Staff paper

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IASB® meeting

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Project	**Dynamic Risk Management (DRM)**	
Topic	**Managing equity**	
Contacts	**Zhiqi Ni**	(zni@ifrs.org)
	Matthias Schueler	(mschueler@ifrs.org)
	Riana Wiesner	(rwiesner@ifrs.org)

Introduction

1. The IASB introduced the concept of current net open risk position in November 2021 as the net open interest rate risk position (by time bucket) derived from the combination of an entity's assets and liabilities (including core demand deposits) and eligible future transactions over the period the entity is managing such risk. Despite the new name, the current net open risk position is simply the net risk position derived from assets that were previous in the assets profile, as well as the liabilities that were previously part of the target profile.

2. At this meeting, we would like to discuss whether equity should be eligible to be included in the current net open risk position, and the implications of a such decision to the DRM model. We summarised the discussions to date and stakeholders' feedback on this topic and provided staff analysis and view on the inclusion of equity in the DRM model.

3. This paper is structured as follows:

   (a) background;

   (b) feedback from stakeholders;

   (c) staff analysis; and

   (d) question for the IASB.

Background

4. Before considering the question of whether equity should be eligible for inclusion in the DRM model, it is important to firstly understand how and to what extent equity is included in the actual interest rate risk management activities of entities. We understand that in practice,

entities use different ways to reflect equity in their risk management activities. Generally, entities either include:

a) equity equal to the excess of the designated interest-generating assets over the interest-bearing liabilities (referred to as the designated assets and liabilities hereafter); or

b) *all* the entity's equity.

5. Some entities include equity in their dynamic interest rate risk management with the main objective to stabilise and/or reduce volatility in net interest income. When applying this approach, only equity that represent *the gap* between the designated assets and liabilities are included in the dynamic interest rate risk management process, via the use of 'replicating portfolios'.

6. Since equity is a non-interest bearing source of funding, these entities treat it as a fixed rate liability, similar to other non-remunerated liabilities such as core demand deposits, which provides funding to the entity at effectively 0% interest rate. In practice, this is colloquially referred to as an equity model book (EMB). These entities not only model the maturity profile of the equity, but also determine the extent (ie the amount) of equity to be included in the interest rate risk management to 'plug the gap' between their designated assets and liabilities, with the intention to achieve a stable interest rate margin from those assets and liabilities.

7. The following example was used to illustrate the effect of equity in an entity's interest rate risk management in the Discussion Paper, *Accounting for Dynamic Risk Management: a Portfolio Revaluation Approach to Macro Hedging* (2014 DP):

Assets	**CU million**	**Liabilities**	**CU million**
5-year fixed rate assets	60	5-year fixed rate liabilities	60
1-month variable rate assets	40	1-month variable rate liabilities	15
		Equity (deemed fixed rate exposure)	25
	100		100

8. In this example, equity is used to fund the gap between the entity's assets and liabilities, and as a result, may affect the entity's future net interest income when interest rates change. When managed holistically, the interest rate risk from the CU60 million of fixed rate assets and CU60 million of fixed rate liabilities would largely offset each other. Similarly, so would the matched part of the CU15 million of one-month variable rate liabilities against the variable rate

assets. However, the overall profit available for distribution to equity holders would be sensitive to changes in interest rates, because of the interest revenue from the unmatched variable rate assets (ie the remaining CU25 million of assets).

9. Accordingly, many entities are of the view that the equity used to fund the designated assets, should be included in the DRM model so that they could mitigate the variability in future net interest income by designating a five-year vanilla receive-fixed, pay-variable interest rate swap with a notional of CU25 million, to provide the protection needed in case interest rates change in the future.

10. On the other hand, some other entities notionally determine a base return on their own equity similar to interest and try to facilitate the attainment of this target base return as part of their dynamic interest rate risk management. As a result, these entities include *all* the entity's equity (regardless of whether equity is used as a funding source of the designated assets) as fixed interest rate risk exposures at the target base return they try to achieve.

11. While the amount managed is based on the actual equity an entity has, the maturity profile of equity is determined based on the entity's risk management strategy. Although laddering strategies are commonly applied to manage the effect of changes in interest rate over time when the designated assets are funded by equity, these entities still create the 'replicating portfolio' based on all the entity's equity, without considering the amount of assets funded by equity.[1]

Feedback from stakeholders

12. The 2014 DP considered whether equity should be eligible for inclusion in the Portfolio Revaluation Approach (PRA) and included detailed discussion on the justifications and potential implications.[2] The IASB asked stakeholders specifically about whether EMB should be included in the PRA model if it is considered by an entity as part of its dynamic risk management.

13. Feedback was mixed at the time. Some respondents supported the inclusion and stated the following reasons[3]:

[1] Laddering strategies are widely applied to smooth the impact of changes in market interest rate that would have on an entity's net interest income, by spreading out the target repricing dates of the underlying items over the managed time horizon. See paragraph 41 to 48 of Agenda Paper 4B of March 2018 IASB meeting.
[2] See section 3.3 and A1 of the 2014 DP
[3] See paragraph 53–56 of Agenda Paper 4B for February 2015 IASB meeting.

(a) the inclusion of equity helps to achieve the objective of the DRM project to better reflect the effect of an entity's dynamic risk management activities;

(b) with regulatory changes and increasing capital requirements in the banking industry, equity is a significant source of funding for banks. Allowing the inclusion of equity captures the overall interest rate variability more faithfully and avoids the need for proxy hedging; and

(c) inclusion of equity is similar to the inclusion of core demand deposits that an entity needs to determine the risk profile of the investments (eg loans) that are funded with non-interest bearing instruments with indefinite terms.

14. In contrast, there were also views against the inclusion of equity for the reasons listed below:

(a) inclusion of equity is inconsistent with the general hedge accounting requirements in IFRS 9, and cash flow hedge accounting applied to variable rate assets already appropriately reflects the DRM activities for EMB;

(b) acceptance of EMB would mean a departure from the *Conceptual Framework*, where equity is defined as the residual interest in the assets of the entity after deducting its liabilities; and

(c) the targeted base return is different to interest as the entity has no contractual obligation to compensate equity holders for providing funds to an entity.

15. Despite the mixed feedback, many of the preparers (in particular banks) continue to include equity in their risk management strategy, with the aim to stabilise and/or reduce volatility in net interest income for a specified time horizon. The actual practices in defining and modelling equity and the accounting treatment of the derivatives used to manage the deemed interest rate risk in equity, differ between entities.

16. Many of the approaches can be found in Agenda Paper 5 for March 2017 Accounting Standards Advisory Forum (ASAF), relating to the findings from EFRAG's 2016 outreach on how banks manage interest rate risk. That paper also acknowledged that although modelling of equity leads to hedging equity, what is actually being hedged is a net position of interest income and expenses resulting from the financial assets and their funding instruments, including equity.[4]

[4] See page 45 of AP5: Findings from EFRAG's 2016 outreach.

17. The general feedback suggests that for accounting purposes, most entities rely on hedge accounting to eliminate the volatility in the profit or loss caused by the derivatives' fair value changes. However, since equity is not an eligible hedged item applying the hedge accounting requirements in IFRS 9 or IAS 39, entities have developed accounting approaches to manage the profit or loss volatility from the receive-fixed, pay-variable derivatives (used for hedging equity) through the use of proxy hedge accounting. Some entities choose to designate variable rate assets against these derivatives to form a cash flow hedging relationship, while other entities choose to intentionally reduce the extent of fair value hedge accounting of the fixed rate assets so that the remaining pay-fixed, receive-variable derivatives could provide a natural offset. Regardless of the methods applied, this has led to a disconnect between the risk management view and the accounting view.

18. When the DRM core model was developed, the IASB tentatively decided in December 2017 that the inclusion of equity as a source of funding for the target profile would be considered in the second phase of the project, after a feasible core model has been identified.[5]

19. Nevertheless, this topic was raised frequently during the 2020 outreach with preparers. Many participants encouraged the IASB to consider extending the scope of qualifying positions to be designated in the DRM model, for instance, to include the 'deemed' interest rate risk exposures in equity. In their view, these interest rate risk exposures are quantitatively important elements of their interest rate risk exposure and risk management strategy.

20. Some preparers argued that because the objective of the DRM model is to better reflect the effect of risk management activities, equity should be eligible for designation in the DRM model to the extent that an entity uses equity as a source of funding for financial assets consistent with its interest risk management strategy. In addition to faithfully reflecting the entity's risk management activities, it may also improve transparency to users of financial statements about an entity's overall variability to net interest income before and after the dynamic interest rate risk management activities.

21. The IASB also sought views and comments from the members of the ASAF at its meeting in July 2022, about whether equity should be eligible for designation in the DRM model. The feedback is documented in the July 2022 ASAF meeting summary. Some members expressed concerns about including equity and said it should not be eligible given the significant distinction between the nature of the rights and obligations of a liability and that of equity, but

[5] See paragraph 8 of Agenda Paper 4 for December 2017 IASB meeting.

some others also mentioned that the distinction between debt and equity is an accounting convention, which may not be considered by risk managers when making decisions. Despite ASAF members' acknowledgement of the conceptual challenges in identifying interest rate risk exposures from equity, most members supported the inclusion of equity as long as it is used as source of funding in line with the entity's risk management strategy. This is consistent with the feedback from preparers described in paragraph 20.

Staff analysis

22. Considering the objective of the DRM model is to better reflect the effect of dynamic interest rate risk management activities in financial statements, in our view, including all equity of an entity in the DRM model could not be justified. This is because, from an accounting point of view, equity is defined as the residual interest in the assets of the entity after deducting all its liabilities in the *Conceptual Framework*.[6] Furthermore, the economic reality is that equity in itself typically does not have a direct exposure to changes in interest rates.

23. During the 2020 outreach, most participants referred to equity for interest rate risk management purposes as the difference between the designated assets and liabilities (including core demand deposits), instead of all equity it holds. In essence, these entities are effectively managing the variability in net interest income from designated assets that are funded by equity.

24. In our view, consideration on whether equity representing the funding gap between the assets and liabilities should be eligible for designation in the DRM model, requires an analysis of whether equity is exposed to variability in economic value and/or net interest income when market interest rates change.

Does equity give rise to variability in economic values?

25. Managing the variability in economic values from an entity's assets and liabilities is an important consideration when setting the entity's risk management strategy. The fair value of assets and liabilities would fluctuate partially due to changes in benchmark interest rates. This has become more important following the financial crisis, as a large exposure to the variability in economic value may lead to increased regulatory capital requirements for banks. To

[6] See paragraph 4.63 of *Conceptual Framework*.

calculate the economic value of equity (EVE), an entity takes the present value of all asset cash flows and subtracts the present value of all liability cash flows.

26. Entities use interest rate derivatives to provide the 'protection/offset' to the changes in the fair value of their assets, liabilities and future transactions. For example, when an entity has a five-year fixed rate asset funded by a one-month variable rate liability, any changes in benchmark interest rates would impact the fair value of the fixed rate asset, while the variable rate liability would consistently stay at par.[7] In this case, a pay fixed receive one-month variable rate swap would provide the offset in fair value, so that the combined economic value from the asset, liability and derivative would be stable regardless of changes in interest rates.

27. If equity (used as a source of funding) was deemed to be a fixed rate liability and was designated in the DRM model accordingly, it would imply that equity gives rise to variability in economic value in the same way as a genuine fixed rate liability would when interest rates change. However, it is unclear how such exposures to the variability in economic value exist in the underlying economic phenomenon.

28. For example, if an entity uses its equity to fund variable rate assets, any changes in interest rate would not change the fair value of the variable rate asset (ie the fair value attributable to interest rate risk), which would stay close to the par value.[8] On the other hand, since equity is defined as the residual interest in the assets of the entity (which does not change in fair value in this example when benchmark interest rates change) after deducting all its liabilities (which is nil in this example), the value of equity must also stay unchanged when benchmark interest rates change in the market. Therefore, economically there would be no variability in economic value for the entity to mitigate in this case, and hence including equity as a 'deemed' fixed rate liability may not faithfully represent the economic phenomenon.[9] In our view, unlike a fixed rate liability, equity does not give rise to variability in economic value due to changes in benchmark interest rates. In the absence of such exposure to variability in economic value it is difficult to justify the use of derivatives to mitigate interest rate risk.

29. In fact, by trading a receive-fixed, pay-variable vanilla swap the entity *creates* exposure to EVE as the fair value of the swap will fluctuate over time (and hence affects the overall residual value of the entity).

[7] This is under the assumption that the instruments are measured on the reset date in a single curve environment.
[8] When we only consider the impact from interest rates change and ignore changes in other risks (such as credit or liquidity).
[9] We acknowledge that in this example the entity is still subject to variability in its future net interest income, but such changes will not have direct impact to the economic values.

30. Similarly, if an entity uses equity to fund fixed rate assets, the entity as a whole would have variability in economic value when interest rates change (caused by the fixed rate assets). However, this would not be accurately represented if equity was included in the DRM model as a 'deemed' fixed rate position, because the PV01 from the fixed rate assets would offset with the PV01 from this 'deemed' fixed rate position (ie equity).[10]

31. Although some stakeholders are of the view that including equity is similar to including core demand deposits (as both are non-interest bearing), in our view there is a significant difference. This is because from an economic perspective, the fair value of a portfolio of core demand deposits would change when benchmark interest rates change (when customer behaviour is taken into consideration).[11] In contrast, when interest rates change, there may not be meaningful corresponding change in the fair value of equity.

32. We are therefore of the view that including equity as a 'deemed' fixed rate liability does not represent the actual variability in economic value, as the variability in economic value of equity would be driven by the fixed rate assets funded by equity rather than the equity itself.

Does equity give rise to variability in net interest income?

33. As discussed in paragraph 6 of this paper, there is no direct effect on interest expense when funding is provided by equity. Any distribution of dividends or repayment of capital is recognised in the statement of changes in equity. As a result, equity in itself does not directly give rise to variability in an entity's net interest income.

34. However, since equity is usually 'sticky' and not affected by changes in benchmark interest rates, they could provide entities with stable long-term funding at effectively a fixed interest expense of nil (ie 0%). Naturally, to the extent that an entity uses equity to fund its designated assets, the overall variability in the entity's net interest income (ie interest income from assets minus interest expenses from liabilities) is determined by the portion of assets funded by equity. Equally, only the portion of equity used to fund the variable rate assets would give rise to repricing risk.

[10] This is under the assumption that the maturity of the assets is matched through the modelling of equity.
[11] Although core demand deposits are contractually repayable on request of the deposit holder (on demand), in practice, customers keep these deposits with their banks for a longer period regardless of changes in interest rate. This means when considered on a portfolio basis according to the expected (rather than contractual) repayment dates, the economic value of core demand deposits may not always agree to the par value.

35. Therefore, any derivatives traded for the excess equity over the variable rate assets cannot be considered as mitigating interest rate risk inherent in the underlying positions of the entity, but instead would have an objective to increase overall earnings through synthetic risk positions.[12]

36. Using the example in paragraph 7 of this paper, if the equity of CU25 million is used to finance the one-month variable interest rate asset, the overall net interest income would fluctuate based on the one-month variable interest rate the asset could generate. The lower the one-month benchmark interest rate was, the lower the net interest income the entity would generate, and vice versa. Given this variability in net interest income, an entity may choose to use receive-fixed, pay-variable interest rate swaps for risk mitigation purposes, and then use the DRM model to reflect the effect of this risk management action accordingly.

37. As a result, in our view, when entities include and model equity as part of their interest rate risk management activities, they are in essence using equity as a proxy (or practical expedient) to determine the variability in net interest income caused by the variable rate assets in excess of liabilities. In other words, when all interest-generating assets and interest-bearing liabilities are designated in the DRM model, an entity would have already captured all the variability in net interest income. We are therefore of the view that it would not be necessary to include equity as a 'deemed' fixed rate liability.[13]

38. We acknowledge that if an entity uses equity to fund part of the designated assets, excluding equity from designation in the DRM model while including the assets, would lead to notional misalignment. As a result, we will discuss whether notional alignment still needs to be required in the DRM model in Agenda Paper 4B of this meeting.

Preliminary staff view

39. In conclusion, for the reasons described in paragraph 25 to 38 of this paper, when used as a source of funding for designated assets, equity in itself does not give rise to variability in either economic value or net interest income. The impact on the overall interest rate risk exposure is determined by the characteristics of the designated assets (that are funded by equity) instead. If the assets have fixed interest rates, the entity will have variability in economic values, while if the assets have variable interest rates, the entity will have variability in net interest income.

[12] In this context, excess equity refers to a situation where an entity has more interest-bearing liabilities than interest-generating assets, and thus equity is not used to provide funding for interest-generating assets.

[13] Using the example in paragraph 7 of this paper again, the entity may include the CU 60 of 5-year fixed assets, CU 60 of 5-year fixed liabilities, CU 40 of 1-month variable assets, and CU 15 of 1-month variable liabilities. After considering the offsetting positions, the current net open risk position would have no variability in EVE (in PV01 terms), but have variability in future net interest income based on CU 25 of notional, same as the equity.

40. Said differently, the current net open risk position in the DRM model is determined by including all eligible assets and liabilities and future transactions, which would give rise to all the variability in net interest income and/or economic value when the benchmark interest rates change. Including equity as a ‘deemed’ fixed rate liability in the DRM model would not faithfully represent the actual variability in EVE.

41. Therefore, in our view designating equity is not necessary in the DRM model in order to reflect the actual repricing risk exposures, and the staff do not recommend the IASB to include equity as an eligible item in the DRM model.

Question for the IASB

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Does the IASB agree with the staff recommendation set out in paragraph 41 of this paper?