Review

Rating and Report Published

Factors assessed

- Structural features.
- Fund Manager experience — track record in structuring investments in the relevant asset class or strategy.
- Fees and costs — appropriateness in an absolute or peer relative sense.
- Transparency — investor pay-off during the investment term and maturity, fees, structure and capital protection.
- Liquidity — consistency with product objectives. Structured products with a long-term time horizon are not necessarily penalised for illiquidity.

- Lonsec view — likelihood of achieving the structured product objectives, given the risks involved.

Underlying fund
- The qualitative and quantitative factors considered in assessing an actively managed fund are outlined in Lonsec's Managed Funds Research Approach.

Index

Where an index or indices are used to generate the returns for a structured product, the rating will be determined by a qualitative assessment of the following factors:

- Methodology — rules relating to index construction (inclusion/exclusion of constituents) should be clear.

- Representative — index components should have a meaningful coverage of the relevant sector or market being targeted.

- Tradability — index components should be freely available or have potential for use as the basis for participants.

- Transparency — index calculation method should be clearly outlined and available for market participants.

- Independence of index provider — to avoid potential for conflicts over securities selection or methodology between structured product issuer and index provider.

- Active management (if applicable) — the level of discretion and alignment of interests with investors.

Point-in-time reviews

Lonsec's structured product research reports are point-in-time reviews. Lonsec assumes no obligation to update its structured product research reports or provide ongoing research coverage or performance reporting.

Structured product classification

Lonsec classifies structured products as active or passive.

Active
Managed fund — where the return is generated by actively managed underlying funds.

Managed index — where the return is generated by a discretionary overlay, such as security selection, leverage, volatility targeting and / or shorting, applied to one or more indices or ETFs.

Passive
Index — where the return is generated by exposure to one or more indices or ETFs.

Derivative — where the return is generated by exposure to one or more derivatives, such as option, futures or swap contracts.

Loan — funding structures providing investors with access to an investment loan and a menu of investments.

Active / Passive
Investment platform — structures providing investors with the ability to select from a menu of underlying funds or other assets.

Super Option Research

Key Beliefs

We seek to identify skilled managers that can add value across all stages of the investment process; research, portfolio construction, risk management and execution. The investment strategy needs to make investment sense — there must be a clear link between the option's objectives, expected risk and return, and the investor's risk profile. The investment strategy should be designed to suit the size and scale of the fund as well as the member demographic. The investment thesis should be clear and supported from the Board down. Appropriate governance structures should be in place. Key decision makers should be experienced, and appropriate delegation of responsibilities made.

Figure 11. Super Options Process Overview
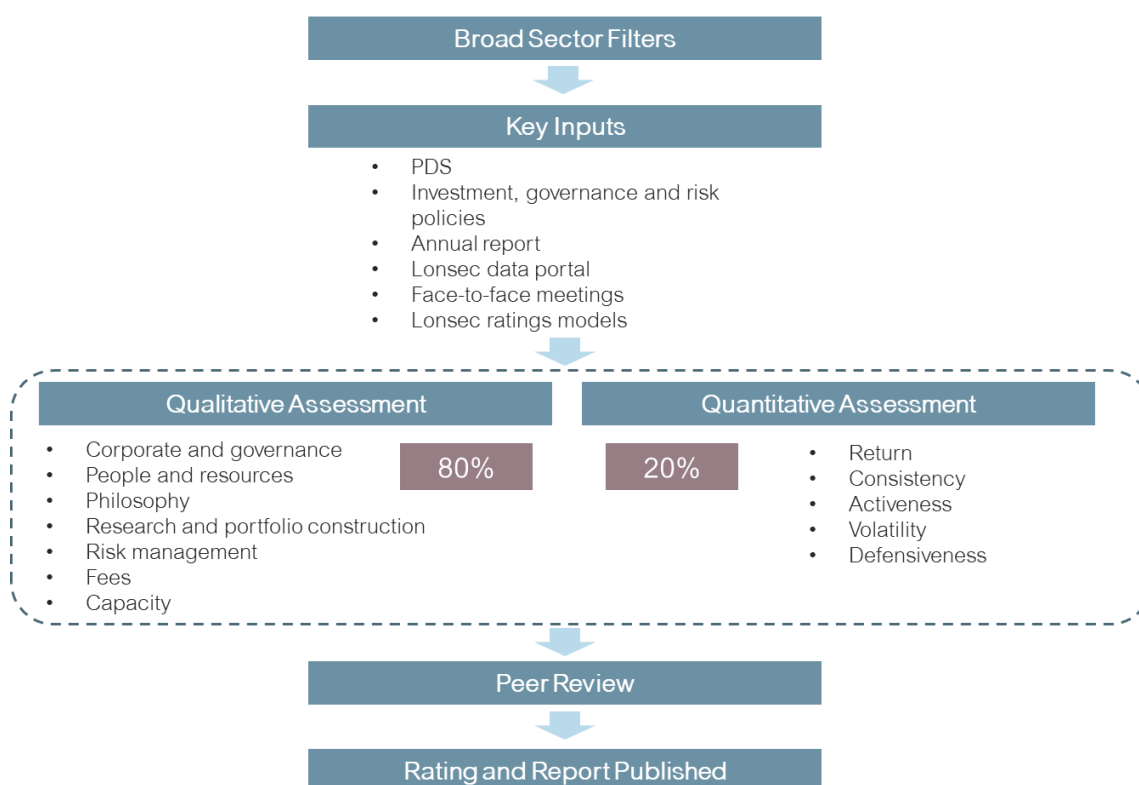
Key Factors Assessed

Lonsec has identified a range of key factors it believes improve the chances of a financial product delivering on its objectives. Each factor is assigned a proprietary weight and analysts will formally score the financial product against each of the criteria. Factors and weights are tailored to suit particular asset classes.

| Factor	Description
Corporate and Governance/ People and Resources	Assessed via contact with members of the investment committee, asset consultant, investment team and senior executives, and considers: • Governance Structures and decision-making delegations.

	• Experience, team size, quality, stability, management of key person risk, qualifications, track record, co-tenure, investment 'culture' and alignment of interests.
Philosophy (Style)	• Is investment philosophy clearly articulated? • Is investment philosophy/style consistently applied — 'true to label'? • Suited to the size, scale of the Fund and member demographic Lonsec considers key valuation metrics, performance in differing market conditions and output from style research tools. Holdings based style analysis software is utilised in this part of the process.
Research	• Idea generation. • Intellectual property. • Breadth and edge. • Investment tools - screening process, fundamental analysis, valuation methodology, efficacy of analysts' models Lonsec typically requests that managers explain multiple investment theses as a means of demonstrating the investment process at work and gauging consistency with the fund manager's stated investment style and objectives.
Portfolio construction	• Clear link from investment research. • Buy and sell discipline. • Management of unintended bets. • Alignment with investment objectives.
Risk management	• Risk awareness of process. • Monitoring, accountability, methodology and frequency. • Pre- and post-trade compliance. • Tools.
Fees	• Management fees and any performance fees. • Relative to investment objectives and fairness.
Capacity	In certain sectors, the quantum of assets under management relative to the size of the market invested in (i.e. the Manager's 'capacity') is considered critical to the fund's ability to deliver alpha.

Retirement Solutions

Key Beliefs

The investment strategy should be designed to overcome one or more of the common challenges facing investors in the decumulation phase; deliver consistent and reliable income, manage longevity risk and/or manage sequencing risk. The strategy should avoid being overly complex. The manager should be as transparent as possible in explaining the end cost to investors (including indirect costs). A strategy's, risk and return objectives should be transparent, realistic and stated over an appropriate timeframe.

Figure 12. Retirement Solutions Process Overview
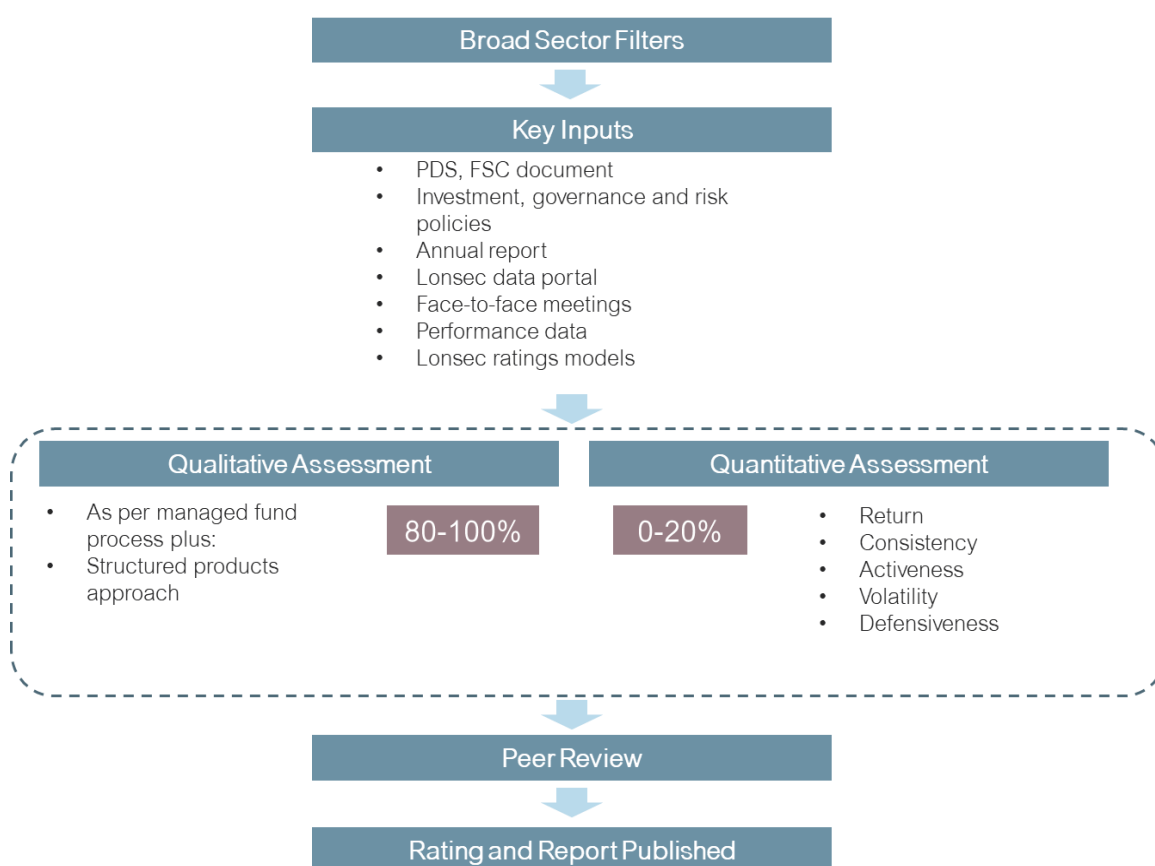
Factors assessed

Lonsec's core research approach for Retirement Solutions has been to use its wider managed funds or structured products methodologies as the building blocks for the research process.

Typically speaking, the Structured Product Approach (and binary rating scale of Approved / Not Approved) will be used where any of the following applies:

- The lack of a meaningful peer group (as defined by Lonsec) renders a tiered rating scale less relevant. If a peer group subsequently develops, then Lonsec may adopt a tiered rating scale.
- The product pricing is subject to continual change.

- Lonsec's review is confined to the product structure and investment returns are dependent on an investor's selection from an underlying menu, such as range of ASX listed securities.
- The pay-off to investors is defined at the outset and requires investors to have a definitive view.

Factors assessed in Retirement Solutions

Lonsec has identified a range of key factors it believes improve the chances of a financial product delivering on its objectives. Each factor is assigned a proprietary weight and analysts will formally score the financial product against each of the criteria.

Factors assessed under the Managed Funds Approach

The qualitative and quantitative factors considered in assessing these Retirement Solutions are outlined in Managed Funds Research Approach. Briefly they are:

- Corporate & Governance.
- People & Resources.
- Philosophy.
- Research & Portfolio Construction.
- Risk Management.
- Fees.
- Capacity.
- Quantitative Assessment.

Factors assessed under the Structured Products Approach

The qualitative and quantitative factors considered in assessing these Retirement Solutions are outlined in the Structured Products Approach. Briefly they are:

- Structural features.
- Underlying fund.
- Index.
- Quantitative Assessment.

Investment Bonds

Key beliefs

We favour issuers with a proven track history in operating investment bonds, and who have shown the ability to innovate and differentiate their offering. For investment options that invest into externally managed strategies, we look for issuers with adequately resourced, skilled and experienced teams to select and monitor these strategies effectively. We believe issuers who insource management of the options require adequately resourced, skilled and experienced teams to manage these strategies effectively. In both cases, the investment process (including the framework for approving investment menu changes) should be well-defined, sensible and robust.

We believe larger investment menus that include low cost passive strategies, as well as active strategies of differing investment styles across major asset classes give investors the scope and flexibility to express their investment preferences (e.g. passive vs. active) and assists with constructing diversified portfolios inside the investment bond structure.

We believe quality investment options contribute to the strength of the overall product offering.

Figure 13. Investment Bonds Overview
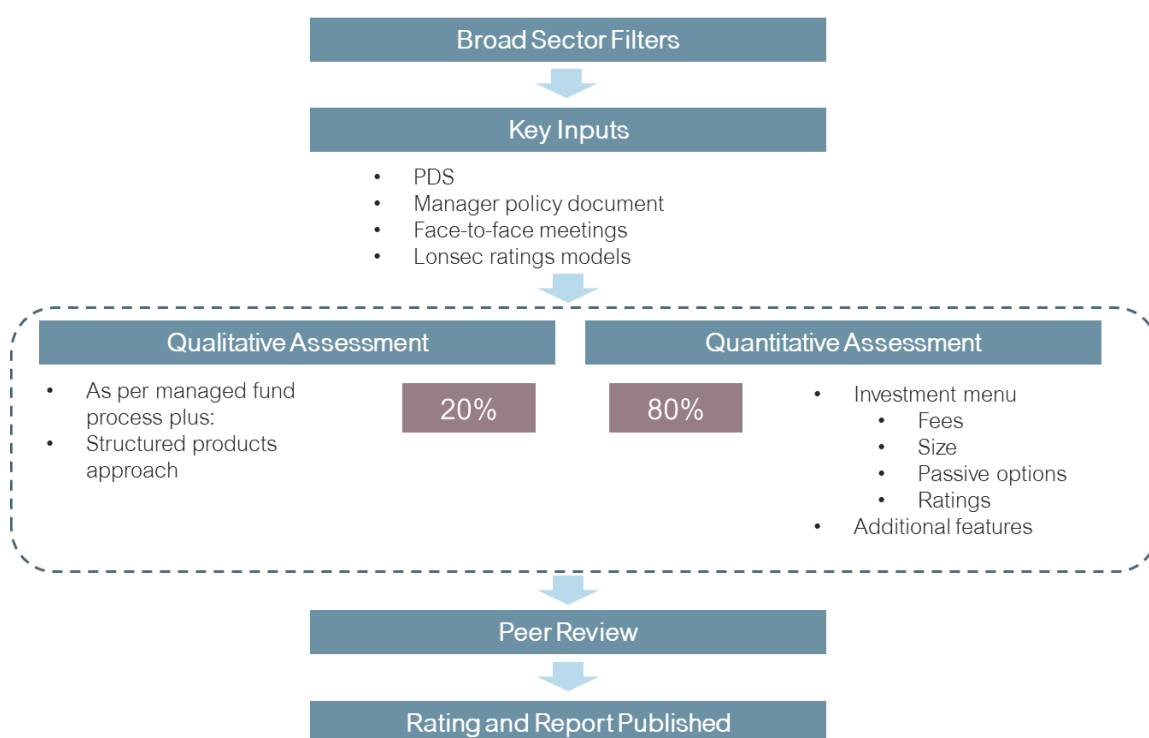
In addition to the standard inputs to the research process we also require provision of the Manager Policy Document.

Factors Assessed

The rating process described refers to our view on the issuer, look-and-feel of the investment menu and any additional features. This is separate to the rating that applies to the individual investment options that appear on the investment menu. The Investment Bonds rating approach is designed to assist investors in investment bond selection.

Factor	Description
Issuer Experience	• The Issuer's experience in managing investment bonds. • Process for selecting the underlying managed funds. • Framework for approving (e.g. investment committee) and monitoring the underlying managed funds.
Investment Menu	• Average administration fee. • Size of investment menu. • Passive options. • Quality of underlying options (Lonsec Ratings).
Additional Features	Not an exhaustive list but may include: • Capital guarantee. • Loan facility. • Death benefit guarantee. • Child advancement policy.
Fees	• Investment bond. • Underlying investment options.

Peer Review

Lonsec's proprietary rating model, **BioGraph**, is the primary system employed in assessing a financial product's rating. It is a web-based system that provides a consistent scoring framework for all financial products within a sector. Analysts who attend a Fund Manager site visit score the key factors prior to convening a Peer Review Committee.

The Direct Assets Rating Model comprises both quantitative and qualitative criteria scored by the lead analyst and reviewed by a Senior Analyst or the Manager Direct Assets. This can be compared across current and past products.

Peer Review Committees are convened following the review of each broad sector cycle or individual financial product as required (e.g. Out of Cycle and Fund Watch scenarios) and are open to all analysts within the Lonsec Research Team. Utilising the Lonsec ratings model, all financial products and the proposed ratings are tabled at these meetings. The model forms the basis of all ratings discussions. The lead and support analyst(s) directly involved in a product review present their individual proposed rating action to the Peer Review Committee for discussion. Final ratings are a mix of absolute and relative assessment and there is no forced ranking of ratings.

The Peer Review Committee members debate this and those analysts with sufficient seniority determine the rating outcome by a blind vote. Lonsec has strict attendance and quorum requirements for each Peer Review Committee. Voting rights are also clearly established to ensure analysts voting are suitably experienced and understand the issues at hand. All eligible voting members of the Peer Review Committee have one equal vote, and all voting matters are decided by simple majority vote. The Chairperson of the peer review meeting or their delegate may cast the deciding vote in the event of a deadlock. The Head of Active Manager Research, Passive Manager Research and Heads of Asset Class have a final right of veto, rarely used, and may either overturn a rating or resubmit this for a second vote. Any veto requires a reasonable basis and must be documented.

Where the final rating differs from the initial rating suggested by the model (after qualitative debate), the reasons for difference are recorded in the minutes.

Where the Peer Review Committee does not consider it has enough information to reach a proposed rating, it may ask further questions of the Fund Manager and analysts may circle back with further information to an additional peer review.

Report drafts

Following Peer Review, Analysts will complete a draft report which is reviewed by a Senior Analyst before being sent to the Fund Manager for fact checking. In accordance with ASIC guidance, this version of the draft report is provided to the manager with product rating and Overall Opinion paragraph omitted. The Fund Manager is afforded five business days to confirm no factual errors or omissions exist or to provide factual corrections. Lonsec notes that rebuttal of Lonsec opinion will not necessarily result in amendment of the Draft Report.

Substantial changes to the facts presented in pre-meeting due diligence and at site visits may result in reconvening Peer Review Committee.

Direct Assets reviews may need to confirm a range of important data points with the Manager prior to Peer Review, such as the further acquisition or disposal of assets from the portfolio.

Fund Review Published

The financial product rating and the report (for investable products), is available to the fund manager, all Lonsec subscribers and other stakeholders.

Advisers are alerted to rating updates and changes via the Daily Bulletin and alert functionality in iRate.

Findings published in Sector Review

At the completion of each sector, a Sector Review document is published. The Sector Review incorporates all the respective financial products researched within the respective asset class or sector, discusses themes and compares the peer group.

Direct Assets does not publish a regular Sector Review as products are not all reviewed simultaneously. However, a "Direct Assets Recommended List" is available.

From time-to-time, Lonsec may produce one-off publications discussing current issues pertinent to the Direct Assets sector.

Lonsec Ratings (Managed Funds, ETFs and SMAs)

The rating system designates financial products under the categories of Highly Recommended, Recommended, Investment Grade, Fund Watch, Redeem and Screened Out. These ratings reflect Lonsec's degree of conviction in the financial products' ability to generate risk adjusted returns in line with relevant objectives.

Highly Recommended **Highly Recommended** Index **Highly Recommended** SMA	The Highly Recommended rating indicates that Lonsec has very strong conviction the financial product can generate risk adjusted returns in line with relevant objectives. The financial product is considered a preferred entry point to this asset class or strategy.
Recommended **Recommended** Index **Recommended** SMA	The Recommended rating indicates that Lonsec has strong conviction the financial product can generate risk adjusted returns in line with relevant objectives. The financial product is considered an appropriate entry point to this asset class or strategy.
Investment Grade **Investment Grade** Index **Investment Grade** SMA	The Investment Grade rating indicates that Lonsec has conviction the financial product can generate risk adjusted returns in line with relevant objectives. However, if applicable, Lonsec believes the financial product has fewer competitive advantages than its peers.
Fund Watch **Fund Watch** Index **Fund Watch** SMA	The Fund Watch rating indicates that no new investment into this financial product is recommended. A significant change has occurred with the financial product and a detailed assessment of the change is needed and / or series of rectifying actions required prior to this rating being changed.
Screened Out **Screened Out** Index **Screened Out** SMA	The Screened Out rating indicates that Lonsec currently does not have conviction that the financial product can generate risk adjusted returns in line with relevant objectives. The financial product currently has insufficient competitive advantages relative to its review peer group (if applicable).
Redeem **Redeem** Index **Redeem** SMA	The Redeem rating indicates the financial product is no longer considered worthy of investment for any time period and investors should immediately redeem units from the financial product, subject to seeking financial advice. An adverse development has taken place that is considered detrimental to the interests of investors.

Investment Bond Ratings

The rating system definitions for Investment Bonds has been modified to accommodate the nuances of the sector.

Highly Recommended	The 'Highly Recommended' rating indicates that Lonsec considers the investment bond to be the preferred entry point to the sector. The issuer or structure of the investment bond has competitive advantages in most areas of assessment in people, process and design, with no areas of material weakness.
Recommended	The 'Recommended' rating indicates that Lonsec considers the investment bond to be a recommended entry point to this sector. The issuer or structure of the investment bond has competitive advantages in several areas of assessment in people, process and design.
Investment Grade	The 'Investment Grade' rating indicates that Lonsec considers the investment bond to be an adequate entry point to the sector. The issuer or structure of the investment has fewer competitive advantages in areas of assessment in people, process and design compared to peers with higher ratings.
Fund Watch	The Fund Watch rating indicates that no new investment into this financial product is recommended. A significant change has occurred with the financial product and a detailed assessment of the change is needed and / or series of rectifying actions required prior to this rating being changed.
Screened Out	The Screened Out rating indicates that Lonsec currently does not have conviction that the financial product can generate risk adjusted returns in line with relevant objectives. The financial product currently has insufficient competitive advantages relative to its review peer group (if applicable).
Redeem	The Redeem rating indicates the financial product is no longer considered worthy of investment for any time period and investors should immediately redeem units from the financial product, subject to seeking financial advice. An adverse development has taken place that is considered detrimental to the interests of investors.
Approved	The Approved rating indicates that Lonsec believes the financial product can generate risk adjusted returns in line with relevant objectives. If applicable, the financial product provides an adequate means for investors to gain exposure to the underlying assets.
Not Approved	The Not Approved rating indicates that Lonsec believes the financial product cannot generate risk adjusted returns in line with relevant objectives. If applicable, the financial product does not provide an adequate means for investors to gain exposure to the underlying assets.

Screened out

ASIC's updated Regulatory Guidance to Research Houses (ASIC RG79) requires that Lonsec publishes a rating for those financial products considered sub-investment grade. This applies to financial products that are new to Lonsec's research process and have undergone the full due diligence process. Fund Reviews and Fund Viewpoints will not be published for financial products rated as 'Screened Out'. Only Fund Profiles containing factual information and the Screened Out rating will be published. A confidential draft rating report summarising how the financial product was assessed against each of Lonsec's rating criteria will be provided to the Fund Manager, for internal use only.

Financial Products Withdrawn from Research Process

The following are statuses, not ratings. They articulate the circumstances under which a financial product was withdrawn from Lonsec's researched universe.

Discontinued Review	The Discontinued Review status is applied where a fund manager that has approached Lonsec and agreed to tender a financial product for assessment, subsequently elects to discontinue participating in the Review prior to its completion for any reason, other than the financial product being closed or unavailable to retail investors. The Discontinued Review status will be published on the Lonsec website.
Ceased Coverage	The Ceased Coverage status is applied to financial products where fund managers withdraw from the Lonsec research process after the research process has been completed. The timing of when coverage will cease depends on whether the Fund Manager is willing to continue to meet its contractual obligations to inform Lonsec of material changes or provide access to Investment Management personnel. 1. Where a Fund Manager agrees continue to meet its obligations (access to staff and keep Lonsec informed of material changes) coverage will Cease on the anniversary of the last Fund report. 2. Where a Fund Manager is not willing to participate in review meetings or commit to keeping Lonsec informed, coverage will cease immediately.
Closed / Wind Up	The Closed / Wind Up status is applied to a financial product when the Fund Manager advises Lonsec that the financial product is being wound up and the capital is to be returned to investors.

Rating Review Process

While the incidence is rare, a Fund Manager may formally request a review of a published rating. In this circumstance, Lonsec will initiate its Rating Review Process. A request for review must be made in writing, outlining the basis for the request and addressed to a member of Lonsec Research's senior leadership team. This review process will test whether the Lonsec research process has been adhered to in the production of the final report and rating. Where necessary, further research may be commissioned depending on the technicality and complexity of the areas identified for review. Rating outcomes may only be subject to revision under this process where it is established that there has been some non-compliance with Lonsec's research process, albeit subject to the nature and materiality of the non-compliance. More details on the Rating Review Process can be provided on request.

Direct Equities Research

Lonsec's equities research coverage spans:

- All constituents of the S&P / ASX200 index.
- ASX-listed hybrid / debt securities (Listed Income Securities).

Lonsec will from time to time cease coverage of securities that drop out of the ASX200 index and initiate coverage on all securities that enter the ASX200 index. Lonsec will also from time-to-time initiate coverage on new hybrids either when they list or immediately after.

Lonsec will generally maintain research coverage of all Listed Income Securities until the call / maturity date for each respective security.

Report Type	Summary	Release frequency
Equities — Stock Viewpoint	A two-page equity research report inclusive of a stock rating, investment risk profile, company valuation, business snapshot, investment view, financial forecasts, bull & bear points and key trends and charts.	Updated for all material company announcements. Daily updates to capture impacts of 'live' pricing and changes in consensus data.
Equities — Corporate Action Reports	Lonsec provides corporate actions reports (including recommendation) on a broad range of corporate actions for all ASX200 stocks under coverage. The corporate actions covered include, capital raisings and mergers & acquisitions. We also provide corporate actions reports for LICs and LITs.	As required. Usually within five business days of announcement.
Equities — IPO Reports & Initiations	Lonsec will initiate coverage on all stocks that enter the ASX200 index. Lonsec will also provide research reports on major IPOs on an ad-hoc basis.	Quarterly, post the announcement of S&P / ASX200 Index changes.
Listed Income — Viewpoint	A two-page research report inclusive of issue rating, key financial metrics and an overview of the key risks associated with the issue.	Updated post the payment of distributions.
Listed Income — Corporate Action Reports	Lonsec provides corporate actions reports (including recommendation) on a broad range of corporate actions for all Listed Income Securities under coverage.	As required. Usually with five business days of announcement
Listed Income — Yield Update	The weekly Yield Update table provides a summary of the structure, trading metrics and distribution details of the listed income securities within Lonsec's universe. In addition, this document shows Lonsec's current preferred securities and an overview of topical fixed income news during the week	Monthly

Research Philosophy

Lonsec considers the primary purpose of investing in equities is to generate dividend income, capital growth or a combination of both and it is this risk versus reward relationship that determines the attractiveness of an investment. For any given company, the level of risk to capital and the level of risk to income are not necessarily the same. In order to differentiate between these inherent risks, Lonsec's equity research sets out to capture and highlight the various characteristics of each stock in a systematic manner. This approach has been tailor made for the financial advice channel and sets out to assist financial advisers in selecting the right stock for the right client.

Research Approach

Lonsec's approach to equities research departs from the traditional 'Buy-Hold-Sell' broker that focuses more on the valuation upside potential of a stock. Rather, Lonsec's approach utilises a combination of qualitative and quantitative analysis methods to provide answers to the key investment question at an individual stock level:

- Which stock to buy? (Rating: Approved / Not Approved).

In answering that question, Lonsec considers:

- What are the investment risks of each stock? (Risk Profile: Income / Growth).
- Is the stock trading at a reasonable price? (Action Signal: Undervalued / Overvalued).

ASX200 research is performed by Lonsec's Direct Equities team. This is a team of six equity investment specialists, with three of the team being senior analysts with extensive market experience. Stock responsibilities are delegated along sectoral lines, with Lonsec believing this approach is optimal from an intellectual property and efficiency point of view.

Which stock to buy?

Lonsec's proprietary quantitative models utilise a database comprising a wide range of historical and forecast data points to determine and classify the Income and Growth risk profile for each security in the ASX200. The quantitative model will derive a suggested **Approved or Not Approved** rating by combining the Income and Growth Risk ratings for each stock. The outcome of this model is then peer reviewed by the Direct Equity team to ensure that the team agrees with the assessment. There is the ability for the Direct Equity team to provide a qualitative overlay to the rating as this point.

In terms of the mechanics of the overall rating, where the risk ratings in both categories are above Lonsec's stated risk threshold, the security is deemed as being high risk and will be classified as Not Approved.

What are the investment risks of each stock?

As well as an overall research rating, Lonsec's quantitative model will derive a risk profile based on the risk to Income or Growth. This is achieved quantitatively by screening each stock by a bespoke set of factors relevant to each risk factor, resulting in stocks being allocated to four distinct 'buckets' for each of income and growth – Low, Attractive, At Risk or Inferior.

Income Risk

Lonsec's assessment of a company's Income Risk profile follows a structured framework of assessing key financial metrics to arrive at an overall income risk rating for the company. This risk rating is combined with the expected dividend yield of the company, over the medium term, to classify the company into one of the following categories:

Low Income — reflecting a below-market dividend yield, whilst exhibiting lower dividend volatility and a relatively lower risk profile than the broader market;

Attractive Income — reflecting an above-market dividend yield, whilst exhibiting lower dividend volatility and a relatively lower risk profile than the broader market;

Income at Risk — reflecting an above-market dividend yield, whilst exhibiting higher dividend volatility and a relatively higher risk profile than the broader market; and

Inferior Income — reflecting a below-market dividend yield, whilst exhibiting higher dividend volatility and a relatively higher risk profile than the broader market.

Growth Risk

Lonsec's assessment of a company's Growth Risk profile follows a structured framework of assessing key financial metrics to arrive at an overall growth risk rating for the company. This risk rating is combined with the expected earnings growth of the company, over the medium term, to classify the company into one of the following categories:

Low Growth — reflecting a below-market growth rate, whilst exhibiting lower earnings volatility and a relatively lower risk profile than the broader market;

Attractive Growth — reflecting an above-market growth rate, whilst exhibiting lower earnings volatility and a relatively lower risk profile than the broader market;

Growth at Risk — reflecting an above-market growth rate, whilst exhibiting higher earnings volatility and a relatively higher risk profile than the broader market; and

Inferior Growth — reflecting a below-market growth rate, whilst exhibiting higher earnings volatility and a relatively higher risk profile than the broader market.

Lonsec notes that these risk profile assessments are not static and will be updated as this data set 'rolls' over time as one year is dropped and another year is added. In addition, the consensus data itself can also change with analyst forecasts. Accordingly, the income and growth risk profiles for each stock will gradually change over time as the data changes.

Is the stock trading at a reasonable price?

A key part of Lonsec's investment process is to use the research process to create a bespoke set of earnings forecasts to both ratify the investment view and derive and maintain bespoke valuations for each of the ASX200 constituents. This valuation is the bedrock of an Action Signal for each stock which highlights whether the current share price represents an attractive entry point for each stock based on valuation upside.

The Action Signal will oscillate between Undervalued, Fairly Valued and Overvalued depending whether a share price is above, in-line or below Lonsec's assessment of fair value. Lonsec's fair value will be reasonably stable in the short term but will change over the medium to long term, in-line with analyst views based on the company and industry outlook and macro-economic conditions. Lonsec's ASX200 valuation methodology is largely dependent on the sector in which a stock resides.

In circumstances where the Company's valuation requires an urgent review due to a material event, Lonsec will place the fair value under review. In this situation, Lonsec will remove the fair value for the stock and advise that its valuation is currently under review in the 'Action Signal' section. This status will usually only apply for short period of time. When a valuation is under review, the rating is not affected as only the fair value is being reviewed.

Figure 14. Direct Equities Overview
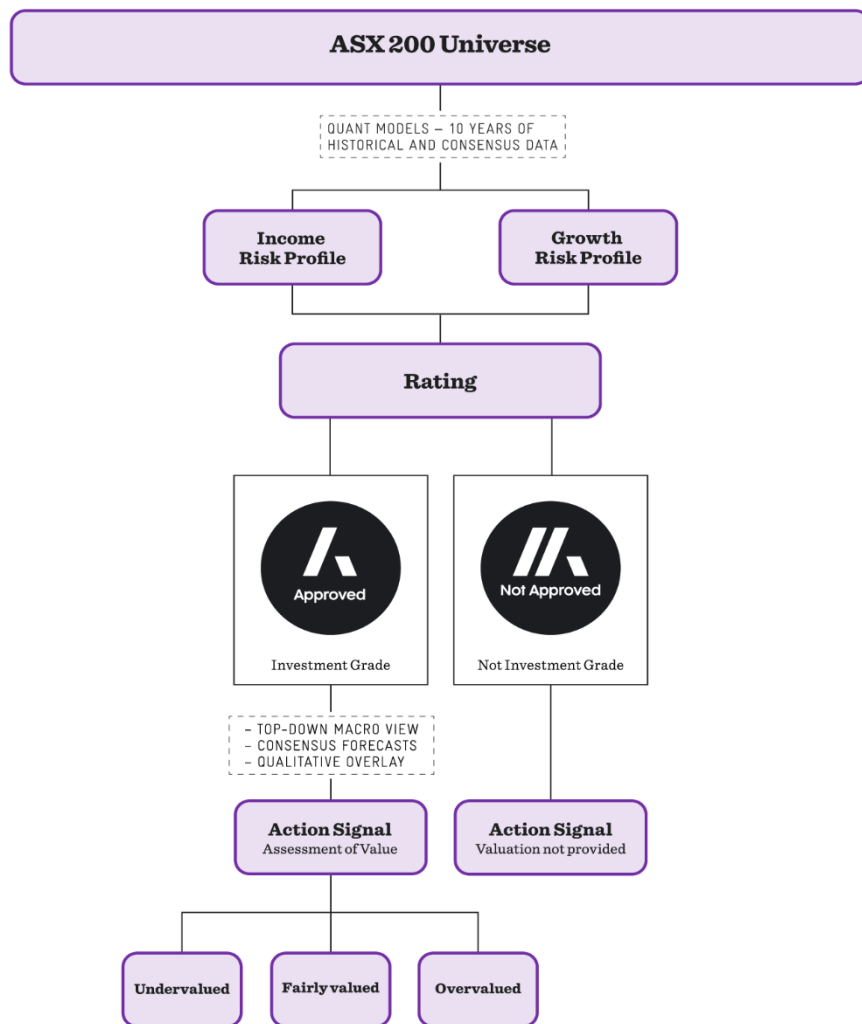
Once assigned, the rating of '**Approved' or 'Not Approved'** should be relatively stable for each stock as it is an assessment of the medium to long term prospects of a stock. Lonsec considers this to be a key attraction of its rating process. However, a small number of stocks may change rating, particularly when a material change (positive or negative) occurs and Lonsec adjusts its return and risk ratings on the stock.

Ratings Outcome

Lonsec's research process allows it to classify its investment universe constituents as either Approved or Not Approved investments. The rating definitions are presented below.

An **Approved** rating indicates that Lonsec believes the stock is of 'Investment Grade' quality, meaning we believe the long-term income and / or growth potential of the company outweighs the potential risks

The **Not Approved** rating indicates that Lonsec believes the stock is not of 'Investment Grade' quality, meaning we believe the potential risks outweigh the long-term income and / or growth potential of the company

A **Ceased Coverage** rating indicates that the stock is no longer included in the S&P/ASX 200 and hence Lonsec has ceased coverage of the stock. New stocks coming into the S&P/ASX 200 will be initiated with an Approved or Not Approved rating within 20 business days of inclusion in the index

Listed Income (Hybrids) Securities Research

Lonsec's listed income research follows a structured framework to derive an investment rating and risk assessment. The investment rating is a long-term assessment which remains relatively static. The risk assessment is more dynamic and may vary more frequently throughout the term of the issue. In forming our investment rating, we have assumed that positions are held to maturity and therefore will continue investment coverage through to maturity.

Investment recommendation

Each listed income investment under coverage is assigned either an 'Approved' or 'Not Approved' rating:

Approved
The 'Approved' rating indicates that Lonsec believes the security is of 'Investment Grade' quality, meaning we believe the security will pay all distributions in the term to call and holders will receive face value on maturity, such that the income potential outweighs the potential risks.

Not Approved
The 'Not Approved' rating indicates that Lonsec believes the security is not of 'Investment Grade' quality, meaning we believe the potential risks outweigh the long-term income potential of the security.

These recommendations are made with reference to the Lonsec risk assessment, which is discussed below, and with consideration to the relative attractiveness of the expected return. The potential return refers to the interest margin on offer over the relevant benchmark rate and any other investment return which may include conversion discounts, in-built call options, entitlements to IPOs and future step-ups in the margin.

Figure 16. Listed Income Overview
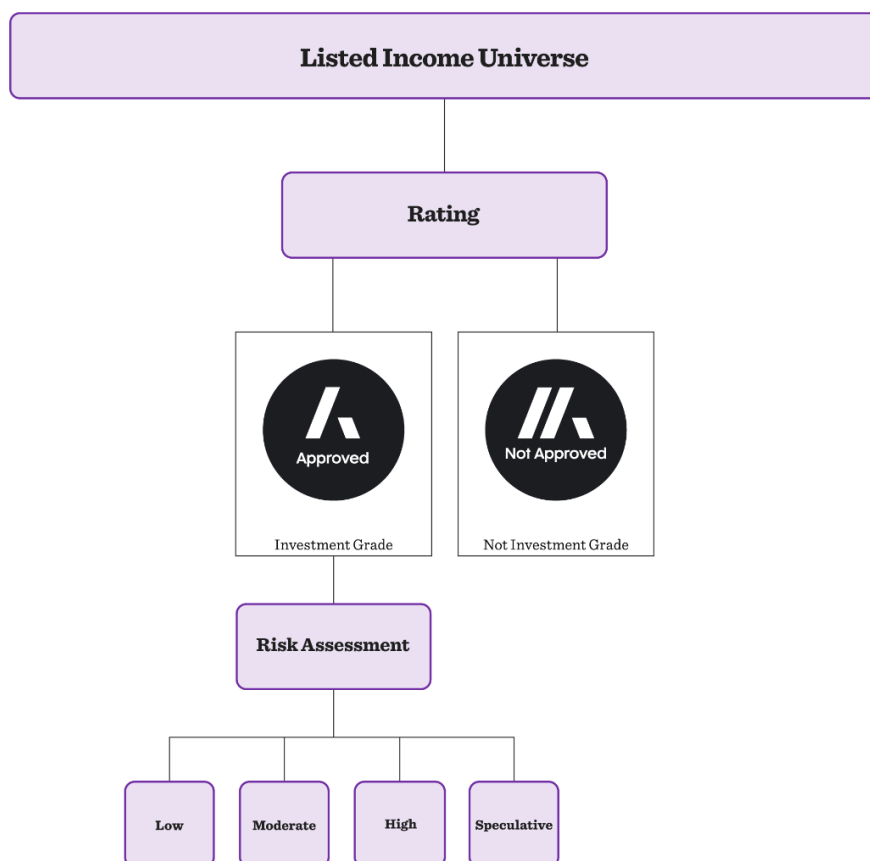
Risk assessment

The six risk categories, identified and assessed and scored (in order of importance) are:

Financial

The financial strength of the financial product issuer is examined according to the sector in which the company operates. This is primarily designed to ensure the analysis represents a true reflection of the financial product issuer's financial strength and to take account of the fact that banks and insurance companies have very different financial structures to traditional industrial companies. Specifically, the key indicators analysed include balance sheet strength, wholesale credit rating, capital adequacy ratios, interest cover, asset quality, liquidity, net tangible assets, gearing and earnings quality.

Structure

The risks inherent in any listed income security can vary significantly based on the security structure. To assess structure risk, Lonsec examines subordination / capital classification, distribution payment tests, distribution restriction conditions and conversion conditions.

Maturity

The risks associated with the maturity structure of the issue are examined in detail and a relevant risk rating assigned. One of the key factors in the market's pricing of a listed income security is the maturity terms and conditions, as these determine the 'how' and 'when' the invested capital is returned to the investor. Lonsec forms a view on the expected maturity date of each security, having considered the maturity and / or conversion terms, the financial capacity of the financial product

issuer, the ascribed equity credit and the significance of the size of the issue to the financial product issuer.

Liquidity

Liquidity risk is the risk that an investment may not be easily converted into cash with little or no discount to the last traded market value, and at minimum delay. A liquidity premium should be required by investors to compensate for lack of liquidity. Low liquidity can also result in higher than desired volatility. Key attributes analysed to rate liquidity include issue size and average weekly turnover.

Industry

Structural and operational risks associated with the industry in which the company operates can impact the financial position and prospects of the financial product issuer, and hence the performance of the listed income security. Industry analysis involves consideration of the following factors: current and forecast industry conditions, domestic and global economic outlook and its expected impact on the industry, regulatory risks, the company's positioning and pricing power within its industry, the power of suppliers and buyers, as well as the life cycle stage of the industry.

Volatility

Volatility measures how much the market value of an issue fluctuates with respect to its face value over the life of the issue. Volatility is often viewed negatively in that it represents uncertainty. It can, however, also provide the potential for higher returns. Both capital and income will contain some degree of volatility depending on the nature of the underlying investment. Our assessment of expected volatility takes into consideration a number of metrics including financial product issuer strength, economic and credit market conditions, investor sentiment, equity market conditions, the perception of or likely occurrence of distribution deferral or a conversion trigger, capital ranking / structure, liquidity, conversion terms, maturity risk and the volatility of listed peers.

Risk rating

Once the risks outlined above have been assessed and scored, each risk is assigned a rating of low, moderate, high or speculative, depending on the score. In addition, the results are aggregated into an overall risk score, with the risks that Lonsec determines to be the most important, having the greatest weight. This score is used to determine the overall risk rating. If the overall risk score results in a Speculative rating, this indicates the issue is below investment grade and has speculative qualities.

Lonsec also advises on the Lonsec client risk profiles that each security is suited to.

Lonsec

Lonsec
Research Team

Appendix A to the Lonsec Research Process

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Research Leadership Team

Lorraine Robinson

BCom (Hons), GradDipAppFin

Executive Director, Research

Lorraine joined Lonsec in December 2019 to lead the Lonsec Research team. She has extensive experience in financial markets, across investment research, funds management and investor relations.

She joined Lonsec from Evans & Partners, where she was most recently the Chief Operating Officer of the Corporate and Institutional business. Her 10 year tenure included time as Head of Research and as a Senior Investment Analyst. Previously she developed her own investor relations and consulting practice, gaining experience across a number of different industries including financial services, media and communications and technology. She was a successful Research Analyst at JBWere and gained experience in both funds management and investment banking at Macquarie Bank.

Peter Green

BCom, BA, CA

Director of Research

Peter joined Lonsec in 2008 and is responsible for the Managed Fund Research team. He also has responsibility for the Australian Equities sector and for leading all listed product research including hybrids, ETFs and LICs/LITs. Peter has held a number of roles within Lonsec, having developed and managed Lonsec's ASX 200 research and been responsible for all managed funds equities research across a range of sectors with a primary focus on the Australian equities market. He also has experience in the direct property sector.

Before his career at Lonsec Research, Peter worked as a Development Analyst/Senior Property Accountant for an Australian REIT, where his main role was providing investment analysis and budgeting/forecasting capabilities to the Australian retail property team. He originally worked for Andersen/Ernst & Young as an external audit senior as well as spending two years in the United Kingdom in various accounting roles. He is a Chartered Accountant.

Robyn Bayliss

Director of Delivery

Robyn joined Lonsec in January 2019 to lead the Operations and Data Analytics Team responsible for the management and ongoing development of Lonsec's quantitative tools and data processes. She was recently promoted to Director of Delivery, responsible in conjunction with Peter Green for the delivery of the research schedule. Robyn is also charged with driving continuous improvement and managing change across the Lonsec Research business, working closely with IT and other Lonsec business units as a business partner to ensure that all process, data and product initiatives are aligned with the strategic aims of the group.

Prior to joining Lonsec, Robyn implemented and managed the PMO for Victorian Funds Management Corporation (VFMC) and was responsible for the delivery of the 2020 Strategic Plan and transition of custodian. Robyn's background includes roles as Project Manager, Senior Business Analyst and Operations Manager in the finance and superannuation industry.

Rui Fernandes

BEc, GradDipAppFin, CFA

Head of Product Development

Rui joined Lonsec in January 2008 and is responsible for the firm's research product development including new products or services, process quality and enhancement. Prior to this current appointment in February 2020, Rui has held roles such as co-leading the research team as well as being the lead analyst for global equities strategies. During his tenure he has also worked across a range of asset classes and sectors.

Before joining Lonsec, Rui had a variety of investment research and analytical roles in the finance industry at firms such as Aviva Research, the Australian Prudential Regulation Authority and the Commonwealth Bank of Australia. Rui has worked in the finance industry since 2001.

Tony Adams

BCom, MBA, DipSustainability

Head of Sustainable Investment Research

Tony joined Lonsec in March 2019 and is currently responsible for the responsible investment subsectors across various equity teams as well broad oversight of the assessment of ethical, ESG and impact capabilities across managers.

Prior to joining Lonsec, Tony has had 30 years' experience in global fixed interest markets, most recently as Head of Global Fixed Interest and Credit at Colonial First State Global Asset Management, where he developed the firm's global credit capability and oversaw the implementation of ESG across portfolios. Previous roles included Senior Portfolio Manager at Westpac Investment Management and Balance Sheet Manager at NSW Treasury Corporation.

Active Research

Sector Managers

Darrell Clark

BAEcon (Hons), MAppFin

Manager Multi-Asset

Darrell joined Lonsec in January 2019 as a Senior Investment Analyst in the managed funds research team. Darrell is primarily responsible for leading the research effort on the multi-asset sector. Prior to joining Lonsec, Darrell was the Head of Qualitative Analysis at Evergreen Consultants responsible for manager, market and economic research and assisting in building and monitoring Evergreen portfolios. Darrell also spent several years as a Senior Investment Analyst within the Advice Research team at BT Financial Group where he was responsible for manager research across a number of sectors. Darrell's other work history includes client relationship roles at Skandia and Gartmore Investment Management (London).

Peter Green

BCom, BA, CA

Manager Australian Equities

Peter joined Lonsec in 2008 and is responsible for the Managed Fund Research team. He also has responsibility for the Australian Equities sector and for leading all listed product research including hybrids, ETFs and LICs/LITs. Peter has held a number of roles within Lonsec, having developed and managed Lonsec's ASX 200 research and been responsible for all managed funds equities research across a range of sectors with a primary focus on the Australian equities market. He also has experience in the direct property sector.

Before his career at Lonsec Research, Peter worked as a Development Analyst/Senior Property Accountant for an Australian REIT, where his main role was providing investment analysis and budgeting/forecasting capabilities to the Australian retail property team. He originally worked for Andersen/Ernst & Young as an external audit senior as well as spending two years in the United Kingdom in various accounting roles. He is a Chartered Accountant.

Ron Mehmet

BA (Hons), MAppFin, Dip Mgt, FFin

Manager Fixed Income

Ron joined Lonsec in April 2020. Ron brings extensive experience in financial markets, fund manager research, funds management, multi-sector and single sector portfolio construction, investment committees and trustee investment boards from previous senior management roles at both BTFG/Advance (6 years +) and INGIM/Optimix (13 years +) as part of their multi manager funds management teams. While Ron has been involved in the management of investment teams and multi manager funds across the full range of asset classes including diversified funds, he brings particular expertise in fixed income, having also held a Senior Manager, Money Market role in Institutional

Banking at CBA (12 years +). Prior to joining Lonsec, Ron worked at Perpetual Investments as an Investment Specialist alongside the Fixed Income team.

James Kirk

BCom (Hons)

Manager Alternatives and Global Equities

James joined Lonsec's managed funds research team in 2013 and is the Manager of Alternatives and Global Equities sectors within the managed funds research team. James has been involved in the review of financial products across several sectors throughout his time at Lonsec, primarily within Alternatives, Global and Australia equity sectors.

James completed his Honours in Finance degree alongside a double major in Finance and Financial Planning. Before joining Lonsec, James gained experience as an Investment Analyst with Dixon Advisory.

Kevin Prosser

BEc, DipEd, ASIA, SDIAM

Manager Property and Infrastructure

Kevin joined Lonsec in 2003 and has overall responsibility for research into unlisted Direct Asset syndicates as well as Property and Infrastructure funds.

Prior to Lonsec, he was an Analyst and Investment Advisor with E. L. & C. Baillieu Stockbroking, Research Manager with G. K. Goh Stockbrokers in Kuala Lumpur and a Research Analyst with McIntosh Securities and AMP.

Research Analysts

Clinton Alexander

BBus, MBkg&Fin

Senior Investment Analyst

Clinton joined Lonsec in March 2017 as a Graduate Investment Analyst within the managed funds research team and was promoted to Investment Analyst in August 2018. In this role, Clinton is responsible for undertaking financial product reviews across a range of different sectors including Alternatives, Australian and Global Equities and Global Property.

Clinton graduated with a Bachelor of Business (Accounting and Econometrics) (2015) (Dean's Award) and a Master of Banking and Finance (2016) from Monash University, graduating as the highest achieving student (2016). Prior to joining Lonsec, Clinton gained experience as a Graduate Business Recovery and Insolvency Analyst with Pitcher Partners in Melbourne.

Richard Dalidowicz

BEc, GradDipAppFin, FCPA, FFIN

Senior Investment Analyst

Richard joined Lonsec in July 2019 and works as a Senior Investment Analyst within the equities managed fund research team. He has more than 20 years of experience in Australian, Global and Emerging Markets equities managed fund research, multi-manager portfolio construction and in portfolio management.

Prior roles include senior investment roles with AustralianSuper, Funds SA, Cambridge Associates and Contango Funds Management.

Amy Ho

BCom, BBIS, CFA

Senior Investment Analyst (Sector Lead Global Emerging Markets & Investment Bonds)

Amy joined Lonsec's managed fund research team in January 2012 and is involved in undertaking managed fund research across a range of sectors. Prior to joining Lonsec, Amy worked as the Senior Performance Analyst at Industry Superannuation Property Trust where she was responsible for performance reporting, attribution analysis and forecasting. She also held a position at JBWere in the Private Wealth Management division, where she oversaw systems and process improvements that supported the portfolio reporting service.

Hong Hon

CIMA, MAppFin, BCom, AdvDipFS(FP), FFin

Senior Investment Analyst

Hong joined Lonsec in April 2019 as a Senior Investment Analyst within the managed funds research team. In his role, Hong is responsible for undertaking research across a range of asset classes. Hong has 15 years of experience working in a variety of analytical, investment research and portfolio management roles within the wealth management industry.

Sebastian Lander

BSc Hons, CFA, CAIA

Senior Investment Analyst

Sebastian joined Lonsec as a Senior Investment Analyst in May 2020. He is primarily responsible for preparing research reports for the Multi Asset sector. Prior to joining Lonsec, Sebastian worked for a number of investment managers helping to construct multi asset portfolios, undertake economic and market research, and to conduct manager research across all asset classes. Sebastian's work experience includes roles at Julliard Advisory and Select Investment Partners in Sydney, and Schroder Investment Management in London. Sebastian graduated with a 1st Class Honours degree and is a CFA and CAIA charterholder.

Robbie Lew

BCom, GradDipAppFin, CIMA

Senior Investment Analyst

Robbie joined Lonsec in January 2019 and is involved in the review of financial products across a diverse range of sectors. Prior to joining Lonsec, Robbie spent five years as an Investment Research Analyst at IOOF, where he was responsible for conducting sector reviews across managed funds, exchange traded funds and researching listed investment companies as well as providing ancillary investment research services to the aligned dealer groups.

Amy Li

BEcon (Hons), MAppFin, CFA

Senior Investment Analyst

Amy joined Lonsec in March 2018 as an Investment Analyst in the manager research team. She is primarily responsible for preparing research reports across a range of sectors. Sectors covered include fixed income, multi-asset, global listed infrastructure and A-REITs.

Prior to Lonsec, Amy was an economist for about a decade. Most recently she was an economist at NAB for over four years, responsible for monitoring and forecasting the Australian economy, while also working as NAB's base metals analyst. Amy also held economist/policy analyst roles at QIC, Queensland Treasury, Queensland Department of Mines and Energy and UBS Investment Bank (Hong Kong). Amy graduated from the University of Queensland with first class honours in economics and is a CFA charterholder.

Matthew O'Neill

BCom (Hons)

Senior Investment Analyst

Matthew joined Lonsec in December 2015 as a Graduate Investment Analyst within the managed funds research team. In this role, Matt's main tasks will be to assist with the research into managed funds across a range of different sectors with his primary responsibility being the preparation of detailed research reports.

Matthew graduated with a Bachelor of Commerce (Honours) majoring in Finance and Economics from the University of Melbourne and passed the CFA Level III examination in June 2018.

Balraj Sokhi

BCom, AdvDipFP, DipFS(Fin. Markets), SMSF

Senior Investment Analyst

Balraj joined Lonsec in September 2018 and works as an Investment Analyst responsible for managed funds research across a range of different sectors, with primary focus on property and infrastructure. His primary responsibility is the preparation of detailed research reports.

Prior to Lonsec, Balraj worked at ANZ for several years as a Financial Planner, and prior to that as a Foreign Exchange Dealer and Assistant Relationship Manager within ANZ's Global Markets and Business Banking divisions respectively.

Balraj holds a Bachelor of Commerce (Finance & Management) from the University of Melbourne and has passed Level 1 of the CFA program.

Rish Chaudhuri

BSc Econ, MSc Fin

Investment Analyst

Rish joined Lonsec in October 2020 as an Investment Analyst within the managed funds research team. In this role, Rish's main tasks will be to assist with managed funds research across a range of different sectors with his primary responsibility being the preparation of detailed research reports.

Rish graduated with a Master of Finance degree from Melbourne Business School and completed his undergraduate studies in Economics at the University of Pennsylvania. Rish has also passed Level 2 of the CFA program. Prior to joining Lonsec, Rish was most recently an Assistant Analyst at the specialist equities research house, Diogenes Research. At Diogenes, Rish gained exposure to a variety of sectors, with a focus on earnings & financial quality analysis.

Geraldine Goh

MFin, BB(Acc)

Investment Analyst

Geraldine joined Lonsec in September 2016 as a Graduate Investment Analyst within the managed funds research team. Geraldine's responsibilities include assisting with the research into managed funds across a range of different sectors with her primary responsibility being the preparation of detailed research reports. Geraldine graduated with Master of Finance and Bachelor of Business (Accountancy) both from RMIT and has passed Level 1 of the CFA examination. Prior to joining Lonsec, Geraldine gained experience as a Money Market and FX Dealer for First Commercial Bank Ltd, Singapore Branch.

Leon Khoo

BCom, BCompSci

Investment Analyst

Leon joined Lonsec in August 2019 and is responsible for undertaking managed funds research across a range of sectors. Prior to this, Leon was at JANA Investment Advisers where he was responsible for Australian equities funds research and asset allocation projects. He was trained as an equities research analyst at Perennial Value Management and has also worked as a corporate projects analyst in the infrastructure space.

Leon graduated with a double degree in Commerce (Finance) and Computer Science from the University of Adelaide. He has completed all three levels of the CFA Program and is due to receive his charter.

Erica Piazza

BBus, MAppFin

Investment Analyst

Erica joined Lonsec in December 2019 as an Investment Analyst to the managed funds research team. She is primarily responsible for preparing detailed research reports across the Fixed Interest sector and the Multi Asset sector. Prior to Lonsec, Erica's most recent role was of more than eight years with Evans and Partners in the Institutional fixed interest team where she helped clients construct and manage fixed interest portfolios. Erica's other work history includes roles with St.George Bank, Goldman Sachs JBWere, Challenger and Heine. Erica holds a Master of Applied Finance from the University of Melbourne.

Amber Sunil

BBus Admin, DipFP, CFA

Investment Analyst

Amber joined Lonsec in April 2018 as an Associate Investment Analyst within the managed funds research team and is involved in the review of financial products across a range of sectors including Australian equities, global equities and fixed income.

Prior to joining Lonsec, Amber worked at Netwealth as the Investor Services Officer in the operations department. Amber's other work history includes roles with dealer group, Investors Direct Financial Group, as an investment analyst. Amber also worked for a year as the research analyst in United Bank Limited in Pakistan before moving permanently to Australia. Amber is a CFA charterholder.

Callum Yule

BApplEcon, CFA

Associate Investment Analyst

Callum joined Lonsec in April 2018. Callum has a Bachelor of Applied Economics from Massey University in New Zealand and is a CFA charterholder. Prior to joining Lonsec, he had three years' experience as a Graduate Investment Analyst/Investment Advisor at the New Zealand Transport Agency developing and reviewing proposals for government infrastructure projects.

Joshua Nappa

BBus

Associate Investment Analyst

Joshua joined Lonsec in June 2018 and is primarily involved in the review of financial products within the fixed income sector inclusive of domestic and global strategies.

Prior to joining Lonsec, Joshua was most recently a Portfolio Relationship Manager at Baillieu Holst whereby he was responsible for portfolio reconstruction for clients under an advice relationship with advisers. Joshua also gained further experience at Sornem Private Wealth, an independent boutique wealth management firm as a Portfolio Administrator, which saw him directly supporting advisers in the day to day management of their clients. Joshua graduated from RMIT University in 2016 with a Bachelor of Business (Economics and Finance) and has passed Level I of the CFA Program. Joshua is currently a CFA Level II candidate.

Asha Rahman

BCom/LLB

Associate Investment Analyst

Asha joined Lonsec in September 2020 as an Associate Investment Analyst within the managed funds research team. In this role, Asha's main tasks are to assist with managed funds research across a range of different sectors, with her primary responsibility being the preparation of detailed research reports. Asha graduated from Monash University in 2017 with a Bachelor of Commerce/Bachelor of Laws. Prior to joining Lonsec, Asha gained financial services experience as an

Investment Strategy Analyst at LUCRF Super and Investment Performance and Compliance Analyst at NAB.

Lewis Kennedy

BBus

Graduate Investment Analyst

Lewis joined Lonsec in July 2020 as a Graduate Investment Analyst within the managed funds research team. In this role, Lewis' main tasks will be to assist with managed funds research across a range of different sectors with his primary responsibility being the preparation of detailed research reports.

Lewis graduated from RMIT University in 2020 with a Bachelor of Business (Economics and Finance) and has passed Level I of the CFA Program. Prior to joining Lonsec, Lewis gained experience as a Junior Accountant with Stannards Accountants, working within the business services team.

Passive Management Research

Peter Green

BCom, BA, CA

Head of Listed Product Research

Peter joined Lonsec in 2008 and is responsible for the Managed Fund Research team. He also has responsibility for the Australian Equities sector and for leading all listed product research including hybrids, ETFs and LICs/LITs. Peter has held a number of roles within Lonsec, having developed and managed Lonsec's ASX 200 research and been responsible for all managed funds equities research across a range of sectors with a primary focus on the Australian equities market. He also has experience in the direct property sector.

Before his career at Lonsec Research, Peter worked as a Development Analyst/Senior Property Accountant for an Australian REIT, where his main role was providing investment analysis and budgeting/forecasting capabilities to the Australian retail property team. He originally worked for Andersen/Ernst & Young as an external audit senior as well as spending two years in the United Kingdom in various accounting roles. He is a Chartered Accountant.

Nathan Umapathy

BCom

Senior Investment Analyst

Nathan joined Lonsec in June 2018 and is primarily responsible for research efforts with listed products on both the ASX and Chi-X. He previously worked as a Research Analyst at Bell Potter, covering both the Listed Investment Company/Trust and the Exchange Traded Fund Sector. Specific to that role, he was responsible for authoring the highly regarded LIC Weekly and Quarterly reports and has been involved in several capital raisings within the sector. Prior to that role, he worked as an Assistant Analyst to the Head of Research at Bell Potter. Nathan holds a Bachelor of Commerce from the University of Melbourne.

Dylan Jones

BCom, CA

Investment Analyst

Dylan joined Lonsec in August 2019. Prior to joining Lonsec, Dylan spent almost four years at KPMG where he was a Senior Accountant providing external audit and risk consulting services.

Hewad Safi

BComm, DipFP

Associate Investment Analyst

Hewad joined Lonsec in October 2020 as an Associate Investment Analyst within the Listed Products team. Prior to joining Lonsec, Hewad gained experience within the financial planning industry working as a licensed Financial Adviser at Future Assist. Following his time at Future Assist, Hewad

joined Mercer Financial Advice as a Client Services Officer. Hewad holds a Bachelor of Commerce from Deakin University, a Diploma of Financial Planning and is currently enrolled in a Master of Management (Accounting) at the University of Melbourne.

Direct Equities

Chad Troja

BIntl Trade, MAppFin

Head of Direct Equities

Chad joined Lonsec at the end of 2017 from Catholic Church Asset Mgt where he was an Investment Analyst covering Australian Equities and Global Fund Manager research. Prior to this Chad spent 9 years at Perennial Investments Partners where he was part of the Global Equities team covering Consumers, Industrials and Health, whilst also involved in FX execution.

With over 15 years funds management experience previous organisations include Invesco, Equity Trustees and Foreign & Colonial (UK). Chad covers Communications, Financials, Health and Tech.

Ross Bird

BEng, FFin

Equity Strategist

Ross re-joined Lonsec in June 2013 developing specialised portfolios for wholesale clients. Ross is a member of Lonsec's Portfolio Services Investment Committee that oversees the management and Investment strategies of Lonsec's direct equity model portfolios.

Ross has 27 years' experience in Banking, Funds Management and Stockbroking research and portfolio management. Previously, Ross held Strategist roles at Lonsec, Aegis Equities, Morningstar and Bellwether. Prior to this, Ross was a Resources Analyst at National Mutual (now AXA/AMP) for 10 years.

Luke Conca

BCom, CFA

Equity Analyst

Luke joined Lonsec in May 2019. Prior to this Luke was an Investment analyst at Beulah Capital, where he was responsible for Australian equities analysis, portfolio management and investment platform execution. Luke worked on equities strategies ranging from growth, yield, and income with options, to a specialised takeover target portfolio. He also ensured mandate adherence and made significant contributions to valuation, portfolio changes, performance reporting, quarterly presentations and fact sheets.

Jack Dunn

BCom, BEco

Associate Equity Analyst

Jack joined Lonsec in January 2019 as an Associate Equity Analyst. Jack is responsible for maintaining research coverage on Australian equity and hybrid securities, producing the AM Bulletin market wrap and providing corporate action updates on ASX 200 listed companies.

Prior to joining Lonsec, Jack worked as an Associate Advisor for First Financial, where his role involved constructing and rebalancing client portfolios, implementing investment changes, and acting as a point of contact for client queries. Jack is currently enrolled for the level 3 CFA exam.

Research Operations

Robyn Bayliss

Director of Delivery

Robyn joined Lonsec in January 2019 to lead the Operations and Data Analytics Team responsible for the management and ongoing development of Lonsec's quantitative tools and data processes. She was recently promoted to Director of Delivery, responsible in conjunction with Peter Green for the delivery of the research schedule. Robyn is also charged with driving continuous improvement and managing change across the Lonsec Research business, working closely with IT and other Lonsec business units as a business partner to ensure that all process, data and product initiatives are aligned with the strategic aims of the group.

Prior to joining Lonsec, Robyn implemented and managed the PMO for Victorian Funds Management Corporation (VFMC) and was responsible for the delivery of the 2020 Strategic Plan and transition of custodian. Robyn's background includes roles as Project Manager, Senior Business Analyst and Operations Manager in the finance and superannuation industry.

Joseph McWilliams

BCom, MCom, CFA

Head of Research Analytics

Joseph joined Lonsec in July 2019 to lead the Research Analytics team responsible for the provision, quality and ongoing effectiveness of the quantitative models and metrics utilised by the research teams. Joseph works closely with the Head of Research Operations to ensure that all process, data and product initiatives are aligned with the strategic aims of the group.

Prior to joining Lonsec, Joseph was employed at IFM Investors as Senior Analyst to lead a team of analysts responsible for the provision of performance and risk reporting for cash and debt products and SMAs. Joseph has almost two decades experience as an analyst or in management roles within funds management, corporate finance, fintech, asset servicing and superannuation industries.

Colin Chen

BAS/Dip.CS, BAS (Hons), PhD

Senior Quantitative Research Analyst

Colin joined Lonsec in October 2015 within the Research Analytics team. Colin provides ongoing quantitative support to the Managed Fund, Listed Products and Consulting teams. His main responsibilities include the maintenance and application of research models, monthly reporting, data integrity and external client requests. Colin completed his studies at RMIT University with first class Honours and Doctorate degrees both in Mathematics.

Prior to joining Lonsec, Colin was employed by RMIT as a research assistant for the school of Mathematical and Geospatial Science. Colin has also worked as a consultant dealing with Econometric and Statistical projects.

Kieran Basoor

BCom

Associate Data Analyst

Kieran joined Lonsec in January 2019 as a Data Analyst within the Research Analytics team to support the maintenance and development of Lonsec platforms and data models. Kieran works closely with the Data Portal and assists with external client requests and communication. Kieran completed his Bachelor of Commerce (Accounting and Finance) at Monash University and has passed Level 2 of the CFA Program. Kieran is currently a candidate for CFA Level 3.

Prior to joining Lonsec, Kieran worked at the Australian Bureau of Statistics as a Research Analyst. Kieran worked as part of the Statistical Business Transformation Program to standardise metadata, create guidelines and worked with technical development teams to enhance IT infrastructure.

Clara Sindarto

BCom

Associate Data Analyst

Clara joined Lonsec in September 2020 as a Data Analyst within the research team. Clara assists in the maintenance of research models and tools, data integrity and client support.

Clara joined Lonsec from IOOF where she was Platform Investment Services Analyst, responsible for share price verification and maintenance, income tax projects, and the optimisation of business processes. Clara has a Bachelor of Commerce degree from ANU, completed the CPA Foundation Program and is studying toward the CFA accreditation.