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Effect of Implementation of IFRS 13 Fair Value Measurement: Summary of the Literature Review

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Introduction

This executive summary presents the highlights from a review of the academic literature on fair value that relates to the questions raised in the Post-Implementation Review—IFRS 13 *Fair Value Measurement*. The underlying review includes findings from 55 studies, of which 21 examine international samples of economic entities, and 34 rely on US-based samples.[1]

Fair value measurement disclosures

RFI Question
Question 2—Fair value measurement disclosures (a) How useful do you find the information provided about Level 3 fair value measurements? Please comment on what specific information is useful, and why. (b) In your experience of Level 3 fair value measurements: (i) How do aggregation and generic disclosure affect the usefulness of the resulting information? Please provide examples to illustrate your response. (ii) Are you aware of any other factors (either within or outside IFRS requirements) affecting the usefulness of the information? Please provide examples to illustrate your response. (iii) Do you have suggestions on how to prevent such factors from reducing the usefulness of the information provided? (c) Is there information about fair value measurements that you think would be useful and that IFRS 13 does not require entities to disclose? If yes, please explain what that information is and why you think it would be useful. Please provide any examples of disclosure of such information.

Several studies test managerial and investor behaviour and reactions to representations of FV disclosures required by IFRS 13 (and SFAS 157) using experiments. In general, these studies show that the Level 3 FVM disclosures are beneficial as they restrain managers' propensity to engage in aggressive reporting, provide investors with added assurance that reduces their perception of risk in FV estimates and increases investors' confidence as they are better able to judge and process managerial estimates. However, some studies also find that non-professional investors' reliance on FV estimate disclosures varies with whether a profit or loss is reported (ie depends on the gain or loss associated with the FV assets). These studies report that there are benefits from requiring range disclosures for uncertain FV estimates as well as quantitative and qualitative sensitivity disclosures for Level 3 FV.

Value relevance is a key area of academic research in accounting as it reveals if financial reporting captures information or economic phenomena that are relevant to investors. It refers to the association between an accounting estimate and a firm's stock market value, future earnings as forecasted by financial analysts or actual future earnings and cash flows. It must be noted that most value relevance research is US-based in light of the earlier enactment of formal accounting standards in that country (ie SFAS 157).

[1] About 65% of the studies reviewed are published. The rest are as of the date of the review unpublished working papers, meaning that their results could change during the publication process.

Overall, assets measured at fair value (FV) are value relevant.[2] Most studies report that Level 1 is value relevant, either to an extent greater than Level 2 or to a similar extent. However, in a few studies, Level 2 exhibits value relevance that is greater than for Level 1. The value relevance of Level 3 seems contextual. While in most studies, Level 3 is value relevant but to a lesser extent than Levels 1 or 2, in a few studies it has no value relevance while in other studies, it exhibits value relevance greater than Levels 2 and 1. The value relevance of FV estimates, especially Level 3, appears to be conditioned by the following factors:

- The uncertainty embedded in fair value measurement (FVM), as reflected in the attributes of securities being valued, with equity securities at Level 3 being valued less than bonds at Level 3,
- Market conditions and market participants' sophistication, with markets with more institutional investors assigning greater value relevance to Level 3 than other markets,
- Managerial intent with respect to underlying assets, with FV for securities under the fair value option being perceived to be less relevant than for securities held-for-trading or available for sale,
- The institutional environment (laws, regulations, enforcement), with a strong investor protection environment enhancing the value relevance of Level 3.

According to IFRS 13 (par. 72), *"the value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1 inputs) and the lowest priority to unobservable inputs (Level 3 inputs).*" Hence, as one moves down the hierarchy, there is greater complexity in valuation models and greater use of judgement. An assumption made by several studies is that such hierarchy implicitly reflects potential relevance and faithful representativeness. However, while some studies show that the relative value relevance of FV items matches such ordering, several studies report that Level 2 or Level 3 items exhibit greater value relevance than Level 1 items.

Furthermore, a number of studies examine to what extent the numbers reported in financial statements for Levels 1, 2 and 3 reflect managerial discretion (ie judgements and estimates), with potential implications on the quality of financial reporting and on its decision usefulness. The evidence indicates that managerial discretion can be used in several ways:

- One study shows that managers compensate for the perceived lack of reliability for Level 2 and 3 assets by providing more conservative FV estimates,
- A few other studies conclude that FV estimates are biased to manipulate reported results, thus enabling a firm to achieve particular financial (eg, earnings) goals or targets,
- Some papers conclude that managers use their discretion to enhance the information content of FV numbers, thus reducing the information gap between them and investors.

[2] For the sake of brevity, "assets (or liabilities) measured at fair value" is replaced by "fair value" in the rest of the summary.

Fair Value Measurement of Non-financial Assets: Highest and Best Use and Other Judgements

Question 4—Application of the concept of highest and best use for non-financial assets (a) Whether the assessment of an asset's highest and best use is challenging, and why. Please provide examples to illustrate your response.
Question 5—Applying judgments required for fair value measurements (a) is it challenging to assess whether a market for an asset or a liability is active? Why, or why not? (b) is it challenging to assess whether an input is unobservable and significant to the entire measurement? Why, or why not?

There is only scant research on the application of the concept of highest-and-best use. A survey of 93 European real estate managers finds that the weight placed on this concept when estimating FV varies across firms. A content analysis of annual and interim reports of European real estate firms in 2013–2014 finds that only about 50% of firms comment on the role highest-and-best use played in estimating FV.

One study reports interviews with 19 managers of eleven large European firms across four industries (telecommunications, pharmaceutical, general industrial, electricity utility) in 2006–2007. The interviews reveal that managers rely solely on Level 3 estimations from the preparer's perspective for non-financial operational assets due to the lack of active markets and comparable non-financial assets.[3] However, it must be pointed out that IFRS 13 does allow the highest-and-best use to be the same as current use. Interviewees also point out that their firms consider the implementation of IFRS 13 requirements on measuring FV for non-financial assets by choosing among the following techniques: (1) finding a suitable result by strategically adapting IFRS 13 requirements; (2) narrowing the problem to make it manageable (eg supply auditors with limited information in order to reduce any disagreements on this topic); (3) outsourcing the problem by relying on external valuations.

Experimental studies in audit research (in the US, China, Germany and France) find that external auditors face several challenges when assessing FVM, mostly as a result of the complexity of the underlying models, inputs and assumptions. It also appears that FVM requiring greater judgement (ie Level 3) and based upon client's estimates attract greater attention from auditors. Potential outcomes of such complexity are auditors' increasing reliance on external specialists to resolve measurement issues and a propensity to lead clients to provide additional disclosure.

[3] The interviewees were commenting with the IFRS 13 Discussion Paper and SFAS 157 in mind as the interviews took place prior to IFRS 13 implementation.

Biological Assets

Question 6A—Education on measuring biological assets at fair value Please describe your experience of measuring the fair value of biological assets: (a) are any aspects of the measurement challenging? Why, or why not? Please provide examples to illustrate your response. (b) what, if any, additional help would be useful in applying IFRS 13? In which areas?

Relying on international data from 2011–2013, one working paper reports that FVM for biological assets is value relevant, especially for firms with extensive levels of FVM disclosure. However, that overall result may be subject to some caveats. For instance, a pre-IFRS 13 working paper finds that FVM for biological assets is more decision-useful for value-in-exchange than for value-in-use (ie, bearer plants). Moreover, a published study covering firms from 26 countries over the period 2001–2013 shows that the use of FVM raises a firm's cost of debt, especially if the underlying assets are bearer plants. Hence, it appears that the use of FV for bearer plants raises some challenges for investors and creditors.

Costs Related to Fair Value Measurement

Question 7—Effects and convergence Please share your experience of the overall effect of IFRS 13: (ii) what effect did IFRS 13 have on comparability of fair value measurements between different reporting periods for an individual entity and between different entities in the same reporting period? (iii) what effect did IFRS 13 have on compliance costs; specifically, has the application of any area of IFRS 13 caused considerable costs to stakeholders and why?

Only a few studies focus on the FVM disclosure upon implementation of IFRS 13, and focus on real estate firms in Europe. One published study finds that in 2013, 84% of firms applying the fair value model for investment property disclose the FV hierarchy; 100% of firms describe the valuation techniques used for Level 2 and 3 FV; 91% of firms that use Level 3 disclose significant unobservable inputs; 70% provide quantitative information about sensitivity analyses for Level 3 FVM. Another working paper finds that in 2013–2014, about 54% of real estate firms provide more disclosure under IFRS 13 than under IAS 40.

The accounting literature discusses two types of costs related to FVM: (1) audit fees, and (2) information processing costs. Regarding audit fees, insights come from two industries, the banking sector and the real estate industry. The two published studies on the banking sector find no significant relation between the proportion of FV and audit fees in the pan-European context and a positive relation in the US setting. The published study on the real estate industry in the EU finds lower audit fees the larger the firm's exposure to FV. All three studies find that a higher proportion of Level 3 FV assets is related to higher audit fees. Regarding information processing costs, one large-sample US-based working paper (2011–2014) finds that higher reporting complexity (ie fair values, derivatives, pensions), is related to lower financial analyst coverage, and suggests this is due to the specialization required to understand complex accounts.

Conclusion

This paper provides a summary of the academic literature that examines the implementation of IFRS 13. Three key takeaways arise from this review of prior research.

- The disclosure of the FV hierarchy underlying FV estimates (vs. no disclosure) is beneficial to capital markets' participants such as investors and financial analysts. It allows them to be more precise in their valuation of a firm and in the forecasting of its future earnings.
- Regarding specific FV levels, the ranking which is implicit in the hierarchy (ie Level 1 > Level 2 > Level 3 in terms of relevance or faithful representativeness) does not apply consistently across studies. While fair value overall is value relevant, the relative ordering of the value relevance of various Levels seems to vary according to several factors, including the nature of the underlying assets, the market conditions, the institutional environment and managerial intent.
- Depending upon their incentives, including the governance to which they are subject, managers will take advantage of their measurement discretion either to inform financial statements users (and thus increase the quality of reporting) or to deceive them (eg to achieve some earnings targets).

In this regard, it is noteworthy to mention that no paper actually discusses and analyses the process by which FV estimates are arrived at. One US-based study provides evidence that such process is deemed important by market participants, but its insights are limited to what is currently being voluntarily disclosed. Investors may need a better understanding of this process, which will allow them to adjust their reliance on FV estimates. The disclosure of such process is required by IFRS 13.