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**International  
Accounting Standards  
Board**

*This document is provided as a convenience to observers at IASB meetings, to assist them in following the Board's discussion. It does not represent an official position of the IASB. Board positions are set out in Standards.*

*These notes are based on the staff papers prepared for the IASB. Paragraph numbers correspond to paragraph numbers used in the IASB papers. However, because these notes are less detailed, some paragraph numbers are not used.*

### **INFORMATION FOR OBSERVERS**

**Board Meeting:** 13 December 2006, London

**Project:** Financial Instruments

**Topic:** Interest Margin Hedging (Agenda Paper 9)

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### **OVERVIEW OF PAPERS**

1. This paper contains a summary note regarding the proposed alternative hedge accounting model received from the European Banking Federation (FBE). This proposed model will be presented by the FBE at the December IASB education session.
2. Paper 9A is the FBE's presentation on interest margin hedging.
3. Paper 9B contains the FBE's detailed guide to the proposed model that is referenced in the summary paper. We include the detailed guide as part of this set of papers for the convenience of Board members.
4. Paper 9C is a background paper prepared by the staff that, amongst other things, discusses a number of key issues and concerns identified by the staff and certain

Board members during prior discussions with the FBE that we believe have not been satisfactorily answered.

## INTEREST MARGIN HEDGE PROPOSAL

- Overview -

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### Background of the Proposal

The IASB and FBE have for some time been engaged in a dialogue on the need to revise the hedging rules contained in IAS 39. In the run up to the first time adoption of IFRS, these discussions culminated in the IASB incorporating within IAS 39 an ability to apply fair value hedge accounting for a portfolio hedge of interest rate risk. The outcome was, however, not satisfactory for the European banking industry because the amendments made led to the exclusion of core deposits and an unduly complicated treatment of prepayments.

As a result of meetings of a High Level Expert Group established in early 2004 by the European Commission including representatives from the IASB and bank regulators, FBE undertook the development of proposals on Interest Margin Hedging (IMH), i.e. a possible third hedging approach - next to the Cash-flow Hedging and Fair Value Hedging Models – which would have a better resonance with the underlying objectives of banks' risk management processes and overcome the problems of core deposits and prepayments. Following the first presentation in 2004, various working meetings with representatives of IASB have led to several amendments and submissions in an attempt to answer the IASB's questions and address their concerns.

As a result, FBE has described the current stage of its proposed model in a two part document. The first part is intended as an introduction to the topic and discussion at a high level. The second part is a more detailed guide into the technical characteristics of the proposal and provides many illustrations as to how it could work in practice.<sup>1</sup>

The following is an overview of the key attributes of the interest margin hedge proposal.

### The Concept of “(Net) Interest Margin”

In the normal course of business Banks pay interest to remunerate funds they collect and collect interest payments from their investments (including loans). The difference between interest received (income) and interest paid (expense) is termed “net interest income”.

The net interest margin, derived from net interest income, is a key performance indicator of the profitability of a bank, commented on in every bank's management discussion and analysis year by year and watched by an increasing number of industry observers (amongst which are banking regulators and analysts). It is also observed and compared as a general business indicator by others. Furthermore, the net interest margin has become a primary tool of managing and monitoring a bank's business in detail.

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a.i.s.b.l. <sup>1</sup> The paper can be downloaded from the EBF Website (([www.ebf-fbe.eu](http://www.ebf-fbe.eu) - click on “Documents”)

A bank's net interest margin is susceptible to interest rate changes, depending on the composition of its balance sheet.

In some instances no risk will exist such as,

- When funds borrowed (liabilities) and funds invested (assets) are both at a fixed interest rate, and have the same maturity and amount, the interest margin is not exposed to interest rate risk.
- The same is true when floating rate assets match floating rate liabilities with the same repricing date and amount.

However these situations do not normally exist in practice.

The interest margin is at risk only when there is an asset/liability mismatch, i.e. when the two key components of the banking book's earnings - interest income and interest expense – do not fall under the same rate basis (i.e. fixed or variable), i.e. the respective assets and liabilities do not have the same re-pricing dates. The key feature of the IMH is the balanced view it takes of a portfolio instead of a single view focusing on either assets or liabilities. The risk, the exposure to variability for an IMH can only arise from an asset/liability mismatch, the combination of a variable rate asset and a fixed rate liability (or vice versa).

Banks monitor and manage this risk through their Asset-Liability-Management (ALM) or Market Risk Management (MRM) function taking a portfolio view of assets and liabilities. By combining fixed rate assets and fixed rate liabilities in a portfolio, analysing them by their repricing dates ("time buckets"), ALM/MRM firstly determine the amount of mismatch between assets and liabilities of the same repricing dates. This process highlights the natural offset where one fixed rate item (or group) is balanced by an opposite fixed rate item (or group). Any excess of fixed rate items on either side of the portfolio represents the mismatch ("gap"). It indicates current funding or investment in existing floating rate items and/or the need for respective future transactions for funding or investment. The existing floating rate items and/or the required future transactions that will eliminate or close the gap are the target of the hedging activity, the designated hedged items.

### **Objective and designated risk of the IMH**

In terms of managing the overall net interest margin Banks split interest rates into their component parts of credit risk and interest rate risk and manage both separately. The interest margin hedge is associated solely with the latter risk. Only that part of a contractual interest rate that corresponds to interest rate risk (often referred to as the benchmark<sup>2</sup> component of the contractual rate) is designated as the hedged risk, leaving the part that has to cover credit risk and operational costs out of designation.

The objective of Interest Margin Hedging is to reduce interest margin volatility by reducing the exposure from the asset/liability mismatch and fixing the margin by securing today's<sup>3</sup> interest rate levels for the current existing floating rate items as well as for future transactions that will eliminate or close the gap. Thus, the hedging activity covers two scenarios:

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<sup>2</sup> Benchmark rates are derived from the Libor based swap yield curve, as swaps against Libor are the commonly used hedging instrument.

<sup>3</sup> i.e. market rate at time of inception of the hedge

- 1), where the items to be designated as hedged are existing floating rate assets or liabilities, and
- 2), where the gaps occur in future periods and the items to be designated as hedged are future transactions that will fill the gaps.

It is this 2<sup>nd</sup> scenario of the IMH that generates the challenge in respect of how to fulfil hedge accounting requirements.

The existence of a gap is clear from the analysis performed. The 'future transaction'<sup>4</sup> is not only highly probable, it is actually certain: the gap will lead to a future transaction, as the bank's balance sheet is always to be balanced in liquidity on value dates. However, the contractual terms of the future transaction regarding the rate basis (fixed or floating) are unknown because they are primarily driven by customer demand. Nevertheless, for both, the objective is to secure the appropriate interest rate level today for the future period in question.

It is a hedge of the risk of changes in the yield-curve rates from today, i.e. when the gap is determined and a hedge initiated, to the date the future transaction is originated or issued. Whether this future transaction turns out to be a fixed-rate or a floating rate item, the objective of the hedge is the same: "to obtain the forward coupon rate that existed at the inception of the hedge".<sup>5</sup>

For both, the same form of derivative can achieve the hedge objective, however, depending on the term the future transaction will have, different actions are required to ensure that the gains and losses on the hedging derivatives occur in the same periods as the interest or expenses of the hedged transactions.

### Steps in the Hedge Designation Process

Banks worldwide have developed similar techniques to identify asset/liability mismatches ("gaps"). Initially they define future re-pricing time periods ("time buckets") into which they allocate fixed-rate assets and fixed-rate liabilities with their outstanding (notional) amounts. As a result, assets and liabilities of the same repricing dates will appear in the same time bucket. This makes it easy to detect a mismatch when there are assets and liabilities of different maturities: they will appear in different time buckets. In addition a second mismatch is also easily detectable, i.e. the mismatch between different amounts of assets and liabilities within the same time bucket.

The steps in the designation process can be summarised as follows:

- the entity identifies a portfolio of fixed rate financial instruments, i.e. assets and liabilities, of which it wishes to hedge the interest rate margin;
- the entity slices the portfolio into time periods of the same repricing dates to analyse the exposure of the portfolio to variability of the interest rates by identifying a net open position of a specified gap, i.e. an excess notional amount of fixed-rate items on one side per specified period;
- the entity identifies existing variable rate items that currently fill the gap and/or future transactions that will fill the gap and designates them by notional amounts for their interest cash flows to be the hedged items;

<sup>4</sup> We use the term 'future transaction' as a working term, because it is a forecast transaction that differs from today's use of the term not in probability of occurrence but in certainty about its characteristics

<sup>5</sup> as described in IG F.5.5

- the entity designates a part of the contractual interest rate that corresponds to interest rate risk (often referred to as the benchmark component of the contractual rate) as the risk which it is hedging;
- the entity designates one or more hedging instruments for each specified period of rate mismatch.

### **Integration of expected repricing behaviour**

For some fixed rate items to be included in the portfolio, the contractual maturity on an individual basis can be very different from the expected maturity on a portfolio basis. As a consequence, such items need to be modelled to reflect their true economic effect on interest rate risk management. They are therefore included based on their behavioralized repricing dates (which are based on statistical observations of customer behaviour) rather than their contractual repricing dates. These types of contracts include fixed rate prepayable loans and core deposits.

#### Core Deposits

Within the framework of the proposed IMH model, core deposits are included in the methodology as fixed rate items for the time to their estimated expected maturity which results from historical statistical data used in empirical models. They are treated as fixed-rate items and are used to determine the gap, i.e. the existing variable rate items or the unknown future transactions that will have to fill the gap. Thus, core deposits are not subject of the hedge themselves; they are never a *designated* hedged item; they are just a tool to determine the amount of hedged items that fill or will have to fill the gap.

The core deposits qualify as fixed rate items in an IMH because they create a margin that is subject to variability when invested at variable rates. Even though zero cost demand deposits do not have a cash flow exposure and the bank does not remunerate them, these deposits are treated as fixed rate items because a zero rate is also a fixed rate.

Core deposits are included in the IMH methodology as fixed rate deposits available with the notional level and for the specific time period that resulted from the analysis of statistical historical observations used in the empirical models to estimate their expected maturity. For periods later than their assumed availability, they are deemed to be newly issued. Based on proven experience - these 'newly issued' core deposits are considered as funding newly originated fixed rate assets in those periods. Therefore, for gap measurement on a static basis, these new deposits are not included in the current state of the time buckets, just like any other new production of loans or bonds that can eventually be issued or originated.

### **Testing for Hedge Effectiveness**

Effectiveness testing needs to be performed in the light of the objectives of the hedging policy.

Within the current IAS 39 framework hedge effectiveness is the degree to which offsetting changes in fair values or cash flows attributable to a hedged risk are achieved by the hedging instrument(s). Though it is not the objective of an IMH to either protect the fair value of the asset or offset the fair value change of one cash flow, this effectiveness definition is not incompatible with the IMH hedging objective. Effectiveness for an IMH can

only be tested by comparing the variability of the specified period's margin before and after the offsetting cash flows of the hedging instrument. An IMH is effective when it can be demonstrated that the offsetting cash flows of the derivative have reduced the interest margin volatility: this is the case when the swap's cash flows value changes offset, during the hedging period and over the hedged period, the changes in the designated portion of cash flows of the future transactions that will fill the gap.

As mentioned, the IMH portfolio is analysed into specified time periods of the same repricing dates of the items included. This enables a Bank to ensure that ineffectiveness is measured in a manner that one would derive from differences in the dates of repricing, the same way as for normal cash flow hedges, i.e. they get tested for proximity of cash flow dates.

This leaves a possible other source of ineffectiveness, differences in notional amounts between hedged items and hedging instrument. However, partial hedging will still reduce the variability of the interest margin, implying that under-hedging will not lead to ineffectiveness (assuming that other relevant criteria, particularly concerning the maturity and proximity of cash flow dates are met). This consequence should not be interpreted as a relaxation of the IAS 39 hedge effectiveness rules as it naturally follows from the fact that within the framework of the IMH model any hedging of less than the full amount of the gap reduces an existing gap and, therefore, fulfils the hedging objective as it leads to less volatility in the net interest margin. Therefore the only reason for ineffectiveness within the IMH framework is over-hedging which might occur at a later stage due to realized prepayments or the re-scheduling of either prepayable assets or core deposits. Both those events could lead to a situation where the bank's hedging instruments are no longer reducing the volatility in interest margin.

Therefore, it is necessary to track the initially hedged items and hedging instruments for ongoing effectiveness. The methods proposed for testing ineffectiveness in light of the different methods in use for interest risk management are described in general in Part One and in detail in Part Two of our document.<sup>6</sup>

If ineffectiveness exists the current market value of the ineffective (part of the) derivative has to be booked through the profit and loss account in full.

### **Why can the existing hedge accounting requirements not be used?**

Neither cash flow hedging nor fair value hedging appropriately reflect the hedging transactions which banks undertake when managing interest rate risk as they both assume that either assets or liabilities are being hedged whereas banks hedge on a net basis to protect interest margins, that derive from cash flows of both assets and liabilities. Moreover, these hedge models do not permit either the integration of core deposits in the hedging portfolio or to include them in the portfolio in a way which is consistent with banks' risk management practices.

On the other hand, Cash Flow Hedging and Interest Margin Hedging have some similarity. Within the framework of Cash Flow Hedging, hedge effectiveness is defined as "*the degree to which changes in cash flows of the hedged item that are attributable to a hedged risk are offset by changes in cash flows of the hedging instrument.*" Therefore, the focus is

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<sup>6</sup> See Fn. 1

on the offset of the changes, not just offset of cash flows. Offsetting of changes in cash flows requires offsetting of repricings. Therefore, IMH and CFH are similar insofar as they generate offsetting repricings which eliminate exposure to variability in cash flows. In principle, therefore, Cash Flow Hedging could be used to account for Interest Margin Hedging.

Unfortunately, however, the interpretation of IAS 39 in its application and implementation guidance, does not permit the banks' hedging needs as described in the IMH.

If designation for a CFH concerns a forecast transaction, IAS 39 requires the forecast transaction to be highly probable. That in itself would not be an issue as the future transactions designated in an IMH are more than probable, they are certain. But, current interpretations require that the characteristics of the future transaction has to be known with quite some detail so "that when the transaction occurs, it is clear whether the transaction is or is not the hedged transaction."<sup>7</sup> As explained above (page 3), the future transaction to be issued or originated could be either, a fixed-rate instrument or a floating-rate instrument, as those transactions will be driven by customer demands; for both cases the identical derivative could fulfil the objective of the hedge i.e. securing today's<sup>8</sup> interest rate levels for the specified gap. Current interpretations require banks to take a bet on which kind of transaction will occur, fixed or float, and with specified maturity and value date.

This conflicts with banks' current risk management practices which only identify and manage exposures that arise in the balance sheet at the date of the inception of the hedge, without assuming specific characteristics of future transactions that cannot reasonably be assumed.

Therefore, as IAS 39 is interpreted today, an IMH cannot be designated as a CFH.

Finally, the methodology described in IG F.6.2 to IAS 39 is of help only to those institutions that have a sufficient level of variable items in their balance sheet. Unfortunately, this is not the case for a large number of European, in particular retail and savings banks.

As a result, within the current accounting framework many banks feel uncomfortable about not being able to designate hedged items in a way that corresponds to the designation processes used within the framework of their own risk management practices. As such designations are being done for accounting purposes only they oblige banks to establish two separate reporting systems which are, moreover, difficult to reconcile.

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<sup>7</sup> IG F3.10

<sup>8</sup> i.e. market rate at time of inception of the hedge