Introduction

1. In February 2023, the IASB tentatively decided to require an entity to assess whether the current net open risk position at the end of the DRM assessment period can realise the expected benefits (in the form of reduced variability in earnings or economic value) represented by the DRM adjustment—this was referred to as the capacity assessment.

2. The capacity assessment was introduced as a response to stakeholders' feedback that the DRM measurement requirements may not capture the full effect of unexpected changes in an entity's risk exposure because the retrospective assessment only considers the effects for the period under assessment. Stakeholders were concerned that large prepayments or unexpected changes to the underlying items could have a significant effect on the extent to which the designated derivatives will continue to mitigate net interest income (NII) and fair value variability in the future.

3. At the time (see agenda paper 4B of the February 2023 IASB meeting), the IASB considered an approach based on an assessment of the fair value of the current net open risk position (CNOP) at the reporting date but did not discuss how this capacity

assessment should be done or how to calculate the fair value or maximum future economic benefit of the CNOP. The purpose of this paper is to discuss what additional requirements are needed in this regard.

4.   This paper is structured as follows:

   (a)   staff recommendations and questions for the IASB

   (b)   staff analysis

5.   This paper also includes Appendix A−Calculating the maximum future economic benefit.

Staff recommendations and question for the IASB

6.   Based on our analysis in paragraphs 7–39 we recommend that:

   (a)   the maximum future economic benefit of the CNOP at the reporting date is measured based on the present value of the CNOP.

   (b)   when a capacity shortfall in the DRM adjustment is recognised in profit or loss, the unwind of that shortfall in future periods is recognised on a systematic and rational basis over the risk management time horizon. In the absence of a systematic and rational basis, the shortfall is recognised on a straight-line basis.

   (c)   the reversal of capacity shortfalls previously recognised in profit or loss is not permitted.

Question for the IASB
Do the IASB members agree with our recommendations in paragraph 6?

Staff analysis

Purpose of the capacity assessment

7. As discussed in May 2022, the DRM adjustment represents the aligned portion—that is the extent to which the designated derivatives are successful in mitigating repricing risk and achieving the target profile (ie changes in fair value of the risk mitigation intention have been offset by changes in the fair value of the designated derivatives). Put differently, the DRM adjustment represents the expected benefits (off-set) to be provided by the designated derivatives when repricing occurs.

8. In response to stakeholders' concerns described in paragraph 2 of this paper, the IASB decided in February 2023 to require a 'capacity assessment' to ensure the DRM adjustment does not exceed an entity's capacity to realise the expected future economic benefits in form of reduced variability.

9. The capacity assessment is based on the entity's CNOP at the reporting date to ensure that the realisation of the DRM adjustment into profit or loss is supported by an appropriate balance sheet position in order to faithfully reflect the entity's risk management strategy (ie protection of economic value of equity or NII).

10. The assessment is intended as a reasonableness test that is only done at the reporting date; it is forward-looking only and based on a snapshot view of the underlying items included in the CNOP at the reporting date.

11. In other words, the capacity assessment serves as a 'back-stop' to ensure that any excess of the DRM adjustment over the CNOP valuation at the reporting date, is recognised in profit or loss immediately.

12. Informal feedback we received following the IASB's tentative decision to require a capacity assessment in February 2023 (Agenda Paper 4B) indicated that, in principle, stakeholders are supportive of including such an assessment in the DRM model. However, stakeholders have the following questions:

(a) how to measure the CNOP to determine the maximum future economic benefits for the purposes of the capacity assessment;

(b) how capacity shortfalls recognised in profit or loss affect the unwinding of the DRM adjustment in future periods; and

(c) whether subsequent reversals of capacity shortfalls previously recognised in profit or loss are required, and if so, how to determine the amount of such a reversal.

Measuring the CNOP for the purposes of the capacity assessment

Taking a snapshot view of the CNOP

13. The CNOP, by definition, is the net interest rate risk exposure at a particular point, based on the repricing risk in the dynamically managed underlying positions. However, to enable a comparison between the DRM adjustment and the value of the CNOP, a measurement of the risk exposure at the reporting date must be carried out. The challenge is to determine the value of this risk exposure because the CNOP is derived by aggregating an entity's exposures to repricing risk arising from various underlying items into a net risk exposure.

14. The capacity assessment is based on a snapshot of the CNOP at the reporting date which equates to a 'run off' view of the underlying portfolios designated as part of the CNOP. In other words, to determine the value of the CNOP at the reporting date the entity assumes no new underlying items are added until the end of the risk management time horizon. As such, it provides a reasonable and supportable view at the reporting date of the amount, timing and uncertainty of the future cash flows included in the CNOP.

15. To achieve the objective of the capacity assessment, we believe that any valuation technique applied to determine the present value of the CNOP must reflect the entity's exposure to repricing risk originating from *the managed rate*. This is because the managed rate is the (benchmark) interest rate the entity's is economically hedging,

and therefore we would expect the discount rate used in the valuation technique to be that managed rate.

Determining the present value of the CNOP

16. Considering that the capacity assessment serves as a 'back-stop' to ensure that any excess of the DRM adjustment over the CNOP valuation at the reporting date is recognised in profit or loss immediately, the present value of the CNOP at the reporting date must represent the maximum future economic benefit an entity would be able to realise if it fully mitigates the CNOP from that date going forward.

17. It is relatively straightforward to calculate the present value of the expected cash flows from the underlying items included in the CNOP. By nature, applying a present value technique means that the cash flows from fixed rate underlying items would be the main cause of changes in the overall present value of all underlying items. In comparison, variable rate items would usually have cash flows that are directly linked to a benchmark interest rate and therefore would usually be stable in present value terms regardless of the changes in the benchmark interest rate.

18. Therefore, to the extent that the notional amounts of fixed and variable items included the CNOP are the same, the interest rates on the fixed rate positions could be used as a proxy for the effect of the interest rate changes on the variable rate positions.

19. However, if there is a notional mismatch between fixed and variable items (which is likely under the DRM model), additional adjustments are required to reflect the maximum future economic benefit inherent in the variable rate positions. This is because, although the excess variable rate positions are included in the CNOP (because they lead to variability in NII) these items do not lead to changes in present value of the CNOP (because they are variable rate and thus have a present value close to par). Making an adjustment to reflect the future economic benefit inherent in the variable rate item to the present value of the CNOP helps to ensure the capacity assessment is performed against the maximum economic benefit to be realised in future.

20. In our view, such an adjustment would be needed only for those time periods in which the entity has a risk management priority focused on mitigating ΔNII, because only in these periods the maximum future economic benefit is affected by the excess variable rate items. When an entity applies a mixed risk management strategy (that is having different priorities of risk management objective for different time periods), it would first determine the present value of the expected cash flows from underlying items which relates to the changes in interest rate risks. It would then assess the amount of net variable rate positions that are being used to determine the CNOP to the extent of notional misalignment, for the time periods in which ΔNII is the preferred performance metric.

21. To quantify this adjustment an entity needs to calibrate the historic interest rate information for the underlying variable rate positions, which represents the rates at which the entity would have fixed its variable exposures if it had mitigated all available repricing risk at the time of originating or issuing the assets or liabilities. This historic rate information is not explicit for the excess variable rate positions when the notionals of the CNOP are not the same.

22. Therefore, a proxy rate must be 'determined' to determine the presently available maximum capacity of future economic benefits stemming from the excess variable rate positions. To achieve this, the expected cash flows from the notional-misaligned portion of the variable rate position would be based on a *replicating portfolio*, assuming maximum possible risk mitigation by the entity as explained in paragraph 16. The result of such a technique would effectively result in a blended fixed rate for the variable net exposure position.

23. A present value technique could then be applied to the cash flows to quantify the adjustment, which will be added to the present value of the expected cash flows from underlying items determined using the historic fixed rate information only.

24. In addition, it is important to note that the present value of the expected cash flows from the underlying items is not the same as present value of the CNOP (being the maximum future economic benefits) at the reporting date. In most cases, in order to

determine the present value of the CNOP, an entity would need to further adjust for the amount that is already recognised in the statement of financial position because the capacity assessment refers only to expected cash flows that are available to be mitigated in the future.

25. Appendix A—Calculating the maximum future economic benefit or capacity of the CNOP to this paper provides a possible example of how such an adjustment could be calculated.

Effects of capacity shortfalls

26. As discussed in paragraph 11 of this paper, the purpose of the capacity assessment is to ensure that the DRM adjustment is not recognised at an amount higher than the maximum expected benefits of reduced variability to be realised in future. In the event of a capacity shortfalls, any excess of the DRM adjustment over the present value of an entity's current net open risk position is immediately recognised in the statement of profit or loss in the period of the assessment.

27. As stated in paragraph 1 of this paper, the capacity assessment ensures that the DRM adjustment is measured at an appropriate amount in the statement of financial position. However, when a capacity shortfall is recognised, it could give rise to additional challenges in determining how applying the 'lower of test' in future periods might affect the measurement of the aligned portion in those periods.

28. This is because, when a capacity shortfall occurs, the entity effectively accelerates the recognition of the DRM adjustment into profit or loss because the underlying financial assets and financial liabilities in the CNOP are not sufficient to realise the DRM adjustment in full. Therefore, it would no longer be appropriate to continue recognising the DRM contribution to NII based on the lower of the designated derivatives and the benchmark derivatives. This is because the amount of the capacity shortfall cannot be related to particular underlying items and to what extent those items were included in the risk mitigation intention, therefore it is not possible to adjust the historic benchmark derivatives accordingly.

29.   For example, when an entity accumulates CU100 worth of DRM adjustment, this CU100 would unwind back to profit or loss based on the lower of the accrual profile of the benchmark derivatives and the designated derivatives. This unwinding process ensures the entity reflects the reduced variability in net interest income over time. If there is a capacity shortfall in one reporting date that leads to the recognition of CU30 in the DRM adjustment for example, the future DRM contribution to NII would need to be adjusted to be based on CU70 of the residual benefit rather than continuing to unwind the full CU100. If no adjustment is made to the accruals of the benchmark derivatives in future periods, this would result in a distorted NII profile.

30.   As discussed in paragraph 14 of this paper, the capacity assessment is performed based on a snapshot of present value of the CNOP position at the reporting date. As a result, it is not possible to make an accurate adjustment to the DRM adjustment following the recognition of any capacity shortfalls, without introducing extensive tracking of how the CNOP and RMI has developed over time and what the relevant historic market interest rates were at those times.

31.   In our view, introducing these tracking requirements would be in direct contradiction to the underlying principles of the DRM model that repricing risk is mitigated on a net basis. Furthermore, requiring tracking of how individual underlying items are included in the risk mitigation intention will significantly increase the complexity of applying the DRM model. In our view, there is no basis to introduce such complexity for the purpose of the capacity assessment when it is not required for applying the DRM model overall.

32.   In addition, because the capacity assessment is based on the present value of the CNOP, by definition, it combines the valuation impact across all risk points (ie time periods), and therefore cause difficulties in determining the accurate time periods in which a capacity shortfall would unwind.

33.   Considering the portfolio nature of the DRM model and the purpose of the capacity assessment as a reasonableness test, we are of the view that the DRM model does not need to pursue a fully accurate adjustment to achieve the intended outcomes. We are

of the view that an adjustment based on a systematic and rational basis can be sufficient to determine a reasonable and supportable adjustment to DRM contribution to NII in the periods following the recognition of a capacity shortfall.

34.   In cases where unwinding the effect of capacity shortfalls on a systematic and rational basis is not practical due to undue cost and/or effort, a straight-line basis over the entity's documented risk management time horizon would be acceptable to balance the need for useful information with maintaining the operability and practicality of the DRM model.

35.   Using the example in paragraph 29, applying, for example, a straight-line method, the entity would unwind the CU30 effect of the capacity shortfall proportionately over five years if its risk management time horizon is five years, and adjust the DRM contribution calculated using the original benchmark derivatives by CU 6 per year.

Reversing the effects of capacity shortfalls

36.   Once a write-down to the DRM adjustment has been recognised, there could be subsequent changes to the CNOP which led to a situation that the new present value of the CNOP would exceed the DRM adjustment at that date. Therefore, the question arises if such subsequent changes in the present value of the CNOP could lead to a reversal of previously recognised capacity shortfalls (akin to the reversal of an impairment loss).

37.   In our view, the predominant reason to recognise a capacity shortfall in the first place is the occurrence of significant unexpected changes to the CNOP that may significantly change the present value or future NII from the underlying items. This will particularly be the case if the historic interest rates on those underlying assets and liabilities that were derecognised were significantly different from the current or expected future market rates of interest. However, increases in the present value of CNOP in subsequent periods are likely to be a result of a variety of factors, for example, new financial assets originated, new financial liabilities issued or subsequent favourable changes in the market rates of interest.

38. There is also a risk that permitting or requiring the reversal of a capacity shortfall previously recognised could lead to potential earnings management. For example, if an entity recognised a capacity shortfall in the statement of profit or loss, there might be an incentive to reduce the RMI in future periods (to leave more 'headroom' in valuation) in the hope to get a reversal of the write-down of the DRM adjustment. However, the reversal of a prior write-down in such situation would not provide useful information as the reversal would be based on management actions rather than reinstatement of the original risk positions. In some cases, it may also lead to a continuous recognition and reversal of DRM write-downs which could be misleading to the users of the financial statements.

39. For the reasons described in paragraph 37−38 we are of the opinion that reversal of a capacity shortfall recognised in previous periods should not be permitted. This is also consistent with the prior reasoning of the IASB to prevent reversals of impairments of available-for-sale assets under IAS 39.[1]

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[1] See paragraph BC 130 of the Basis of conclusions on IAS 39.

Appendix A—Calculating the maximum future economic benefit or capacity of the CNOP

A1.   The example in this Appendix demonstrates one of the many possible ways to capture the expected benefits that may not be included in the present value of the underlying items, in particular when an entity manages the variability in net interest income from a combination of financial assets and financial liabilities that have misaligned notionals.

A2.   When the notionals of assets and liabilities in the CNOP align, the present value of CNOP can be calculated using a present value technique by relying on the historic fixed rate information inherent in the underlying financial assets and financial liabilities. However, additional adjustments are required to reflect the maximum future economic benefit of the dynamic risk management activities to the extent the notionals of assets and liabilities in the CNOP misalign.

A3.   For example, an entity may have an interest rate risk management strategy that manages entity-level repricing risk for a 5-year risk management time horizon, based on exposure in ΔNII for the first three years and ΔEVE for the remaining two years.

A4.   Assuming the entity has a 5-year fixed rate financial asset FA1 with a notional of CU200 and a 3-year variable rate financial asset FA2 with a notional of CU800, funded by a 5-year variable rate financial liability FL1 with a notional of CU1,000. The notionals of financial assets and financial liabilities are aligned and the underlying positions are summarised as below:

CNOP as at 1 January 2X11

	2X11 CU	2X12 CU	2X13 CU	2X14 CU	2X15 CU
Fixed exposures					
Financial asset FA1	200	200	200	200	200
Total fixed rate exposures	200	200	200	200	200
Floating exposures					
Financial asset FA2	800	800	800		
Financial liability FL1	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)
Reinvestment FA2				800	800
Total variable rate exposures	(200)	(200)	(200)	(200)	(200)

A5.   In this case, the present value of the CNOP can be calculated based on the present value of the expected cash flows from the underlying assets and liabilities, which consists of the fixed rate cash flows from financial asset FA1 and the variable rate cash flows from financial asset FA2 and financial liability FL1. Since financial asset FA1 is the only fixed rate position, the present value of the CNOP would be similar to the present value of a receive fixed/pay variable benchmark interest rate swap with the same CU200 notional and same fixed rate as financial asset FA1. This would be the value used for the capacity assessment.

A6.   In comparison, assuming another entity with the same risk management strategy and positions apart from the notional of the 5-year variable rate liability FL1 being only CU500, where the total notional difference of CU500 between assets and liabilities is caused by equity funding. The underlying positions are summarised as below:

CNOP as at 1 January 2X11

	2X11 CU	2X12 CU	2X13 CU	2X14 CU	2X15 CU
Fixed exposures					
Financial asset FA1	200	200	200	200	200
Total fixed rate exposures	200	200	200	200	200
Floating exposures					
Financial asset FA2	800	800	800		
Financial liability FL1	(500)	(500)	(500)	(500)	(500)
Reinvestment FA2				800	800
Total variable rate exposures	300	300	300	300	300

A7. In this case, the present value of the CNOP can be calculated using the same present value method as discussed in paragraph A5, and therefore would be similar to the fair value of a receive fixed/pay variable benchmark interest rate swap with the same CU200 notional and same fixed rate as financial asset FA1. However, an adjustment equivalent to a receive variable/pay fixed benchmark interest rate swap with a notional of CU500 is required in order to truthfully reflect the maximum possible risk to be mitigated, given the entity has a risk management priority based on ΔNII in the first three years. This ensures the overall effect used for the capacity assessment is equivalent to a receive variable/pay fixed benchmark interest rate swap with a notional of CU300, consistent with the maximum amount of variability in net interest income the entity could mitigate.

A8. In order to calculate the present value relating to the adjustment, the notional-misaligned portion of the CNOP must be calibrated using the historical rate for the tenor managed. In this example, since the entity's risk management strategy manages ΔNII for the first three years, the cash flows from the notional-misaligned portion of the variable rate position would be based on a *replication portfolio* assuming maximum possible risk mitigation.

A9. Since the entity documented a risk management priority based on ΔNII in the first three years, a replication portfolio representing the maximum capacity to realise the future economic benefit would be based on the maximum risk mitigation intention possible for a particular CNOP. In other words, a replication portfolio would assume that any variable rate exposures are fixed at the historical market interest rate for the same number of years as the entity's risk management time horizon since they arise (ie assume these variable rate cash flows would have been fixed three years prior to the underlying cash flow date at the prevailing market rate at the time. In this example, the cash flows in 2X11 would be based on the market 3-year interest rate at the end of 2X08, while the cash flows in 2X12 and 2X13 would be based on the market 3-year interest rate at the end of 2X09 and 2X10 respectively.