

# Staff paper

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Project Dynamic risk management (DRM)

Risk mitigation intention and the construction of the benchmark

derivatives

Matthias Schueler (<u>mschueler@ifrs.org</u>)

Zhiqi Ni (zni@ifrs.org)

Alev Halit Ongen (alev.halitongen@ifrs.org)

Riana Wiesner (<a href="mailto:rwiesner@ifrs.org">rwiesner@ifrs.org</a>)

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### Introduction

- 1. In our <u>July 2022 project plan</u> update we listed the risk mitigation intention (RMI) and the construction of the benchmark derivatives as areas where further clarification may be required.
- 2. This is due to feedback from outreach participants on the core DRM model. These participants followed the development of the DRM model and as a result informally requested further clarification on certain aspects of the requirements after the refinements to the core DRM model were tentatively decided by the IASB in November 2021.
- 3. Specifically, these participants were unclear about how:
  - (a) the RMI will be determined from one DRM assessment period to the next;
  - (b) the designated derivatives which have been entered into with external counterparties would evidence the RMI; and





- (c) the benchmark derivatives are constructed, particularly with respect to the relevant input factors such as the notional, tenor, reset terms, benchmark interest rate etc., to ensure consistent application of the DRM model.
- 4. The purpose of this paper is therefore to provide an analysis and clarifications on how the requirements to determine the RMI and the benchmark derivatives will be applied using the DRM model.
- 5. This paper is structured as follows:
  - (a) <u>summary</u> of staff recommendations;
  - (b) summary of current tentative decisions;
  - (c) <u>summary</u> of informal outreach feedback;
  - (d) <u>staff analysis</u>; and
  - (e) <u>question</u> for the IASB.

# Summary of staff recommendations

- 6. We recommend that the IASB require:
  - (a) the *managed risk* to be the interest rate risk an entity manages consistent with its risk management strategy and therefore the risk an entity's risk limits are based on—see paragraphs 20 to 24; and
  - (b) the *benchmark derivative* is calibrated to current market rates of the managed risk as referred to in paragraph 6(a) to achieve a fair value of zero using the RMI by repricing time period—see paragraphs 7(a) and 34 to 37.
- 7. In addition, we recommend confirming the following tentative decisions the IASB have already taken at previous meetings:
  - (a) the RMI is evidenced by the actual amount of interest rate risk by repricing time period transferred to a party external to the reporting entity (ie external to





- the group or individual entity that is being reported on)—see paragraphs 25 to 31; and
- (b) for the purposes of the prospective assessment, the repricing time periods of the available risk to mitigate are aligned with an entity's risk management strategy—see paragraphs 32 to 33.

# Summary of current tentative decisions

### What is the risk mitigation intention?

- 8. As described in agenda paper 4A of this IASB meeting, the IASB introduced the RMI in November 2021, as a single-outcome element to the DRM model, representing the extent of risk to be mitigated through the use of derivatives, ie the portion of the current net open risk position (CNOP) the entity intends to mitigate through the use of derivatives. It is measured and represented by the benchmark derivatives and evidenced by the designated derivatives.
- 9. In the DRM model, the RMI fulfils a similar role as the risk management objective under the general hedge accounting model of IFRS 9 *Financial Instruments*.

#### How is the RMI calculated?

- 10. As described in Agenda Paper <u>4B</u> of the February 2022 IASB meeting the RMI is calculated as follows:
  - (a) Step 1—qualifying portfolios of (expected) cash flows from financial assets, financial liabilities, and future transactions are designated in the DRM model;<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Consistent with the IASB's tentative decisions in <u>February</u> and <u>April</u> 2018, future transactions such as forecast transactions and firm commitments that are highly probable to occur and meet certain qualifying criteria can be designated in the DRM model.





- (b) Step 2—the CNOP is determined as the net interest rate risk position of designated portfolios, for example, by allocating expected cash flows across repricing time period and determining the risk by repricing time period arising from the aggregated position; and
- (c) Step 3—the entity determines the extent to which it wants to mitigate the interest rate risk in the CNOP, consistent with its risk management strategy, being the RMI. The RMI is evidenced by the designated derivatives traded with external counterparties and can change from one DRM assessment period to the next.<sup>2</sup>

### What are the accounting limitations on the RMI?

- 11. As explained in the agenda paper 4A of this IASB meeting, the IASB tentatively decided in November 2021 that the determination of the RMI is subject to specified restrictions. In particular, the RMI needs to be evidenced by an entity's actions taken to mitigate risk (eg the actual derivatives traded in the market) at the time it was determined, considering the requirements of the prospective assessment. The prospective assessments need to be satisfied at the time the risk mitigation intention is determined (ie the beginning of the DRM assessment period), supplemented by the retrospective assessment at the end of each DRM assessment period (for further details on the prospective and retrospective tests please refer to paragraphs 44 to 47 of the agenda paper 4A of this IASB meeting).
- 12. The prospective assessments prevent a situation where the DRM model is inappropriately applied where an entity synthetically creates a risk position which it otherwise would not be exposed to, through the use of derivatives. This means the RMI can only mitigate risk up to the amount of the CNOP by each repricing time period, which we call an entity's organic interest rate risk exposure.

<sup>&</sup>lt;sup>2</sup> The DRM assessment period may be different to the reporting period.





### Constructing the benchmark derivatives

- 13. In the DRM model, the concept of a benchmark derivative is based on the same principles as those described in IFRS 9 regarding a hypothetical derivative (see paragraphs B6.5.5–B6.5.6 of IFRS 9). For example, benchmark derivatives would have terms that match the critical terms of the risk mitigation intention upon designation. Consequently, like a hypothetical derivative in IFRS 9, a benchmark derivative in the DRM model cannot be used to include features in the value of the RMI that only exist in the designated derivatives (but not in the RMI). Ultimately, this principle ensures the value of the RMI (which is similar to that of the hedged item in IFRS 9) is measured independently of the value of the designated derivatives (which is similar to that of the hedging instruments).
- 14. Calculating the changes in fair value of the RMI using benchmark derivatives is therefore intended to be a practical solution to the challenges that would otherwise arise. For example, since the RMI is an aggregated risk position without a direct link to the risk-generating underlying positions and can change from one DRM assessment period to another, it may not be possible to measure the RMI by reference to these underlying positions.

# Summary of informal outreach feedback

### Risk mitigation intention

15. Risk managers generally welcomed the requirement to evidence the RMI using externally traded derivatives (see paragraph 8 of this paper) as they acknowledged that these derivatives are, in most cases, a direct reflection of their intention. On the other hand, accountants, who would be responsible for determining the RMI when applying the DRM model, queried how the RMI would be different from the designated derivatives given that these are the basis for determining the RMI.<sup>3</sup> As a result, some

<sup>&</sup>lt;sup>3</sup> Refer to Agenda Paper 4B for September 2021 IASB meeting illustrating the DRM cycle.





preparers were seeking further guidance from the IASB on the requirement that 'the RMI needs to be evidenced by actions taken in the market to mitigate risk (eg the derivatives traded in the market)'.

- 16. Regarding the key prospective test of only being able to mitigate available (organic) interest rate risk by repricing time period some risk managers were concerned about the practical implications of this requirement. For example, in practice some entities might mitigate interest rate risk in an adjacent repricing time period instead of the repricing time period where the CNOP is present.
- 17. Such practice is usually driven by the availability of market liquidity for appropriate derivatives over a specific period. For example, an entity may have a CNOP at the nine-year repricing period while there may be a very limited market for a nine-year interest rate swap (or such bespoke swap is much more expensive). As a result, the entity may choose to mitigate the nine-year risk using a ten-year swap, which is more commonly available in the market. These outreach participants asked whether the IASB could provide more flexibility in determining the RMI to address such situations, for example to document that only the risk up to the nine-year point of the ten-year derivative should be considered when determining the RMI and building the benchmark derivative when applying the DRM model.
- 18. In addition, stakeholders observed, that the use of internal derivatives may also cause some operational difficulty in evidencing the amount of risk an entity intends to mitigate. They said that when risk managers mitigate interest rate risk stemming from their non-trading loan books, which are largely accounted for at amortised cost, they may mitigate the risk by transferring the interest rate risk to a centralised trading desk using internal derivative instead of trading with an external counterparty directly. This is because a central trading desk typically aggregates all the risk positions entity wide and may decide to retain or offset some interest rate risk either with other customer flows or for the entity's own proprietary trading purposes. As a result, these

<sup>&</sup>lt;sup>4</sup> In essence, the entity assumed the interest rates in the adjacent repricing time periods would move in parallel in most cases and accepted the residual risks if that was not the case.





stakeholders were of the opinion that the internal derivatives used actually achieved the entity's risk objective for the period and should either be:

- (a) allowed to be classified as designated derivatives within the DRM model thereby evidencing the RMI; or
- (b) classed as evidencing the RMI when applying the DRM model without further requirement to link these internal derivatives to external derivatives as the risk of the managed portfolio has been transferred to the trading desk.

#### Benchmark derivatives

19. As explained in paragraph 13 and 14 of this paper benchmark derivatives cannot simply impute the terms of the designated derivatives which are not reflective of the RMI. Instead, they would be constructed based on specific defined principles. Given these requirements, stakeholders asked for further clarification on the principles for constructing benchmark derivatives, such as how to determine the notional, tenor, reset terms, benchmark interest rate etc. and how to apply these principles in practice.

# Staff analysis

### The managed risk

20. The *managed risk* is the specific interest rate risk an entity manages through its dynamic risk management activities. It is also the risk on which an entity's risk limits are based on. The pricing of external customer lending may be based on a particular benchmark interest rate in local currency that will then be adjusted to include customer-specific lending margins. The customer lending is typically internally funded by Asset Liability Management (ALM), through a transfer pricing mechanism. This transfer pricing transaction not only represents the funding from ALM, but also represents the methodology by which interest rate risk positions are aggregated in ALM for inclusion in dynamic interest rate risk management. For example, ALM may provide funding to a business unit and receives interest payments from that business





unit based on a particular benchmark interest rate it has determined (ie as the basis for its managed risk). However, the business unit may not necessarily use the same benchmark interest rate for pricing all of the customer lending.

- 21. ALM then dynamically manages the resultant interest rate risk from the net open risk positions that it has assumed through such transfer pricing transactions. This reflects actual funding raised by the bank, which in this case is assumed to be raised at the managed risk rate (typically a floating benchmark interest rate). This is representative of a dynamic risk management objective to manage the variability in net interest income (NII) or economic value of equity (EVE) with regard to changes in the bank's chosen benchmark interest rate (ie the bank's managed risk rate and therefore its cost of funding) rather than the pricing rate on which the customer lending is based.
- 22. The DRM model currently only provides an accounting solution for the management of the first-order interest rate risk (repricing risk) through the use of derivatives. The first-order interest rate risk is the net difference in sensitivity to interest rate changes between assets and liabilities. In other words, the net difference in duration between assets and liabilities, commonly called the 'duration gap' or repricing risk due to changes in interest rate. Therefore, typical risk metrices are the sensitivity of the underlying positions designated in the CNOP to either NII or present value (for example PV01).
- 23. The expectation is that the managed risk is clearly identified through the entity's risk management strategy as the benchmark interest rate for the management of the portfolio. Therefore, separate identification of that benchmark interest rate in each of the individual underlying positions is not required.
- 24. Any managed risk identified must be reliably measurable (for example the managed risk must be linked to a benchmark interest rate where there is a liquid market to allow construction of term structure of interest rates).





### Determining the RMI

Evidence the risk mitigation intention through actions taken in the market

- 25. During the core DRM model outreach, stakeholders confirmed/said that their intentions with regard to risk mitigation could be derived from the actual traded derivatives during a period. The extent to which an entity decides to mitigate interest rate risk, is influenced by (but not limited to) the following variables:
  - (a) the total net exposure to interest rate risk (ie the CNOP at a specific repricing time period);
  - (b) an entity's risk appetite as set out in the risk management strategy and defined risk limits (ie the target profile);
  - (c) an entity's risk objective for any given period;
  - (d) the risk an entity is managing (ie the *managed risk*); and
  - (e) the availability and cost of risk mitigation activities (eg market depth/liquidity, transaction cost etc.).
- 26. Therefore, the actual amount of interest rate risk transferred through the use of derivatives onto a third party (also known as externalisation of risk), by repricing time period is a clear indicator of what risk mitigation the entity is intending to achieve.
- 27. Given the dynamic nature of interest rate risk management, the determination of the RMI and the externalisation of the risk through the use of derivatives occur almost instantaneously. In other words, the risk managers may not always document its RMI first (ie inputting it into a system) before executing a derivative. Such a process would not be viable for risk management purposes. This is why we envisage the RMI determined when applying the DRM model to be based on the amount of risk traded externally at a specific repricing time period (for example at the five-year point) through the designated derivative in response to the risk inherent in the CNOP at that same repricing time period. There is no requirement to separately document the RMI before executing risk mitigating activities.



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28. This, however, does not mean the traded derivatives can simply be replicated as the RMI because the RMI must represent the managed risk of the underlying items and therefore the construction of the benchmark derivatives are subject to specified requirements as explained in paragraphs 34 to 37.

#### Practical considerations

- 29. Stakeholders have asked how the requirement to evidence the RMI are expected to be applied in practice. In our view, evidencing the RMI should only require minimal incremental effort or processes because it is based on the actual risk mitigation actions an entity has taken at a specific repricing time period and the accounting requirements should not have an impact on the risk management actions of the entity. This is because the externally traded derivatives entered into during the period, are booked into the front office systems and the total amount of risk being mitigated is readily available by repricing time period through those systems. Subsequent to identifying the amount of risk by repricing time period, entities using the DRM model must apply the prospective assessment to determine the RMI by repricing time period for each DRM assessment period. This should also be possible without undue effort as the DRM model requires using the same repricing time periods when determining the CNOP.
- 30. The use of internal derivatives and their eligibility for designation in the DRM model was another concern of the stakeholders as described in paragraph 18. In practice, externalisation of risk may occur on a different level than the original mitigated position of the banking book (for example when the risks of the banking book are traded off to the internal risk transfer trading desk). While we acknowledge that such practice exists, we are of the opinion that any of these derivatives needs to be separately traceable to external derivatives. This means the RMI cannot be based on internal derivatives traded with an internal risk transfer trading desk without being explicitly traced to external derivatives as otherwise the entity would not faithfully reflect the effect of its dynamic interest rate risk management.



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- 31. This view continues to be aligned with the IASB's tentative decision from <u>June 2018</u> that only contracts with a party external to the reporting entity (ie external to the group or individual entity that is being reported on) can be designated within the DRM model. This is also consistent with the general hedge accounting requirements in IFRS 9 and IAS 39 *Financial Instruments: Recognition and Measurement*.
- 32. Regarding the prospective test of only being able to mitigate available (organic) risk, we think the DRM model can reflect the effect of risk management faithfully without the challenge described in paragraph 16. Using the example in paragraph 16, an entity traded a ten-year interest rate swap which affected all repricing time periods up to the year ten, despite there being only 'organic' interest rate risk to mitigate in the entity's CNOP up to the nine-year repricing time period. After applying the prospective assessment, the entity's RMI is limited to the amount of the CNOP in each of the repricing time periods. Considering in this example the CNOP at the ten-year repricing time period is zero, it would result in the RMI being zero for the ten-year repricing time period too. Therefore, in effect the entity would have determined the RMI to be limited up to the nine-year point, which was its original intention. Consequently, any changes in the fair value of the designated derivate that result from the interest rate risk in the ten-year repricing time period remain in profit or loss in this example.
- 33. While we acknowledge the concern that in the scenario as described in paragraph 32, there is a misalignment being created, we note that this is the economic outcome if you mitigate a nine-year risk with a ten-year derivative. In addition, we also note that we do not prescribe a particular methodology of setting an entity's repricing time periods. The setting of repricing time periods which displays risk at a particular time point must however be consistent with the entity's risk management strategy.

  Therefore, if an entity aggregates its risk exposure at one time point but decides to mitigate it at a different time point for cost management reasons, this would generally

<sup>&</sup>lt;sup>5</sup> A typical plain vanilla ten-year interest rate derivative mitigates risk in each of the repricing time periods up to the ten-year point.





be acceptable, but it might create misalignment which may be reported in profit or loss.

### Determining the benchmark derivatives

- 34. As explained in paragraphs 13 and 14, an entity applying the DRM model uses benchmark derivatives to calculate the changes in fair value of the RMI. The benchmark derivatives are therefore a key component for the measurement of the DRM adjustment which is to be recognised in the statement of financial position, as the lower of (in absolute amounts):
  - (a) the cumulative gain or loss of the designated derivatives from the inception of the DRM model; and
  - (b) the cumulative change in the fair value of the risk mitigation intention attributable to repricing risk from inception of the DRM model. This would be calculated using the benchmark derivatives as a proxy.
- 35. To enable consistent application of the DRM model we are of the opinion that the creation of the benchmark derivatives must be based on the following specified principles:
  - (a) The benchmark derivative is constructed to be on-market at designation using the managed risk for rate calibration. For example, a benchmark derivative could be constructed as a theoretical interest rate swap that is calibrated to a value of nil. This means, the floating leg of this derivative must be based on the managed risk and the fixed leg is calibrated using the managed risk yield curve. This is because the managed risk is the basis for the entity to aggregate, monitor, mitigate and report its interest rate risk holistically and dynamically.
  - (b) A benchmark derivative cannot be used to include features in the value of the RMI that only exist in the designated derivatives (but not in the RMI). An example is the valuation adjustments done for credit purposes on the designated derivatives. These valuation adjustments are not relevant for the





- calculation of the changes in fair value of a benchmark derivative which matches the characteristics of the RMI.
- (c) The amount of risk and the tenor of the benchmark derivative is prescribed by the RMI and expressed in the risk metric (ie KPI) the entity manages at that repricing time period (for example ΔNII or PV01).<sup>6</sup> This means if an entity is using PV01 as the managed KPI, the amount of risk is measured as the sensitivity of one basis point shift in the managed risk yield curve. If the entity is using ΔNII as the managed KPI than the amount of risk is measured by multiplying the current rate level of the managed risk with the notional of the designated derivatives at the particular repricing time period. With the inputs relating to amount of risk, managed risk rate, tenor and the requirement of the benchmark derivative to be on-market (which determines the interest rate of swap fixed leg), the notional of this theoretical derivative can be calculated; and
- (d) An entity's preferred risk metric is mandated by its risk management strategy. This means that the creation of the benchmark derivative cannot change from one metric to another period-on-period. For example, an entity may have a risk management strategy to stabilise NII for the first three years of the managed horizon but focusses on the present value of the managed portfolio for the remainder of the managed horizon using PV01. An entity must apply this strategy consistently from one DRM assessment period to the next.
- 36. When following the above requirements, the sum of the first order interest rate risk in the benchmark derivatives equals the RMI for those DRM assessment periods. The same benchmark derivatives are then used for measurement of the DRM adjustment, as their present value represents the cumulative changes in the fair value of the RMI.

<sup>&</sup>lt;sup>6</sup> The RMI represents the sum of all risk mitigation from the designated derivatives at a particular repricing time period measured using the preferred risk metric and after applying the prospective assessment requirement. It is therefore the basis for determining the required risk when calibrating the benchmark derivative.





#### Practical considerations

37. When applying the DRM model, an entity may benefit from the use of the same front office system for the designated and the benchmark derivatives. In fact, we see this as a major advantage for operation of the model as these derivatives can benefit from the valuation framework embedded in the same front office system. Considering the DRM measurement requirements there is no need to remeasure the underlying positions feeding into the CNOP. This means a large proportion of the DRM model operations can be managed with limited changes to existing system set ups.

### **Question for the IASB**

#### Question for the IASB

Does the IASB agree with the staff recommendations set out in paragraphs 6 and 7 of this paper?