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Project	<b>Fair value measurement</b>
Topic	<b>Measurement uncertainty analysis disclosure</b>

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## Purpose of this paper

1. This paper addresses the proposed measurement uncertainty analysis disclosure for fair value measurements categorised within Level 3 of the fair value hierarchy.
2. This paper asks the boards to determine whether to require a measurement uncertainty analysis disclosure for fair value measurements categorised within Level 3 of the fair value hierarchy. If the boards decide to require such a disclosure, the staff recommends clarifying or modifying some aspects of the proposal, such as:
  - (a) the objective of the disclosure;
  - (b) replacing the term ‘correlation’ with another term that better articulates the requirement to take into account inter-dependencies or inter-relationships between unobservable inputs; and
  - (c) the frequency of the disclosure.
3. If the boards decide to require a measurement uncertainty analysis disclosure, the boards will discuss the following at a future meeting:

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This paper has been prepared by the technical staff of the IFRS Foundation and the FASB for discussion at a public meeting of the FASB or the IASB.

The views expressed in this paper are those of the staff preparing the paper. They do not purport to represent the views of any individual members of the FASB or the IASB.

Comments made in relation to the application of U.S. GAAP or IFRSs do not purport to be acceptable or unacceptable application of U.S. GAAP or IFRSs.

The tentative decisions made by the FASB or the IASB at public meetings are reported in FASB *Action Alert* or in IASB *Update*. Official pronouncements of the FASB or the IASB are published only after each board has completed its full due process, including appropriate public consultation and formal voting procedures.

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- (a) the scope of the disclosure (eg determine whether it should only apply to financial instruments). In particular, they will need to determine whether the disclosure should be required when an entity uses:
    - (i) broker quotes or information from third party pricing services when measuring the fair value of financial instruments; or
    - (ii) [FASB only] net asset value as a practical expedient for measuring the fair value of an investment in an investment company entity.
  - (b) the effective date for the disclosure.
4. This paper contains the following appendices:
- (a) Appendix 1—the relevant paragraphs of the FASB’s exposure draft of a proposed Accounting Standards Update (ASU) *Fair Value Measurements and Disclosures (Topic 820): Amendments for Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs*.<sup>1</sup> Those paragraphs are identical to the proposal in the IASB’s exposure draft *Measurement Uncertainty Analysis Disclosure for Fair Value Measurements*, with the exception of minor differences in style, grammar and spelling. Both exposure drafts were published in June 2010.<sup>2</sup>
  - (b) Appendix 2—a summary of the potential approaches the boards could take to require disclosure of information about the measurement uncertainty inherent in Level 3 fair value measurements.
  - (c) Appendix 3—an example showing how an entity might assess inter-relationships between unobservable inputs.
  - (d) Appendix 4—supplemental information, including discussions about:

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<sup>1</sup> Topic 820 in the FASB’s Accounting Standards Codification™ codified FASB Statement of Financial Accounting Standards No. 157 *Fair Value Measurements* (SFAS 157).

<sup>2</sup> The IASB’s proposal is a re-exposure of the sensitivity analysis disclosure proposed in its May 2009 exposure draft *Fair Value Measurement*. That proposal did not include a requirement to take into account the effect of inter-relationship between unobservable inputs.

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- (i) comparability across entities and compliance with the current fair value sensitivity analysis disclosure in IFRS 7 *Financial Instruments: Disclosures*;
  - (ii) whether the disclosure is redundant to the requirements in IAS 1 *Presentation of Financial Statements* and Topic 275 *Risks and Uncertainties*; and
  - (iii) how the proposed disclosure compares with the market risk sensitivity analysis in IFRS 7, Topic 825 *Financial Instruments* and the US Securities and Exchange Commission's requirement to provide quantitative and qualitative disclosures about market risk.
- (e) Appendix 5—a summary of the staff recommendations in this paper.

## Summary of the proposals

### *Overall requirements*

5. The proposal would require entities to provide a measurement uncertainty analysis disclosure for fair value measurements categorised within Level 3 of the fair value hierarchy. The purpose of that analysis is to provide users of financial statements with information about the measurement uncertainty inherent in fair value measurements categorised within Level 3 of the fair value hierarchy at the measurement date to help them assess the subjectivity of those fair value measurements.<sup>3</sup>
6. The proposal would require an entity to determine whether the unobservable inputs used in a Level 3 fair value measurement could have reasonably been different in the circumstances and, if so, whether changing those inputs to a different amount would have resulted in a significantly higher or lower fair value for the asset or liability.

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<sup>3</sup> Although not explicitly stated in the exposure drafts, the staff thinks the objective would be met by providing a range of exit prices that could have reasonably been estimated in the circumstances. This is discussed further in the Staff Analysis section below.

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7. In other words, two thresholds would need to be met for an entity to be required to provide the disclosure:
  - (a) there must be another input that could have been reasonable in the circumstances; and
  - (b) changing that input to a different amount must have a significant effect on the measurement.
8. In addition, the entity would need to take into account the effect, if any, on the other unobservable inputs used in the measurement if the entity had used the alternative amount in the first place. The exposure drafts refer to this relationship between inputs as ‘correlation’.<sup>4</sup>
9. The disclosure is not meant to represent a range of remote, worst-case or best-case scenarios. In other words, it is not meant to be a stress test.
10. The proposal states that significance shall be judged with respect to:
  - (a) profit or loss/earnings, and total assets or total liabilities; or,
  - (b) when changes in fair value are recognised in other comprehensive income, with respect to total equity.

**Scope**

11. The proposal to provide a measurement uncertainty analysis disclosure would apply to all assets and liabilities measured at fair value, unless another standard specifies that such a disclosure is not required for a particular asset or liability.
12. The IASB’s exposure drafts (both the May 2009 exposure draft and the June 2010 re-exposure of the measurement uncertainty analysis) did not limit the scope to particular assets or liabilities.

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<sup>4</sup> The bases for conclusions accompanying the IASB and FASB exposure drafts states that ‘correlation’ means that entities need to determine which inputs are related and which inputs would need to be changed in combination with one another to arrive at another reasonable fair value measurement in the circumstances. It does not mean the entity needs to perform a statistical analysis (such as a regression analysis).

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13. The FASB has tentatively decided in its project addressing the accounting for financial instruments not to require such a disclosure for investments in unquoted equity instruments.
14. In developing their exposure drafts, the boards agreed that the fair value measurement project would not determine the scope of the measurement uncertainty analysis disclosure. That assessment would be made in other projects. As noted above, the boards will discuss the scope of the disclosure at a future meeting if they decide to proceed with the proposal.

***Why the boards made the proposal***

15. The boards came from different places when making the proposal in their June 2010 exposure drafts.

*IFRSs*

16. IFRSs require a disclosure of the sensitivity of fair value measurements of financial instruments to changes in reasonably possible alternative assumptions.<sup>5</sup> That disclosure does not explicitly require an entity to take into account inter-relationships between unobservable inputs (although some say that to meet the objective of IFRS 7 this information would need to be taken into account).
17. The IASB received feedback from users of financial statements who informed the boards that the sensitivity analysis disclosure in IFRS 7 would be more helpful if it required the effect of inter-relationships between unobservable inputs to be taken into account. In other words, they wanted to see what the fair value measurement reasonably could have been under the circumstances.
18. IFRSs contain similar disclosure requirements in other standards. For example, IAS 36 *Impairment of Assets* requires a sensitivity analysis disclosure, reflecting the effect of inter-relationship between inputs, when a reasonably possible

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<sup>5</sup> The disclosure in IFRS 7 has been in international standards since 2003 (it was added to the previous IAS 32 *Financial Instruments: Disclosure and Presentation* as part of the 2003 Improvements Project).

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change in a key assumption on which management has based its determination of a cash-generating unit's recoverable amount would cause the CGU's carrying amount to exceed its recoverable amount. In addition, IAS 19 *Employee Benefits* requires a sensitivity analysis of medical cost trend rates.

*US GAAP*

19. US GAAP does not require a sensitivity analysis or measurement uncertainty analysis disclosure for financial instruments categorised within Level 3 in the fair value hierarchy.<sup>6</sup> However, the US SEC requires quantitative and qualitative disclosures about market risk in accordance with Regulation S-K: Item 305:

The primary objective of quantitative disclosures is to provide investors with forward looking information about potential exposure to market risk. Such information must be furnished in one of the following three ways, separately for instruments entered into for trading purposes and for other purposes:

1. Tabular presentation
2. Sensitivity analysis
3. Value at risk

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The second presentation alternative is a sensitivity analysis expressing the potential loss in future earnings, fair values, or cash flows of market risk sensitive instruments over a selected period due to hypothetical changes in interest rates, currency exchange rates, commodity prices, and other relevant market rate or price changes.

20. This is similar to the market risk sensitivity analysis disclosure in paragraph 40 of IFRS 7 (and is different from the fair value sensitivity analysis disclosure required for Level 3 fair value measurements).<sup>7</sup>

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<sup>6</sup> Topic 825 encourages, but does not require, an entity to disclose quantitative information about the market risks of financial instruments that is consistent with the way it manages or adjusts those risks. An entity might provide this information by disclosing the hypothetical effects on comprehensive income (or net assets), or annual income, of several possible changes in market prices.

<sup>7</sup> Paragraph 40 of IFRS 7 requires an entity to disclose (a) a sensitivity analysis for each type of market risk to which the entity is exposed at the end of the reporting period, showing how profit or loss and equity would have been affected by changes in the relevant risk variable that were reasonably possible at that date; (b) the methods and assumptions used in preparing the sensitivity analysis; and (c) changes from the previous period in the methods and assumptions used, and the reasons for such changes.

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21. The FASB proposed requiring a measurement uncertainty analysis disclosure when it proposed amendments to Topic 820 in August 2009, but decided to address the issue in the joint fair value measurement project.
22. US GAAP requires a sensitivity analysis for some non-fair value measurements, for example:
  - (a) Topic 715 *Compensation—Retirement Benefits* requires a sensitivity analysis of health care cost trend rates.
  - (b) Topic 860 *Transfers and Servicing* requires a sensitivity analysis or stress test showing the hypothetical effect on the fair value of a transferor's interest in transferred financial assets (including any servicing assets or servicing liabilities) of two or more unfavorable variations from the expected levels for each key assumption ...independently from any change in another key assumption (paragraph 860-20-50-4(c)(d)).
  - (c) Topic 946 *Financial Services—Investment Companies* requires two sensitivity analysis disclosures related to stable value funds (paragraph 946-210-5014(h)):
    - (i) the weighted average interest crediting rate under two or more scenarios where there is an immediate hypothetical increase or decrease in market yields, with no change to the duration of the underlying investment portfolio and no contributions or withdrawals.
    - (ii) using the same scenarios in the first analysis, combined with an immediate, one-time, hypothetical 10 percent decrease in the net assets of the fund due to participant transfers, with no change to the duration of the portfolio.

**Overview of comments and other feedback received**

23. This section reflects the feedback received through:
  - (a) the comment letters on the FASB's and the IASB's exposure drafts;

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- (b) the user questionnaire posted on the IASB and FASB websites;
- (c) interviews with banking and insurance analysts who use the sensitivity analysis disclosure required in IFRS 7; and
- (d) the FASB's Valuation Resource Group (VRG).<sup>8</sup>

**Comments received on the exposure drafts**

24. The exposure drafts asked interested parties about the following:
- (a) whether the requirement to provide a measurement uncertainty analysis disclosure is appropriate;
  - (b) whether the requirement to take into account the effect of correlation between unobservable inputs is appropriate and cost-beneficial;
  - (c) whether the measurement uncertainty analysis disclosure would provide useful information if the effect of correlation were not taken into account; and
  - (d) whether there are alternative disclosures that might provide users of financial statements with information about the measurement uncertainty inherent in fair value measurements categorised within Level 3 of the fair value hierarchy that the boards should consider instead.
25. The staff thinks it is important to acknowledge the different perspectives of FASB and IASB constituents when considering the comments received on the proposal.
26. Because the proposed disclosure is incremental to a current requirement to provide a sensitivity analysis for financial instruments categorised within Level 3 of the fair value hierarchy (ie the effect of inter-relationships between unobservable inputs), IFRS constituents are mainly concerned about scope (eg

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<sup>8</sup> The Valuation Resource Group provides the FASB and IASB staff with information on existing implementation issues related to fair value measurements used for financial statement reporting purposes and the alternative viewpoints that may be associated with those implementation issues.

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limiting it to financial instruments). Furthermore, although many support the idea of including the effect of correlation in concept, they have practical questions about how to apply the proposed requirement to include the effect of correlation (inter-relationships between unobservable inputs) in the measurement uncertainty analysis. Some of them question whether the proposed measurement uncertainty analysis disclosure is necessary given the potential overlap with the market risk disclosure requirement in paragraph 40 of IFRS 7.

27. Such a disclosure is not currently required in US GAAP. Respondents to the FASB's exposure draft are overwhelmingly opposed to the proposed disclosure (in fact, most of the comments received focused only on this issue). Many FASB constituents question the objective of the disclosure and whether it would (a) be useful for users of financial statements, (b) be operational for preparers and (c) be auditable.

*General comments*

28. Many respondents support the rationale for the proposal and think that in an ideal world it would provide very useful information to users of financial statements about the measurement uncertainty inherent in fair value measurements categorised within Level 3 of the fair value hierarchy. A few respondents suggest requiring the disclosure for Level 2 fair value measurements given that the distinction between Level 2 and Level 3 is not always clear, particularly when markets are illiquid or dislocated.
29. Although supportive of the concept, many respondents have practical concerns about the proposed disclosure. For example, many respondents are concerned about the systems changes necessary to develop the disclosure. They also request further clarification about how to apply the proposed requirement, including how to determine the effect of correlation and when correlation is relevant. (The staff notes that many of these respondents misunderstood 'correlation' to mean the statistical term and thought correlation would be an explicit [Level 3] input into the measurement, for which a measurement uncertainty analysis would need to be performed, rather than the process of

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making sure the analysis reflects the inter-relationship between one or more inputs used in the measurement such that the resulting figure is another fair value that would have been reasonable in the circumstances.)

30. Some respondents think that the objective of the disclosure is unclear. Without a clear objective, they think that it will be difficult to implement the disclosure and to achieve comparability across reporting entities and over time.
31. In addition to concerns about cost-benefit (eg due to systems changes and additional resource and audit costs), respondents raise the following issues:
  - (a) there are concerns that the disclosure undermines the legitimacy of Level 3 fair value measurements;
  - (b) there is a lack of guidance on the level at which the effect of inter-relationship should be determined (eg at the individual asset level or across a group of assets) and they question the meaningfulness of the analysis at aggregated levels;
  - (c) there is a lack of guidance on how to select assumptions that could have reasonably been used in the circumstances. They are concerned that in the absence of such guidance, there will be diversity in practice, reducing comparability;
  - (d) there are questions about how the disclosure would be prepared when a fair value measurement relies on broker quotes and pricing data from third-party pricing services;
  - (e) there are concerns about limiting ‘the effect of correlation’ to unobservable inputs if there is a relationship between unobservable inputs and any of the observable inputs;
  - (f) there are concerns that the analysis required for financial instruments that are categorised within Level 3 in the fair value hierarchy would be misleading with respect to the entity’s actual risk exposure when those risks are hedged by other financial instruments that are categorised as

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Levels 1 or 2 in the fair value hierarchy and do not require or contribute to this analysis; and

- (g) there are concerns about the scope of the proposed disclosure, such as:
  - (i) investments in investment company entities when the entity uses the net asset value practical expedient (ie ASU 2009-12 *Fair Value Measurements and Disclosures* (Topic 820): *Investments in Certain Entities that Calculate Net Asset Value per Share (or Its Equivalent)*);
  - (ii) unquoted equity investments that would not be given a scope exception until the proposed ASU on financial instruments is finalised; and
  - (iii) consolidated non-controlling interests (eg collateralised loan obligations).

*Suggested alternative disclosures*

32. Some respondents suggested alternative disclosures such as:
- (a) an analysis that does not take into account the effect of inter-relationships between inputs;
  - (b) a qualitative disclosure about the controls used for measuring fair value and the aggregate risks and exposures to key unobservable inputs;
  - (c) a qualitative disclosure about market conditions at the measurement date that might negatively influence the fair value of the asset or liability;
  - (d) a disclosure specifying a set percentage change in key unobservable inputs (eg a +/- X% change for each variable);
  - (e) a disclosure of the percentage of fair value measurements that use any unobservable inputs; or
  - (f) a qualitative disclosure of unobservable inputs (Topic 820 requires a disclosure of 'a description of the inputs used in the fair value

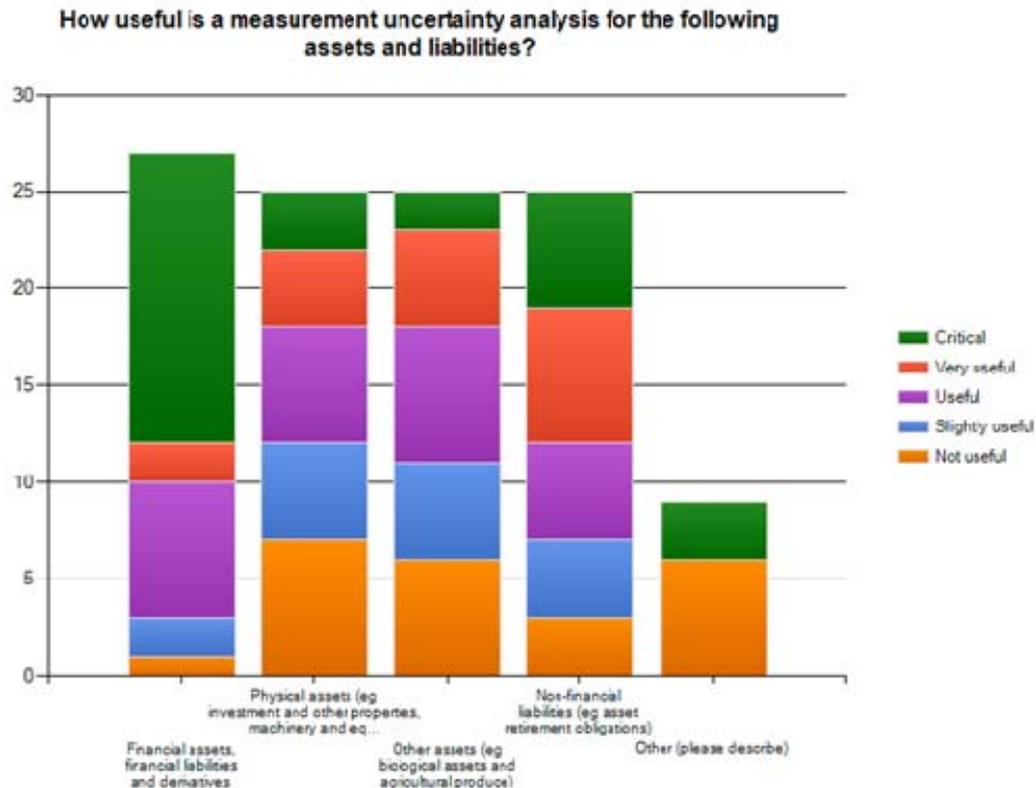
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measurement'; IFRS 7 requires disclosure of 'the assumptions applied in determining fair values' when using a valuation technique).

***Results of user questionnaire***

33. In July 2010, the boards posted a questionnaire on their websites asking users of financial statements to give feedback on the proposed disclosure.
34. The boards received a total of 34 responses to the user questionnaire, of which at least 17 were analysts and other financial statement users, from respondents in the US, Europe, South America, South Africa and Asia. (Not all respondents answered all questions in the questionnaire and not all who responded to the questionnaire provided information about themselves.)
35. Most of the respondents indicated that they use the information provided today for financial instruments. Of those who use this information, most use it as a 'worst-case scenario' by using the lower limit of the fair value in their analyses. Some indicated that they use it to assess management's judgement, to make an independent assessment of value or to understand the risks associated with the measurement.
36. The chart below summarises the responses about the importance of a measurement uncertainty analysis disclosure by different type of asset or liability.

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37. Most respondents indicated that they think companies should have to take into account relationships between assumptions when preparing the disclosure (ie that they take into account the effect of inter-relationships between inputs). In addition, some stated that if companies provided the assumptions used, users would be able to make their own assessment of the inter-relationships and whether management was using conservative or aggressive assumptions.
38. Most respondents indicated that aggregation by ‘class’ would be sufficient, although they prefer more disaggregation to less disaggregation.

**User interviews**

39. In developing this paper, the staff has solicited feedback from users of financial statements (mainly banking and insurance analysts) about the usefulness of the current sensitivity analysis disclosure required for financial instruments in IFRS 7.

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40. Users said they generally find the IFRS 7 disclosure useful as a starting point for their analyses (and with their discussions with management) because it helps them assess the relative subjectivity of Level 3 fair value measurements (that is, it tells them which Level 3 fair value measurements are 'softest'). One analyst said he used the disclosure during the financial crisis (in 2008 and 2009) because at that time he was concerned about the potential downside. However, he said he has not used the disclosure provided in 2010 because he is less concerned today.
41. Users were unsure how a disclosure reflecting the effect of inter-relationships between unobservable inputs would change their analyses. Some indicated that a range of reasonable fair value measurements (eg a range of reasonably possible optimistic and pessimistic fair values) would be useful, but only to the extent that they did not lose the transparency provided by the current sensitivity analysis. That is, they would not want to be given a small range of fair values without knowing that within that range some inputs could affect the fair value more significantly than others, and that the effects of changes in some inputs are mitigated by the effect of changes in others.
42. They also indicated that the current aggregation level of information is generally appropriate because they think the inputs and assumptions used do not differ dramatically within an asset class. As a result, disaggregated information is useful only to the extent that it helps them differentiate between instruments (within a class or across classes) because the focus of their analysis (as equity analysts) is typically to arrive at a value for the entire company.
43. Some noted that comparability across entities is not of concern except when aggregation limits the amount of information about complex financial instruments held by a particular entity.
44. They think it is important that entities applying IFRSs and US GAAP provide the same information about fair value measurements, including Level 3 fair value measurements.

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***Discussion by the FASB's Valuation Resource Group***

45. At their November 2010 meeting, the VRG discussed the proposed disclosure. One member of the VRG is a credit analyst. His views are consistent with those of the users interviewed (see paragraphs 39-44 above). He indicated that it is important to have quantitative and qualitative information about fair value measurements (including the assumptions used in the measurement). He also indicated that users are unlikely to take the fair value measurements provided (or a range of fair values provided) as given. Typically those numbers are a starting point for their discussions with management.
46. Some members of the VRG suggested that rather than prescribing a measurement uncertainty analysis for all Level 3 fair value measurements, the boards could set a 'disclosure floor'. A 'disclosure floor' would be the minimum disclosures about Level 3 measurements across all assets and liabilities. After meeting that floor, entities could provide additional information at their discretion, depending on the circumstances, such as a qualitative or quantitative assessment of measurement uncertainty. In other words, it would be left to the judgement of the entity whether it was necessary to provide additional information in the circumstances.
47. The valuation professional members of the VRG indicated that providing a range of reasonable fair values would not be incrementally costly for the types of assets and liabilities they deal with because they typically provide their clients with a range of value estimates. It is important to note that the members of the VRG typically provide valuations of individual assets (eg an item of PP&E) or groups of assets (eg in a business combination). Some concerns about cost might be more prevalent in the context of financial instruments given the volume of instruments held by some entities.

**Staff analysis**

48. The staff has identified three possible approaches to disclosing information about measurement uncertainty for Level 3 fair value measurements:

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- (a) **Option 1:** Proceed with a measurement uncertainty analysis disclosure, with some modifications to the proposal.
- (b) **Option 2:** Proceed with a sensitivity analysis about fair value measurements, excluding the effect of inter-relationships between unobservable inputs (as required in IFRS 7 today, with some modifications).
- (c) **Option 3:** Proceed with a disclosure of additional information about Level 3 fair value measurements.

49. The approaches are summarised in Appendix 2.

50. This section:

- (a) first asks the boards to specify the objective of a measurement uncertainty analysis disclosure (before deciding whether to require such a disclosure).
- (b) next asks the boards to determine whether they want to require entities to provide a disclosure that meets that objective.<sup>9</sup>
  - (i) If the boards decide to require a disclosure that meets that objective (this is referred to in this paper as **Option 1**), the staff will ask the boards to provide:
    - (1) additional guidance on selecting other unobservable inputs that could have reasonably been used in the circumstances; and
    - (2) additional guidance on how to determine inter-relationships between unobservable inputs.
  - (ii) If the boards decide not to require a disclosure that meets that objective (ie if they decide not to pursue **Option 1**), the staff will ask the boards to consider the following approaches:

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<sup>9</sup> This paper assumes that the boards want to have the same disclosure requirements about fair value measurements in IFRSs and US GAAP. However, although not stated as a potential option in this paper, the boards may decide to have different requirements with respect to information about the sensitivity of fair value measurements to changes in unobservable inputs.

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- (1) **Option 2:** Require a disclosure about the sensitivity of Level 3 fair value measurements to changes in unobservable inputs (ie the current requirement in IFRS 7).
- (2) **Option 3:** Require qualitative disclosures about measurement uncertainty in addition to the information currently required or proposed.

***Objective of a measurement uncertainty analysis***

51. One of the main messages in the comment letters was that the objective of a measurement uncertainty analysis disclosure is unclear. Before deciding whether to require a measurement uncertainty analysis disclosure (Option 1 below), the boards need to decide its objective.
52. The exposure drafts state that the objective of the proposed disclosure is to provide users of financial statements with information about the measurement uncertainty inherent in fair value measurements categorised within Level 3 of the fair value hierarchy. The staff thinks this objective is too broad—it seems to be the objective for the disclosures about Level 3 measurements overall.
53. The staff thinks the boards intended that the general objective (ie to provide users of financial statements with information about the measurement uncertainty inherent in Level 3 fair value measurements) could be met by providing a range of exit prices as of the measurement date that could have resulted from the use of reasonable inputs in the fair value measurement other than those inputs actually used. To arrive at a range of reasonable exit prices, an entity would need to take into account the effects on other inputs used in the measurement if there are inter-relationships between unobservable inputs.
54. The staff thinks the boards should clarify the objective of the disclosure so that preparers know what information they are meant to provide and so that users know what information they are receiving.

*Staff recommendation*

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55. The staff recommends that the boards specify that the objective of a measurement uncertainty analysis disclosure is to provide a range of fair values (exit prices) that could have resulted from the use of other reasonable unobservable inputs in the fair value measurement. Although the staff thinks this is implicit in the objective in the exposure drafts, the wording in the exposure drafts has caused some confusion about how an entity might meet the objective.

**Question 1 – objective of a measurement uncertainty analysis**

Do the boards agree with the staff recommendation in paragraph 55?

If not, what do you propose and why?

***Requiring a measurement uncertainty analysis disclosure (Option 1)***

56. Option 1 would require an entity to provide a range of fair values as of the measurement date that could have resulted from the use of other reasonable inputs in the fair value measurement. To arrive at a range of reasonable exit prices (fair values), an entity would need to take into account the follow-on effects on other inputs used in the measurement if there are inter-relationships between unobservable inputs. This is consistent with the proposal in the exposure drafts.
57. As noted above, there was significant concern about some of the practical aspects of the proposal. The staff thinks most of those concerns can be addressed by clarifying particular aspects of the proposal and by emphasising the need for supporting qualitative (narrative) information to help users better understand the results of the analysis and how it was performed
58. This section suggests that the boards:
- (a) replace the term ‘correlation’ with another term that better articulates the requirement to take into account inter-dependencies or inter-relationships between unobservable inputs;
  - (b) describe why a measurement uncertainty analysis focuses on changes in unobservable inputs, not *observable* inputs;

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- (c) describe how an entity might determine whether other unobservable inputs could have reasonably been used in the circumstances and their effect on the analysis; and
- (d) describe how an entity might determine inter-relationships between unobservable inputs.

59. This section also addresses practical concerns with respect to:

- (a) the level of aggregation (by class);
- (b) the significance threshold; and
- (c) the frequency of the disclosure.

*Replace the term 'correlation'*

60. Many respondents asked how to determine the effect of correlation (inter-relationships between inputs) and when correlation is relevant. Many of those respondents misunderstood 'correlation' to mean the statistical term and thought of correlation as an input into the measurement (which it could be, but that was not what the boards meant by using the term in the context of the proposed disclosure) rather than the inter-relationship between, or the follow-on effect of changing, one or more inputs used in the measurement.
61. It is worth noting that the bases for conclusions for the exposure drafts state that correlation means that entities need to determine which inputs are related and which inputs would need to be changed in combination with one another to arrive at another reasonable fair value measurement in the circumstances.
62. The staff thinks the requirement would be clearer if it did not use the term 'correlation', but another term that better articulates the requirement to take into account inter-dependencies or inter-relationships between unobservable inputs.

*Why focus on changes in unobservable inputs*

63. The exposure drafts proposed taking into account the inter-relationship between *un*observable inputs, not between observable and unobservable inputs, because:

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- (a) the focus of the measurement uncertainty analysis (and the IFRS 7 sensitivity analysis) is to provide an analysis of an entity's selection of *unobservable* inputs, not of *observable* inputs. As a result, it would seem reasonable that the assessment of inter-relationships would take into account the inter-relationship between *unobservable* inputs, not between *observable* inputs and *unobservable* inputs
  - (b) the selection of another unobservable input that could have reasonably been used in the circumstances would be limited to those that were reasonable given the observable inputs used in the fair value measurement (ie the economic or market environment at the measurement date). It is more likely that an *unobservable* input would be influenced by an *observable* input than an *observable* input would be influenced by an *unobservable* input.
64. The staff thinks that there is little, if any, uncertainty about observable inputs at the measurement date. Therefore, the objective of the disclosure could be met when an entity considers the effect on the fair value measurement of changing one or more *unobservable* inputs (ie entities would not be required to assess how *observable* inputs might have been different).
65. With respect to financial instruments:
- (a) in IFRSs, the requirement to assess how observable inputs might change in the future is covered by the market risk sensitivity analysis disclosure in paragraph 40 of IFRS 7; and
  - (b) in US GAAP, Topic 825 encourages, but does not require, an entity to disclose quantitative information about the market risks of financial instruments that is consistent with the way it manages or adjusts those risks. An entity might provide this information by disclosing the hypothetical effects on comprehensive income (or net assets), or annual income, of several possible changes in market prices. In addition, the US SEC requires quantitative and qualitative disclosures about market risk.

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66. The staff thinks information about changes in *observable* inputs would be less useful for non-financial assets and liabilities measured at fair value because non-financial assets and liabilities are more likely to be categorised within Level 3 of the fair value hierarchy, and thus use many *unobservable* inputs.
67. Some have suggested that a measurement uncertainty analysis disclosure also be required for Level 2 fair value measurements given the amount of judgement required in some cases in determining whether to categorise a fair value measurement within Level 2 or Level 3.
68. The staff initially thought this was a good idea because it would prevent entities from categorising a fair value measurement within Level 2 simply to avoid preparing the Level 3 disclosures. Upon further reflection we concluded that because the focus of a measurement uncertainty analysis on the use of *unobservable* inputs, it is not necessary to provide such an analysis for Level 2 fair value measurements. By definition, Level 2 fair value measurements do not have significant unobservable inputs. As a result, the information provided would be of limited use.
69. The staff also notes that the market risk sensitivity analysis disclosure in IFRS 7 already provides some information about the uncertainty associated with observable inputs for financial instruments. Although a combination of the market risk and fair value disclosures might be useful to users of financial statements, such a disclosure has not been envisaged in this project since this project is only concerned with disclosures about fair value measurements, and the market risk sensitivity analysis disclosure is not restricted to fair values.

*How to determine whether other unobservable inputs could have reasonably been used in the circumstances and the effect of inter-relationships between unobservable inputs*

70. Many respondents indicated that they are unsure how they would know whether other unobservable inputs would have been reasonable in the circumstances. They also think it will be difficult to determine whether unobservable inputs are inter-related and, if so, their effect on the fair value measurement. In addition, some have raised practical concerns with performing such an analysis when an

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entity holds thousands of assets or liabilities (such as financial instruments) categorised within Level 3 of the fair value hierarchy.

71. The staff thinks such an analysis would be done by entities as a matter of course when assessing the reasonableness of their fair value measurements in the first place. It is common when performing a valuation to use various scenarios of reasonable inputs before concluding that a fair value measurement is reasonable. The proposed disclosure is asking entities to provide that range of reasonable fair values.
72. Many respondents are concerned about the diversity in practice that may develop if clear guidance is not provided on how to assess which other unobservable inputs could have reasonably been used in the circumstances. Selecting a fair value from a range of possible fair values requires judgment in the first place and determining a range of reasonable fair values is an application of that same judgment. An alternative that might eliminate diversity in practice would be to prescribe an amount by which entities should vary the unobservable inputs. However, such an analysis would often result in measurements that do not represent a range of reasonable fair values (exit prices), and therefore would not be consistent with the objective described in this paper.
73. It is important to note that the threshold for performing the analysis is met only when there are other unobservable inputs that would have been reasonable to use **and** when using those other inputs would have a significant effect on the measurement. As a result, the disclosure would not require an entity to search for and find other inputs to use in the measurement when it would not be reasonable for the entity to use other inputs in the circumstances. In such cases, the entity would not be required to provide the disclosure because there would be little, if any, uncertainty about the measurement.
74. The staff thinks it is important that there be no loss in transparency about what inputs have the most significant effect on the fair value measurement, as is currently provided today for financial instruments in IFRS 7. However, the staff thinks this information can be provided qualitatively by disclosing information

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about which inputs the measurement is most sensitive to on a standalone basis and how the effect of changes in those inputs is mitigated by changes in other unobservable inputs. In addition, the staff thinks this is covered by the proposal that an entity must disclose how it calculated the effect of using different unobservable inputs, but that it could be made clearer in the final standard.

75. Rather than providing an example showing how the disclosure might be presented (which was the example in the exposure drafts), the staff thinks it would be better to show how an entity assessed that there were other reasonable inputs and how those inputs are, or are not, related to other inputs. The example in Appendix 3 illustrates how an entity might do this.

*Level of aggregation*

76. The exposure drafts require that an entity disclose a measurement uncertainty analysis for each class of assets and liabilities categorised within Level 3 of the fair value hierarchy and measured at fair value in the statement of financial position after initial recognition. It is worth noting that the level of aggregation is likely to be lower for Level 3 fair value measurements given the description of ‘class’ in the FASB’s exposure draft and the IASB’s staff draft.<sup>10</sup>
77. One of the biggest criticisms of the proposal made by preparers is that it would be meaningless and possibly misleading once aggregated. However, the users we interviewed did not share that view. They understand that it might be less meaningful when aggregated, but thought that aggregation by class results in sufficient granularity. This is because to be categorised within the same ‘class’, the asset or liabilities must share common characteristics and risks. Furthermore, they would rather have information that is aggregated on a meaningful basis, rather than no information at all or being overwhelmed with information about each asset or liability.

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<sup>10</sup> Paragraph 820-10-50-2C of the FASB’s exposure draft states, ‘A reporting entity shall determine appropriate classes of assets and liabilities on the basis of the nature, characteristics, and risks of the asset or liability, and the level of the fair value hierarchy within which the fair value measurement is categorized. For example, **the number of classes may need to be greater for fair value measurements categorized within Level 3 of the fair value hierarchy because such measurements have a greater degree of uncertainty and subjectivity...**’ [emphasis added]

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78. The staff thinks that Option 1 was not meant to describe *a relationship between* the fair values of individual assets or liabilities, but to provide a range of exit prices for each asset and liability that takes into account *relationships between the inputs used* to measure them. Furthermore, it seems reasonable that the ‘inputs that could have reasonably been used in the circumstances’ would be similar across a class of assets or liabilities, making aggregation less of an issue.

*Meaning of significance*

79. Some have asked for clarification on the significance threshold in the exposure drafts. The exposure drafts state that significance shall be judged with respect to:
- (a) profit or loss/earnings, **and** total assets or total liabilities; or
  - (b) when changes in fair value are recognised in other comprehensive income, with respect to total equity.
80. There is a concern that requiring that a change in fair value must be significant to both profit or loss/earnings and total assets or total liabilities might result in very few changes in fair value being ‘significant’. Because of this, some respondents wondered when they might ever be required to provide this disclosure.
81. The staff thinks it is important for users of financial statements to have information about how the fair value measurement could have been different if that different fair value would have a meaningful (significant) effect on profit or loss/earnings or on total assets or on total liabilities. In other words, the staff thinks the disclosure would be most meaningful if the word ‘and’ in paragraph 79(a) were changed to ‘or’.

*Frequency of the disclosure*

82. One of the practical concerns raised about the disclosure is with respect to the frequency of which it would be required, particularly for US entities that must provide updated financial information on a quarterly basis.

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83. The staff thinks the principle in IAS 34 *Interim Financial Reporting* is appropriate for analysing whether such information should be provided for interim periods or only on an annual basis. There is a similar concept in Topic 270 *Interim Reporting* in US GAAP (see paragraphs 270-10-45-1 and 270-10-50-3) and required by the US SEC.

84. Paragraph 15 of IAS 34 states:

A user of an entity's interim financial report will also have access to the most recent annual financial report of that entity. It is unnecessary, therefore, for the notes to an interim financial report to provide relatively insignificant updates to the information that was already reported in the notes in the most recent annual report. At an interim date, an explanation of events and transactions that are significant to an understanding of the changes in financial position and performance of the entity since the end of the last annual reporting period is more useful.

85. The staff thinks that although the fair value measurements might change during the period, it is unlikely that the range of reasonable fair values will change materially in the absence of a significant change in, for example:

- (a) the economic environment from the last annual period;
- (b) the way the entity measures the fair value of its assets and liabilities subject to the disclosure; or
- (c) in the assets or liabilities held by the entity that are subject to the disclosure.

86. As a result, the staff thinks it is necessary to require the disclosure for annual periods only, unless circumstances change that would result in significantly different information being disclosed.

*Staff recommendation*

87. The staff recommends that the boards proceed with **Option 1** because it best meets the purpose of providing information about the measurement uncertainty inherent in fair value measurements categorised within Level 3 of the fair value hierarchy by meeting the objective to provide a range of fair values (exit prices)

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that could have resulted from the use of other reasonable unobservable inputs in the fair value measurement.

88. If the boards agree with the staff recommendation in paragraph 87 the staff will ask the boards to consider the scope of the disclosure in a future meeting.

**Question 2 – requiring a measurement uncertainty analysis disclosure**

Do the boards agree with the staff recommendation in paragraph 87?

If not, what do you propose and why?

89. If the boards agree with the staff recommendation in paragraph 87, the staff recommends the following:

- (a) replace the term ‘correlation’ with another term that better articulates the requirement to take into account inter-dependencies or inter-relationships between unobservable inputs;
- (b) specify that the disclosure takes into account changes in *unobservable* inputs, not *observable* inputs;
- (c) describe how an entity might determine whether other unobservable inputs could have reasonably been used in the circumstances and their effect on the analysis;
- (d) describe how to determine the effect of inter-relationships between unobservable inputs;
- (e) require that significance shall be judged with respect to:
  - (i) profit or loss/earnings, **or** total assets or total liabilities; or
  - (ii) when changes in fair value are recognised in other comprehensive income, with respect to total equity; and
- (f) require the disclosure for annual periods only, unless circumstances change that would result in significantly different information being disclosed.

**Question 3 – clarifications about and modifications to the proposal**

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Do the boards agree with the staff recommendations in paragraph 89?

If not, what do you propose and why?

90. If the boards do not agree with the staff recommendation in paragraph 87, please continue to the discussion of Option 2.

***Requiring a sensitivity analysis disclosure (Option 2)***

91. Option 2 would require an entity to provide information about how a fair value measurement would be different at the measurement date if each significant unobservable input were changed *in isolation*, giving a range of how the fair value would have been different if everything else were held constant. Option 2 is similar to the sensitivity analysis currently required in IFRS 7 for financial instruments.
92. As a result, Option 2 would not provide a range of exit prices because it would not take into account any inter-relationships between unobservable inputs that might mitigate or magnify the effect on the fair value of changing the inputs. Rather, Option 2 shows how sensitive a measurement is to changes in each individual (significant) input. In contrast, a measurement uncertainty analysis (Option 1) provides a range of fair values that is a result of changing (to similarly reasonable assumptions) all inter-related unobservable inputs *at the same time*.
93. One of the criticisms of the current IFRS 7 disclosure (and also the proposed measurement uncertainty disclosure) is the lack of comparability across entities because they must use judgement about what a ‘reasonably possible alternative input’ would be. Instead, some would rather have entities change the inputs by a prescribed amount. However, doing so might result in unobservable inputs that could not have reasonably been used in the circumstances.
94. Although Option 2 does not require an entity to provide a range of fair value estimates, it does require information about the sensitivity of fair values to changes in unobservable inputs. Such information helps users of financial

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statements assess the measurement uncertainty inherent in Level 3 fair value measurements. To address the fact that the sensitivity analysis does not provide a range of fair values, but to take into account the practical considerations of doing so, the boards could require entities to provide qualitative information about the effect of inter-relationships between unobservable inputs.

95. It is important to note that in some cases Option 1 and Option 2 will not differ. When there is no inter-relationship between unobservable inputs (or if an inter-relationship exists but would not result in a different assumption being made about the other inputs), a measurement uncertainty analysis would lead to the same result as a sensitivity analysis (assuming the input has a significant effect on the measurement).
96. As with Option 1, aggregating by class may render disclosure of a sensitivity analysis less meaningful, although aggregation in Option 2 renders the information less meaningful than Option 1 because no inter-relationships are taken into account.

*Staff recommendation*

97. If the boards do not agree with the staff recommendation in paragraph 87, the staff recommends **Option 2**. That is, that the boards require a sensitivity analysis, without the requirement to include the effect of inter-relationships between inputs in the analysis. Although Option 2 does not provide information about measurement uncertainty, it provides information about the sensitivity of fair value measurements to the assumptions used in the measurement.
98. If the boards agree with the staff recommendation in paragraph 97, the staff will ask the boards to consider the scope of the disclosure in a future meeting.

**Question 4 – requiring a sensitivity analysis disclosure**

Do the boards agree with the staff recommendations in paragraph 97?

If not, what do you propose and why?

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99. If the boards agree with the staff recommendation in paragraph 97, the staff recommends requiring an entity to provide qualitative information about the effect of inter-relationships between unobservable inputs.

**Question 5 – requiring qualitative information about inter-relationships between unobservable inputs**

Do the boards agree with the staff recommendations in paragraph 99?

If not, what do you propose and why?

100. If the boards do not agree with the staff recommendation in paragraph 97, please continue to the discussion of Option 3.

***Requiring additional information about Level 3 measurements (Option 3)***

101. Option 3 would require an entity to provide additional information about the unobservable inputs used in the fair value measurement, describing the inter-relationships between those inputs and describing the processes (including control processes) used by management in reaching its conclusions about the unobservable inputs used.
102. Option 3 would provide users of financial statements with an assessment about the subjectivity of the Level 3 fair value measurements without indicating the numerical effect on the amounts recorded on the statement of financial position.
103. Proponents of this approach think:
- (a) the objective of conveying the quality of a Level 3 fair value measurement can be met by explaining the relationships and valuation processes at a much lower cost than Option 1 or Option 2; and
  - (b) a qualitative assessment will not undermine the actual amounts recorded on the statement of financial position, which is a concern some have about Option 1 and Option 2.
104. Others believe that the qualitative disclosure is not meaningful unless it includes some quantitative information. For example, it would be difficult to assess the

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relative subjectivity of Level 3 fair value measurements without knowing by how much a particular input could affect the measurement.

105. Furthermore, some think that to comply with the objectives of the disclosures already required about fair value measurements in Topic 820 and IFRS 7, an entity would need to provide *quantitative* and *qualitative* information about the inputs used in the measurement. Users have indicated that it is easier to follow tables of quantitative information rather than a narrative describing that information, but ideally they would like both.
106. In addition, entities are required to provide information about their accounting policies, and many already disclose their valuation control processes. As a result, some think Option 3 does not add any information that is not already required or that is already being provided.
107. As with Option 1 and Option 2, aggregating by class may render disclosure of quantitative information as less meaningful.

*Staff recommendation*

108. If the boards do not agree with the staff recommendation in paragraph 97, the staff recommends that the boards require the following additional information about Level 3 fair value measurements:
- (a) quantitative information about the inputs and assumptions used in the measurement;
  - (b) a description of the valuation control processes in place; and
  - (c) a discussion of the sensitivity of the fair value to changes in unobservable inputs and any inter-relationships between those inputs that might magnify or mitigate the effect on the measurement.

**Question 6 – requiring additional information**

Do the boards agree with the staff recommendations in paragraph 108?

If not, what do you propose and why?

## Appendix 1: Proposed requirement

### Disclosure

**820-10-50-1** A reporting entity shall disclose information that helps users of its financial statements to assess both of the following:

- a. For assets and liabilities that are measured at fair value on a recurring or a nonrecurring basis in the statement of financial position after initial recognition, the valuation techniques and inputs used to develop those measurements
- b. For recurring fair value measurements using significant unobservable inputs (Level 3), the effect of the measurements on earnings (or changes in net assets) or other comprehensive income for the period.

**820-10-50-2** To satisfy the principles in the preceding paragraph, a reporting entity shall disclose, at a minimum, the following information...for each class of assets and liabilities...measured at fair value in the statement of financial position after initial recognition.

...

f. A measurement uncertainty analysis for fair value measurements categorized within Level 3 of the fair value hierarchy. If changing one or more of the unobservable inputs used in a fair value measurement to a different amount that could have reasonably been used in the circumstances would have resulted in a significantly higher or lower fair value measurement, a reporting entity shall disclose the effect of using those different amounts and how it calculated that effect. When preparing a measurement uncertainty analysis, a reporting entity shall not take into account unobservable inputs that are associated with remote scenarios. A reporting entity shall take into account the effect of correlation between unobservable inputs if that correlation is relevant when estimating the effect on the fair value measurement of using those different amounts. For that purpose, significance shall be judged with respect to earnings (or changes in net assets) and total assets or total liabilities, or, when changes in fair value are recognized in other comprehensive income, with respect to total equity.

...

## **Example 10: Measurement Uncertainty Analysis**

**820-10-55-77** For recurring fair value measurements categorized within Level 3 of the fair value hierarchy, this Topic requires a reporting entity to provide a measurement uncertainty analysis. The objective of that analysis is to provide users of financial statements with information about the measurement uncertainty inherent in fair value measurements categorized within Level 3 of the fair value hierarchy at the measurement date.

**820-10-55-78** To meet that objective, this Topic requires a reporting entity to take into account the effect of correlation between unobservable inputs if such correlation is relevant when estimating the effect on the fair value measurement of a change in an unobservable input.

**820-10-55-79** When disclosing how a reporting entity calculated the effect on the fair value measurement of changing one or more of the unobservable inputs to a different amount that could have reasonably been used in the circumstances, a reporting entity might compare the unobservable inputs used in the fair value measurement with the different amounts used in the measurement uncertainty analysis.

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**820-10-55-80** A reporting entity might disclose the following for assets when applying paragraph 820-10-50-2(f).

Measurement Uncertainty Analysis for Recurring Fair Value Measurements Using Significant Unobservable Inputs (Level 3)

(\$ in millions)

	Fair Value at 12/31/X9	Difference in Fair Value from Using Different Unobservable Inputs That Could Have Reasonably Been Used		Significant Unobservable Inputs
		Increase in Fair Value	Decrease in Fair Value	
Available-for-sale debt securities				
Residential mortgage-backed securities	\$ 125	\$ 24	\$ (18)	Prepayment rates, probability of default, severity of loss, yield (including the effect of correlation between prepayment rates and probability of default)
Commercial mortgage-backed securities	50	13	(6)	Probability of default, severity of loss, yield
Collateralized debt obligations	35	5	(3)	Implied collateral valuation, default rates, housing prices
Total available-for-sale debt securities	<u>\$ 210</u>	<u>\$ 42</u>	<u>\$ (27)</u>	
Hedge fund investments				
High-yield debt securities	\$ 90	\$ 5	\$ (3)	Net asset value provided by the investee
Total hedge fund investments	<u>\$ 90</u>	<u>\$ 5</u>	<u>\$ (3)</u>	
Private equity investments	\$ 25	\$ 4	\$ (3)	Net asset value provided by the investee
Venture capital investments	10	3	(2)	Net asset value provided by the investee
Derivatives				
Credit contracts	38	6	(5)	Volatility of credit
Total derivatives	<u>\$ 38</u>	<u>\$ 6</u>	<u>\$ (5)</u>	
Total	<u>\$ 373</u>	<u>\$ 60</u>	<u>\$ (40)</u>	

(Note: For liabilities, a similar table should be presented.)

**[Note: the IASB version includes information about investment properties measured at fair value in IAS 40 *Investment Property*.]**

**820-10-55-81** In addition, a reporting entity should provide any other information that will help users of its financial statements to evaluate the quantitative information disclosed. For example, a reporting entity might describe the relative subjectivity and limitations of the unobservable inputs and the range of unobservable inputs used.

## **Example 7A: Measuring Fair Value When the Volume and Level of Activity for an Asset or a Liability Have Significantly Decreased**

...

**820-10-55-59J** If Entity A determines that the market rate of return is an unobservable (that is, Level 3) input and the fair value measurement of the junior tranche of the residential mortgage-backed security would be categorized within Level 3 of the fair value hierarchy, Entity A would need to determine whether changing that input to a different amount that could have reasonably been used would have resulted in a significantly higher or lower fair value of the security. If so, Entity A would provide a measurement uncertainty analysis disclosure describing the effect of using that different amount and how it calculated that effect, including the effect of correlation, if any, between that input and other unobservable inputs.

**Appendix 2: Summary of potential approaches**

Option	Advantages	Disadvantages
<p><b>1 Proceed with a measurement uncertainty analysis disclosure</b></p> <p>Revise the disclosure to address the practical concerns raised by preparers and auditors:</p> <ul style="list-style-type: none"> <li>clarify the objective of the disclosure (a range of reasonable exit prices that could have resulted from the use of other reasonable inputs in the fair value measurement);</li> <li>remove the term ‘correlation’ to avoid confusion;</li> <li>emphasise that the threshold for performing the analysis can be met only when there are other assumptions that would have been reasonable <b>and</b> using those other assumptions would have a significant effect on the measurement; and</li> <li>emphasise the need for supporting qualitative information to help users to better understand the analysis.</li> </ul> <p>Revise the example to show how the measurement uncertainty analysis could be performed, rather than (or in addition to) how it could be presented. The example could show:</p> <ul style="list-style-type: none"> <li>how to assess which other inputs could have reasonably</li> </ul>	<ul style="list-style-type: none"> <li>Provides a range of reasonable fair value estimates that could have been determined in the circumstances.</li> <li>Is more useful than an analysis that takes into account changes in each input in isolation without considering the follow-on effect on other inputs.</li> <li>Gives more information about the valuation and the existence and effect of measurement uncertainty, when the analysis is supported by qualitative information about how the analysis was performed.</li> <li>May result in more robust fair value measurements because entities will need to consider other reasonable scenarios as part of the valuation process. For those who already do this, the incremental cost is unlikely to be significant.</li> <li>Comparability might not be an issue because entities need to determine what’s reasonable in the first place and all will have a different view.</li> <li>Analysis will be done by preparers who have access to the models and inputs, rather than by</li> </ul>	<ul style="list-style-type: none"> <li>Practical challenges include: <ul style="list-style-type: none"> <li>level of aggregation for preparing the analysis</li> <li>difficult to do when using of third party valuations, broker quotes, pricing services</li> <li>more costly to prepare because of time and resources involved, plus increased audit cost.</li> </ul> </li> <li>May not be useful when aggregated by class of asset or liability.</li> <li>May be confusing or misleading to users because it implies a degree of precision that is missing given the practicalities listed above.</li> <li>May not be comparable across entities because one entity’s view of another reasonable input might differ from another entity’s view, making the range of fair values wider (and appear riskier) or narrower (and appear less risky).</li> </ul>

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Option	Advantages	Disadvantages
<p>been used in the circumstances and their effect on the analysis; and</p> <ul style="list-style-type: none"> <li>• how to determine inter-relationships between inputs and their effect on the analysis.</li> </ul>	<p>users who are guessing at the effect on the measurement of changes in particular inputs.</p>	
<p><b>2 Proceed with a sensitivity analysis about fair value measurements, excluding the effect of inter-relationships between inputs</b></p> <ul style="list-style-type: none"> <li>• Require a sensitivity analysis disclosure like that in IFRS 7 and in the IASB's May 2009 exposure draft (ie not explicitly requiring an entity to take into account the effect of inter-relationships between inputs) for Level 3 fair value measurements.</li> <li>• Reword to be consistent with current proposal with respect to using 'inputs that were reasonably possible in the circumstances' rather than 'reasonably possible alternative assumptions'.</li> <li>• Clarify the objective of the disclosure as providing about the sensitivity of a fair value measurement to the use of particular inputs ('key inputs').</li> <li>• Provide an example on how to apply the requirements to increase comparability across entities (IFRS 7 currently does not have an example of how the disclosure should be prepared or presented).</li> <li>• Alternatives to Option 2</li> </ul>	<ul style="list-style-type: none"> <li>• Provides information about the sensitivity of Level 3 fair value measurements to the key assumptions.</li> <li>• Clarifying the objective and requirements may improve comparability across entities.</li> <li>• May be less costly than Option 1.</li> </ul>	<ul style="list-style-type: none"> <li>• Ignores the follow-on effect on other inputs used in the measurement, thereby overstating or understating the effect of measurement uncertainty. Any effort to include the follow-on effects will be done by users who do not have access to the models and inputs, and so are guessing at the follow-on effects on the measurement of changes in particular inputs.</li> <li>• Current IFRS 7 disclosure is not always consistently applied and some entities provide limited information about the analysis.</li> </ul>

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Option	Advantages	Disadvantages
<p>would be to:</p> <ul style="list-style-type: none"> <li>- modify the sensitivity analysis to specify a pre-determined change in key inputs (eg a +/- X% change in an input).</li> <li>- include qualitative information about the effect of inter-relationships and/or explain inter-relationships.</li> </ul>		
<p><b>3 Proceed with a disclosure of additional information about Level 3 fair value measurements</b></p> <p>Require additional qualitative disclosure about the inputs and valuation techniques used in Level 3 fair value measurements, including a qualitative discussion of:</p> <ul style="list-style-type: none"> <li>• the sensitivity to the key inputs;</li> <li>• information about inter-relationships between inputs; and</li> <li>• the controls and processes used by the reporting entity in estimating fair value.</li> </ul> <p>As part of the qualitative disclosure, require quantitative information about the significant unobservable inputs used in the analysis.</p>	<ul style="list-style-type: none"> <li>• If users had more quantitative information about inputs used, they could make their own assessment of the effect of particular inputs on a fair value measurement, as well as the effect of any inter-relationships between those inputs on the measurement.</li> <li>• May be less costly to prepare than Option 1 and Option 2.</li> </ul>	<ul style="list-style-type: none"> <li>• Information about inputs and assumptions used in fair value measurements is already required.</li> <li>• Users have indicated that they need information about the effect on a measurement as well as inputs used, so this approach might not provide users with the information they need.</li> <li>• Analysis will be done by users who do not have access to the models and inputs, and so are guessing at the effect on the measurement of changes in particular inputs.</li> </ul>

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**Appendix 3: Example of inter-relationships between inputs**

1. Assume an entity is measuring the fair value of a financial asset, Convertible Note A. Convertible Note A has a 3-year maturity and is paying a 3 per cent annual coupon. Convertible Note A is not traded.
2. When estimating the fair value of Convertible Note A, the entity considers pricing information for similar notes traded in the marketplace. The entity finds that the issuer of Convertible Note A also has outstanding a 5-year convertible note that has 3 years remaining until maturity (Convertible Note B). The coupon on Convertible Note B is 1.5 per cent and Convertible Note B is trading at 95 cents on the dollar at the measurement date.
3. The entity assumes the expected stock price volatility of the issuer of the convertible notes over the remaining term is 40 per cent and uses this unobservable input, amongst other inputs, to solve for the credit spread implied by the traded price of Convertible Note B.
4. The credit spread that calibrates the valuation model to the traded price is 400 basis points. The entity uses the unobservable inputs of a 40 per cent expected volatility and a 400 basis point credit spread to calculate the fair value of Convertible Note A. The entity concludes that the fair value of Convertible Note A is \$100 and recognises that amount in the statement of financial position.
5. As of the measurement date, the expected stock price volatility of the issuer of the convertible notes could have reasonably been assumed to be 50 per cent—say that is the upper limit that is most reasonable.<sup>11</sup>
6. Using 50 per cent as the expected volatility and solving for the traded price of 95 cents on the dollar for Convertible Note B yields an assumed credit spread of

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<sup>11</sup> In many cases, there will also be a lower limit that is most reasonable. In this example, it is assumed that the originally assumed volatility (40 per cent) is the most reasonable lower limit and so establishes the higher end of the range of fair values for the instrument as a whole. The objective is to arrive at a range of fair values, and the fair values on either end of the range must be internally consistent (ie they must be fair values that the entity could have reported in the statement of financial position at the measurement date).

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550 basis points.<sup>12</sup> The entity calculates an alternative fair value for Convertible Note A using those other inputs that could reasonably have been used in the circumstances. In this case, the fair value also reasonably could have been \$97.<sup>13</sup>

7. The entity would disclose:
  - (a) the fact that the fair value measurement is sensitive to changes in the issuer's stock price volatility and the credit spread;
  - (b) the fact that stock price volatility and credit spreads are inter-related in its analysis; and
  - (c) the net effect on the measurement of changing both assumptions at the same time.
8. The staff thinks this is what the boards meant when they proposed requiring entities to disclose how they calculated the effect of correlation.

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<sup>12</sup> There might be situations when changing a significant assumption will not have a follow-on effect on other assumptions. In those situations, a measurement uncertainty analysis will have the same result as a sensitivity analysis.

<sup>13</sup> It is assumed in this example that a change in fair value of \$3 is significant.

#### **Appendix 4: Supplemental information**

1. This appendix contains a discussion about:
  - (a) comparability across entities and compliance with the current IFRS 7 fair value disclosure;
  - (b) whether the disclosure is redundant to the requirements in IAS 1 and Topic 275; and
  - (c) how the disclosure compares with the market risk sensitivity analysis in IFRS 7, Topic 825 and the US Securities and Exchange Commission's requirement to provide quantitative and qualitative disclosures about market risk.

#### ***Comparability across entities and compliance with the current IFRS 7 fair value disclosure***

2. A criticism of Option 1 and Option 2 is that the use of judgement in determining other inputs that could have reasonably been used in the circumstances will result in disclosures that are not comparable across entities.
3. The staff notes that the proportion of financial assets and financial liabilities valued using significant unobservable inputs (Level 3) varies widely across reporting entities (relative to Level 1 and Level 2 fair value measurements). This may be driven by the following:
  - (a) differences in the range of products measured at fair value;
  - (b) variances in interpretation and application of some terms, such as 'observability', 'active market' and 'significant' inputs;
  - (c) differences in accessibility to various markets for a particular product; and

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- (d) differences in valuation processes and different levels of interaction with third-party valuation sources, such as pricing services and brokers, to prove price observability.
4. The staff thinks that achieving comparability is not the objective of a measurement uncertainty analysis or sensitivity analysis disclosure. Level 3 fair value measurements vary greatly because of the judgment involved in interpreting and applying the requirements. However, all fair value measurements have the same objective—an exit price from the perspective of market participants at the measurement date. The measurement uncertainty analysis disclosure is meant to give insight into the effect of an entity's use of judgement.
5. There is a perception that few entities comply with the disclosure currently required in IFRS 7. Those who hold that view generally cite disclosures provided by companies that do not have many Level 3 fair value measurements. The Committee of European Securities Regulators (CESR) published a report, *Application of disclosure requirements related to financial instruments in the 2008 financial statements*, in October 2009. That report states that around 40% of the companies (10% of FTSE Eurotop-companies) did not comply with the mandatory sensitivity analysis requirement of fair values to changes in the various assumptions.
6. Some have come across disclosures that say, 'If fair value were 5% different, fair value would be 5% different.' One disclosure identified by the staff says, 'At 31 December 2007, the sensitivity of the values resulting from reasonable alternative assumptions likely to be used to quantify the parameters used can be estimated at approximately EUR 270 million,' with no further information.
7. The staff thinks some of this criticism is unwarranted. In our research into the IFRS 7 disclosures made by companies, we have found that financial institutions (that hold Level 3 assets and liabilities) generally comply with the requirement. In the staff's opinion, their disclosures have improved over the past few years, particularly in the light of the financial crisis.

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8. Although some do not provide the disclosure, in many cases it is because they do not have a material amount (if any) of Level 3 instruments and/or management do not think a change in assumptions would have a significant effect on the financial statements. For example, in its 2009 annual report, Allianz Holdings plc stated:

Given the relatively immaterial value of the level 3 financial assets held, relatively large changes in the assumptions used to value the financial instrument are unlikely to have a material impact on the Group financial position.

9. The staff thinks it is not possible, or desirable, to remove the judgement involved in measuring fair value in Level 3 or in categorising within the hierarchy. However, we think it is important to provide enough guidance, as described in this paper, to help entities comply with the objective of the disclosure, even if they do not arrive at the same numerical result.

***How is a measurement uncertainty analysis disclosure different from the requirement in IAS 1 and Topic 275?***

10. Some respondents to the exposure drafts asked how this proposal relates to the requirements to provide information about estimation uncertainty in paragraph 129(b) of IAS 1. Topic 275 in US GAAP requires entities to provide similar information (see paragraphs 275-10-50-6—50-9).
11. Paragraph 129 of IAS 1 states:

An entity presents the disclosures in paragraph 125<sup>[14]</sup> in a manner that helps users of financial statements to understand the judgements that management makes about the future and about other sources of estimation uncertainty. The nature and extent of the information provided vary according to the nature of the assumption and other circumstances. Examples of the types of disclosures an entity makes are:

- (a) the nature of the assumption or other estimation uncertainty;

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<sup>14</sup> Paragraph 125 of IAS 1 states that ‘An entity shall disclose information about the assumptions it makes about the future, and other major sources of estimation uncertainty at the end of the reporting period, that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year...’

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- (b) **the sensitivity of carrying amounts to the methods, assumptions and estimates underlying their calculation, including the reasons for the sensitivity;**
  - (c) the expected resolution of an uncertainty and the range of reasonably possible outcomes within the next financial year in respect of the carrying amounts of the assets and liabilities affected; and
  - (d) an explanation of changes made to past assumptions concerning those assets and liabilities, if the uncertainty remains unresolved. [**Emphasis added.**]
12. The requirements in IAS 1 and Topic 275 provide users of financial statements with information about management judgements and estimates. The list in paragraph 129 of IAS 1 contains examples, and an entity might determine that the requirement in paragraph 129(b) is not relevant in the circumstances.
13. Furthermore, the requirements in paragraph 129(b) of IAS 1 or paragraph 275-10-50-8 in US GAAP would not provide information about the measurement uncertainty inherent in Level 3 fair value measurements at the measurement date because they do not take into account the effect of inter-relationships between unobservable inputs.

***How is a measurement uncertainty analysis different from the market risk sensitivity analysis in IFRS 7, Topic 825 and the US Securities and Exchange Commission's requirement to provide quantitative and qualitative disclosures about market risk?***

14. IFRS 7 requires a sensitivity analysis about an entity's exposure to market risks (ie interest rate risk, currency risk and other price risk). Topic 825 encourages a similar disclosure in US GAAP (see paragraph 825-10-50-23). The US SEC requires quantitative and qualitative disclosures about market risk.
15. The staff thinks that even though there is some overlap in the proposal and the market risk sensitivity analysis disclosure, the objective of each disclosure is different. The market risk disclosure captures an entity's exposure to market risks. Market risk should not be confused with measurement uncertainty. Market risk focuses on the gain or loss due to changes in market conditions over a period of time.

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16. The measurement uncertainty analysis disclosure captures the measurement uncertainty about Level 3 fair value measurements, which have the greatest level of subjectivity. It relates the probability of estimates that would differ from the price in an actual transaction at the measurement date.
17. In addition, the market risk sensitivity analysis disclosure is only for financial instruments, whereas the proposed measurement uncertainty analysis disclosure is for all assets and liabilities measured at fair value (unless another IFRS specifies that such a disclosure is not required for a particular asset or liability).
18. The following describes the main differences between the two disclosures:
  - (a) the market risk disclosure is not specific to financial instruments measured at fair value, but also relates to financial instruments measured at amortised cost;
  - (b) the market risk disclosure focuses on the effect on profit or loss and equity, not specifically on the change in value;
  - (c) the market risk disclosure focuses only on the entity's exposure to market risks (eg interest rate risk, currency risk, other price risk), whereas the measurement uncertainty analysis considers the effect on a fair value measurement of all significant unobservable inputs; and
  - (d) the market risk disclosure does not distinguish between observable and unobservable inputs (or levels in the fair value hierarchy), whereas the measurement uncertainty analysis disclosure relates only to the unobservable inputs used in Level 3 fair value measurements.
19. Because of the different objectives and resulting differences between the sensitivity analysis disclosure and the measurement uncertainty analysis disclosure, the staff thinks that only requiring a sensitivity analysis does not provide sufficient information about the measurement uncertainty inherent in Level 3 fair value measurements, including the source(s) of that uncertainty.

## Appendix 5: Summary of staff recommendations

### *Objective of a measurement uncertainty analysis*

1. The staff recommends that the boards specify that the objective of a measurement uncertainty analysis disclosure is to provide a range of fair values (exit prices) that could have resulted from the use of other reasonable unobservable inputs in the fair value measurement. Although the staff thinks this is implicit in the objective in the exposure drafts, the wording in the exposure drafts has caused some confusion about how an entity might meet the objective.

#### **Question 1 – objective of a measurement uncertainty analysis**

Do the boards agree with the staff recommendation in paragraph 1?

If not, what do you propose and why?

### *Requiring a measurement uncertainty analysis disclosure*

2. The staff recommends that the boards proceed with **Option 1** because it best meets the purpose of providing information about the measurement uncertainty inherent in fair value measurements categorised within Level 3 of the fair value hierarchy by meeting the objective to provide a range of fair values (exit prices) that could have resulted from the use of other reasonable unobservable inputs in the fair value measurement.
3. If the boards agree with the staff recommendation in paragraph 2, the staff will ask the boards to consider the scope of the disclosure in a future meeting.

#### **Question 2 – requiring a measurement uncertainty analysis disclosure**

Do the boards agree with the staff recommendation in paragraph 2?

If not, what do you propose and why?

4. If the boards agree with the staff recommendation in paragraph 2, the staff recommends the following:

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- (a) replace the term ‘correlation’ with another term that better articulates the requirement to take into account inter-dependencies or inter-relationships between unobservable inputs;
- (b) specify that the disclosure takes into account changes in *unobservable* inputs, not *observable* inputs;
- (c) describe how an entity might determine whether other unobservable inputs could have reasonably been used in the circumstances and their effect on the analysis;
- (d) describe how to determine the effect of inter-relationships between unobservable inputs;
- (e) require that significance shall be judged with respect to:
  - (i) profit or loss/earnings, **or** total assets or total liabilities; or
  - (ii) when changes in fair value are recognised in other comprehensive income, with respect to total equity; and
- (f) require the disclosure for annual periods only, unless circumstances change that would result in significantly different information being disclosed.

**Question 3 – clarifications about and modifications to the proposal**

Do the boards agree with the staff recommendations in paragraph 4?

If not, what do you propose and why?

**Requiring a sensitivity analysis disclosure**

5. If the boards do not agree with the staff recommendation in paragraph 2, the staff recommends **Option 2**. That is, that the boards require a sensitivity analysis, without the requirement to include the effect of inter-relationships between inputs in the analysis. Although Option 2 does not provide information about measurement uncertainty, it provides information about the sensitivity of fair value measurements to the assumptions used in the measurement.

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6. If the boards agree with the staff recommendation in paragraph 5, the staff will ask the boards to consider the scope of the disclosure in a future meeting.

**Question 4 – requiring a sensitivity analysis disclosure**

Do the boards agree with the staff recommendations in paragraph 5?

If not, what do you propose and why?

7. If the boards agree with the staff recommendation in paragraph 5, the staff recommends requiring an entity to provide qualitative information about the effect of inter-relationships between unobservable inputs.

**Question 5 – requiring qualitative information about inter-relationships between unobservable inputs**

Do the boards agree with the staff recommendations in paragraph 7?

If not, what do you propose and why?

***Requiring additional information about Level 3 measurements***

8. If the boards do not agree with the staff recommendation in paragraph 5, the staff recommends that the boards require the following additional information about Level 3 fair value measurements:
- (a) quantitative information about the inputs and assumptions used in the measurement;
  - (b) a description of the valuation control processes in place; and
  - (c) a discussion of the sensitivity of the fair value to changes in unobservable inputs and any inter-relationships between those inputs that might magnify or mitigate the effect on the measurement.

**Question 6 – requiring additional information**

Do the boards agree with the staff recommendations in paragraph 8?

If not, what do you propose and why?