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Project	Dynamic Risk Management (DRM)	
Paper topic	Potential refinements to the DRM model—Risk Limits	
CONTACT(S)	Zhiqi Ni	<a href="mailto:zni@ifrs.org">zni@ifrs.org</a>
	Matthias Schueler	<a href="mailto:mschueler@ifrs.org">mschueler@ifrs.org</a>
	Iliriana Feka	<a href="mailto:ifea@ifrs.org">ifea@ifrs.org</a>
	Riana Wiesner	<a href="mailto:rwiesner@ifrs.org">rwiesner@ifrs.org</a>

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## 1. Introduction

1. At the April 2021 Board meeting, the Board discussed feedback from the outreach on the core model for Dynamic Risk Management (DRM model). Three main challenges were identified by participants that are key to the viability and operability of the DRM model. As discussed at the May 2021 Board meeting, the incorporation of risk limits in the DRM model was the first of these challenges that is critical to consider in order to achieve the objective to better reflect in the financial statements, the impact of an entity's risk management activities in the area of interest rate risk.
2. In this paper, we set out our preliminary views on potential refinements to the DRM model which aim to closer align the DRM model to entities' risk management practices by incorporating the concept of risk limits into the target profile.
3. Agenda paper 4B of this Board meeting illustrates how we expect the potential refinements to work within the DRM model. Therefore, to enhance the understandability, the potential refinements discussed in this paper should be read in conjunction with the agenda paper 4B of this Board meeting.

4. We are not asking the Board to make any decisions at this meeting but welcome questions or comments on the potential refinements presented. We will consider Board members' comments and present the proposed refinements for the Board's tentative decision at a future meeting.

## 2. Structure of this paper

5. This paper provides an overview of the:
  - (a) Background (paragraphs 6–9);
  - (b) Issues being addressed by the potential refinements to the DRM model (paragraphs 10–30);
  - (c) Potential refinements to the DRM model (31–70);
  - (d) Operability of the DRM model—required inputs (paragraphs 71–80); and
  - (e) Question for the Board (paragraph 81).

## 3. Background

6. The objective of DRM model is to better reflect entities' interest rate risk management strategies and activities (risk management view or dynamic risk management) in the financial statements. As discussed at the April 2021 Board meeting, universally, all outreach participants stated that any new macro hedge accounting model that aims to better reflect a risk management view in the financial statements, should incorporate risk limits. This is because their interest rate risk management strategies define risk limits, which allow a range of possible outcomes after executing risk management decisions. This is different from the DRM model which, as presented at the July 2019 Board meeting, requires the target profile to be defined on a single outcome basis.
7. As explained in the agenda paper 4B of the April 2021 Board meeting, outreach participants said that risk managers decide not only *how* to manage the net open risk positions but also *the extent to which* they want to manage the risk through economic hedging activities. In the case of the latter, the activities of risk managers are usually controlled by delegated mandates for risk limits. Risk limits are

thresholds set for risk levels that banks are willing to bear, ie risk levels that they can accept. Consequently, participants noted that their risk limits are entity-specific thresholds that determine the extent to which the entity undertakes risk management through economic hedging activities.

8. Outreach participants further said they usually use derivatives to mitigate the interest rate risk from the underlying assets and liabilities, and as long as the residual risk position (that is, the net open interest rate risk position including designated derivatives) remains within an entity's risk limits, the entity would consider its risk management activities to be successful. Conversely, when an entity's residual risk position is approaching its risk limits, or management's view on a risk position changes, an entity may carry out hedging activities to adjust its net open risk position to avoid a situation in which it is exposed to a higher risk than it is willing to tolerate.
9. Stakeholders described the following as the main issues that should be addressed through incorporation of risk limits in the DRM model:
  - (a) the target profile should be fully aligned with entity's risk management strategy, instead of being based on a single, pre-defined (and often arbitrary) target outcome;
  - (b) the target profile should be able to change dynamically within the entity's risk limits (the frequency of such changes would be representative of risk management view and an entity's risk objective) or should be defined as a range of possible outcomes; and
  - (c) misalignment should be based on a portfolio view of the underlying items rather than a view of aggregated individual items.

#### **4. Issues being addressed by the potential refinements to the DRM model**

10. Although this paper is considering potential refinements to the core DRM model in response to the feedback from outreach, it is important to consider that the DRM model itself aims to respond to some long-standing and widespread stakeholder criticisms of the existing macro hedge accounting requirements. When considering potential refinements to the core DRM model, the staff were of the view that it

would be helpful to not only consider the most recent feedback, but also the feedback received during earlier stages of the project, including the IFRS 9 hedge accounting project and the Discussion Paper Accounting for Risk Management: *a Portfolio Revaluation Approach to Macro Hedging* (2014 DP). We have also considered previous agenda papers relating to hedge accounting and DRM projects that were discussed with the Board. We summarised in this section some of those long-standing issues that are either directly or indirectly related to the issue of risk limits.

### **Hedge objective**

11. In general, an entity's strategy for hedging a loan portfolio can focus on managing the timing, amount and uncertainty of either the cash flows, net interest income or fair value of the portfolio, or a combination thereof.
12. Feedback suggests that risk management practices look at the liabilities together with the assets the entity originates from the funds received. In effect, banks are generally interested in managing the repricing mismatches between assets and liabilities.
13. While the available hedge accounting models currently can either hedge the fair value or the cash flows of the underlying items, a portfolio view usually focusses on stabilising a net interest margin for the bank which is repeatable year-on-year. As participants indicated during outreach, this can be measured as a pure cash value of margin, the present value of a basis point change in the hedged benchmark curve (ie the sensitivity of the future margin), other sensitivity measures or a combination of a number of measures.
14. Therefore, for the DRM model to enable better alignment with an entity's risk management strategy, liabilities and assets must be considered in a combined/net view. Considering a net view for designation purposes better links any interest rate risk mitigating derivative to the underlying cause of the (net) exposure, which, to a

large extent, cannot be achieved by using the current IAS 39 portfolio hedge accounting model.<sup>1</sup>

### ***Dynamic nature***

15. Portfolios of assets and liabilities managed using dynamic risk management strategies are not static and the composition of the portfolios is altered on a frequent basis for a number a of reasons. Some (expected) events, such as contractual maturities, are already inherently considered in dynamic risk management. However, to reflect other events, such as growth or unexpected events, once identified, it often requires additional risk mitigating actions. These mitigating actions result in frequent changes to both the hedged items and hedging instruments.
16. Applying the current IAS 39 portfolio hedge accounting model leads to frequent de-designation and/or re-designation of items or currency amounts, which might not necessarily be directly linked to changes in the underlying portfolio. In addition, such changes often require the amortisation of the associated cash flow hedge reserve or fair value hedge adjustments. Consequently, the processes required to manage the constant de-designation and re-designation of hedging relationships along with the associated amortisations required and tracking needed become inherently complex, costly and prone to operational error.

### ***Optionality in the underlying portfolios***

17. One of the main concerns raised relates to the management of a portfolio of items that contain optionality in favour of counterparties to influence the volume and/or timing of cash flows<sup>2</sup>. The most common example in this context is a portfolio of prepayable fixed rate loans. The Board has consistently received feedback that

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<sup>1</sup> This refers to the need to use designations that do not exactly represent the actual risk management, colloquially referred to as ‘proxy hedging’. In particular, using a gross designation when risks are actually on a net position basis and using designation of variable debt instruments when risk management is actually based on the interest risk of fixed rate debt instruments.

<sup>2</sup> Refer to [Agenda Paper 6A](#) of the April 2011 Board meeting.

interest rate risk for these portfolios (for example retail mortgages) is managed on a portfolio level rather than an individual loan level.<sup>3</sup>

18. However, the topic of optionality in the underlying items is not limited to particular products or risks but relates to any hedged item that contains optionality in the volume and/or timing of cash flows. This optionality therefore creates uncertainty of when cash flows in the underlying portfolios will arise.
19. Risk management activities on a portfolio basis aim to mitigate the risk stemming from such uncertainty but incorporating this in the current hedge accounting models is a challenge. This can generally only be overcome by applying proxy hedging techniques, layering techniques and/or frequent de- and re-designations. However, all these activities using existing hedge accounting models are based on the aggregation of the individual underlying loans rather than on the portfolio as a whole, which is the level at which the risk is mitigated by the risk management function.

### ***The meaning of effectiveness in portfolio hedging***

20. When applying general hedge accounting models, effectiveness can, in simplified terms, be observed as the offset achieved between the change in fair value of the hedged item compared to the change in fair value of the hedging instrument based on the risk hedged.
21. However, when hedging a portfolio of items, where optionality in the underlying portfolio is managed on the basis of expected cash flows for the repricing risk inherent in those items identifying which changes to the underlying portfolio represent ineffectiveness is not as straightforward.
22. In general, the consequence of a portfolio approach is that the number of items in the portfolio reduce the risk that the actual cash flows deviate from the expected

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<sup>3</sup> This view contemplates that prepayment risk of the portfolio is managed through behaviouralisation of the contractual cash flows of the underlying individual item. This is consistent with the consideration for demand deposits, which are also considered on the basis of expected cash flows rather than contractual ones when they are managed as part of a portfolio. That is, although demand deposits might be subject to repayment on demand of the counterparty it can be observed that there is usually a stable minimum balance over time in a portfolio, implying that a portion of the total balance of demand deposits behaves like a liability with a fixed maturity.

cash flows. Statistically, the law of large numbers reduces the average deviation between actual and expected cash flows and therefore increases the level of predictability.<sup>4</sup>

23. Assuming that the interest rate risk resulting from a portfolio's expected cash flows is economically hedged, any deviation in actual cash flows from expectations would lead to an over- or under-hedge situation for the portfolio.
24. In a hedge accounting view, these deviations between actual and expected cash flows reflect the aforementioned uncertainty in the underlying portfolios that might lead to misalignment in the hedge relationship. As the management of portfolios on the basis of expected behaviour leads to the acceptance of uncertainty as part of the risk management strategy, a close monitoring of the hedging relationship is required. Thus, unexpected changes in behaviouralised cash flows that become obvious typically trigger adjustments through use of new derivatives. However, to keep the number of adjustments reasonable from a cost-benefit perspective often risk limits are defined.
25. In practice, an unhedged position is accepted as long as it stays within risk limits rather than determining a static hedge ratio or hedged volume. As long as the deviation between hedged portfolio and hedging instruments stays within the risk limits an entity can be of the view that its risk management strategy has been successful. Therefore, many proponents of a risk limit approach believe that staying within the risk limits should not result in misalignment that impacts the statement of profit and loss.
26. In practice, many entities, applying the current hedge accounting models, may split the underlying portfolio into tranches or layers for accounting purposes. However, this approach might not necessarily be consistent with the actual risk management strategy of the entity for each of the layers and therefore might not reflect the actual risk management activities being carried out.

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<sup>4</sup> The following paragraphs are based on [Agenda Paper 6A](#) of the April 2011 Board meeting.

### ***A risk mitigation approach to macro hedge accounting***

27. As previously indicated in the 2014 DP, there are several approaches to implement an accounting model for dynamic risk management.<sup>5</sup> One approach is to consider a model that captures all elements of the dynamic risk management activity, ie risk identification, analysis and mitigation through hedging (ie risk reduction through the use of derivatives). Under this approach the presence of any one of these elements would result in an entity applying the hedge accounting model with the objective to faithfully represent such activities in the financial statements.
28. Another approach captures dynamic risk management only when all three elements of dynamic risk management are undertaken by an entity. Consequently, such an approach focusses on risk mitigation through the use of derivatives.
29. In essence, the key difference between these approaches relates to the treatment of the unhedged portion of the underlying portfolios, but both approaches present issues and challenges which are often interrelated.
30. Feedback received over the course of the DRM project indicates that preparers clearly favour a hedge accounting approach that is based on risk mitigation. In other words, the extent of risk exposure that is actually hedged as part of an entity's risk management strategy, rather than also including the portion that is left unhedged. Valuing the unhedged portion of the underlying portfolio as part of a macro hedge accounting solution has been widely rejected in response to the 2014 DP and hence the DRM model does not suggest such a mechanism. However, we are of the view that further clarification is required about the focus, the elements and the potential refinements necessary to the risk mitigation approach as currently presented in the DRM model.

## **5. Potential refinements to the DRM model**

31. The key elements of the DRM model based on the Board's tentative decisions (up to the July 2019 Board meeting) are<sup>6</sup>:

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<sup>5</sup> See section 5 of the Discussion Paper *Accounting for [Dynamic Risk Management](#): a Portfolio Revaluation Approach to Macro Hedging*.

<sup>6</sup> Refer to [Agenda Paper 4B](#) of the July 2019 Board meeting.



- (a) Asset Profile;
- (b) Target Profile
- (c) Benchmark Derivative; and
- (d) Designated Derivative.

32. The Board developed the target profile based on the following principles<sup>7</sup>:

- (a) the target profile represents management’s objective for a given asset profile;
- (b) the bank’s risk management strategy defines the target profile considering:
  - (i) the contractual terms of financial liabilities; and
  - (ii) the bank’s approach to core demand deposits where present.
- (c) the notionals of the asset profile and the target profile are required to be the same but not the tenors;
- (d) the DRM model would not permit negative balances to be designated within the target profile; and
- (e) the time horizon of the target profile is the period of time over which the bank is managing interest rate risk.

33. Based on the outreach feedback and informal discussions with stakeholders, the challenges with the tentative description of the target profile can be summarised as follows:

- (a) it represents the objective for a given asset profile, thereby considering the assets and liabilities of the entity as two separate elements. Outreach participants told us that, from a risk management perspective, they consider assets and liabilities in combination to determine the *net open risk position*;
- (b) the target profile is assumed to be a single outcome and represents a key element in the measurement of misalignment in the statement of profit or loss. Outreach participants told us that their risk management strategies

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<sup>7</sup> Refer to [Agenda Paper 4A](#) and [Agenda Paper 4B](#) of the April 2019 Board meeting.

do not constitute a single targeted outcome, but rather a range of acceptable outcomes through the risk limits; and

- (c) although an entity's risk management strategy is not expected to change frequently (ie the risk limits are not expected to change from one period to the next), the extent to which the entity decides to carry out further risk mitigation activities (ie through the use of derivatives) is dynamic and may change very frequently based on numerous factors.

34. In the following paragraphs, we set out potential refinements that we think will enable the DRM model to achieve its intended objective to better reflect an entity's interest rate risk management strategy and activities in the financial statements.

The potential refinements to the target profile and benchmark derivative elements of the DRM model discussed below, focus on:

- (a) the definition and objective of the target profile;
- (b) the inclusion of a risk mitigation intention; and
- (c) the construction of the benchmark derivative.

35. The other elements of the DRM model are not affected by the proposals in this paper.

### ***Definition and objective of the target profile***

36. Although the DRM model is not a hedge accounting model in the traditional sense (ie it is neither a fair value nor a cash flow hedge accounting model) as it is aimed at hedging the repricing risk of an entity, we think it is useful to "borrow" some of the general hedge accounting concepts when thinking about potential refinements to the definition and objective of the target profile.

37. In the general hedge accounting models, there needs to be a formal designation of the hedging relationship, which sets out an entity's risk management strategy and objective for undertaking the hedge.<sup>8</sup> The risk management strategy is established at the highest level at which an entity determines how it manages risk and identifies the risk to which entity is exposed and how the entity responds to it. In contrast,

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<sup>8</sup> Refer to paragraph 6.4.1(b) of IFRS 9.

the risk management objective applies at the level of a particular hedging relationship and relates to how the hedging instruments are used to hedge the particular risk exposure. In other words, a risk management strategy can involve many different hedging relationships whose risk management objectives relate to executing the overall risk management strategy.<sup>9</sup> The risk management objective forms the basis on which to determine the effectiveness of the hedging relationship (ie it sets out to what extent the risk will be managed to execute the strategy).

38. In that context, the target profile currently fulfils the role of both the risk management strategy (the risk exposure the entity wants to manage) and the risk management objective (to what extent the entity wants to mitigate the risk). That is, the target profile represents both *what* risk the entity wants to manage and *how* (ie the extent to which) the entity wants to mitigate the risk.
39. Based on the outreach and our own research, we have confirmed that entities' risk management strategies are generally defined in broader terms and do not define a single target outcome. The risk management strategy is rather defined in terms of risk limits (ie range of acceptable outcomes), whereas the risk management objective or the extent of risk mitigation is usually a single outcome based on how the entity decides to execute the strategy.
40. Accordingly, the staff is of the view that to clarify the description and role of the target profile in the DRM model, the risk management strategy and risk objective elements of the target profile should be separated. We think it would be clearer and more aligned to how entities' risk management strategies are set, if the target profile only represents the risk management strategy element. A new element could be included in the DRM model that represents the risk management objective element (see paragraphs 47–58 of this paper).
41. If the definition and role of the target profile is revised to represent only the risk management strategy element, it could be defined as the *acceptable open risk position* given an entity's risk management strategy.
42. For the given asset and liability profiles of the entity, the acceptable open risk position represents the acceptable range (risk limits) within which the *current net*

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<sup>9</sup> Refer to paragraph B6.5.24 of IFRS 9.

*open risk position* can vary while still being consistent with the entity's risk management strategy. The current net open interest rate risk position is derived from the combination of the assets and liabilities over the period which the entity is managing the risk.

43. The staff is of the view that this potential refinement is broadly consistent with the Board's original intention with the target profile representing the entity's objective for a given asset profile.
44. Furthermore, we think this refinement to the definition and role of the target profile will have the following benefits:
  - (a) the revised definition is more intuitive and more closely aligned with how entities' risk management strategies are defined and managed in practice, ie risk managers focus on the net open interest rate risk position from assets and liabilities and execute their hedging instruments accordingly; and
  - (b) although not one of the Board's main objectives with the project, we think this would also achieve greater alignment with the general hedge accounting model in IFRS 9, which will improve the understandability and operability of the DRM model.
45. This approach is also consistent with the example in paragraph B6.5.24(a) of IFRS 9 which mentions that an entity's strategy is to maintain its risk exposure within a pre-defined range.
46. In line with the suggested refinement to the definition of the target profile, the staff also suggest a refinement to the definition of the benchmark derivative as described in paragraphs 59–63 of this paper.

### ***A new element to the DRM model—the risk mitigation intention***

47. Outreach participants told us that even if the current net open risk position falls within the target profile set out in the risk management strategy, they may still decide to further mitigate the current net open risk position through the use of derivatives. However, they also told us that they don't necessarily hedge the full current net open risk position, but that management determines the extent to which

the risk should be mitigated based on a number of factors. Furthermore, as the underlying portfolios change dynamically, the extent to which the current net open risk position is mitigated within the risk limits, varies just as frequently and is informed by risk position information being provided continuously so that risk mitigation amounts can be determined and transferred to external counterparties.

48. If the definition and role of the target profile is revised as described in paragraphs 36–46 of this paper, we think a new element should be included in the DRM model, being the *risk mitigation intention*. This is because, if the target profile represents the acceptable open risk positions based on the risk management strategy (ie a range of possible outcomes), defining upfront a single target outcome to be achieved in line with the strategy across the time horizon that the bank is managing the risk, is challenging, if not arbitrary, due to the dynamic nature of the underlying portfolio, as confirmed by outreach.
49. One possible interpretation of the target profile would be that as long as the current net open risk position is within the acceptable open risk positions, there is no misalignment to be recognised in the financial statements because the entity has achieved its risk management strategy. However, this would be inconsistent with the entity’s intention to use derivatives to mitigate the risk and therefore fail to reflect any potential (actual) misalignment between the entity’s risk management intention and the designated derivatives used.
50. Therefore, staff is of the view that a risk mitigation intention element should be included in the DRM model.

#### *The risk mitigation intention*

51. As discussed in the earlier sections, entities’ risk management strategies specify risk limits within which the risk should be measured, rather than a single targeted outcome to be achieved over the time horizon that the risk is being managed. However, measuring the extent of misalignment against a range poses significant challenges and would likely not result in useful information to the users of the financial statements. Therefore, the staff is not pursuing such an approach because we believe that to reflect in the financial statements the extent to which an entity has mitigated interest rate risk, there needs to be a specified point against which the entity’s success could be measured.

52. In our view, the *risk mitigation intention* could fulfil a similar role in the DRM model as the risk management objective in the general hedge accounting model in IFRS 9, ie it relates to how the particular derivatives are used to mitigate the portion of risk exposure the entity wants to mitigate. The risk mitigation intention is subject to certain boundaries (DRM boundaries):
- (a) the risk mitigation intention cannot create new risks. That is, the cumulative amount of risk to be mitigated through derivatives must reduce the interest rate risk of the current net open risk position by time bucket and cannot exceed the total amount of risk by time bucket (ie an entity cannot over hedge its current net open risk position); and
  - (b) the risk mitigation intention shall transform the current net open risk position to a residual risk position that is within the target profile.
53. The introduction of these DRM boundaries ensures that DRM hedge accounting is not inappropriately applied by granting an accounting exception where an entity synthetically creates a risk position through derivatives, which it otherwise would not be exposed to based on its assets and liabilities. These boundaries would also be consistent with restrictions placed on the definition of the target profile as currently defined, for example not to permit negative balances in the target profile.
54. The risk mitigation intention can therefore be described as the single-outcome element representing the extent of risk to be mitigated through derivatives, subject to the DRM boundaries. It can be expressed as the portion of the current net risk exposure the entity intends to mitigate (determined based on the entity's preferred risk metrics eg in PV01 or nominal terms) through the use of derivatives.
55. Unlike the general hedge accounting model in IFRS 9, where the hedging relationship has to be discontinued when the risk management objective has changed, changes in the risk mitigation intention can occur without affecting the continuation of the DRM model. This is because of the dynamic nature of the underlying portfolios which result in changes to the entity's risk mitigation intention and requires additional DRM actions.
56. In practice, the risk mitigation intention might be evidenced by the designated derivatives available relating to a specific interest risk point or benchmark interest rate risk. The actual externalisation of the risk mitigation intention is a useful

indicator of the extent of risk the entity wants to mitigate the risk (for example, an entity may decide to only mitigate the current net risk exposure partially).

Therefore, this is directly linked to an entity's target profile which will mandate how much risk the entity is willing to accept or to leave open.

57. While the target profile (as discussed in paragraph 41 of this paper) is set as a range of acceptable outcomes within which the entity wants to manage the risk, the risk mitigation intention is naturally a fixed amount of risk to be mitigated through derivatives and is set for a period of time. How long that period is, depends on the frequency of the changes to the underlying portfolio with which the entity is making decisions about risk mitigation (ie designating a larger or smaller portion of the current net open risk position or trading new derivatives). This ensures as much alignment as possible between a risk management view and an accounting view.
58. Although changes in the risk mitigation intention will not impact the continuation of the DRM model, it will trigger a retrospective assessment of performance against this risk mitigation intention on a single outcome basis, which in turn might impact the measurement of misalignment in the financial statements (see paragraphs 64–70 of this paper).

### ***Construction of the benchmark derivatives***

59. Based on the Board's tentative decisions as discussed in April 2019, the benchmark derivative is the theoretical derivative that would perfectly transform the asset profile into the target profile. The designation of a benchmark derivative has to be consistent with the entity's risk management strategy and cannot create an intentional imbalance, ie it cannot create risk exposure that does not exist. There are several similarities between the benchmark derivative and a hypothetical derivative that is often used in cash flow hedge accounting. One of these being that the benchmark derivative needs to represent the underlying portfolio and what the entity wants to achieve from a risk management perspective.
60. Therefore, in the context of the revision to the target profile and the inclusion of the risk mitigation intention, we are of the view that the construction of the benchmark derivative must be based on the risk mitigation intention rather than the target profile. This is because the target profile represents the acceptable open risk

position given the entity's risk management strategy, but it does not specify the extent to which the entity decides to mitigate the risk, which is determined through the risk mitigation intention. Once constructed, the benchmark derivative is used as the theoretical single outcome derivative which can be utilised as the anchor point for measurement purposes.

61. As discussed in paragraph 56 of this paper, in practice the risk mitigation intention, which the benchmark derivative is based on, might often be evidenced through designated derivatives that are traded. This might give rise to concerns that if the risk mitigation intention and thereby the benchmark derivative, is derived from the designated derivatives, there would never be any misalignment recognised in the financial statements because the benchmark derivative would equal the designated derivatives.
62. Although it might be theoretically possible for the risk mitigation intention to exactly match a designated derivative, this will rarely be the case. There are several reasons where the risk mitigation intention might be different from the designated derivatives, for example:
  - (a) the benchmark rate referenced in the designated derivative might not match the designated hedged risk in the DRM model (for example, an entity trades a SONIA derivative to hedge a 3-month LIBOR benchmark risk);
  - (b) the tenor referenced in the designated derivative might not match the designated hedged risk (for example, an entity trades a 6-month LIBOR derivative to hedge a 3-month LIBOR benchmark risk); and
  - (c) the designated derivative might not fully achieve the risk mitigation intention over the time horizon, for example there might be a maturity or a volume mismatch. In such a case, the risk mitigation intention would not match the designated derivatives.
63. In other words, the benchmark derivative represents the risk mitigation intention, which might be evidenced by the designated derivatives as this is information readily available in an entity's trading systems. However, the benchmark derivative cannot impute the terms of the designated derivatives which are not reflective of the risk mitigation intention.



**Retrospective performance assessments**

64. The potential refinements to the DRM model discussed so far also contemplate two retrospective performance assessments added for the purpose of determining the effect of unexpected changes to the current net open risk position. These retrospective assessments include assessing whether:
- (a) the entity has mitigated interest rate risk; and
  - (b) the target profile been achieved.

*Has the entity mitigated interest rate risk?*

65. As discussed in paragraphs 52–53 of this paper (and consistent with the Board’s tentative decisions on the core DRM model), the potential refinements to the DRM model retained the restriction from synthetically creating a risk position through derivatives. In other words, in applying the DRM model, an entity cannot introduce risk positions by using derivatives and yet take advantage of the exception of recording the changes in fair value of such derivatives in OCI, instead of the statement of profit or loss. This view stands even if an entity’s residual risk position falls within entity’s target profile.
66. Consistent with this view, the potential refinements to the DRM model require a retrospective assessment—that is, assessing whether the effect of unexpected changes to the current net open risk position during the period, resulted in the entity creating risk, ie the entity was over-hedged. This would be evidenced by comparing the current net open risk position at the end of the period with the risk mitigation intention. Slide 9 of the agenda paper 4B of this Board meeting sets out an example illustrating this assessment.
67. If the effect of unexpected changes to the current net open risk position is such that the risk mitigation intention is lower than the current net open risk position at the end of the period under assessment, that would *not* give rise to misalignment (ie under-hedging). Conversely, if the effect of unexpected changes to current net open risk position is such that the risk mitigation intention is greater than the current net open risk position at the end of the period under assessment, that would mean that risk is created rather than mitigated (eg over-hedging). Such a new risk created

would give rise to misalignment that would be reported in the statement of profit or loss.

*Has the target profile been achieved?*

68. The potential refinements to the DRM model include an additional retrospective assessment against the entity's target profile, designed to determine whether the risk mitigation intention has transformed the current net open risk position to a residual risk position that falls within the target profile. Slide 9 of the agenda paper 4B of this Board meeting sets out an example illustrating this assessment.
69. To the extent that the residual risk position falls within the entity's target profile for the period there would be no impact on misalignment.<sup>10</sup> Conversely, if the residual risk position falls outside the target profile that would give rise to misalignment reported in the statement of profit or loss.
70. Alignment or misalignment to the entity's target profile would provide useful information to users of its financial statements because it would inform on whether and to what extent an entity has achieved its risk management strategy for the period. This would also be consistent with the risk management view and the way risk managers contemplate performance of the risk management actions.

## **6. Operability of the DRM model—required inputs**

71. One of the objectives of the outreach activities was to obtain feedback on the operability of the DRM model. In order to determine whether the potential refinements discussed in the paper would be operable, the following paragraphs set out some of the required inputs for the DRM model.

*Conversion of various risk metrics into a target profile by maturity buckets*

72. During the outreach, almost all participants said that their interest rate risk management strategies define risk limits, which allow a range of possible outcomes. However, there are a number of different risk metrics that are considered in practice, for example, changes in economic value of equity ( $\Delta$ EVE or PV01),

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<sup>10</sup> However, there may still be misalignment due to the risk mitigation intention assessment discussed in paragraphs 65–67 of this paper.

changes in net interest income ( $\Delta$ NII), and interest rate gaps. In order to incorporate the risk limits into the DRM model, the entities need to be able to convert various risk management metrics into a set of uniform risk limits ie the target profile, which would then be used as the basis for performance assessment.

73. For example, when an entity uses a  $\Delta$ NII risk metric which mandates that the impact to net interest income due to changes in the benchmark interest rate in the next 12 months should be less than a specified limit, this could be converted into a  $\Delta$ EVE metric as the PV01 limit of the next 12 months. For illustration purposes, the examples in the agenda paper 4B of this Board meeting show entities that convert their various risk metrics into the PV01 risk limits by maturity time buckets.
74. Some stakeholders indicated that an entity's risk management strategy does not necessarily contemplate individual risk limits for each maturity bucket. Instead, their risk management strategy only contemplates an overall risk limit set across all maturity buckets.
75. In our view, there might be a concern that using an overall risk limit to determine the target profile, could potentially be inconsistent with the overarching principle underpinning the DRM model being to reflect the entity's management of the interest rate repricing risk. It could be argued that if an entity only sets *one* overall risk limit, instead of identifying risk limits for each maturity bucket, the DRM boundaries might not be sufficiently robust and would not provide sufficient specificity on the risk mitigation intention. As this could leave the model potentially open for inappropriate use, the staff plan to do further research and analysis on this matter.

#### *Capability to distinguish existing positions from new business*

76. When entities manage interest rate risks based on expected maturities, it is possible that such expectations might be affected by unexpected changes. In order to evaluate the extent to which the risk mitigation intention has been achieved, entities need to be able to distinguish existing positions from new business, as the latter was not part of the consideration at the designation time. However, this tracking is only required for one look-back period, as the new business would form part of the existing positions in the next period.

77. Unexpected changes to the existing positions during the period would have direct impact on the economic value of equity (EVE), as these positions hold historic interest rates, and their present values may have moved because of the interest rate risk since the last designation. In comparison, any new business is usually priced with the current prevailing interest rates and will only affect the economic value prospectively.
78. As a result, new business is included for prospective designations but excluded from the retrospective assessments in the DRM model.

*Capability of determining the current net open risk position*

79. The concept of risk mitigation intention is one of the potential refinements to the DRM model discussed in this paper and the current net open risk position is the basis of determining the risk mitigation intention. Although risk managers may be able to trade any derivatives and designate them accordingly, the DRM model would require showing misalignment in case the derivatives are creating new risks, which is assessed based on the current net open risk position .
80. It is important to note that this requirement does not limit the way risk managers view and manage the interest rate risk, and they may continue to work around the residual interest rate risks in the banking book including derivatives. However, entities need to be able to separate the effect from derivatives in their risk systems, as it is the current net open risk position from assets and liabilities that drives the assessment for risk mitigation purpose, which forms one of the DRM hedging boundaries.

## 7. Question for the Board

81. The staff would like to ask the Board the following question.

**Question for the Board**

Does the Board have any questions or comments on the potential refinements to the DRM model as set out in paragraphs 31–70 of this paper?