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International
Accounting Standards
Board

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

INFORMATION FOR OBSERVERS

IFRIC meeting: March 2006, London

Project: IAS 39 *Financial Instruments: Recognition and Measurement* – Hedging Inflation Risk – Whether inflation risk qualifies as a separable component for hedging purposes (Agenda Paper 12)

Purpose of the paper

1. The purpose of this document is to discuss whether inflation qualifies as a risk associated with a portion of the fair value or cash flows of an interest bearing financial asset or an interest bearing financial liability in terms of IAS 39 Par 81.
2. If inflation risk qualifies as a risk associated with a portion of the fair value or cash flows of an interest bearing financial asset or an interest bearing financial liability then it would be possible to hedge interest bearing financial assets and financial liabilities with respect to inflation risk.

Background

3. In some countries, such as the United Kingdom and Canada, markets for both cash and derivative inflation products are developed and liquid. In these markets expectations of future ‘benchmark’ inflation rates (such as the retail price index [RPI] in the UK) are traded.
4. Cash products include inflation-linked bonds. These bonds pay coupons based on a fixed ‘real interest rate’ component determined up-front and a variable amount being the ‘realised inflation’ at a coupon date. Inflation-linked bonds are otherwise similar

to ordinary bonds in that there is a fixed term, fixed coupon payment dates and coupon payments are determined based on the size of the notional amount.

5. Inflation-linked swaps allow entities to swap inflation-linked payments for fixed payments, and vice versa. Therefore an entity could, for example, swap fixed payments for inflation-linked payments over a predetermined period, effectively creating an inflation-linked borrowing¹. An entity may wish to do this because, for example, it has inflation-linked revenue streams.
6. Actual (or 'realised') inflation is periodically calculated based on the prices of hundreds of goods and services - from basic items like bread to new products, such as PCs based on the prices in supermarkets, petrol stations, travel agents, insurance companies and many other places.

Summary of paper

Guidance in IAS 39 and possible interpretations of 'portions'

7. There is little guidance in IAS 39 on what is meant by a portion of a hedged item. IAS 39 Par 81 states:

If the hedged item is a financial asset or financial liability, it may be a hedged item with respect to the risks associated with only a portion of its cash flows or fair value (such as one or more selected contractual cash flows or portions of them or a percentage of the fair value) provided that effectiveness can be measured...

8. Paragraph AG99C of IAS 39 clearly states that designated portions must be less than the total cash flows of the hedged asset or liability.
9. Because of this limited guidance, there are significantly different interpretations as to what is meant by a qualifying 'portion', ranging from:
 - a) The hedged portion may be anything at all, provided it is smaller than the total exposure on the asset or liability, to
 - b) Changes in the price of a portion of a financial asset should cause a predictable, separately measurable economic effect on the price of the overall financial asset or financial liability in a manner which is comparable to the effect of a change in market interest rates on the price of a bond.

¹ An entity, which has issued a fixed rate bond, would receive fixed payments under the swap and pay away an inflation-linked rate.

10. In addition the staff is aware of at least two other questions which may be included on the IFRIC Agenda relating to the interpretation of what an eligible portion is for hedge accounting purposes.

11. This question is not easily resolved. For example in March 2004 the IASB Update stated:

...The Board revisited the tentative decisions it made at the February 2004 meeting that would clarify three matters in relation to designating a portion of a financial asset or financial liability as the hedged item. In particular it discussed whether a designated portion need have some relationship to the instrument being hedged and, if so, how close that relationship should be. The Board decided it could not resolve this issue in the time available (ie before the amendments to IAS 39 are issued later this month) and that the issue would be best addressed in conjunction with the FASB, with the aim of reducing differences between IAS 39 and the equivalent US Standard (FAS 133 Accounting for Derivative Instruments and Hedging Activities)....[emphasis added]

12. As mentioned above, the purpose of this document is to discuss whether inflation qualifies as a risk associated with a portion of the fair value or cash flows of an interest bearing financial asset or an interest bearing financial liability in terms of IAS 39 Par 81.

13. In this document we consider different interpretations of portions in terms of guidance in IAS 39. Arguably the most important guidance is provided in the second half of IAS 39 Par 81

For example, an identifiable and separately measurable portion of the interest rate exposure of an interest-bearing asset or interest-bearing liability may be designated as the hedged risk (such as a risk-free interest rate or benchmark interest rate component of the total interest rate exposure of a hedged financial instrument).

14. From this paragraph two important questions arise:

- a) What is meant by ‘an identifiable and separately measurable portion’ of the interest rate exposure of an interest-bearing asset or interest-bearing liability, and
- b) In what way is inflation similar to risk-free or benchmark interest rates?

15. A secondary source of guidance is from IAS 39 Par 82 (dealing with the hedges of non-financial items), which states that *‘if the hedged item is a non-financial asset or non-financial liability that it shall be designated as a hedged item (a) for foreign currency risks, or (b) in its entirety for all risks, **because of the difficulty of isolating and measuring the appropriate portion of the cash flows or fair value changes attributable to specific risks other than foreign currency risks**’.*[emphasis added]

The meaning of identifiable and separately measurable and paragraph AG 100

16. It is difficult to determine what is envisaged by IAS 39 Par 81 by ‘an identifiable and separately measurable portion’ of the interest rate exposure of an interest-bearing asset or interest-bearing liability.
17. One interpretation of what may have been meant by an ‘identifiable and separately measurable portion’ can be seen in IAS 39 AG 100:

*Changes in the price of an ingredient or component of a non-financial asset or non-financial liability generally do not **have a predictable, separately measurable effect on the price of the item that is comparable to the effect of, say, a change in market interest rates on the price of a bond**. Thus, a non-financial asset or non-financial liability is a hedged item only in its entirety or for foreign exchange risk...[Emphasis added]*

18. Although AG 100 provides guidance in respect of non-financial items it is clear that the example provided is the same as the examples in IAS 39 Par 81 for financial items i.e. the effect of risk-free/ benchmark interest rates on interest bearing bonds. This could relate to the possible different meanings of portions (as set out in paragraph 9 above), in that:

- a) It is only necessary to be able to identify and separately measure, for example through actively traded markets, a particular risk associated with a portion of the interest rate exposure of an interest-bearing asset or interest-bearing liability, or
- b) It is necessary that a change in a risk associated with a portion of the interest rate exposure of an interest-bearing asset or interest-bearing liability should have an identifiable (i.e. predictable) and separately measurable effect on the value of the item that is comparable to the effect of, say, a change in market interest rates on the price of a bond.

How do benchmark interest rates and inflation compare?

19. Due to the importance of the analogy in IAS 39 Par 81 and AG 100 in respect of the effects of interest rates on the price a bond, we compare the effects which benchmark interest rates and inflation have on the cash flows or fair value of interest-bearing financial assets and financial liabilities i.e. how do benchmark interest rate and inflation rates impact nominal interest rates?
20. In particular we consider whether:
- a) Inflation has a predictable, separately measurable effect on nominal interest rates which is comparable to the effects of benchmark interest rates on nominal interest rates,
 - b) Inflation is correlated with nominal interest rates which is comparable to the correlation of benchmark interest rates on nominal interest rates, and
 - c) The factors which affect inflation and real interest rates can be distinguished on a basis which is comparable to the factors which affect benchmark interest rates and credit spreads i.e. is it possible to verify that the sum of portions equal the whole.

Hedge effectiveness

21. IAS 39 Par 81 states that hedge effectiveness should be measurable in respect of a risk associated with a portion of the fair value or cash flows of a financial asset or financial liability. In this paper we conclude that the measurement of ineffectiveness in respect of inflation risk is comparable to the measurement of effectiveness in respect of risk-free or benchmark interest rates, which are provided as examples in IAS 39 Par 81. The reason for this similarity in measuring effectiveness lies in the common highly traded liquid markets. As a result we consider that the primary test in IAS 39 Par 81, assuming that inflation is actively traded, relates to whether a particular risk qualifies as a risk associated with a *portion* of the fair values or cash flows of a hedged financial item.

Relationship with embedded derivatives

22. IAS 39 Par 11 states that an embedded derivative should be separated when the economic characteristics and risks of the embedded derivative are not *closely related* to the host contract. The IFRIC has also been asked whether an inflation embedded derivative should be separated from a bond which makes coupon payments that are indexed to inflation ('inflation-linked bond')

23. We noted above two extreme definitions of a portion i.e. a hedged portion may be anything at all, provided it is smaller than the total exposure on the asset or liability, or that changes in the price of a portion of a financial asset should cause a predictable, separately measurable economic effect on the price of the overall financial asset or financial liability in a manner which is comparable to the effect of a change in market interest rates on the price of a bond.
24. If it is argued that a portion may be ‘anything at all’, then it appears from IAS 39 Par 81 that the main test for a qualifying portion is that it should be a ‘risk associated with the fair value or cash flows of the hedged item’. But, the test for embedded derivatives is whether an embedded derivative has a characteristic and risk which is closely related to the hedged item. This means in this case, because a portion may be ‘anything at all’, that we can infer a decision on hedgeable portions to a consistent decision on inflation embedded derivatives, and vice versa i.e. if it is assumed that a portion can be anything at all, this would mean that:
- a) If inflation has characteristics and risks which are closely related to a host debt contract, then intuitively such a risk should qualify as a risk associated with a portion of the fair value or cash flows of an interest bearing financial asset or an interest bearing financial liability in terms of IAS 39 Par 81.
 - b) Conversely if inflation does not qualify as a risk associated with a portion of the fair value or cash flows of an interest bearing financial asset or an interest bearing financial liability, then it appears unlikely that inflation would have characteristics and risks which are closely related to a host debt contract (and hence such embedded derivatives should be separated under IAS 39 if the other requirements of paragraph 11 are met).
25. Alternatively it may be maintained that what is meant by ‘closely related’ is not the same as a hedgeable portion. Consequently it may be possible that inflation has characteristics and risks which are closely related to host debt instruments and still not qualify ‘as a risk associated with a portion of the fair values or cash flows of the financial item’, and vice versa.

Order of Paper

26. In order to address the objective in the first paragraph, the rest of this paper (following the summary of the staff views) is organised as follows:
- a) Section A: What is an ‘identifiable and separately measurable portion of the interest rate exposure of an interest-bearing asset or interest-bearing liability’?

- b) Section B: How do benchmark interest rates and inflation compare?
- c) Section C: What are the implications if financial items can be hedged with respect to the risks of changes in prices of non-financial items?
- d) Section D: What does it mean to measure hedge effectiveness when a portion is hedged?
- e) Section E: Should an inflation embedded derivative be separated from an inflation-linked bond?

Staff view

27. On balance, the staff does not consider that inflation risk qualifies as a risk associated with a portion of the fair value or cash flows of an interest bearing financial asset or an interest bearing financial liability in terms of IAS 39 Par 81.

28. In coming to this view the staff noted the following:

- a) Credible arguments exist for both views due to the limited guidance in IAS 39;
- b) The examples given in IAS 39 in respect of risk-free and benchmark interest rates being portions of the total interest rate exposure of a hedged financial instrument are indicative of a predictable, separately measurable economic relationship; and
- c) IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* states that in the absence of a Standard or an Interpretation that specifically applies to a transaction, other event or condition, management shall use its judgement in developing and applying an accounting policy that results in information that is relevant to the economic decision-making needs of users.

29. *[Paragraph omitted]*

30. As a basis for their recommendation the staff compared the effects of benchmark (or risk-free) interest rates on nominal interest rates to the effects which inflation has on nominal interest rates:

- a) The effect of changes in expectations of inflation on interest rates is not predictable or separately measurable in the same way in which market interest rates affect the price of a bond. Furthermore the staff considers that arguments based on positive correlation in the long-term are insufficient to justify day-to-day changes in inflation being regarded as hedges of nominal interest rates.
- b) Inflation and nominal interest rates tend to affect each other, which indicates an interrelationship. Consequently, there is an interrelationship between inflation

and nominal interest rates which is not present between a benchmark interest rate and a hedged interest rate i.e. benchmark interest rates will affect a hedged interest rate, but it is unlikely that a hedged interest rate will influence benchmark interest rates. Therefore it may not be possible to assert that the entire change in expectation in inflation has an impact on a portion of interest rates when the interest rates themselves may already capture or have caused such change.

- c) If it is accepted that inflation is a portion of nominal interest rates, then real interest rates would also represent a qualifying portion. It is not clear to the staff that ‘real interest rates’ exist independent to particular inflation measures². This is not the case with risk-free or benchmark interest rates i.e. if it is accepted that a benchmark interest rate represents a portion of an interest rate, this would mean that the entity-specific credit spread (or the spread over the benchmark rate) would represent the remaining portion. Credit spreads, although influenced by the level of interest rates, are primarily affected by the ability of a specific debtor to make payment when due and are verifiable by credit models driven by the expectation of loss.

31. *[Paragraph omitted]*

32. Finally, the staff considered whether inflation embedded derivatives should be separated from inflation-linked bonds. The staff notes that, consistent with the main view, the tests for portions of financial items and embedded derivatives are distinct in that a portion of a financial item is a risk which causes an economic effect on the price of the overall financial asset or financial liability in a manner which is comparable to the effect of a change in market interest rates on the price of a bond, whereas the characteristics and risks of an embedded derivatives may be considered to be closely related to a host contract where inter-relationships exist. Consequently, the staff considers that in economic environments where interest rates are mainly set so as to meet inflation targets as evidenced by strong long-run correlation between nominal interest rates and inflation, that in such jurisdictions the characteristics and risks of the inflation embedded derivative are closely related to the host debt contract.

² The staff notes that real interest rates are actively traded. However, the staff does not believe that this, in itself, is sufficient when compared to the credit spreads in the context of benchmark or risk-free interest rates – see section B3.

Section A: What is an ‘identifiable and separately measurable portion of the interest rate exposure of an interest-bearing asset or interest-bearing liability’?

33. IAS 39 Par 81 states that an *identifiable and separately measurable portion of the interest rate exposure of an interest-bearing asset or interest-bearing liability may be designated as the hedged risk (such as a risk-free interest rate or benchmark interest rate component of the total interest rate exposure of a hedged financial instrument)*.
[Emphasis added]
34. In this section we consider whether inflation risk is an identifiable and separately measurable portion of the interest rate exposure of an interest-bearing asset or interest-bearing liability.
35. It has been argued that inflation is an identifiable portion of nominal interest rates because of the Fisher equation. The Fisher equation provides a relationship between nominal interest rates, real interest rates and inflation i.e. $(1 + \text{nominal interest rates}) = (1 + \text{real interest rates}) \times (1 + \text{inflation})$. Furthermore market practitioners have provided evidence that this relationship does indeed hold within the bounds of arbitrage and that inflation is separately traded.
36. The counter-argument to this argument considers that inflation is not an identifiable portion of nominal interest rates and that the Fisher equation is being used merely to define a hedged item. These people would argue that the Fisher equation provides a definition of an economic relationship between inflation and interest rates, but cannot be extended to say that inflation is an identifiable portion of nominal interest rates, or vice versa. Therefore imputing a portion of nominal interest rates in respect of inflation effectively creates cash flows which would not otherwise be considered to exist.
37. It has also been argued that inflation is a separately measurable portion of interest rates because it is similar to other benchmark interest rates:
- a) Inflation markets use benchmark rates (for example a Retail Price Index, or Consumer Price Index),
 - b) Inflation benchmarks are traded and highly liquid (in some markets),
 - c) When entities hedge a fixed interest liability (for example) with respect to a benchmark interest rate the entity is neutralising changes in the fair value of the

liability for changes in the benchmark interest rate. Similarly, when the entity hedges a fixed rate liability with respect to inflation risk the entity is neutralising changes in the fair value of the liability with respect to inflation.

38. The counter-argument to this is that the market for oil also has benchmark rates, is traded and highly liquid- and that it would also be possible to define a hedge such that a fixed rate liability is effectively neutralised for changes in the price of oil. Consequently the existence of an active market does not in itself prove that inflation is a separately measurable portion of interest rates.

Section B: How do benchmark interest rates and inflation compare?

39. IAS 39 Par 81 provides the example of *risk-free interest rates or benchmark interest rates* as portions of the total interest rate exposure of a hedged financial instrument. In the first section we noted that there are similarities between the way in which inflation and benchmark interest rates are traded. In this section we compare benchmark interest rates to inflation based on the following:

- a) Whether changes in the value of an inflation 'portion' cause a predictable, separately measurable change in nominal interest rates;
- b) Whether inflation is correlated with nominal interest rates;
- c) Whether the sum of inflation and real interest rates equals nominal interest rates i.e. can we find a sum of the whole?

B.1 Do changes in the value of an inflation portion cause a predictable, separately measurable change in nominal interest rates?

40. Some consider that it should not be appropriate to hedge a US Treasury portion of the UK overdraft interest rate. Furthermore some consider that it should not be appropriate to hedge nominal interest rates with respect to changes in the price of oil.
41. IAS 39 Par 81 states that an example of an identifiable and separately measurable portion of the interest rate exposure of an interest-bearing asset or interest-bearing liability is the risk-free interest rate or benchmark interest rate component of the total interest rate exposure of a hedged financial instrument.
42. IAS 39 AG 100 states the following in terms of hedging non-financial items:

Changes in the price of an ingredient or component of a non-financial asset or non-financial liability generally do not have a predictable, separately measurable effect on the price of the item that is comparable to the effect of, say, a change in market interest rates on the price of a bond. Thus, a non-financial asset or non-financial liability is a hedged item only in its entirety or for foreign exchange risk...[Emphasis added]

43. IAS 39 AG 100 notes that a change in the risk free interest rate or benchmark interest rate component of a bond causes a predictable, separately measurable effect on the price of a bond. Therefore the question is whether, in applying the example in IAS 39 Par 81, inflation is similar to benchmark interest rates in this respect.
44. It is clear that inflation does not have a predictable, separately measurable effect on the fair value or cash flows of an interest-bearing financial asset or financial liability which is comparable to the effect of, say, a change in market interest rates on the price of a bond. When market interest rates change, prices of bonds change.
45. Furthermore a change in market interest rates usually has a predictable effect on the price of the bond both in (a) direction and (b) in amount. This is not the case with inflation³. When expectations in inflation change there may be no effect on nominal interest rates. However when large changes in inflation occur, nominal interest rates may change, but the exact amount of such change is unpredictable. Therefore the effect which inflation has on nominal interest rates is not necessarily predictable with respect to (a) direction or (b) amount.
46. While benchmark interest rates tend to affect nominal interest rates, it is not necessarily true that nominal interest rates affect risk free interest rates. Inflation and nominal interest rates tend to affect each other, which indicate an inter-relationship. Therefore is it possible that inflation and risk free rates simultaneously be called 'portions' of each other or are they simply inter-related?
47. Another example of the lack of a predictable, separately measurable effect on nominal interest rates is illustrated through the existence of different inflation measures. While one inflation measure can be more relevant to consumers (for example a consumer price index) other inflation measures can be more relevant to retailers (for example a retail price index). Consequently nominal interest rates may be affected by the estimated effects of inflation to all market participants, whereas a particular inflation measure may only reflect the effects of inflation for a subset of the overall

³ It is, however, the case for inflation linked bonds.

market⁴. Therefore it is natural to consider that such inflation measures will not necessarily have a predictable, measurable effect on nominal interest rates.

48. The counter argument to this is that the requirement in paragraph AG 100 is only applicable for the hedges of non-financial items. In IAS 39 Par 81, which is applicable to hedges of financial items, states that the example of risk free rates and benchmark rates only illustrates when a portion is ‘identifiable and separately measurable portion’. Consequently the requirement in IAS 39 Par 81 does not refer to economic causality in the way in which changes in the price of a portion have to result in a change in the price of the overall instrument. If this is the case then under IAS 39 the threshold for a qualifying portion in respect of financial items is far lower than the threshold for a qualifying portion of non-financial items.

B.2 Is inflation correlated with nominal interest rates?

49. In the previous section we considered whether it is necessary for a portion to cause a change in the overall instrument value. A less stringent threshold for interpreting what is meant by a portion would simply require some correlation between the portion and the value of the overall instrument (i.e. this removes causality).
50. Benchmark interest rates and nominal interest rates would ordinarily be considered to have a high degree of correlation. An exception to this would be low credit quality loans where nominal interest rates may be as affected by the potential default of a borrower as by changes in nominal interest rates.
51. Over the long-term there is generally a positive level of correlation between nominal interest rates and inflation i.e. over the long-term, when inflation is higher then interest rates are also higher, and vice versa.
52. However, when day-to-day changes in inflation are compared to day-to-day changes in nominal interest rates there may be very little statistical correlation. Rather nominal interest rates, at least in the short to medium-term, appear to be significantly influenced by the interest rates set by reserve banks. This implies that (1) the effects of inflation may only have a delayed effect on nominal interest rates (i.e. the risk free rate is typically only changed every month or quarter), and (2) the impact on interest rates, at least in the short to medium-term, is significantly influenced by the perception of how the reserve bank will react to the inflation information, and not necessarily based on the inflation information itself.

⁴ Footnote omitted.

53. Therefore it may be argued that, based on correlation, inflation may only represent a portion of relatively long-term financial assets and financial liabilities, and that the exposure to short-term changes in inflation is not a portion of short-term nominal interest rates. The difficulty in applying this argument is in determining at which point correlation becomes sufficiently significant for inflation to represent a qualifying portion.
54. The counter-argument states that IAS 39 Par 81 does not require economic correlation as a factor in identifying a portion. Rather IAS 39 Par 81 simply gives as an example a portion that is 'identifiable and separately measurable'.

B.3 Does the sum of inflation and real interest rates equal nominal interest rates?

55. It can be argued that benchmark interest rates represent a portion of nominal interest rates because nominal interest rates can be priced in two separate components i.e. an interest component and credit risk adjustment component ('credit spread' over the benchmark rate). On this basis it is argued that since the benchmark interest rate is observable, and the credit spread is priced separately by the aid of pricing models (and for example independent quotes may be obtained in the market for credit derivatives), that it is clear that the sum of the benchmark interest rate and the credit spread equals the interest rate charged on a particular loan.
56. It has been shown that, within the bounds of arbitrage, the Fisher equation holds in relating nominal interest rates to inflation i.e. $(1 + \text{nominal interest rates}) = (1 + \text{real interest rates}) \times (1 + \text{inflation})$
57. Assume that expectations of inflation change but nominal interest rates remain constant. In terms of the Fisher equation 'real interest rates' must have changed. Consequently, since inflation is clearly defined as an index of the prices of a particular basket of goods and services, and because nominal interest rates are evident from active markets, it has been questioned whether real interest rates can be verified in the same way that a credit spread can be verified i.e. are real interest rates a balancing figure or is there some other way of calculating or verifying its accuracy by analogy to credit spreads?
58. Real interest rates represent the interest rate in an economy after the effects of inflation have been removed. For example assume that we start out with a benchmark inflation rate which is applicable to retailers ('retail price index'). In this case, the products and services which would be selected in order to determine the value of the

index would be based on the presumption that it should be relevant to a retailer. Therefore, in this case, the 'real interest rate' does not represent a generic real interest rate but a real interest rate which is applicable to a typical retailer. Consequently, it would not be possible to obtain the exact value of the 'real interest rate' which when added to the inflation rate would equal the nominal rate, without knowing the elements of the appropriate basket of goods and services and their weighting.

59. Therefore, unlike credit spreads which are affected by variables independent to interest rates it does not appear that a measure of real interest rates exists which is independent to a given inflation measure. Consequently, it is not possible to say for sure that the sum of an inflation index and the real interest rate would equal nominal interest rates without defining real interest rates in terms of a particular inflation measure.
60. Put another way, it appears that while credit spreads are entity-specific, that the real interest rate component associated with a particular inflation measure is not. For example it is unlikely that the average credit spread across the whole market would qualify as an eligible portion of the fair value or cash flows of a particular interest-bearing financial asset or financial liability.
61. The counter-argument states that it is not required that it should be demonstrated that a portion exists only if it can be summed with another verifiable portion to equal a whole in IAS 39 Par 81. For example in many cases benchmark interest rates and credit spreads do not necessarily represent the nominal interest rate that is charged. Rather IAS 39 Par 81 simply gives as an example a portion that is 'identifiable and separately measurable'. Furthermore, it is argued that because 'real' rates are traded and observable (for example, the real yield curve is available from market data), that real interest rates can be verified in the same way that a credit spread can be verified (for example, in the credit derivative markets).

Section C: What are the implications if financial items can be hedged with respect to the risks of changes in prices of non-financial items?

62. Up to now we have not distinguished between hedges of financial items and hedges of non-financial items. IAS 39 Par 82 states that *if the hedged item is a non-financial asset or non-financial liability that it shall be designated as a hedged item (a) for foreign currency risks, or (b) in its entirety for all risks, because of the difficulty of*

isolating and measuring the appropriate portion of the cash flows or fair value changes attributable to specific risks other than foreign currency risks.

63. Therefore the price of petrol could not be hedged with respect to the price of oil because petrol is a non-financial item. Rather the entity would be required to designate an oil derivative as a hedge of the total exposure to changes in the prices of petrol.
64. Consequently, some would argue that there is a higher threshold applied by IAS 39 for hedges of non-financial items than for hedges of financial items i.e. a risk associated with a portion of the risk associated with a non-financial item may not be hedged except for foreign exchange rate risk, whereas a hedge of a portion of the risk of a financial item may be hedged only if it is identifiable and measurable.
65. This section considers that if a non-financial item may not be hedged with respect to a non-financial risk because of the *difficulty of isolating and measuring the appropriate portion of the cash flows or fair value changes attributable to specific risks* then should it be possible to hedge a financial item with respect to those same non-financial risks? Put another way, is it presumed that a risk associated with a portion of the fair value or cash flows of a financial item must itself be financial, or should the criteria for hedges of non-financial items (in IAS 39 AG 100 for example) be applied where financial items are hedged with respect to the changes in price of non-financial items such as changes in the price of oil or inflation?
66. The Financial Times on Wednesday 18 January 2006 reported that in the UK a 'Drop in fuel costs put inflation on target'. If it is argued that inflation is a portion of nominal interest rates, then it may be possible to extend the argument to say that any of the 'portion' of inflation could also represent a portion of nominal interest rates, such as oil.
67. This section considers whether oil (and inflation) should not be designated as a portion of a financial item because of the reasons why oil (and inflation) cannot be designated as the hedge of a non-financial item.
68. It is clear that a change in the expected price of oil represents a risk associated with a non-financial item. Similarly, it is clear that changes in the expected price of inflation represents risks associated with a basket of goods and services which are mainly non-financial in nature. In addition, the actively traded oil and inflation market improves the estimation of the non-financial risks associated with the respective non-financial items.

69. Therefore, since oil and inflation represent risks which are mainly non-financial in nature, it is not possible to hedge a financial item with respect to these non-financial risks without meeting the criteria in IAS 39 AG 100 i.e.

Changes in the price of an ingredient or component of a non-financial asset or non-financial liability generally do not have a predictable, separately measurable effect on the price of the item that is comparable to the effect of, say, a change in market interest rates on the price of a bond. Thus, a non-financial asset or non-financial liability is a hedged item only in its entirety or for foreign exchange risk...

70. In Section B.1 we stated that there is evidence that the price of oil and inflation does not have a predictable, separately measurable effect on nominal interest rates which is comparable to the effect that a change in market interest rates has on the price of a bond. Therefore, under the arguments in this section, such non-financial risks should not be designated as a portion of a financial item.

71. The counter-argument states that IAS 39 Par 81 is applicable if the hedged item is a financial item, whereas IAS 39 Par 82 is applicable where the hedged item is non-financial. In the circumstances considered in this document the hedged item is a financial item, and therefore IAS 39 Par 82 (and therefore AG 100) is not relevant. Also active markets exist for inflation which are comparable to markets for benchmark interest rates. Furthermore oil should not be considered a portion of nominal interest rates because there is an established economic link, which is evidenced by correlation, between inflation and nominal interest rates which does not exist for oil.

Section D: What does it mean to measure hedge effectiveness when a portion is hedged?

72. IAS 39 Par 81 states that *if the hedged item is a financial asset or financial liability, it may be a hedged item with respect to the risks associated with only a portion of its cash flows or fair value (such as one or more selected contractual cash flows or portions of them or a percentage of the fair value) **provided that effectiveness can be measured.***

73. Up to now we have focused on whether inflation represents a portion of nominal interest rates. In this section we consider whether the effectiveness of an inflation portion can be reliably measured.

74. IAS 39 Par 81 provides the examples of benchmark interest rates as representing a portion of nominal interest rates. It is clear that if inflation represents a portion of interest rates, then hedge effectiveness can be calculated in the same way that hedge effectiveness can be calculated for other benchmark interest rates i.e.

- a. Inflation and interest rate markets contain benchmark rates;
- b. Inflation and interest rate markets are highly traded and liquid;
- c. When entities hedge a fixed interest liability (for example) with respect to a benchmark rate the entity will neutralise changes in the fair value of the liability for changes in the benchmark rate i.e. the value of the liability will stay constant with respect to changes in benchmark rate. Similarly, when the entity hedges a fixed rate liability with respect to inflation risk the entity will neutralise changes in the fair value of the liability with respect to inflation i.e. the real value of the liability will stay constant even though changes in inflation occur; and
- d. When an entity measures hedge effectiveness using a benchmark rate the entity would simply consider the benchmark rate yield curve in determining the fair value of both the hedging instrument and the hedged item; when an entity measures hedge effectiveness using inflation the entity would similarly consider the inflation yield curve in determining the fair value of both the hedging instrument and the hedged item. Therefore in both cases there would be no further need to justify the benchmark rate or the inflation portion in determining hedge effectiveness.

75. Consequently it is clear from hedging nominal interest rates with respect to LIBOR that there is no continuing need to prove that when changes in the benchmark rate occur that there has been a change in nominal interest rates. This is in part due to the creation of hedging ‘portions’ in IAS 39 BC 135 which states the following:

*Additionally, IAS 39 permits the hedging of portions of financial assets and financial liabilities in cases when US GAAP does not. **The Board noted that under IAS 39 an entity may hedge a portion of a financial instrument (eg interest rate risk or credit risk), and that if the critical terms of the hedging***

instrument and the hedged item are the same, the entity would, in many cases, recognise no ineffectiveness. [Note bold added]

76. Therefore proponents of applying hedge accounting to inflation risk state that in inflation hedging, similar to hedging other benchmark interest rates, there is expected ineffectiveness for differences in the critical terms of the hedging instrument. Furthermore, once it is shown that inflation represents a portion of nominal interest rates then, in terms of IAS 39, it is sufficient to measure ineffectiveness (in the same way that ineffectiveness is determined for other benchmark interest rates) by reference to the highly liquid inflation market.

Section E: Should an inflation embedded derivative be separated from an inflation-linked bond?

77. Inflation-linked bonds are similar to other government bonds except that instead of paying a fixed coupon they make payments based on a fixed 'real' rate and on the inflation rate. For example in the UK, inflation linked bonds pay a coupon based on a 'real' rate and on the Retail Price Index.
78. Applying IAS 39 Par 11 on embedded derivatives to an inflation-linked bond *could* mean that it is actually made up of two instruments, namely a fixed rate bond and an embedded inflation derivative.
79. What this means is that the host contract would be a bond which pays a fixed coupon, and the embedded derivative would be separated based on the terms of a derivative which exchanges the fixed coupon payments for a floating inflation amount. For example, the bond may be subsequently measured at amortised cost whereas the derivative will be subsequently fair valued.
80. In order to differentiate whether an inflation-linked bond is seen as one instrument or as two separate instruments, IAS 39 Par 11 requires consideration of whether the characteristics and risks of the host contract (i.e. the fixed coupon bond) are closely related to the characteristics and risks of the embedded derivative (i.e. the inflation embedded derivative swap). If the characteristics and risks of inflation are not seen as

being closely related to the host debt contract⁵ then the two instruments should be accounted separately.

81. IAS 39 AG 33 (f) states that an embedded derivative in a host lease contract is closely related to the host contract if the embedded derivative is an inflation-related index such as an index of lease payments to a consumer price index (provided that the lease is not leveraged and the index relates to inflation in the entity's own economic environment).

82. The following guidance in IAS 39 is relevant in determining whether an embedded derivatives should be separated:

a. AG 27 (e) states that commodity-indexed interest or principal payments embedded in a host debt instrument- by which the amount of interest or principal is indexed to the price of a commodity (such as gold) - are not closely related to the host instrument because the risks inherent in the host and the embedded derivative are dissimilar.

b. AG 33 (a) states that an embedded derivative in which the underlying is an interest rate or interest rate index that can change the amount of interest that would otherwise be paid or received on an interest-bearing host debt contract or insurance contract is closely related to the host contract unless the combined instrument can be settled in such a way that the holder would not recover substantially all of its recognised investment or the embedded derivative could at least double the holder's initial rate of return on the host contract and could result in a rate of return that is at least twice what the market return would be for a contract with the same terms as the host contract.

83. It appears that if inflation is seen as an interest rate, then the economic characteristics and risks will be closely related to those of a host debt contract i.e. this is because it is unlikely that the inflation element in an inflation-linked bond when compared to a more traditional interest bearing bond would cause the holder to not recover substantially all of its recognised investment or that the inflation element could result in a rate of return that is at least twice what the market return would be for a contract with the same terms as the host contract.

84. However, if inflation is seen as being similar to a commodity or equity price, then the embedded derivative should be separated.

⁵ IAS 39 Par AG 27 states that if the host contract is not an equity instrument and meets the definition of a financial instrument, then its economic characteristics and risks are those of a debt instrument.

85. In applying these paragraphs it is possible to see the conflict:

- a. Inflation rates are set based on the prices of a basket of goods and services ranging from basic items like bread, petrol and oil prices (which would be considered to be a commodity), to new products, such as PCs.
- b. Inflation bonds and inflation derivatives are traded in a manner similar to, for example, risk free interest rates.

86. In this section we consider whether a decision regarding inflation regarding portions of nominal interest rates will have an impact on whether the characteristics and risks of inflation are viewed as being closely related to a host debt instrument (and vice versa).

87. The following table compares and contrasts the similarities and differences between the requirements of paragraph 11 of IAS 39 and paragraph 81 of IAS 39:

Comment	IAS 39 Par 11	IAS 39 Par 81
	<i>An embedded derivative shall be separated from the host contract and accounted for as a derivative under this Standard if, and only if:</i>	<i>If the hedged item is a financial asset or financial liability, it may be a hedged item with respect to</i>
Both provisions require an identification of risks. Embedded derivative provisions also require consideration of 'characteristics'.	<i>(a) the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract (see Appendix A paragraphs AG30 and AG33);</i>	<i>the risks associated with</i>
Both provisions require a notion of separability/ portions.	<i>(b) a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and</i>	<i>only a portion of its cash flows or fair value (such as one or more selected contractual cash flows or portions of them or a percentage of the fair value)</i>
Different requirements for embedded derivative and hedging provisions.	<i>(c) the hybrid (combined) instrument is not measured at fair value with changes in fair value recognised in profit or loss...</i>	<i>provided that effectiveness can be measured.</i>

88. Embedded derivatives should be separated under IAS 39 when *the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract.*

89. As mentioned above, there exist two extreme definitions of a portion i.e. a hedged portion may be anything at all, provided it is smaller than the total exposure on the asset or liability, or a hedged portion of a financial asset causes a predictable, separately measurable economic effect on the price of the overall financial asset or

financial liability in a manner which is comparable to the effect of a change in market interest rates on the price of a bond.

90. If it is argued that a portion may be ‘anything at all’, then it appears from IAS 39 Par 81 that the main test for a qualifying portion is that it should be a ‘risk associated with the fair value or cash flows of the hedged item’. But, the test for embedded derivatives is whether an embedded derivative has a characteristic and risk which is closely related to the hedged item. This means in this case, because a portion may be ‘anything at all’, that we can infer a decision on hedgeable portions to a consistent decision on inflation embedded derivatives, and vice versa i.e. if it is assumed that a portion can be ‘anything at all’, this seems to imply that:

- a) If inflation-linked bonds are not split into a host debt contract and an inflation derivative (i.e. no separate embedded derivative), and therefore that the characteristics and risks of inflation are *closely* related to a host debt instrument, that it appears that inflation represents a risk associated with a portion of the cash flows or fair value of an interest bearing financial asset or financial liability.
- b) If inflation is not a risk associated with only a portion of the cash flows or fair value of a nominal interest bearing bond (and therefore that hedge accounting should not be applied), then inflation must represent a risk which is *closely* related to the economic characteristics and risks of a host debt contract (and therefore the embedded inflation derivative should be separated from the host debt contract).

91. As a result, some may argue that the requirement for ‘portions’ in IAS 39 Par 81 is a lower threshold in that it must represent *a risk* associated with only a portion of the cash flows or fair value of an interest bearing financial asset or financial liability. Therefore IAS 39 Par 81 simply requires ‘a risk’ while IAS 39 Par 11 for embedded derivatives requires that the ‘*characteristics and risks* of the embedded derivative should be *closely* related’.

92. Alternatively it may be maintained that a hedged portion of a financial asset causes an economic effect on the price of an overall financial asset or financial liability, and is a different test that what is meant by a characteristic and risk which must be ‘closely related’.

93. For example, IAS 39 AG (b) provides the following example:

An embedded floor or cap on the interest rate on a debt contract or insurance contract is closely related to the host contract, provided the cap is at or above the market rate of interest and the floor is at or below the market rate of interest when the contract is issued, and the cap or floor is not leveraged in relation to the host contract. Similarly, provisions included in a contract to purchase or sell an asset (eg a commodity) that establish a cap and a floor on the price to be paid or received for the asset are closely related to the host contract if both the cap and floor were out of the money at inception and are not leveraged.

94. From this example, it may be argued that a put or call option is not an economic portion of a financial item, in that it does not relate to separate risk which causes a change in the overall instrument, and yet it may have characteristics and risks which are closely related to a host financial item.

Questions for IFRIC

95. *[Paragraph omitted]*
96. How does the IFRIC wish to proceed?