Growth / Defensive Asset Categorisation Proposed Solution for Consultation

Detailed Paper

24 July 2020

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1. Executive Summary

This document details the proposed approach to growth / defensive (henceforth "G/D") asset categorisation, released for industry consultation.

A diverse working group (a range of super funds alongside research houses) has worked hard on this project for over 12 months. This is a true working group solution and does not represent the recommendation of any individual or their firms. The working group explored well beyond the proposed solution in many directions to enable an informed decision to pull back (where appropriate) to the recommended solution. This enabled a thorough exploration and also the opportunity to better explain our reasoning.

The working group believe a standardised approach to growth / defensive categorisation would benefit industry by increasing confidence in performance assessment. APRA have been kept informed of the working group progress throughout this project.

This document details the work to date that has led to the proposed solution. The working group has been cognisant of many issues, but most importantly the need to balance:

1. The desire to produce consistent, comparable fund exposure measurements across a large, diverse range of investment strategies
2. Concern around distorting investment decision-making
3. Operational impact

The document fully details the proposed solution along with a range of case studies. It also provides a detailed self-assessment. Models are among the available support materials to help funds explore further.

We encourage you to make use of the consultation period. Please review the materials and consider the consultation paper.

2. Background Information

In this section we provide background information on G/D, the working group, summarise the key challenges, and detail the implementation plan.

2.1. A Primer on G/D

The origins of G/D are not known with certainty.

Historically, balanced portfolios were reasonably simple collections of public market exposures (cash, government bonds and stocks). A simple way to describe the risk of these portfolio was to aggregate exposure to assets considered to be defensive (cash and bonds) and growth (stocks). G/D was essentially an exposure metric, providing information about how much exposure to two main categories of assets, rather than a risk metric which would indicate the variability or the loss potential of a portfolio. This approach was used by the super industry to assess performance and financial planners to construct client portfolios. A formal definition or industry standard was never produced and an unguided self-assessment approach was applied by industry.

Move forward to the present day: we have a much larger universe of asset classes, sub-asset classes and investment strategies, and greater diversity in balanced fund portfolio compositions. Under the existing unguided self-assessment approach it is now more difficult to assess and compare portfolio performance. Yet industry scrutiny, particularly of relative performance, has increased significantly, and magnified the reliance on G/D scores. In addition to ratings groups and financial planners, APRA now uses G/D as an important component of its Heatmap analysis.

No alternative objectively calculated risk-based metrics have emerged, or are likely to emerge, as an alternative to G/D. The Standard Risk Measure (released in 2011) is complex and subjective, resulting in an even greater degree of reporting dispersion than G/D. Meanwhile there appears no regulatory or industry plans to create new prescriptive risk metrics which could replace the role of G/D in the near future (next few years).

2.2. Working Group

Against this backdrop a number of people volunteered to be part of a working group to try and create a standardised approach to portfolio G/D categorisation. The working group contains representatives from a large variety of super funds and also representatives from research houses. The working group consisted of the following members (listed in alphabetical order):

Name	Affiliation	Nature of involvement
Debbie Alliston	AMP Capital Investors	Working group member
David Bell	The Conexus Institute	Chair of working group
Ian Fryer	Chant West	Working group member
Carol Lee	AustralianSuper	Working group member
Tim Macready	Christian Super	Working group member
Kirby Rappell	SuperRatings	Working group member
Anna Shelley	Equipsuper and Catholic Super	Working group member
Scott Tully	Colonial First State	Working group member

Table 1: Working group members. The working group acknowledges contributions made by Alistair Barker at Australian Super and specifically thanks Mercer for technical expertise and data.

Note that this proposal is a working group solution. It may differ from the recommended solution of any individual member and their respective affiliations. Topic areas which generated most debate are detailed in the Q&A.

2.3. Challenges

A range of challenges were encountered when addressing a better approach to G/D scoring. We narrowed these down to three major problems, summarised in Figure 1.
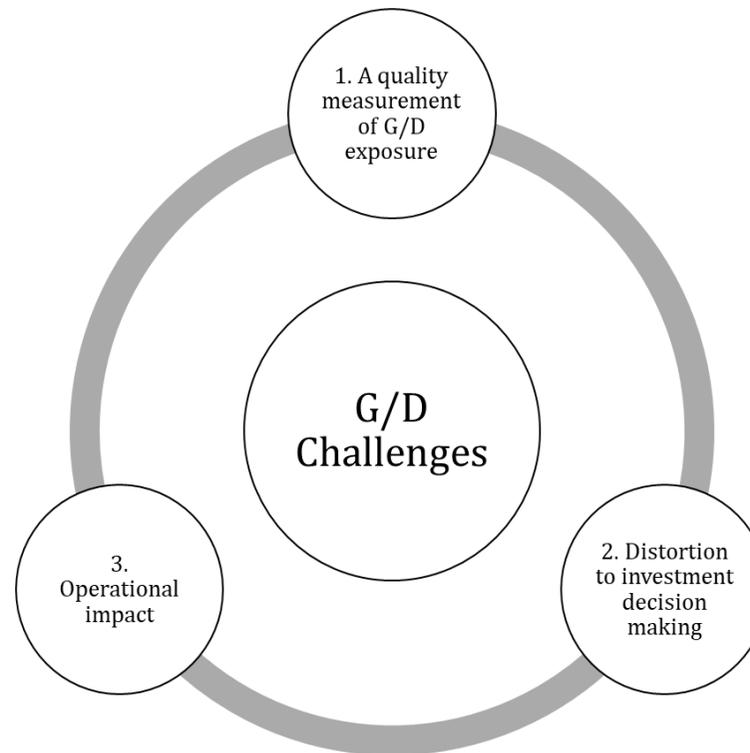
Figure 1: Three major problems faced in developing an approach to G/D scoring.

Expanding on the challenges identified in Figure 1:

1. A quality measurement of G/D exposure: this relates to the desire to produce consistent, comparable fund exposure measurements across a large, diverse range of investment strategies. This area covers many issues including the degree of subjectivity versus prescriptiveness, and the consideration of portfolio diversification benefits.

2. Concern around distorting investment decision-making: if the G/D scoring approach differs significantly from the true risk properties of individual investments and portfolios, then we potentially distort the investment decision-making process (acknowledging that many super funds account for both member outcomes and peer group considerations in their portfolio design).

3. Operational impact: we are cognisant of the operational impact of more detailed approaches.

One way of framing the challenge is to explore different measurements along the dimensions of simplicity and the degree of subjectivity, as per Figure 2. While relevant we note that this framing doesn't consider the quality of the measurement.
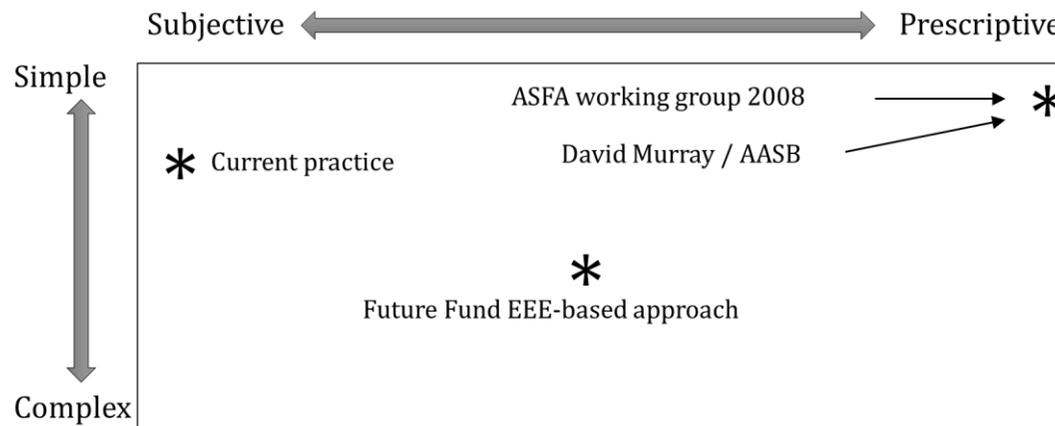

Figure 2: Working group assessment of a range of approaches to growth / defensive categorisation[1].

2.4. Implementation

The consultation closes on Monday 28 September 2020 and will lead to a reviewed and updated version. The required start date is likely 30 June 2021, though there are no barriers to early adoption.

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[1] *"ASFA working group 2008"* details initial work of a previous industry working group. *"David Murray / ASB"* relates to a standardised approach suggested by David Murray AO, relating to AASB-style standards (see AFR 23 June, 2019). *"Future Fund EEE-based approach"* relates to the equity equivalent exposure measure used by the Future Fund to communicate exposure. *"Current practice"* is self-explanatory.

3. Proposed Solution

In this section we work through the proposed solution. We begin by briefly detailing some of the thinking that helped lead the working group to the solution. We then summarise the solution, which is followed by the fully detailed version. This section includes numerous examples and a range of case studies.

3.1. Key thinking behind the proposed solution

Some important reflections contributed to the proposed solution. Of note:

- G/D is an exposure metric, not a risk metric. It can only be stretched so far before it starts to become more like a risk metric. We are cognisant of preserving its role as an exposure metric.

- To get more nuanced insight into some sectors requires an element of self-assessment. This naturally introduces subjectivity. However, we note that subjectivity can be somewhat controlled by having detailed processes for self-assessment.

- We recognise that a more detailed approach allows better insight, but it also increases operational complexity. We strive to be aware of materiality before mandating complexity.

- The recommendation is based on a foundation of research, rather than opinions. Examples include exploration of performance and fundamental characteristics of investment sectors and the use of test ('meme') portfolios.

3.2. Summary of the proposed solution

The foundations of the proposed solution are detailed in Figure 3. Additionally, we note that the total portfolio G/D score is simply a weighted sum-of-scores.
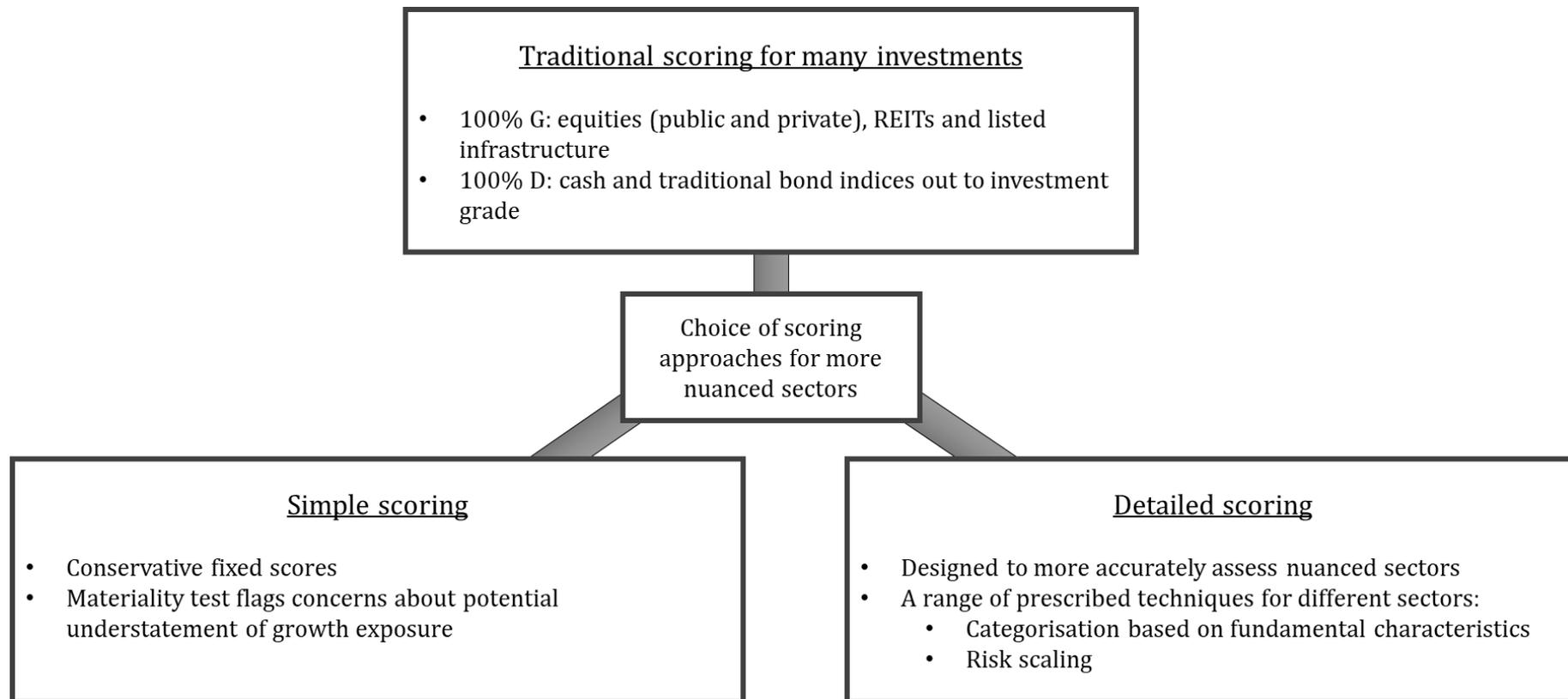
Figure 3: Foundations of the proposed G/D solution.

3.3. Solution in detail

3.3.1. Materiality and the option of a simple solution

Sectors such as unlisted property and infrastructure, alternative assets and high duration bonds are more nuanced. Within these sectors there can be a large dispersion of exposure characteristics amongst investments within the sector. The working group has developed a range of detailed techniques

to provide greater insight into these sectors (discussed in subsequent sections). This introduces operational complexity, which may be unwarranted if the exposure to the above-named sectors is immaterial.

The working group proposal includes a set of simple conservative scores which funds have the option to apply. The conservative nature of these scores makes it likely that funds adopting this approach will be overstating (to a relatively small degree) their growth exposure; this is effectively the 'cost' of adopting the simple approach. However, fund growth scores could also potentially be understated, something the working group is cognisant of. A simple materiality test flags when the risk of a sizable understatement exists.

Based on this set of simple conservative scores the extent of the possible understatement can be calculated. The working group proposes a materiality threshold relating to possible growth exposure understatement to be greater than 4%. If a fund's exposure to the above-named sectors exceeds 15% then there exists the possibility of material understatement. In this case the following options are open to the fund:

1. Adopt the detailed approach for all of the above-named sectors.
2. Adopt the detailed approach for some sectors and apply the simple approach for others to bring the materiality test below the threshold level (i.e. <15% exposure to nuanced sectors).
3. Apply the simple approach and have the score flagged by researchers and potentially APRA, as breaching materiality thresholds. Funds may be asked to provide research that proves materiality is not an issue.

Note that even if materiality thresholds are not breached, a fund always has the option to apply the detailed approach.

3.3.2. Investment sector G/D scores

Scoring for investment sectors, across both simple and detailed approaches is detailed in Table 2.

Asset class / sector	Sub-asset class / sub-sector	Scoring - Simple	Scoring - Detailed
Australian equities	Includes Australian shares, Australian small-cap shares, Australian micro-cap shares, Australian low vol shares, and any sector exposure.	100% G	100% G
	Leveraged Australian shares (1)	Total exposure% G	Total exposure% G
Global equities	Includes global shares, global small-cap shares, global micro-cap shares, global low vol shares, emerging market shares, any global sector exposures, any individual country or regional exposure.	100% G	100% G
	Leveraged global shares (1)	Total exposure% G	Total exposure% G
Australian private equity	Includes leveraged buyout, growth equity and venture capital.	100% G	100% G
Global private equity	Includes leveraged buyout, growth equity and venture capital.	100% G	100% G
Listed property	Includes Australian LPT's, global REITs and regional / country REITs.	100% G	100% G
Unlisted property	Tier 1 risk (Australian or global) (2)	All unlisted property 80% G	60% G / 40% D
	Tier 2 risk (Australian or global) (2)		100% G
Unlisted infrastructure	Tier 1 risk (Australian or global) (2)	All unlisted infrastructure 80% G	60% G / 40% D
	Tier 2 risk (Australian or global) (2)		100% G
Alternatives	Includes emerging markets debt, hedge funds, tail risk hedge funds (3), alternative risk premia, multi-asset funds, risk parity, forestry, agriculture, commodities, catastrophe bonds, life settlements, insurance-linked strategies. (4)	All alternatives 75% G	Apply risk scaling approach
Credit	Australian investment grade (benchmark)	100% D	100% D
	Global investment grade (benchmark)	100% D	100% D
	Global high yield (benchmark)	70% G / 30% D	70% G / 30% D

	Global bank loans (benchmark)	60% G / 40% D	60% G / 40% D
	Distressed debt	100% G	100% G
	Other non-index credit (5)	70% G	Apply risk scaling approach (6)
Fixed interest	Australian Government (benchmark), Australian Composite (benchmark), Australian Inflation-Linked (benchmark)	100% D	100% D
	Australian FI – all other except high duration (7)	100% D	100% D
	Australian FI – high duration (7)	60% G / 40% D	Apply adjusted risk scaling approach (6)
	Global Government (benchmark), Global Composite (benchmark), Global Inflation-Linked (benchmark)	100% D	100% D
	Global FI – all other except high duration (7)	100% D	100% D
	Global FI – high duration (7)	60% G / 40% D	Apply adjusted risk scaling approach (6)
Cash and cash-enhanced	Cash at bank, bank bills, NCD's, term deposits, and cash enhanced strategies (8)	100% D	100% D

Table 2: G/D scoring system and asset class categorisation. Accompanying notes below.

(1) e.g. 150% exposure to stocks: 150% G.
(2) Risk tiers are specified in the Further Detail section.
(3) Tail risk hedge funds can be treated as 100% D when applying the detailed approach. They are to be included as part of the hedge funds category.
(4) Additional details for multi-asset funds and diversified alternative portfolios (including fund-of-hedge funds) are detailed in the Further Detail section.
(5) This includes public and private market credit, discussed in the Further Detail section.
(6) Further detail is provided in the Case Studies section.
(7) High duration is where the duration of the product / sector exceeds the following thresholds: (1) 10 years for nominal bonds and (2) 15 years for inflation-linked bonds.

(8) Where enhancement activities relate to selection of cash-like instruments, bank bills, NCD's and bonds. The use of other enhancement strategies would entail the strategy being assessed as if it were a member of that category (e.g. if enhanced using equities then assess as per Alternatives, if enhanced with credit then assess as per Credit).

In addition to the information in Table 2, we make the following additional notes:

- Currency exposure is not included in G/D calculations. This is addressed in the Further Detail section
- Derivatives are addressed in the Further Detail section
- The final portfolio score is a weighted sum of the scores of portfolio exposures

3.3.3.   Risk scaling

Risk scaling enables the G/D scoring of investments which sit somewhere between 100% D and 100% G. There are two approaches that can be applied to any given sector or sub-sector. The first approach (volatility-based) needs to always be considered. The second approach (drawdown-based) acknowledges where concerns exist that volatility may significantly mis-represent the drawdown risk of the investment.

Approach 1

- Calculate the expected volatility, accounting for both historical volatility and forward-looking characteristics
- Divide this calculated volatility by 12% to determine a G/D score

Approach 2

- Assess the worse-case drawdown over a period of 18 months (similar in length to the GFC). This should represent a conservative approach which acknowledges past performance (where possible) but accounts for forward-looking drawdown potential
- Divide this calculated drawdown by 50% to determine a G/D score

Approach 1 should always be considered. Approach 2 is an additional consideration, and optional. Good practice would be to consider it for strategies where concerns exist that the drawdown potential is greater than what the level of volatility may suggest (e.g. strategies which earn premium for insurance-like activities such as insurance-based strategies and structured credit). Approach 2 should only be used to reduce the G/D score relative to Approach 1 when the lower drawdown-based score (compared to the volatility-based score) can be supported with fundamental reasoning (e.g. an embedded option protection strategy).

A range of examples are provided to assist.

Example 1

High yield credit. Annualised volatility is 9.9%, equating to a G/D score of 83% G. The largest drawdown was 34% during the GFC, equating to a 68% G score. We consider the drawdown a more appropriate measure in this instance as it captures the offset between fixed income duration and credit spreads during a crisis environment. The overall assigned score is 70%. This is how we determined the number provided in Table 2.

Example 2

A manager of alternative risk premia strategies offers the same underlying investment mix in two different products to reflect different volatility targets of 6% and 12%. This would equate to G/D scores of 50% G and 100% G for the two products.

Example 3

A hedge fund manager historically targeted 12% volatility. The manager's historical track record is consistent with this. However, the manager has now permanently changed their volatility target to 9% and this is evident in their portfolio exposure metrics. It is appropriate to reduce the G/D score from 100% G to 75% G.

Example 4

The manager of an equity-linked product has embedded a permanent derivative management strategy which ensures the product cannot lose more than 20%. Though the historical volatility of the product may be similar to traditional equity products, suggesting 100% G, the restricted loss potential means that 40% G (20% / 50%) is the appropriate G/D score to apply.

Example 5

A structured credit strategy exhibits very low volatility (2% annualised volatility) but could lose 20% in a worst-case scenario. While the volatility approach suggests a 20% G score (2% / 12% = 17%, and round up), the G/D score based on drawdown potential is larger at 40% G (20% / 50%). The conservative approach is to recognise the drawdown potential and so the appropriate score is 40% G.

3.3.4. Adjusted risk scaling

Adjusted risk scaling applies only to high duration bonds (and only bonds with an investment grade credit rating). It normalises for the risk in fixed interest indices deemed to be 100% D. The approach works as follows:

- Calculate the historical volatility of the portfolio (i.e. as per Approach 1 in the standard risk scaling approach)

- Calculate adjusted volatility by subtracting 5% (based off the highest degree of historical volatility amongst the traditional fixed income indices deemed to be 100% D)
- Divide the adjusted volatility by 12%
- Note that if the observed volatility is less than 5% then the G/D score is automatically 100% D

Example 1

A high duration bond portfolio with 12% historical volatility. The adjusted volatility score is 7% (12% - 5%). The G/D score is 7% / 12% = 58%, rounded to 60%.

3.3.5.   Unlisted real assets

It is intuitive to expect the same underlying assets, once adjusted for leverage and fees, to deliver very similar long-term annualised returns whether listed or unlisted. This logic is supported by empirical research.

Further, the empirical evidence identifies that unlisted assets exhibit a lower volatility of returns, once we match assets and adjust for leverage. The difference in adjusted volatility levels is largely explained by differences in the basis of performance measurement. Whereas the performance of listed assets is based off public market prices on a near-continuous basis, the performance of unlisted assets is based on appraisal-based valuations. Note that there is evidence of a lead-lag relationship between listed markets and unlisted valuations, but the beta of the relationship is much less than one. Rather, a component of the additional volatility of listed assets may represent variability in the trading discount / surplus to NTA.

Two specific markets provide empirical datasets which allow us to explore this. The UK and US property markets provide a collection of indices, namely unlisted performance, REITs, and transaction-based indices. Perhaps unsurprisingly, transaction-based indices appear to far better reflect the scale of movements seen in unlisted vehicles, consistent with the application of appraisal-based valuation techniques.

However, due to the backwards-looking element appraisal-based valuations understate the volatility of unlisted property. Mathematically, this is known as autocorrelation (broadly, the correlation between performance with past performance). We account for this by estimating the autocorrelation-adjusted volatility[2]. Note that our research finds that this strong autocorrelation effect appears to only exist for unlisted property and not unlisted infrastructure.

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[2] Technically we assume an AR(1) model.

We account for the autocorrelation effects when determining the G/D scores for unlisted property. We define two different risk categories for both unlisted property and unlisted infrastructure. The lower risk category ("tier 1 risk") is scored 60% G and the higher risk category ("tier 2 risk") 100% G. In the next sections we detail the categorisation process for unlisted property and unlisted infrastructure.

3.3.6.   Categorising unlisted property

We identify two risk categories for unlisted property exposure, tier 1 risk (60% G) and tier 2 risk (100% G). The categorisation process is applied as follows:

- Firstly, it is applied to the aggregated characteristics of the entire unlisted portfolio sector. If the total aggregated portfolio characteristics meet the criteria for tier 1 risk, then a 60% G score can be applied to the entire unlisted property sector

- If this is not the case then the tests are applied on an exposure by exposure basis, where exposure is a direct holding in a property or a property vehicle (i.e. funds do not need to assess each property within property vehicles)

There are three characteristics which we use to categorise unlisted property exposure:

1. Leverage: LVR (loan-value ratio)
2. Value-add exposure: non-income producing investments as a % of property / vehicle gross asset value
3. Sector exposure: % gross asset exposure outside of office, retail, industrial, and multi-family

Categorisation is assessed by applying Test A first and then Test B, if required, with details provided in Table 3 below.

	Test A If meets all of these criteria, then apply Test B, otherwise tier 2 risk	Test B If meets at least two of these criteria, then tier 1 risk, otherwise tier 2 risk
Leverage	≤ 50%	≤ 30%
Value-add exposure	≤ 50%	≤ 20%
Sector exposure	≤ 50%	≤ 20%

Table 3: Categorisation tests for unlisted property.

Examples

A range of examples are provided in Table 4 to illustrate the various scenarios.

	Example 1	**Example 2**	**Example 3**	**Example 4**
Leverage	20%	20%	35%	55%
Value-add exposure	10%	25%	25%	10%
Sector exposure	15%	15%	15%	15%
Categorisation	Tier 1 risk	Tier 1 risk	Tier 2 risk	Tier 2 risk
Explanation	Meets all three criteria of Test B	Meets at least two criteria of Test B and passes Test A	Meets only one criteria of Test B	Fails Test A

Table 4: Examples displaying application of categorisation tests for unlisted property.

3.3.7.   Categorising unlisted infrastructure

We identify two risk categories for unlisted infrastructure exposure, tier 1 risk (60% G) and tier 2 risk (100% G). The categorisation process is applied as follows:

- Firstly, it is applied to the aggregated characteristics of the entire unlisted infrastructure sector. If the total aggregated portfolio characteristics meet the criteria for tier 1 risk, then a 60% G score can be applied to the entire unlisted infrastructure sector

- If this is not the case then the tests are applied on an exposure by exposure basis, where exposure is a direct infrastructure holding or an infrastructure vehicle (i.e. funds do not need to assess each infrastructure asset within infrastructure vehicles)

There are five characteristics which we use to categorise unlisted infrastructure exposures:

1. Leverage: LVR (loan-value ratio)
2. Price-based revenue exposure: % of revenue sources with market-based pricing
3. Volume-based revenue exposure: % of revenue sources with volume-based pricing (i.e. patronage)

4. Asset stage: non-income producing investments as a % of asset / vehicle gross asset value
5. Geographical exposure: % revenues sourced from emerging markets (defined to be members of MSCI Emerging Markets Index)

Categorisation is assessed by applying Test A first and then Test B, if required, with details provided in Table 5 below.

	Test A If meets all of these criteria, then apply Test B, otherwise tier 2 risk	Test B If meets at least four of these criteria, then tier 1 risk, otherwise tier 2 risk
Leverage	≤ 80%	≤ 70%
Price-based revenue exposure	≤ 50%	≤ 20%
Volume-based revenue exposure	≤ 100%	≤ 80%
Asset stage	≤ 50%	≤ 20%
Geographical exposure	≤ 50%	≤ 20%

Table 5: Categorisation tests for unlisted infrastructure.

Examples

A range of examples are provided in Table 6 to illustrate the various scenarios.

	Example 1	**Example 2**	**Example 3**	**Example 4**
Leverage	60%	60%	75%	85%
Price-based revenue exposure	10%	30%	30%	10%
Volume-based revenue exposure	50%	50%	50%	50%
Asset stage	10%	10%	10%	10%
Geographical exposure	15%	15%	15%	15%
Categorisation	Tier 1 risk	Tier 1 risk	Tier 2 risk	Tier 2 risk
Explanation	Meets all five criteria of Test B	Meets at least four criteria of Test B and passes Test A	Meets only three criteria of Test B	Fails Test A

Table 6: Examples displaying application of categorisation tests for unlisted infrastructure.

3.3.8.   Private credit

In comparison to unlisted real assets, we do not assign differential scores to public and private debt with the same fundamental characteristics. This is because the two asset categories are far closer to being fungible – both represent directly held pieces of debt. Public credit typically trades as an institutional market and is often incorporated as a pricing input for the valuation of private credit securities. This is indicated as good practice by APRA (SPG 531) and was confirmed as standard practice by a super fund. In determining the appropriate G/D score of private credit, funds are expected to determine, using the risk scaling approach, the G/D score of the public market equivalent (by credit quality and duration), which is discussed in further detail below.

3.3.9.   Public credit

In Table 2 we detail G/D scores for the major investment grade indexes (domestic and global investment grade, global high yield, and global bank loans). Outside of the indices the approach to scoring is a little more complex and depends on the credit rating and duration characteristics of the exposure. Figure 4 details the approaches.
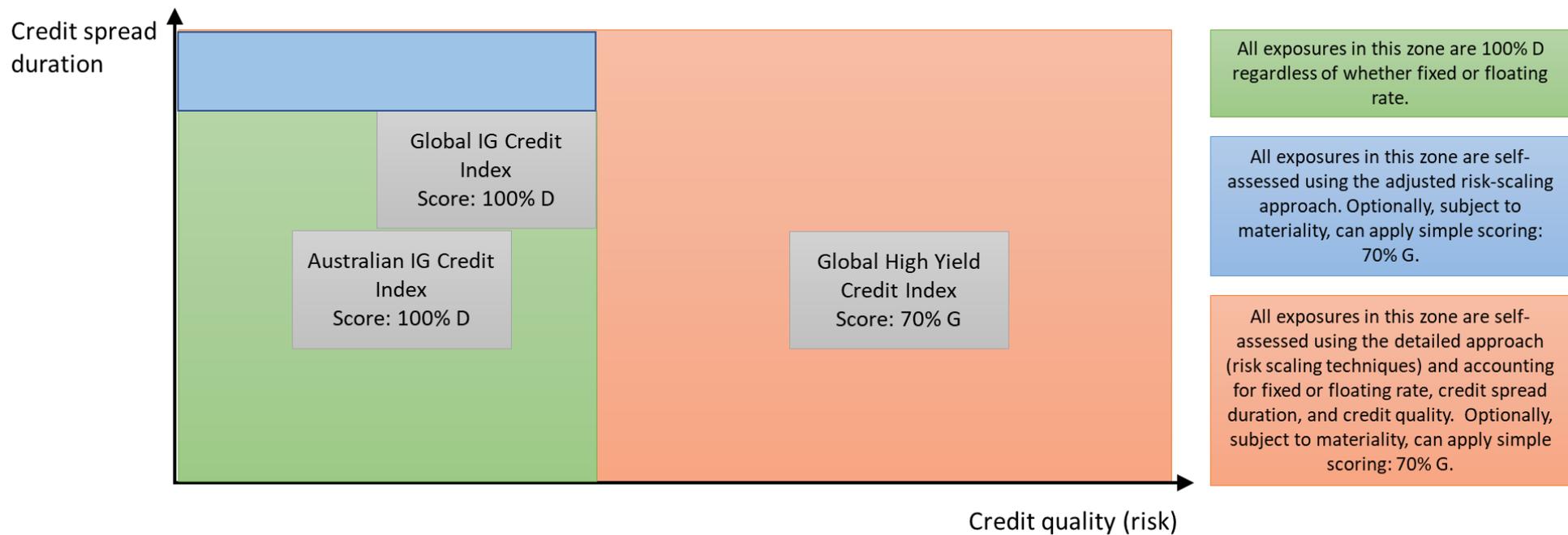
Figure 4: guide to scoring public market non-benchmark credit exposure.

To summarise Figure 4:

- For high duration investment grade credit, apply the adjusted risk-scaling approach (in the same way it applies to high duration fixed income)
- For all sub-investment grade credit, apply the standard risk scaling approach
- Assessment should account for whether the exposures are fixed or floating rate

Note that during the consultation process we will look to further research and develop a case study of G/D scoring curves (combinations of credit rating, credit duration, and fixed or floating characteristics).

3.3.10. Multi-asset funds

Multi-asset funds, by definition are funds which invest in multiple assets, commonly a combination of growth and defensive exposures. An important element of the G/D scoring framework proposed by the working group is that we do not recognise the diversification benefits between traditional growth and defensive elements of a portfolio. It is important that this element carries through to the treatment of multi-asset funds, otherwise we introduce gaming potential.

Multi-asset funds can be managed in many different ways – we identify two broad categories, which we describe in Table 7 below along with the proposed approach for G/D scoring.

Style	Characteristics	G/D Scoring Approach
1. SAA-anchored	Tend to be long-only invested and invest around a long-term SAA (whether explicitly or not).	Identify the G/D components of the SAA (implicit or explicit).
2. Macro hedge fund style	Fully flexible using techniques such as relative value trades, short-selling and leverage. No SAA anchor.	Apply the risk-scaling approach.

Table 7: Approach to multi-asset funds.

The difference in G/D scoring between the two style of multi-asset funds is to reduce the opportunity for gaming. Under G/D scoring no diversification benefits are allocated between traditional growth and defensive assets. It would not be appropriate then for an SAA-anchored multi-asset fund, undertaking activities reasonably similar to a super fund, to be allocated these benefits.

We provide two examples to illustrate application.

Example 1

A multi-asset fund tends to vary its asset allocation around a central weighting of 60% growth assets and 40% defensive assets. Though history demonstrates that the manager may vary its asset significantly, an appropriate score would be 60% G.

Example 2

A multi-asset fund is run like a global macro fund, using techniques such as short-selling and leverage. The manager targets a volatility of 7% over time and over a relatively short history (3 years) has experienced volatility of 6%. The conservative approach would be to score the manager as 60% G (7% / 12% = 58%, rounded up).

3.3.11.   Diversified alternative portfolios including fund-of-hedge funds

It is not uncommon for super funds to invest into alternatives through asset manager provided multi-manager solutions. This could be within a single category (e.g. a fund-of-hedge-funds or multiple alternative risk premium (ARP) strategies) or across categories (e.g. a combination of hedge funds and ARP strategies).

To balance the operational demands of looking through a fund-of-funds vehicle in the Alternatives sector against the consistent approach of not incorporating diversification benefits into the calculation, the following approach is provided for fund-of-funds:

- Assess fund-of-funds at the whole of vehicle level using the risk scaling approach
- Multiply the final G/D score by 1.5, subject to a maximum of 100% G

A super fund can choose look through if it wishes to. Since we do not consider diversification benefits the sector score using this approach would be a weighted average of individual G/D scores. We acknowledge that this process requires some effort, though product providers and consultants would likely be able to assist funds with this information.

3.3.12.   Leverage

Leveraged exposure to asset classes needs to be recognised, but only if the asset contains some growth component (i.e. not 100% D). For a leveraged exposure to an asset providing X% exposure to the underlying asset which has a growth score of Y% G, the scoring approach works as follows:

G = X% * Y%

D = X% * (100% - Y%) + (100% - X%)   (the second component accounts for the cost of leverage, a defensive asset)

Note the accounting property that G% + D% = 100%. You cannot create or destroy exposure. Leveraged products generate exposure to one asset by borrowing, which generates an obligation or negative exposure to defensive assets. Therefore you do not need to formally calculate D%: it is simply 100% - G%.

<u>Example 1</u>

Consider the following example of a geared Australian share fund providing 200% exposure (so X = 200) to Australian shares (which have a 100% G score, so Y = 100). For the leveraged Australian share exposure we have:

G = 200% * 100% = 200%

D = 200% * (100% - 100%) + (100% - 200%) = -100%

or

D = 100% - 200% = -100%

3.3.13.   FX Exposure

Currency is a complex area for asset allocators, portfolio managers and risk managers. Since currency is not an asset, it is a challenging component when it comes to the G/D categorisation project. The working group observes that super funds adopt different approaches to currency hedging, ranging from an asset class by asset class approach, to a whole-of-portfolio approach.

The working group typically expects foreign exposure to be less than foreign-denominated growth assets but more than the combination of foreign-denominated defensive and non-100% G assets. In such situations we consider that no adjustment is required for G/D portfolio scores.

The case where foreign currency exposure sits outside these ranges is interesting. The working group believes it introduces risk, but that G/D is not well placed to incorporate currency risk. As such we recommend that research houses and regulators consider using flags to identify these situations.

3.3.14.   Derivatives

G/D is an exposure metric and not a risk-metric. While we use risk scaling to assist scoring some assets which are not 100% G or 100% D, we believe it is beyond the limits of G/D to fully reflect the non-linear pay-offs associated with some derivatives. Unfortunately, this means that the impact of some portfolio hedging strategies will not be fully recognised; this is simply a limitation of G/D as an exposure metric.

Derivatives are accounted for in the following manner:

1. Derivatives (i.e. futures, forwards and swaps) that provide full exposure to asset classes (hence known as "delta[3] one" derivatives) that are listed in Table 2: add the face value exposure to the appropriate sector in Table 2.
2. Delta one derivatives on asset classes that are not listed in Table 2: detail the exposures in "Alternatives: Other" and apply the risk scaling approach.
3. Options on asset classes: estimate the average expected delta and apply as per (1) and (2).

3.4. Case studies

Case study 1 – Diversified retail fund

Table 8 details portfolio holdings for our case study.

		Diversified Retail Fund
Australian Shares		25%
Global Shares		25%
Global REITS		5%
Alternatives	Hedge Funds	5%
	Alternative Risk Premia	5%
High Yield Credit		5%
Domestic FI	Composite	12.5%
Global FI	Composite	12.5%
Cash		5%

Table 8: Diversified retail fund holdings.

Additional notes:

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[3] We note the delta of a derivative to be the standard definition: the sensitivity of the value of the derivative to changes in the value of the underlying reference asset.

- Hedge funds: implemented through a fund-of-funds structure. The long-term volatility has been 4%, consistent with the manager's expectations. The vehicle experienced a drawdown of 15% during the GFC.
- Alternative risk premia: implemented through two products, equally sized exposures, targeting 6% volatility. Both products are relatively new and there is little insight that suggests that drawdown properties are different to those implied by volatility.

The results when we apply both the simple and detailed scoring approach are provided in Table 9.

		Diversified Retail Fund	Simple Score (G)	Detailed Score (G)
Australian Shares		25%	100%	100%
Global Shares		25%	100%	100%
Global REITS		5%	100%	100%
Alternatives	Hedge Funds	5%	75%	50% (1)
	Alternative Risk Premia	5%	75%	50% (2)
High Yield Credit		5%	70%	70%
Domestic FI	Composite	12.5%	0%	0%
Global FI	Composite	12.5%	0%	0%
Cash		5%	0%	0%
Total Growth Exposure			**66%**	**63%**
Total Defensive Exposure			**34%**	**37%**

Table 9: Diversified retail fund G/D calculations. Note additional comments below.

(1) Calculated using risk scaling and the fund-of-funds multiple: (4% x 1.5) / 12% = 50%. We took the conservative approach and viewed volatility as an appropriate estimate of risk.
(2) Calculated using risk scaling: 6% / 12% = 50%.

Can the simple approach be applied? Yes – the total exposure to nuanced sectors (in this case Alternatives) is 10% (i.e. less than 15%).

One observation from this example is that the overstatement of growth exposure by adopting a simple approach is 3%. This highlights the conservative scores incorporated into the simple approach, necessary to ensure the risk of material understatement is modest.

Case study 2 – Diversified industry fund

Table 10 details portfolio holdings for our case study.

		Diversified Industry Fund
Australian Shares		25%
Global Shares		25%
Unlisted Property		10%
Unlisted Infrastructure		10%
Domestic FI	Composite	12.5%
Global FI	Composite	12.5%
Cash		5%

Table 10: Diversified industry fund holdings.

Additional notes:

- Unlisted property: consists of three unlisted vehicles with the characteristics provided in Figure 5:

	Investment 1	Investment 2	Investment 3
Position Size (% of Property Portfolio)	30%	30%	40%
Global Exposure (position level):	20%	20%	0%
Australian Exposure:	24%	24%	40%
Global Exposure:	6%	6%	0%
Leverage (LVR):	30%	25%	25%
Value-add (%):	30%	15%	15%
Sector exposure (%):	15%	15%	15%

Figure 5: Characteristics of unlisted property portfolios for diversified industry fund case study.

- Unlisted infrastructure: consists of three unlisted vehicles with the characteristics provided in Figure 6:

	Investment 1	Investment 2	Investment 3
Position Size (% of Infra Portfolio)	30%	30%	40%
Global Exposure (position level):	20%	20%	0%
Australian Exposure:	24%	24%	40%
Global Exposure:	6%	6%	0%
Leverage (LVR):	50%	60%	50%
Price-based revenue exposure (%):	30%	15%	20%
Volume-based revenue exposure (%):	15%	15%	15%
Asset stage (%):	10%	40%	15%
Geographical exposure (%):	10%	30%	10%

Figure 6: Characteristics of unlisted infrastructure portfolios for diversified industry fund case study.

The results when we apply both the simple and detailed scoring approach are provided in Table 11.

		Diversified Industry Fund	Simple Score (G)	Detailed Score (G)
Australian Shares		25%	100%	100%
Global Shares		25%	100%	100%
Unlisted Property		10%	80%	60% (1)
Unlisted Infrastructure		10%	80%	72% (2)
Domestic FI	Composite	12.5%	0%	0%
Global FI	Composite	12.5%	0%	0%
Cash		5%	0%	0%
Total Growth Exposure			**66%**	**63%**
Total Defensive Exposure			**34%**	**37%**

Table 11: Diversified industry fund G/D calculations. Note additional comments below.

(1) Under the whole-of-portfolio test, the entire unlisted property portfolio can be categorised as Tier 1 Risk. The workings are provided in Figure 7 below (based on the calculation tool provided):

	Portfolio
Position Size (% of Property Portfolio)	100%
Australian Exposure:	88%
Global Exposure:	12%
Leverage (LVR):	27%
Value-add (%):	20%
Sector exposure (%):	15%
Leverage (LVR) Test:	
Value-add (%) Test:	
Sector exposure Test:	
Overall Categorisation:	Tier 1 Risk

Figure 7: Whole-of-portfolio test for unlisted property portfolio.

(2) Under the whole-of-portfolio test, the entire unlisted infrastructure portfolio is categorised as Tier 2 Risk. The workings are provided in Figure 8 below (based on the calculation tool provided):

	Portfolio
Position Size (% of Infra Portfolio)	100%
Australian Exposure:	88%
Global Exposure:	12%
Leverage (LVR):	53%
Price-based revenue exposure (%):	22%
Volume-based revenue exposure (%):	15%
Asset stage (%):	21%
Geographical exposure (%):	16%
Leverage (LVR) Test:	
Price-based revenue exposure Test:	Failed Test B criteria
Volume-based revenue exposure Test:	
Asset stage Test:	Failed Test B criteria
Geographical exposure Test:	
Overall Categorisation:	Tier 2 Risk

Figure 8: Whole-of-portfolio test for unlisted infrastructure portfolio.

Accordingly, we apply the position-by-position approach. The assessment of each position is provided in Figure 9 and the overall calculation provided in Figure 10. Both figures are based on the calculation tool provided.

	Investment 1	Investment 2	Investment 3
Position Size (% of Infra Portfolio)	30%	30%	40%
Global Exposure (position level):	20%	20%	0%
Australian Exposure:	24%	24%	40%
Global Exposure:	6%	6%	0%
Leverage (LVR):	50%	60%	50%
Price-based revenue exposure (%):	30%	15%	20%
Volume-based revenue exposure (%):	15%	15%	15%
Asset stage (%):	10%	40%	15%
Geographical exposure (%):	10%	30%	10%
Leverage (LVR) Test:			
Price-based revenue exposure Test:	Failed Test B criteria		
Volume-based revenue exposure Test:			
Asset stage Test:		Failed Test B criteria	
Geographical exposure Test:		Failed Test B criteria	
Overall Categorisation:	Tier 1 Risk	Tier 2 Risk	Tier 1 Risk

Figure 9: Position-by-position assessment of unlisted infrastructure portfolio.

	Tier 1 Risk	Tier 2 Risk
Australian Unlisted Infrastructure:	64.0%	24.0%
Global Unlisted Infrastructure:	6.0%	6.0%
Total Portfolio Score:	72%	

Figure 10: Infrastructure sector whole-of-portfolio test for unlisted infrastructure portfolio.

Can the simple approach be applied? Not without being flagged as there is 20% exposure to nuanced sectors (in this case unlisted property and unlisted infrastructure). We would recommend a more detailed approach is applied, either to one or both sectors (if the detailed approach is applied to one sector only the remaining exposure to nuanced sectors is 10%, less than the threshold level of 15%).

Case study 3 – Fund using high duration bonds

Table 12 details portfolio holdings for our case study.

		Fund with High Duration Bonds
Australian Shares		20%
Global Shares		20%
Unlisted Property		10%
Unlisted Infrastructure		10%
Domestic FI	Composite	12.5%
Global FI	Composite	12.5%
High Duration Global Bonds		10%
Cash		5%

Table 12: Diversified industry fund holdings.

Additional notes:

- The unlisted property and unlisted infrastructure sectors have the same characteristics as per case study 2.
- The high duration unlisted bonds are calculated to have an historical volatility of 10%.

The results when we apply both the simple and detailed scoring approach are provided in Table 13.

		Fund with High Duration Bonds	Simple Score (G)	Detailed Score (G)
Australian Shares		20%	100%	100%
Global Shares		20%	100%	100%
Unlisted Property		10%	80%	60%
Unlisted Infrastructure		10%	80%	72%
Domestic FI	Composite	12.5%	0%	0%
Global FI	Composite	12.5%	0%	0%
Global High Duration Bonds		10%	70%	42% (1)
Cash		5%	0%	0%
Total Growth Exposure			**63%**	**57%**
Total Defensive Exposure			**37%**	**43%**

Table 13: G/D calculations for fund with high duration bonds. Note additional comments below.

(1) Calculated using adjusted risk scaling: (10% - 5%) / 12% = 42%.

Can the simple approach be applied? Not without being flagged as there is 30% exposure to nuanced sectors (in this case unlisted property, unlisted infrastructure and high duration bonds). We would recommend a more detailed approach is applied, at least to a sufficient degree to remove the flag. In this example applying the detailed approach to two of the three sectors would result in the remaining exposure to nuanced sectors being 10%, less than the threshold level of 15%.

Case study 4 – Blended scoring techniques

Funds are allowed to blend scoring techniques. This allows a fund to provide detailed scoring on material sectors while potentially avoiding the operational impact of having to apply detailed scoring to all sectors.

Table 14 details portfolio holdings for our case study, which we label as a diversified industry fund with a small position in alternatives.

		Diversified Industry Fund with a Small Position in Alternatives
Australian Shares		25%
Global Shares		25%
Unlisted Property		10%
Unlisted Infrastructure		10%
Alternatives	Hedge Funds	1%
	Alternative Risk Premia	1%
Domestic FI	Composite	11.5%
Global FI	Composite	11.5%
Cash		5%

Table 14: Holdings of diversified industry fund with a small position in alternatives.

Additional notes:

- The unlisted property and unlisted infrastructure sectors have the same characteristics as per case study 2.
- The Alternatives have the same characteristics as per case study 1.

To achieve a balance between an accurate G/D score and operational impact, the fund decides to adopt the detailed approach for the sizable exposures to unlisted property and unlisted infrastructure and the simple approach for the small exposures to hedge funds and alternative risk premia.

The results when we apply both the simple and detailed scoring approach are provided in Table 15.

		Diversified Industry Fund with a Small Position in Alternatives	Simple Score (G)	Detailed Score (G)	Blended Approach Score (G)
Australian Shares		25%	100%	100%	100%
Global Shares		25%	100%	100%	100%
Unlisted Property		10%	80%	60%	60% (D)
Unlisted Infrastructure		10%	80%	72%	72% (D)
Alternatives	Hedge Funds	1%	75%	50%	75% (S)
	Alternative Risk Premia	1%	75%	50%	75% (S)
Domestic FI	Composite	11.5%	0%	0%	0%
Global FI	Composite	11.5%	0%	0%	0%
Cash		5%	0%	0%	0%
Total Growth Exposure			**68%**	**64%**	**65%**
Total Defensive Exposure			**32%**	**36%**	**35%**

Table 15: G/D scoring template (simple scoring) for diversified industry fund with a small exposure to alternatives.

Note that in the case above (Table 15) the fund would pass the materiality test if it applied the blended scoring approach (only 2% of the portfolio is scored using the simple approach).

4. Self-Critique and Q&A

An important realisation for the working group was that there is no perfect solution and that people and firms will have a different view on how to trade off the three challenges outlined in Figure 1. There will also be different opinions on many of the technical aspects of the proposal. The consultation provides an important opportunity to share your views with the working group.

The working group recognises the importance of a standardised approach to G/D classification and one that captures the nuances of different investments and portfolios in a prescriptive manner. The working group regards the proposed solution as meeting that objective. The working group considers the degree of subjectivity to be relatively small and that the potential for gaming is greatly reduced. By providing a simple scoring option (subject to materiality) the working group has tried to reduce operational impact for the industry. Returning to the spectrum of complexity versus subjectivity detailed in Figure 2, the working group self-assesses the proposed solution in Figure 11.

However, the working group also reflects that complexity is inherent in the proposal. And while self-assessment is accompanied by guidelines, there is room for a degree of subjectivity and ultimately gaming. The working group considers ignoring diversification benefits to be the largest distortion to the investment decision making process – however the working group remains of the view that acknowledging diversification benefits stretches an exposure metric too far and introduces significant complexity and subjectivity.
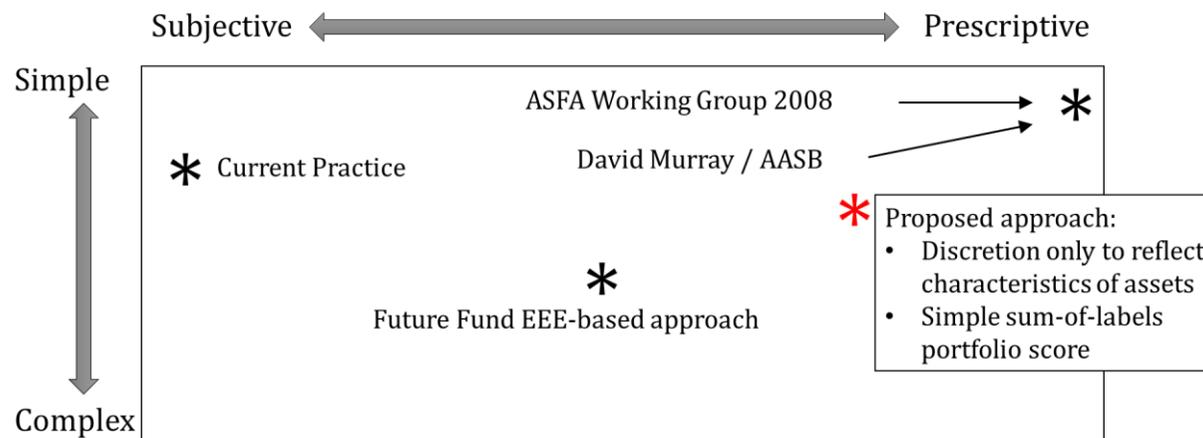

Figure 11: Working group assessment of a range of approaches to growth / defensive categorisation including proposed solution.

4.1. Acknowledged shortcomings of the proposed approach

The working group acknowledges that there are a range of shortcomings associated with the proposed approach to G/D classification. Nonetheless, the working group considers this a good solution given competing challenges. Many of the challenges are due to the limitations of an exposure metric applied to a large and sometimes complex universe of individual sectors blended together into portfolios in different ways. We self-assess and take accountability for the following:

- Defensive assets carry risk: there is a concern around whether the term "defensive" suggests to consumers assets which won't lose money. The working group has operated on the premise that cash and traditional bond exposures right through to investment grade credit are viewed as defensive assets, even though bonds can experience negative performance. Accordingly, the working group encourages caution in the way G/D is used to communicate risk to consumers.

- "Capped riskiness": there may exist a significant difference in the risk of assets classified as 100% G. Consider large cap Australian shares and Chinese venture capital: both are scored 100% G, but Chinese venture capital likely carries much greater risk.

- Unclear definition of G/D: the working group doesn't provide a clear definition of the G/D metric. Ultimately G/D is a hybrid measure of exposure and risk, and any formal definition would be contrived. We provide a detailed approach for measuring an existing exposure metric which is embedded in industry practices.

- Gaming potential: the working group acknowledges that some gaming potential exists but believes that many obvious gaming opportunities have been removed, most have been identified for researcher house and regulator focus, and that the rewards for gaming have been reduced.

- Limited recognition of option-based portfolio hedging strategies: the working group acknowledges that it is difficult to capture the benefit of option-based portfolio hedging strategies in the G/D framework. Essentially, as an exposure-based metric, G/D is well-placed to incorporate delta one exposures, but cannot readily incorporate exposures with non-linear pay-offs.

- Diversification benefits between different categories of assets are not acknowledged. This includes within sub-sector, within sector, within category (i.e. D or G), or across the entire portfolio. The approach adopted by the working group reflects a desire to keep the scoring process as simple as possible. We acknowledge that this approach does not actively promote diversified portfolios, but nor does it explicitly penalise diversification. The working group believes that diversification benefits have a place in a more detailed risk metric, rather than the G/D exposure metric.

- Implementation impact: the working group acknowledges that this approach creates additional work for super funds, especially the initial implementation. The working group has attempted to reduce the impact through the option (subject to materiality) of applying a simple scoring approach. The provision of documentation, case studies and models should also assist funds. Each major asset consultant confirmed that they would be able to assist their clients through implementation.

4.2. Q&A

A collection of questions that we have anticipated!

Why G/D and not a risk measure?

The working group explored the concept of a risk measure, to the extent of developing some risk models. The consensus view was that G/D is now embedded as industry infrastructure (peer group assessment, APRA Heatmaps, financial planning) and that the working group didn't have the mandate to alter this infrastructure. Rather, the working group viewed it's task as creating a quality G/D categorisation process for industry adoption.

Why such a detailed approach?

Once the working group acknowledged the large range of assets and investment strategies that exist, and the need to ensure no material differences in G/D scores between portfolios with similar inherent G/D characteristics, any approach to G/D would inevitably be detailed.

We introduce a set of simple conservative G/D scores where they have immaterial exposures to more nuanced investment sectors.

We have worked hard to provide as much detail as possible including models and case studies. This reduces the risk of misinterpretation while leaving little room for interpretation.

Why did you choose to just go G/D and not G/D/C?

Historically, cash and bonds have both been categorised as defensive assets. Yet bonds carry investment risk. One alternative explored was a three-category approach: G/D/C (growth / defensive / cash). However, feedback provided to the working group suggested such a change would create significant disruption to activities such as risk profiling and performance assessment.

Why use risk scaling when G/D is an exposure measure?

Some assets fall neatly into the category of 100% D (cash and traditional bond exposures) or 100% G (listed equities). But, there are a large number of assets which do not fit into either category. The working group determined that the use of risk scaling was the best way to score these assets.

Why do you allow funds to self-assess using risk scaling?

There are many assets and sectors where the risk exposure may be unique to the investment. Consider the example of an alternative risk premia investment. Asset managers often offer the same product in multiple risk levels. It is only the super fund who has this insight. The framework produced by the working group allows self-assessment but is prescriptive.

The alternatives for the working group were fixed scores or self-assessment. Fixed scores leave researchers and the regulator with no insight into the exposures characteristics within particular sectors.

Finally, the working group identifies that self-assessment, with guidelines, is common in other sectors such as insurance and banking.

Are you concerned about gaming when funds self-assess using risk scaling?

The alternatives for the working group were fixed scores or self-assessment. If fixed scores are applied then super funds may be tempted to 'legally' game by investing in assets in those sectors with higher growth exposures. There are no controls to monitor or challenge this behaviour. By formally including risk scaling into the G/D categorisation process, a range of self-controls are introduced:

1. This is important information and is likely to be reviewed and signed off at an appropriate level of fund governance
2. Research houses will be reviewing the information and will be able to identify and investigate funds with outlier scores (compared to other funds)
3. If APRA adopts a standardised approach to G/D categorisation then they will similarly be able to identify and investigate

Simple analysis tests could be developed to support (2) and (3), similar to ATO benchmarking processes.

Did you consider something like the Future Fund's EEE (equity equivalent exposure) measure?

The working group explored the EEE approach used by the Future Fund (we acknowledge the insights shared by the Future Fund). The working group views EEE as an internal measure of portfolio equity beta (here, beta is a measure of the proportion of volatility of an investment explained by the

broader equity market[4]). The implementation of the EEE measure involves a fair degree of subjectivity and this works well when used within a single entity. The working group had concerns around the practicalities of extending the EEE approach across the entire industry.

Why don't you allocate some degree of portfolio diversification benefits?

When it came to portfolio-level G/D scoring the working group faced multiple challenges. For example, should diversification benefits be recognised at all? Can they be recognised using a prescriptive or a self-assessed approach? Will this add too much complexity or introduce too much subjectivity? Our proposed approach ignores diversification benefits. Ultimately the working group felt that diversification benefits were stretching an exposure-style metric too far and are more appropriate for a risk metric. We acknowledge that this approach does not actively promote diversified portfolios, but nor does it explicitly penalise diversification.

Have you created distortion at the point of investment decision making?

Distortion is created if G/D scores significantly differ to the risk of the underlying assets. This is a subjective topic. Overall the working group has attempted to ensure that the proposed G/D scoring approach does not distort portfolio decision-making. However, the following reflections are made:

- By not acknowledging portfolio diversification benefits in portfolio G/D scores, the benefits of adding an additional asset to an existing portfolio are not completely recognised
- By capping asset scores at 100% G (except for the case of product leverage), the process does not differentiate the risk between different growth assets
- Two categories of scores for each of unlisted property and unlisted infrastructure will not allow a perfect reflection of their risk properties
- By not acknowledging diversification benefits within a sector the G/D scoring process may overstate the risk of the sector
- By categorising investment grade credit as 100% D we understate its risk relative to what would be recorded in a traditional risk metric
- By categorising investment major bond indices as 100% D we understate their risk relative to what would be recorded in a traditional risk metric
- We ignore currency exposure, noting that foreign currency exposure has empirically provided diversification to traditional growth assets
- We ignore options, noting that non-linear pay-offs are better captured in more detailed risk metrics

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[4] A beta of 1 indicates that a movement in the broader equity market fully translates through to the performance of the individual investment, in addition to its own idiosyncratic performance.

Will this approach distinguish between passive low-cost diversified options and those which use a larger menu of assets, some unlisted, to achieve greater diversification?

The proposed G/D classification is cost agnostic. It also does not acknowledge diversification benefits. We attempt to score each asset based on its growth / defensive properties and risk characteristics. Overall the metric provides little to differentiate between different styles of implementation. Other risk-based metrics may be able to better identify the potential benefits of more diversified portfolios.

Why didn't you acknowledge the diversification benefits of property and infrastructure?

No diversification benefits are recognised.

Why haven't you recognised the lower volatility of low vol equities?

This issue was explored by the working group. However, we encountered some issues which prevented a distinct G/D score. First, the range of low volatility equity strategies is large with variable volatility reduction targets. Second, in most cases the reduced level of volatility would still map to a level close to 100% G when we apply risk scaling. Finally, these are relatively new strategies, from the perspective of being populated with significant amounts of capital.

Why have you allowed multiple risk levels for unlisted property and unlisted infrastructure?

Our research has identified that there are sub-categories within these sectors with quite different fundamental properties, resulting in different levels of risk. Consider two styles of unlisted property: one has a long-term tenant, and the other is a development property. The working group considers that these assets have different risk characteristics which should be acknowledged in G/D scoring. Further, the working group believes that detailing multiple categories of unlisted assets removes subjectivity and increases credibility in the scoring of these assets.

Why do you recognise growth exposure in some areas of credit?

Credit carries risk and the credit risk is motivated by factors common to equity risk, notably economic performance and individual company performance. There are differences between credit risk and equity risk, most notably the higher claim of credit relative to equity (the degree of this difference can be influenced by company decisions such as capital structure). The working group could see no reason why this risk should not be recognised. Arguments such as hold-to-maturity do not resonate strongly enough to dissuade the working group.

Why do you treat investment grade credit as a defensive asset?

The working group acknowledges that the empirical analysis which shows that investment grade credit has experienced drawdowns at the same time as drawdowns in traditional growth assets. However, the working group noted the fundamentals of investment grade credit, particularly a very low historical default rate (<0.3% pa). Anecdotally it appears that industry weights on the fundamental arguments (low default rates) and treats investment grade credit as 100% D. The working group decided not to disrupt this practice.

What is the logic of scoring high duration fixed income differently to mainstream fixed income indices?

The working group acknowledges that the marketplace recognises mainstream fixed income exposures, represented by common fixed income indices, as defensive assets. However, some funds invest in long-dated bonds which carry significant volatility. We believe there is a threshold at which this volatility should be recognised. The working group landed on the concept of a 'defensive region' for mainstream fixed income exposures. Once investing in fixed income exposures which have greater return volatility than these indices, we believe that the additional risk needs to be recognised. The adjusted risk scaling framework was designed to address this.

Did you consider allowing some growth assets to score more than 100% growth?

This was considered – for instance Chinese venture capital is likely more volatile than global large cap stocks. But the working group considered that to go down this path would be to stretch G/D too far towards a risk metric rather than an exposure metric. The only exception is for exposures which apply leverage at the product level (where a simple multiple is applied).

What about future assets not considered in this document?

The working group feels that the framework has some embedded evergreen properties. The major sectors provide guidance. Risk scaling can be applied to additional investments, be they overlooked or new sectors.

Where was the strongest debate within the working group?

A number of robust discussions were had along the way. Significant discussions were had around:

- Can we get away from G/D and move to a different measure of risk?
- Can we clearly define what G/D means?
- Is there a way that we can recognise diversification benefits?
- Is there a way that we can simplify the process further to a table of prescribed scores?
- What's so bad about complexity – funds should be able to demonstrate their abilities and that they understand and can report on risk?
- Treatment of unlisted property and unlisted infrastructure
- Treatment of private credit
- Defensive assets such as bonds carry risk
- Should investment grade credit be 100% D?
- How do we treat high duration bonds?
- Can we recognise currency exposure in G/D modelling?
- Is there a way to recognise the benefits of option-based portfolio protection strategies?

Resolution generally came about through:

- Accepting that G/D is an exposure metric and it can only be stretched so far
- Keep things as simple as possible and introduce complexity where industry case studies show that a more complex approach is necessary
- Exploring the empirical experience and the fundamental properties of investments
- A degree of pragmatism where something has been accepted practice by the majority of industry for a long time

Why have you been conservative in setting the simple scores?

The working group view the risk of understating growth exposure to be more dangerous than overstating growth exposure. This motivated the decision to apply simple scores which are reasonably conservative. The working group noted that it could have been even more conservative.

What if funds apply the simple approach and break materiality?

It will be flagged that the score may potentially significantly understate its G/D score. It will be up to research houses (and possibly APRA) to consider how they proceed.

Can a fund choose the sectors to which it applies simple and detailed scoring?

Yes – selectively adopting to apply the simple approach for a sector where the portfolio exposure is small but the allocation is highly detailed may make a lot of operational sense. An example could be a 2% exposure to a collection of 20 individual hedge fund holdings.