

# USER PERSPECTIVE ON FINANCIAL INSTRUMENT RISK DISCLOSURES UNDER INTERNATIONAL FINANCIAL REPORTING STANDARDS

Volume 1



CFA Institute



# **USER PERSPECTIVE ON FINANCIAL INSTRUMENT RISK DISCLOSURES UNDER INTERNATIONAL FINANCIAL REPORTING STANDARDS**

Volume 1

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Our mission is to lead the investment profession globally by promoting the highest standards of ethics, education, and professional excellence for the ultimate benefit of society.

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# 1. Executive Summary

**The** imperative to improve financial instrument risk disclosures became apparent during the 2007–09 global financial crisis. CFA Institute has undertaken a study regarding the quality of financial instrument risk disclosures across financial and non-financial institutions. The risk disclosures addressed in the study concern credit, liquidity, market, and hedging activities under International Financial Reporting Standards Statement No. 7, Financial Instruments: Disclosures (IFRS 7). This report (Volume 1) provides a user perspective on financial instrument credit, liquidity, and market risk disclosures based on the CFA Institute study. As an extension of this report, a separate report (Volume 2) provides a user perspective on the disclosures of derivatives and hedging activities.

The CFA Institute study (1) evaluates the findings of various pieces of literature and their conclusions regarding the usefulness of risk disclosures; (2) obtains, through user surveys and interviews, feedback on the importance of, satisfaction with, and application and usefulness of current financial risk disclosures; and (3) reviews risk disclosures in annual reports of financial and non-financial institutions and constructs a disclosure quality index (DQI) to place in context the user feedback

obtained. The study triangulates these sources of information in order to analyse and convey user perspectives on IFRS 7 disclosures.

As discussed in Section 3, the study’s findings show that risk disclosures are both widely used and regarded as important by users. However, users have a low level of satisfaction with such disclosures owing to the following general shortcomings:

- Risk disclosures are difficult to understand because of their incomplete nature and often-fragmentary presentation. Identifying key information in risk disclosures can sometimes be like searching for a needle in a haystack.
- Qualitative disclosures are uninformative and are often not aligned with quantitative disclosures.
- Users have low confidence in the reliability of quantitative disclosures.
- Disclosures have low consistency and comparability.
- Top-down, integrated messaging on overall risk management is missing.

Specific shortcomings of credit, liquidity, and market risk disclosures are discussed in Sections 5, 6, and 7, respectively. Regarding the noted general deficiencies, this report makes several recommendations for improving disclosures (as described in Section 4):

- **Requirement of executive summary of risk disclosures**—An executive summary of risk disclosures should be provided that outlines details of entity-wide risk exposure and effectiveness of risk management mechanisms across different types of risk. The executive summary should cover risk types considered significant for specific business models.
- **Improved alignment of qualitative and quantitative disclosures**—Qualitative disclosures should explain quantitative measurements better.
- **Standardisation and assurance of quantitative disclosures**—Standardised and adequately audited quantitative disclosures are required to improve comparability.
- **Improved and integrated presentation of disclosures**—Integrated, centralised, and tabular risk disclosures should be provided. For example, there should be disclosure of (1) the integration of risk exposure and risk management information and (2) the interaction of different risk factors.
- **Focus on communication and not mere compliance**—Overall, as elucidated in this report, the reporting outcomes from IFRS 7 disclosure requirements illustrate that a principles-based definition of disclosure is not the antidote to fears about boilerplate and uninformative disclosures. In fact, broad and vague definitions that are then described as principles are a significant contributory factor to uninformative disclosures. A review of these financial risk disclosures shows that there remains a need for financial statement preparers to shift away from “tick-box mere compliance” with disclosure requirements. Preparers should adopt a meaningful communication mindset focused on conveying risk exposures and risk management policy effectiveness, as well as fostering a dialogue with investors. Such a paradigm shift is necessary before a principles-based approach to disclosure can result in substantially useful information.

Notwithstanding the need for improvement, a commonly cited argument against providing more information through disclosures is that companies are already providing voluminous disclosures that users find burdensome to read. Accordingly, some stakeholders might consider reducing disclosure volume the proper focus of disclosure reform. Users would likely concur that eliminating boilerplate information from disclosures is worthwhile (e.g., when companies merely restate IFRS requirements or provide generic descriptions of risk management). The overarching focus of disclosure reform, however, should



be on enhancing the following desirable attributes of disclosures: adequate information content (i.e., relevant and complete information), ease of access and parsimonious presentation, understandability, and comparability. Risk disclosure information with these attributes would not be burdensome for investors.

The need to focus on quality of information is pinpointed in the following quote from an Association of Chartered Certified Accountants (ACCA) study<sup>1</sup> on narrative reporting that focuses on user perspectives:

This is where banks sometimes get confused, because you ask for better disclosure and they think, “Oh look, we’ve given you 600 pages already,” which contains 575 pages of completely worthless guff. What we really want is granularity and this is in the areas that matter.

This report outlines recommendations for improving financial instrument risk disclosures. If implemented, these recommendations would result in financial instrument risk disclosures that are more informative and easier for investors to process for purposes of securities valuation and analysis.

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<sup>1</sup>Campbell and Slack (2007).

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## 2. Contribution and Methodology of Study

This section highlights the significance of the study with respect to its contribution to the literature as well as our methodology.

### 2.1. Contribution of Study

As illustrated in **Figure 2.1**, the recent financial crises have highlighted the interconnectedness between the state of the economy and several key financial risk exposures, such as credit, liquidity, and market risk. At the same time, there is often limited transparency for users regarding these risk exposures and how they are managed by reporting entities. This limited transparency contributes to the mispricing of risk and the misallocation of capital and minimises investors' ability to provide market discipline on a timely basis. It also contributes to disorderly capital market corrections in the valuation of companies during crises as investors belatedly recognise that reporting entities are riskier than they were assumed to be.

In a broader sense across the full economic cycle, high-quality financial instrument risk disclosures can assist in informing users about

- financial instrument measurement uncertainty, including the sensitivity of reported values to inputs and assumptions and the explanation of period-to-period movements; and
- forward-looking financial risk information that has a bearing on enterprise risk.

Risk disclosures can inform investors about a reporting entity's risk profile regardless of the measurement basis (i.e., fair value or amortised cost).<sup>2</sup>

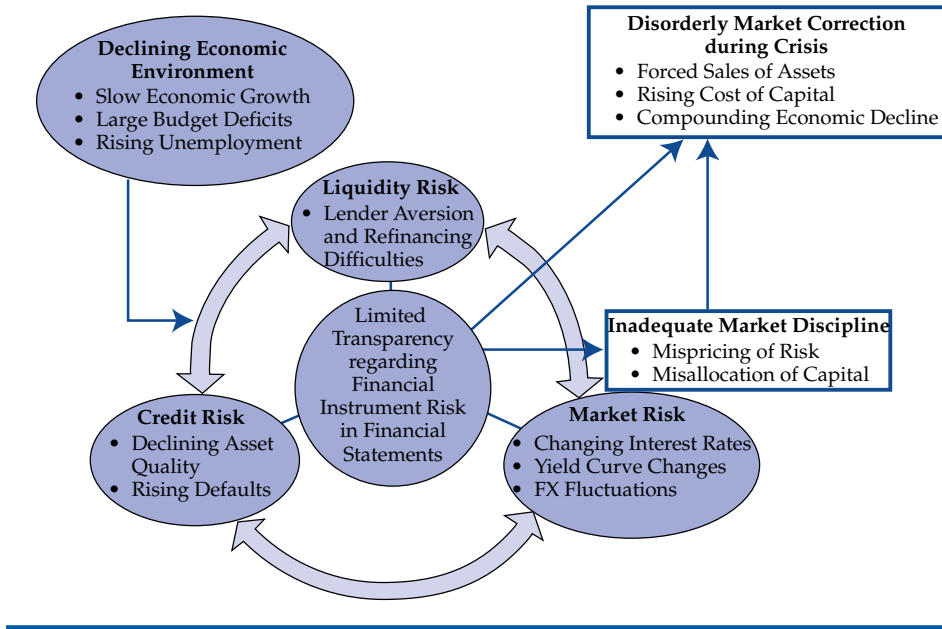
In a 2011 white paper,<sup>3</sup> the Financial Stability Board (FSB) noted the need to improve risk disclosures on the basis of input from investors and other key stakeholders:

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<sup>2</sup>Relevant information can make a difference in users' decision making by helping them evaluate the potential effects of past, present, and future transactions or other events on future cash flows (*predictive value*) or confirm or correct their previous evaluations (*confirmatory value*).

<sup>3</sup>FSB (2011).

**Figure 2.1. Consequences of Limited Transparency regarding Financial Instrument Risk Exposure**



While standard-setting bodies have improved their disclosure requirements since 2008, the Financial Stability Forum (FSF) had also recommended that investors, financial institutions and auditors should jointly develop risk disclosure principles and should work together to identify enhancements in specific risk disclosures that would be most relevant given the recent evolution of market conditions. This has not happened.

A number of studies have reviewed the extent to which reporting entities comply with IFRS 7 disclosure requirements, including reports by the following institutions:

- The Committee of European Banking Supervisors (CEBS), predecessor of the European Banking Authority (EBA)<sup>4</sup>

<sup>4</sup>CEBS (2010b); CEBS (2010a).

- The Committee of European Securities Regulators (CESR), predecessor of the European Securities Market Authority (ESMA)<sup>5</sup>
- KPMG<sup>6</sup>
- PricewaterhouseCoopers (PwC)<sup>7</sup>

Although these studies generally reveal a pattern of partial compliance with IFRS 7 requirements by reporting entities, they do not explicitly focus on user perspectives on the usefulness of such disclosures. The previously mentioned ACCA study,<sup>8</sup> however, does focus on user perspectives. The ACCA study outlines investment analysts' views on narrative reporting, including risk disclosures, but neither identifies users' specific applications of risk disclosures nor reviews in detail reported company disclosures in a manner that could corroborate the articulated user feedback. The CFA Institute study is intended to fill these gaps.

As noted in a CFA Institute report on the Comprehensive Business Reporting Model (CBRM), which it developed:<sup>9</sup>

Without clear and complete disclosure of a company's risk exposures, its plans and strategies for bearing or mitigating those risks, and the effectiveness of its risk management strategies, investors will be unable to evaluate either the company's potential risks and rewards or its future expected outcomes. (p. 49)

The findings should also contribute to the dialogue that needs to occur between investors, financial institutions, and auditors, as the FSB has recommended.

## 2.2. Methodology

As illustrated in **Figure 2.2**, this study was conducted through a combination of reviewing risk disclosure literature, obtaining user feedback via interview and survey techniques, and performing detailed analyses of company risk disclosures.

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<sup>5</sup>CESR (2009).

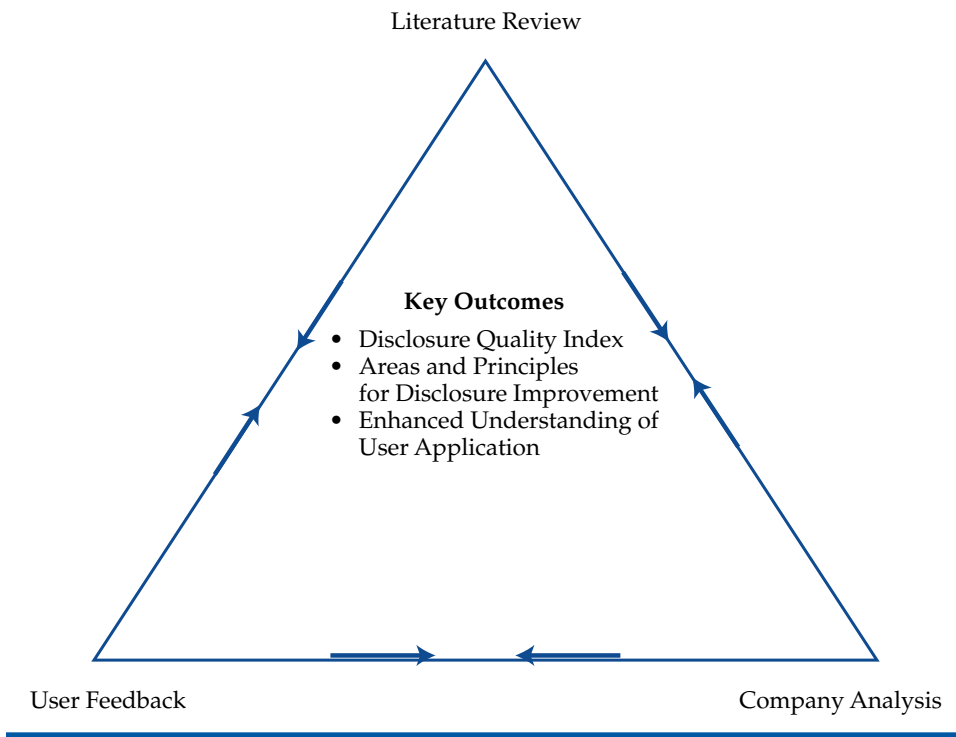
<sup>6</sup>KPMG (2009b); KPMG (2009a).

<sup>7</sup>PwC (2008).

<sup>8</sup>Campbell and Slack (2007).

<sup>9</sup>CFA Institute (2007).

Figure 2.2. Methodology



- **Review of financial risk disclosure literature**—The framework used to analyse the usefulness of financial instrument risk disclosures is derived from various sources in the literature, including standard-setter, academic, and regulatory commentary (e.g., user comment letters).
- **User feedback**—Direct user feedback was received from 133 respondents. This feedback was gathered from two surveys (i.e., both an abridged and a comprehensive survey questionnaire). Respondents included 83 CFA Institute members who were users of financial statements and 50 external sell-side analysts<sup>10</sup> who were not CFA Institute members. The Appendix contains a detailed description of the survey design. In the surveys, respondents were queried on the following issues:

<sup>10</sup>The sell-side analysts were identified from research reports of large-cap IFRS-compliant companies. The sell-side research reports were downloaded from the Thomson Research Investext database.

- ▲ General usefulness of IFRS 7 disclosures
- ▲ Relative usefulness of different components of IFRS 7 disclosures
- ▲ Importance of, and satisfaction with, specific categories of risk disclosures (i.e., credit, liquidity, market, and hedging activities)
- ▲ Analysts' and investors' specific uses and applications of information from different disclosures in the performance of security selection, valuation, and risk analysis

In addition to the survey feedback, the views of three expert users were probed in further detail, through telephone interviews, to substantiate the application of IFRS 7 disclosures and potential areas for improvement. Various insights were also distilled from discussions on risk disclosures between the Corporate Disclosure Policy Council (CDPC)<sup>11</sup> of CFA Institute and standard-setters. Key points from these discussions were integrated into the user feedback.<sup>12</sup>

- **Company analysis**—The company analysis was carried out by reviewing the risk disclosures in the annual reports of 20 IFRS-reporting companies and then constructing a disclosure quality index (DQI). The company analysis provided a context for corroborating and evaluating user comments.

The company analysis was based on the usefulness dimensions of the relevance and understandability of disclosures.<sup>13</sup> The analysis covered both prescribed and voluntary disclosures that users had indicated were useful. The companies whose disclosures were analysed were large-cap companies across a range of industries. The companies were selected on the basis of their large risk exposures.

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<sup>11</sup>The objective of the CDPC is to foster the integrity of financial markets through its efforts to address issues affecting the quality of financial reporting and disclosures worldwide. The CDPC comprises investment professionals with extensive expertise and experience in the global capital markets, some of whom are also CFA Institute member volunteers. In this capacity, the CDPC provides the practitioner perspective in promoting high-quality financial reporting and disclosures that meet the needs of investors.

<sup>12</sup>During liaison meetings with the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB), CDPC members discussed various aspects of risk disclosures, including, for example, what is required for a meaningful maturity analysis.

<sup>13</sup>See Botosan (2004). Botosan emphasises the need to anchor the analysis of risk disclosures' usefulness to the IASB conceptual framework. She supports this anchoring because the framework reflects collective wisdom, garnered over the years by standard-setting authorities, regarding how to identify useful financial reporting information. The IASB conceptual framework expounds on the attributes of financial reporting data that can result in decision-useful information. These attributes include relevance, reliability, comparability, and understandability.

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## 3. Key Findings

In general, the results of this study show that—though yielding some useful information for investors—financial statement preparers’ compliance with IFRS 7 disclosure requirements is inconsistent and incomplete. In many cases, IFRS 7 risk disclosures have limited decision-useful informational content. One respondent’s comment aptly encapsulates the overall evaluation of these disclosures:

*IFRS 7 has brought a great amount of useful additional information compared to earlier financial statement disclosures. However, I am concerned about the discrepancy of what is required by the standard and what is actually reported. Secondly, there may, in certain instances, be issues around the quality of the information that is disclosed. I am not sure how carefully such information has been audited. Often significant underlying assumptions and methodologies are not disclosed.*

*With some corporations, the wording of the disclosures is very generic, without adding a lot of informational value. It may well be that not all risk disclosures are equally applicable for all corporations, but the focus should rather be on delivering crucial information that adds value to financial statement users as opposed to mere compliance.*

—Credit analyst

This quote, which highlights a user’s general view of IFRS 7 and pinpoints several shortcomings, is consistent with other observations regarding the information quality of risk disclosures:

In theory, a shareholder should be able to see the impact on the accounting profit and loss if, say, interest rates were to change or if foreign exchange rates were to move one way or the other. In practice, the notes surrounding risk disclosure are large in volume but not very effective at communicating the risks. This was certainly true of credit risk with financial entities in 2007.

Obviously, these guidelines are very vague and so it is possible, given the complexities of financial risk, that an entity will comply with the rules of IFRS 7 without disclosing too many useful details. In simple terms, it is often difficult to prove that an auditor or accountant has failed to comply with IFRS 7 even if they hide the risks because of its very loose guidelines. Throughout 2007, there is evidence that many financial institutions suffered huge losses in the

credit markets and were therefore very risky, although this was not highlighted adequately in their annual reports.<sup>14</sup>

Other key findings from the study:

- Risk disclosures are widely used by investors.
- Different types of risk disclosures have different levels of importance to users.
- There are general deficiencies across risk disclosures.

We elaborate on these findings in the sections that follow.

## 3.1. Investors' Wide Use of Risk Disclosures

The findings from survey respondents (depicted in **Figure 3.1** and **Figure 3.2**) show that IFRS 7 disclosures are widely used, both directly and indirectly, as part of the valuation and risk analysis process. The survey respondents comprised CFA Institute members (referred to as “Members” in Figures 3.1 and 3.2) and sell-side equity analysts who were non-members (referred to as “External Analysts” in Figures 3.1 and 3.2). Of the 107 survey respondents to the abridged survey, 89.7% said they use IFRS 7 risk disclosures to help them evaluate companies.<sup>15</sup> Further, of those who use the risk disclosures, we found that

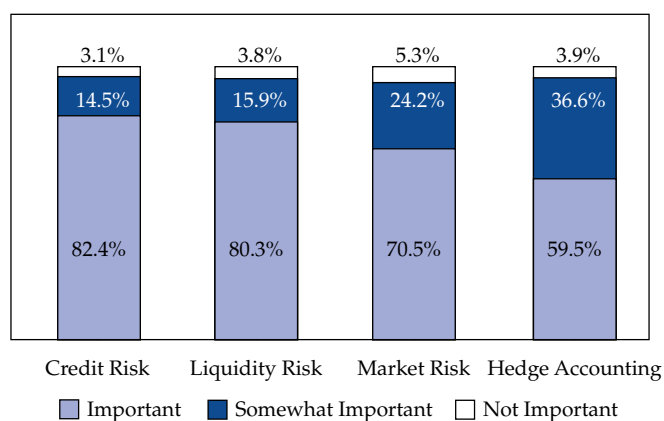
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<sup>14</sup>See Butler (2009). To illustrate the vagueness of risk disclosure requirements, Butler refers to certain IFRS 7 guidelines, such as those related to market risk disclosures. For example, he points to Paragraph 35 of IFRS 7, which requires quantitative data unless such data are unrepresentative, at which point a reporting entity shall provide further information that is representative. This disclosure requirement is ambiguous in that it leaves the determination of whether quantitative data are representative, and the data's alternative disclosure, up to the discretion of management. More-specific requirements that correlate with the nature of the risk would be more useful to investors than such discretionary alternatives.

<sup>15</sup>Details of both the comprehensive survey and the abridged survey are in the Appendix. The abridged survey, which had 107 respondents, asked explicitly whether IFRS 7 disclosures were (1) used or not and (2) used directly, indirectly, or both. The abridged survey (i.e., 107 responses) excludes the feedback from respondents to the comprehensive survey (26 responses). The comprehensive survey respondents were not explicitly asked the questions noted above. Instead, the comprehensive survey asked users, in an open-ended format, to describe how they use the IFRS 7 disclosures. The responses to the comprehensive survey show that all comprehensive survey respondents also use IFRS 7 disclosures. Therefore, if the comprehensive survey respondents were included in Figure 3.1, it would show an even higher percentage of application by all respondents (i.e., approximately 92.0% as opposed to the 89.7% for the abridged survey respondents).



**Figure 3.1. Extent of IFRS 7 Application: Percentage of Respondents Using Financial Risk Management Disclosures during Company Evaluation**



- 8.7% use them solely as a direct valuation modelling input,
- 49.0% use them indirectly as part of the qualitative judgment of risk exposure and risk management, and
- 42.3% use them both directly and indirectly.

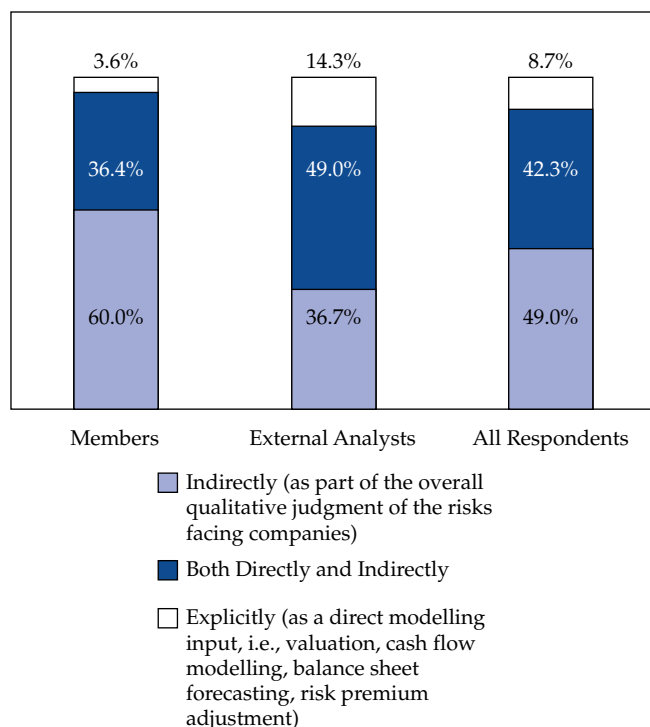
## 3.2. Relative Importance of Risk Disclosures

**Figure 3.3** shows that most respondents consider all the IFRS 7 risk disclosure categories important.<sup>16</sup> The proportions, per risk category, of respondents who consider disclosures important are as follows:

- Credit risk: 82.4%
- Liquidity risk: 80.3%

<sup>16</sup>Users' ratings of the importance of, and satisfaction with, different risk disclosure categories were obtained from the feedback of 133 respondents to both the comprehensive survey and the abridged survey. Both surveys asked users to rate the importance of, and satisfaction with, disclosures regarding credit risk, liquidity risk, market risk, and hedge accounting.

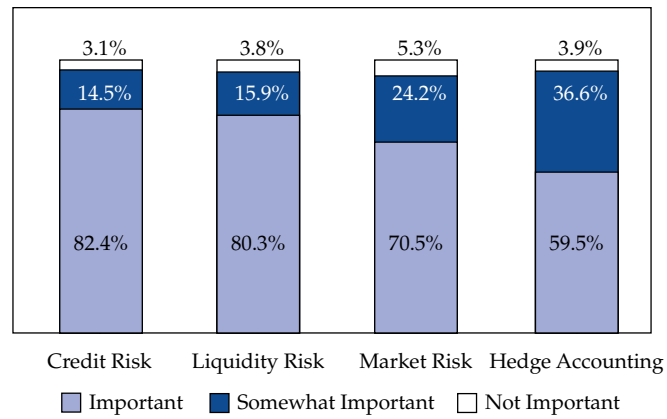
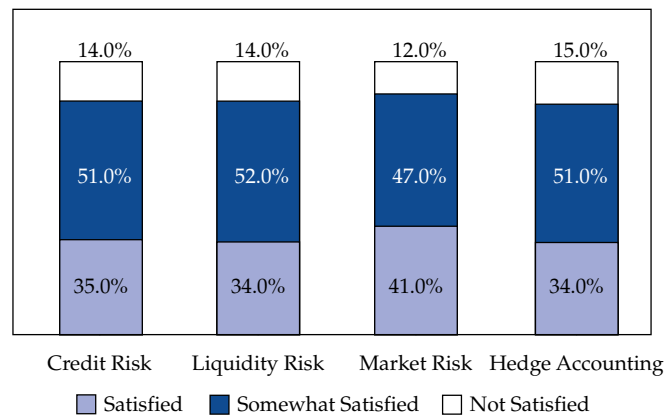
**Figure 3.2. Method of Application of IFRS 7 Disclosures: Percentage of Respondents Who Say They Use IFRS 7 Disclosures**



- Market risk: 70.5%
- Hedge accounting: 59.5%

Despite the high importance accorded these disclosures, there are low levels of full satisfaction with all the disclosures (34% for hedge accounting and liquidity risk, 35% for credit risk, and 41% for market risk), as depicted in **Figure 3.4**.

It is not surprising that the disclosure categories respondents considered most important are credit risk and liquidity risk. These two risk categories have a pervasive impact on all types of financial instruments and figured prominently in the 2007–09 market crisis. As discussed in Sections 5 and 6, the findings—which differentiate results between CFA Institute members and non-members (the latter being mostly sell-side equity

**Figure 3.3. Importance of Specific IFRS 7 Categories****Figure 3.4. Satisfaction with Specific IFRS 7 Categories**

analysts)—suggest that credit and liquidity risk disclosures are not as important to sell-side equity analysts as they are to other types of users, such as credit analysts. Although equity shareholders, as residual risk bearers, are sensitive to unexpected losses, some sell-side equity analysts may not be using credit and liquidity risk disclosures as much as they should—possibly a result of their focusing on short-term earnings trends.

Respondents' comments suggest that the highly complex hedge accounting requirements, along with the incomplete nature and low level of understandability of hedge accounting disclosures, could be influencing the relatively low level of importance assigned to these disclosures. (As mentioned previously, the inadequacies of hedge accounting disclosures are comprehensively addressed in a separate report.)

Respondents' comments also suggest that market risk is too broad a category, which could be contributing to the relatively low level of importance accorded market risk disclosures. The following are a few illustrative respondent comments that support the view that market risk is too broad a category:

*Market risk should be defined in a more precise fashion than the current definition of currency, interest rate, and other.*

—Buy-side portfolio manager

*Market risk should be broken down into distinct risk categories of interest rate, foreign currency, and commodity price risk.*

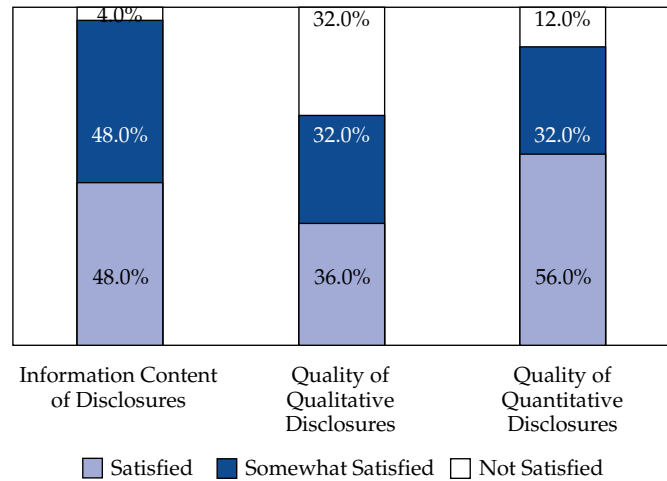
—Valuation consultant

Other comments highlight the deficiencies of the risk disclosure categories, which are discussed throughout the rest of this report; many of these comments explain why few users are fully satisfied with IFRS 7 disclosures.

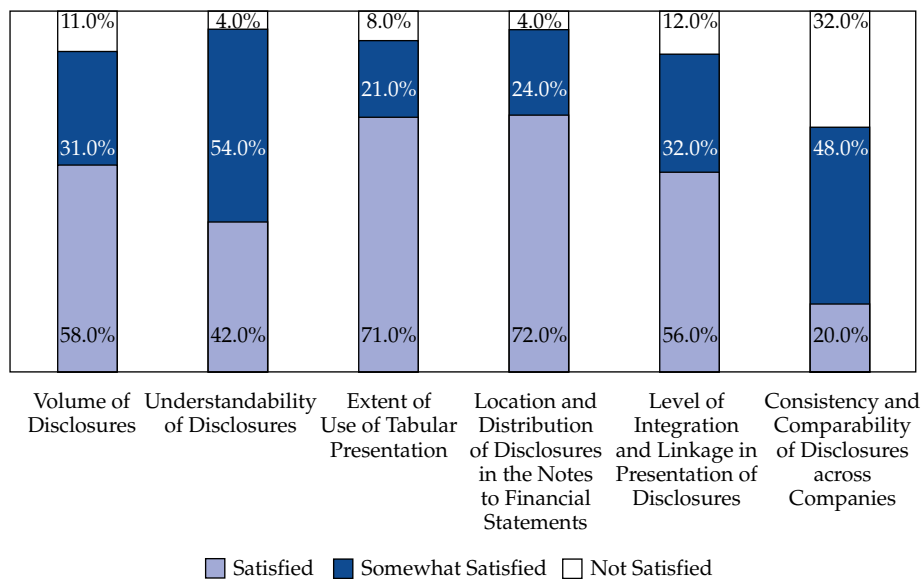
### 3.3. General Risk Disclosure Deficiencies

Risk disclosure deficiencies were identified by assessing various aspects of information quality, based on feedback from 26 comprehensive survey respondents, including their evaluation of attributes that affect usefulness, as shown in **Figure 3.5** and **Figure 3.6**.

**Figure 3.5. Comprehensive Survey Respondents' Assessment of General Disclosures' Information Content**



**Figure 3.6. Comprehensive Survey Respondents' Assessment of Understandability Dimensions**



Both the company analysis and user feedback from the comprehensive survey reveal the following general shortcomings of risk disclosures:

- Risk disclosures are difficult to understand.
- The qualitative disclosures provided are uninformative.
- Users have low confidence in the reliability of quantitative disclosures.
- Disclosures suffer from low consistency and comparability.
- Top-down, integrated messaging on overall risk management is missing.

The company analysis affirmed many of these noted deficiencies, which we discuss in the sections that follow.

### ***3.3.1. Risk Disclosures Difficult to Understand***

The results in Figure 3.6 indicate a low degree of satisfaction with the understandability of risk disclosures. Only 42% of comprehensive survey respondents are satisfied with the understandability of risk disclosures. Users' difficulty in understanding risk disclosures was evident when reviewing disclosures made in issued financial statements. These disclosures are very difficult for users to understand and process owing to their (1) often incomplete nature and (2) fragmentary and inconsistent presentation. Identifying key information in such disclosures can sometimes be like searching for a needle in a haystack—especially in the case of financial risk disclosure information for banking institutions, which often provide a fragmented presentation of IFRS 7 and Basel Pillar 3 information even when the underlying information is related. For example, IFRS 7 requires the presentation of information on maximum credit risk exposure, and Basel Pillar 3 requires information on exposure at default. Although related, these types of credit risk information are sometimes presented hundreds of pages apart, with no cross-referencing between sections. The fragmentary presentation of related information makes it difficult for investors to make a bottom-line judgment on the magnitude of entity-wide risk exposures and how effectively these exposures are being managed.

### ***3.3.2. Qualitative Disclosures Uninformative***

The survey results in Figure 3.5 show that the lowest user satisfaction is with qualitative disclosures, with only 36% “satisfied” and 32% “somewhat satisfied” with this information. Respondents' comments reflect their experience of qualitative disclosures being

generic boilerplate, characterised by lengthy description but with little *useful* information. Respondents' comments also reflect the belief that qualitative disclosures and management discussion are essential to shedding light on quantitative disclosures and overall risk management policy. Respondents often find explanations and qualitative disclosures inadequate and disconnected from quantitative disclosures, as illustrated in the following quotes:

*Just having the numbers is not enough.*

—Buy-side portfolio manager

*Some of the qualitative disclosures seem a little too cookie-cutter in nature.*

—Buy-side analyst

*Qualitative disclosure is limited to simple definitions, and its usefulness could be improved.*

—Corporate finance analyst

*Underlying methodologies to measure risk need to be explained in more detail to better understand quantitative disclosures.*

—Sell-side analyst

### **3.3.3. Users' Low Confidence in Reliability of Quantitative Disclosures**

Similarly, Figure 3.5 shows the relatively low satisfaction with the quality of quantitative disclosures—only 56% are “satisfied.” Respondents' comments reflect concerns regarding the reliability of the quantitative disclosures and the need for greater auditor scrutiny of those disclosures. For example:

*Auditors should pay particular attention to the quantitative figures reported in risk disclosures.*

—Credit analyst

Consistent with users' concerns about the reliability of quantitative risk disclosures, a 2011 FSB report on risk disclosures noted that different practices are followed across jurisdictions regarding the extent to which auditors provide assurance on risk disclosures in an entity's financial reports and how that level of assurance is disclosed.<sup>17</sup>

### 3.3.4. Low Consistency and Comparability of Disclosures

The user assessment depicted in Figure 3.6 shows that the attribute with the highest dissatisfaction is the consistency and comparability of IFRS 7 disclosures, with only 20% of comprehensive survey respondents "satisfied" and 32% "not satisfied." Some respondents indicated that they would favour standardisation of disclosures across industries. Similarly, the disclosure quality index (DQI) scoring for the 20 companies (Table 8.2 and Table 8.3 in the Appendix) shows inconsistent quality of disclosures across the analysed companies and corroborates the survey feedback.

*While one has to acknowledge that companies are unique, each with their own characteristics, the level of comparability and consistency of disclosures among peers requires improvement.*

—Credit analyst

### 3.3.5. No Top-Down, Integrated Messaging on Overall Risk Management

Despite the large volume of disclosures, in almost all cases there is poor integration of disclosures necessary to convey a top-down sense of risk management (e.g., asset/liability management, liquidity management, credit risk management, risk management strategies by quantitative disclosure of risk exposure matched to hedging instrument). The inadequate integration of disclosures is partly reflected in Figure 3.6, which shows that 56% of comprehensive survey respondents are satisfied with the level of integration and linkage in the presentation of disclosures. The following comment captures the concern about inadequate linkage and the absence of integrated commentary on related risk categories:

*There is very little integration of how different risk categories influence each other. There should be a scenario analysis that ties together different types of risk; it seems unlikely that risks would be entirely independent of each other.*

—Asset seller

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<sup>17</sup>FSB (2011).



In addition, the company analysis indicates that it is unusual for disclosures to show the interaction of different risk factors. For example, disclosures fail to show how credit risk may affect liquidity risk or market risk.

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## 4. General Recommendations

This report's general recommendations, derived from both user feedback and the company analysis, are as follows:

- An executive summary of risk disclosures should be provided.
- Qualitative disclosures should explain quantitative measurements.
- Standardised and adequately audited disclosures are required to improve comparability.
- Integrated, centralised, and tabular risk disclosures should be provided.

These general recommendations are explained in greater detail in the appropriately referenced sections. In addition, improvements required for specific risk disclosures are explained in Sections 5, 6, and 7. Overall, a review of these financial risk disclosures shows that there remains a need for financial statement preparers to shift away from “tick-box mere compliance” with disclosure requirements. Preparers should adopt a meaningful communication mindset focused on conveying risk exposures and risk management policy effectiveness, as well as fostering a dialogue with investors. Such a paradigm shift is necessary before a principles-based approach to disclosure can result in substantially useful information.

### 4.1. Executive Summary of Risk Disclosures

As discussed in the section on key findings (Section 3), risk disclosures are difficult for investors to understand and incorporate into their investment decision-making process because of their (1) often incomplete nature and (2) fragmentary and inconsistent presentation. To help alleviate the difficulties that investors face in processing risk-related information, an investor-oriented executive summary is necessary that distils key information on entity-wide risk exposures and the effectiveness of risk management practices across different types of risk. The executive summary should cover risk types considered significant for specific business models. It can help minimise the processing efforts of investors and facilitate the assimilation of key risk information in financial reports. The need for an executive summary is reflected in this respondent's comment:

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*A layman investor finds it hard to understand risk disclosures. Ideally, an executive summary in plain English of each type of risk should be provided.*

—Investment banking analyst

## 4.2. Qualitative Disclosures That Explain Quantitative Measurements

Qualitative disclosures should be used to sufficiently explain reported numbers on the balance sheet and other quantitative disclosures. These disclosures should not merely restate various IFRS requirements. Boilerplate disclosures and the regurgitation of IFRS requirements unwarrantedly increase the volume of disclosures, making them more burdensome to read without the saving benefit of any corresponding informational value. If anything, extraneous text ends up crowding out and obfuscating the interpretation of other, potentially useful disclosures.

*The level of qualitative disclosures should be increased. Qualitative disclosures assist my understanding of the risks disclosed, whilst quantitative disclosures serve as illustrations for the qualitative disclosures.*

—Investment banking analyst

## 4.3. Standardised and Adequately Audited Quantitative Disclosures

As noted earlier, users do not find quantitative risk disclosures reliable, and they question the adequacy of auditor scrutiny of quantitative risk disclosures. Auditors should disclose their level of assurance on risk disclosures. In addition, standardised quantitative disclosures should be integrated into principles-based disclosure requirements. Taking this step would ensure that reporting companies provide consistent, complete, and relevant information. An example of a successful integration of standardised disclosures is the adoption of requirements for fair value valuation hierarchy disclosures. In contrast, the heavily principles-based articulation of the IFRS 7 quantitative market risk exposure requirements yields inadequate and inconsistent information. The objective of principles-based disclosures is to allow managers to convey the risk exposure and risk management policy

in the context of their business models. But when this principles-based disclosure mindset is taken to the extreme and misapplied, as evidenced by how some financial statement preparers apply IFRS 7, it results in disclosures with minimal useful information.

*Standard reporting templates would be needed to deliver uniform and more comparable information.*

—Corporate finance analyst

*One suggestion would be to develop industry-specific templates of which completion is mandatory.*

—Credit analyst

Supporters of predominantly principles-based disclosures often assert that prescriptive disclosure requirements can lead to boilerplate disclosures and encourage a “tick-the-box” mindset in preparers. This assertion could be true if a specified disclosure is irrelevant for a particular business model. As elucidated in this report, however, financial reports issued in compliance with IFRS 7 disclosure requirements prove that a principles-based definition of disclosure is not the antidote to fears about boilerplate, uninformative disclosures. In fact, broad and vague definitions that are then described as principles are a significant contributing factor to uninformative disclosures.

## 4.4. Integrated, Centralised, and Tabular Risk Disclosures

Greater emphasis should be placed on providing integrated disclosures. For example, risk disclosures should illustrate how market risk influences liquidity risk and credit risk. Risk disclosures can be improved with a better portrayal of the links between the different risk factors:

- *Market risk factors and credit risk*—The impact of significant changes in interest rates and foreign currency exchange rates on the reported credit risk exposures would be useful information to investors.

- *Market risk factors, credit risk, and liquidity risk*—Information about the impact of significant interest rate changes or of a downgrade in a company’s credit rating on the expected liability maturity profile would help in assessing liquidity risk.
- *Market risk factors and hedging strategies*—An integrated discussion of market risk exposure measures and risk management policy should be provided. For example, the disclosure of value at risk (VaR) measures in relation to both pre- and post-hedging exposures can complement hedge accounting disclosures in informing users about the effectiveness of economic hedging.
- *Liquidity risk and business risk*—Investors would benefit from information on the impact of changes in the economy on the liquidity risk profile.

The following comment captures users’ appetite for integrated disclosures:

*I would favour summary quantitative data about exposures to risk as contained in internal reports to management. This should explain VaR calculations by type of risk, the gross and net after hedging risks, the time trend of risk exposures, and the asset/liability management expectation.*

—*Industry consultant*

In addition, quantitative disclosures, including any integrated disclosures, should be presented in a tabular format, and related disclosures should ideally be in the same location to foster user understanding.

*The tabular format makes it much easier to understand and comprehend.*

—*Merger and acquisition advisory analyst*

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## 5. Credit Risk Disclosures: Analysis, Findings, and Recommendations

Credit risk, credit derivatives, structured credit notes, and financial guarantees have proven to be one of the biggest growth areas and simultaneously one of the most challenging areas for accountants and auditors.

—Cormac Butler<sup>18</sup>

Credit risk disclosures under IFRS 7 relate to the risk of non-payment or non-performance of financial instruments. These credit risk disclosures principally require the provision of maximum credit exposure, impairments, and collateral information. Monitoring credit risk is important for investors because credit risk is an integral category of risk, especially for financial institutions. Moreover, the recent financial crisis has heightened the importance of understanding counterparty risk, an important subset of overall credit risk. Despite the fact that IFRS 7 captures certain elements of credit risk disclosure, some critics<sup>19</sup> assert that IFRS 7 credit risk disclosures are too basic in that they do not faithfully represent the complexity of counterparty and credit risk—which makes it even more important to identify the gaps and areas needing improvement in current disclosure requirements. The following sections include our analysis and basis for making recommendations regarding how credit risk disclosures can be improved:

- User feedback on credit risk disclosures (Section 5.1)
- Company analysis of credit risk disclosures (Section 5.2)
- Findings and recommendations for improving credit risk disclosures (Section 5.3)
- Conclusions (Section 5.4)

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<sup>18</sup>Butler (2009).

<sup>19</sup>Butler (2009).

## 5.1. User Feedback

### 5.1.1. User Importance and Satisfaction Ratings

Both the comprehensive survey and the abridged survey sought respondents' ratings on the importance of, and satisfaction with, the current level of credit risk disclosures. Respondents' ratings, depicted in **Figure 5.1** and **Figure 5.2**, indicate that credit risk disclosures are considered important by a significant number of respondents (82.4%) and somewhat important by others (14.5%).<sup>20</sup> The aggregate data also indicate that respondents are dissatisfied with the disclosures to a smaller degree than they consider them important: 50.8% of respondents are "somewhat satisfied" with credit risk disclosures and 14.0% are "not satisfied," meaning that 64.8% of respondents are less than fully satisfied.

The survey respondents include CFA Institute members (referred to as "Members" in Figures 5.1 and 5.2) and sell-side equity analysts who were non-members (referred to as "External Analysts" in Figures 5.1 and 5.2). There is a statistically significant difference between member respondents (86.6%) and external analysts (75.5%) in the importance they assign to credit risk disclosures. This finding could be an indication that sell-side equity analysts do not assign as much importance to credit risk disclosures as does a composite set of users.<sup>21</sup> Although equity shareholders, as residual risk bearers, are sensitive to unexpected losses, some sell-side equity analysts may not be using credit risk disclosures as much as they should—possibly a result of their focusing on short-term earnings trends. Nevertheless, the overall inference to be drawn from these different groups of respondents regarding the importance of credit risk disclosures is consistent, showing that this risk category is important to most users.

### 5.1.2. User Application of Credit Risk Disclosures

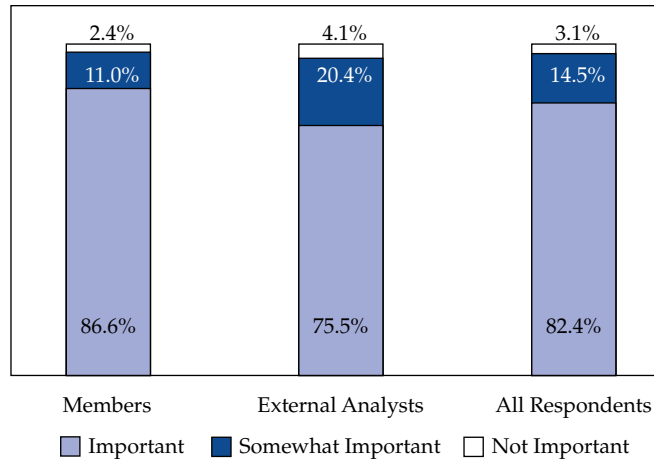
As mentioned in the previous section, most users (82.4%) consider credit risk disclosures important. User feedback from the comprehensive survey, exemplified by pertinent comments, points to three areas as the primary applications of credit risk disclosures.

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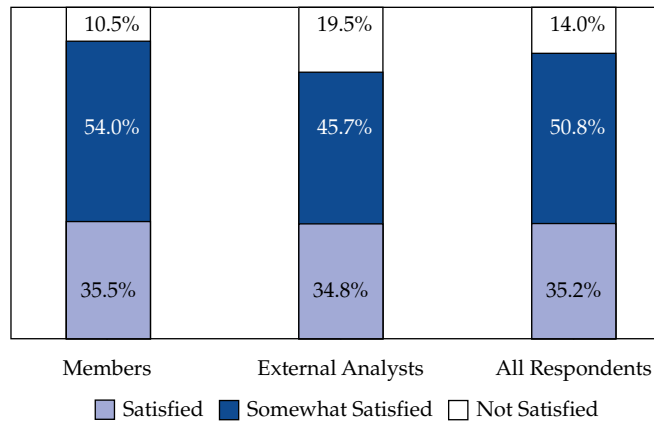
<sup>20</sup>Users' ratings of the importance of, and satisfaction with, different risk disclosure categories were obtained from the feedback of 133 respondents to both the comprehensive survey and the abridged survey. Both surveys asked users to rate the importance of, and satisfaction with, credit risk, liquidity risk, market risk, and hedge accounting disclosures.

<sup>21</sup>The CFA Institute member respondents, including credit analysts, covered a range of asset classes (e.g., fixed income, equity, and structured finance). The external non-member respondents were predominantly sell-side equity analysts.

**Figure 5.1. Importance of Credit Risk Disclosures**



**Figure 5.2. Satisfaction with Credit Risk Disclosures**





### **Asset Value Forecasting and Asset Quality Assessment**

*Credit risk disclosures help to develop a clear estimate of the true value of a business and gain an understanding of the extent of the risks involved in holding certain assets and how these risks could be mitigated.*

—Portfolio manager

*The usefulness of credit risk disclosures depends on the materiality of the financial assets that are past due or impaired against a firm's total assets. If material, an investor should adjust the book value of the firm as part of the valuation process (e.g., price-to-book valuation) or adjust the cash flow projections of the firm as part of the valuation process (e.g., free cash flow valuation). Alternatively, a higher discount rate (risk premium) should be used.*

—Investment banking analyst

*Only if the assets subject to credit risk are material do I apply credit risk disclosures. I will impair the value of assets to appropriate levels (and by implication reduce the value of the firm's assets) where I consider accounting impairments to be insufficient.*

—Portfolio manager

*Assets without collateral or under-collateralised assets will be discounted when valuing the firm.*

—Merger and acquisition adviser

### **Earnings and Cash Flow Forecasting**

*Disclosures relating to past due loans reflect the credit quality of the portfolio. These can be used to forecast provisioning expense for future periods.*

—Sell-side analyst

*This disclosure would be a key factor in determining a company's ability to continue as a going concern and its ability to support a particular level of operations. This disclosure would also help in determining how much cash the entity requires to generate/raise to operate at a given level.*

—Accounting and financial analyst

### **Risk Premium Determination**

*Past due and impairments relative to maximum credit exposure provide some insight into the actual credit risk inherent in a firm and into its credit risk management procedures when comparing this ratio to benchmark firms.*

—Buy-side analyst

*Credit risk disclosures help to have a clear estimate of the true value of a business. They provide an idea as to the extent of the risks involved in holding certain assets and how these risks could be mitigated.*

—Portfolio manager

### **5.1.3. Relative Importance of Different Credit Risk Disclosure Components**

Respondents were asked which of the prescribed credit risk disclosures they considered most important. The responses from some of the 26 respondents to the comprehensive survey were as follows:

- Impairment-related disclosures (9 respondents)
- Maximum credit risk exposure disclosures (8 respondents)
- Collateral disclosures (2 respondents)
- All three categories are most important (3 respondents)

These responses show that users consider disclosures concerning impairment and maximum credit exposure the most useful components of credit risk disclosure. An analysis of the comments accompanying the survey responses indicates that certain users do not consider some disclosures important simply because they are highly deficient for analytical purposes (e.g., collateral, associated disclosures). In other words, if higher-quality information were provided in these disclosures, users would probably assign a higher level of importance to them.

**Table 5.1. Credit Risk Disclosure Quality Index**

Disclosure Dimension (13 Dimensions)	Eligible Companies <sup>a</sup>	Average DQI Score <sup>b</sup>
<b>Qualitative Credit Risk Disclosure</b>		
Method of measuring credit risk exposure	20	22.5%
Adequately describes how credit risk management occurs, including providing a clear link between the quantitative data and qualitative description <sup>*</sup>	20	50.0
<b>Impairments</b>		
Information about credit quality of financial assets that are not past due or impaired <sup>†</sup>	20	70.0
Renegotiated financial assets (that would be past due or impaired) <sup>*</sup>	20	40.0
Aging schedule for past due amounts <sup>*</sup>	20	90.0
Impairment methods and inputs disclosed <sup>*</sup>	20	60.0
<b>Maximum Credit Exposure</b>		
Maximum credit exposure <sup>*</sup>	20	75.0
Disaggregated maximum credit risk exposure, including derivatives and off-balance-sheet items (e.g., financial guarantees, irrevocable lending commitments, and contingent commitments)	20	50.0
<b>Counterparty Risk</b>		
Provides details of counterparty covenants	20	25.0
Some description of concentration/counterparty risk	20	42.5
<b>Collateral</b>		
Collateral amount held <sup>*</sup>	20	60.0
<b>Disclosures to Help Users Understand Credit Risk</b>		
Adequate tabular presentation	20	57.5
Ease of use (i.e., adequate referencing and centralised location)	20	55.0

<sup>\*</sup>A prescribed IFRS 7 disclosure.

<sup>a</sup>The 20 eligible companies were Alcatel Lucent, Allianz, Anglo American, Barclays, BHP Billiton, BMW, BP, British Airways, Deutsche Bank, EADS, Fiat, GSK, HSBC, Iberdrola, Lufthansa, Nestle, Nokia, Novartis, RBS, and SAP.

<sup>b</sup>The 20 companies were individually assessed for compliance with each dimension, and a score was assigned as follows:

100% = Full compliance      50% = Partial compliance      0% = No compliance

An average score for the 20 companies was determined. If 20 companies scored 100%, the DQI score would be 100%. If 10 companies scored 100%, 5 scored 50%, and 5 scored 0%, the DQI score would be 62.5%.

## 5.2. Company Analysis

We conducted the company analysis by reviewing the credit risk disclosures in the 2009 financial statements of 20 IFRS-reporting companies and then constructing a disclosure quality index (DQI). This analysis provides a context for further evaluating user assessments of the importance of, and satisfaction with, these disclosures. It also provides an objective basis for identifying areas in need of improvement.

### 5.2.1. DQI Analysis

#### 5.2.1.1. Construction of Credit Risk DQI

The following items are included in the DQI in **Table 5.1**:

- Prescribed IFRS 7 disclosure requirements (i.e., impairments, maximum credit exposure, and collateral information)
- Useful voluntary disclosures (e.g., concentration risk, covenants; included on the basis of their usefulness per respondents' comments)
- Attributes that improve understandability (e.g., tabular presentation, adequate referencing, and centralised location)

The credit risk DQI has 13 dimensions. A DQI score was determined for each dimension of the index after analysing the disclosures in the 2009 financial statements of the 20 IFRS-compliant companies. (The basis for determining the DQI score is explained in the footnotes to Table 5.1.) For most of the dimensions (9 of 13), all 20 companies analysed would be expected to comply with the particular disclosure dimension. Each company was included in the population of eligible companies when determining the DQI scores. For four components, however, companies may not have conformed to disclosure requirements simply because the disclosure was not applicable. For these four disclosure dimensions—past due but not impaired, renegotiated financial assets, covenants, and collateral held—the eligible number of companies is still 20 (i.e., the full sample of companies) because the evaluated companies did not adequately state when certain disclosures were not applicable. Accordingly, if any of the reviewed companies failed to disclose any assessed disclosure dimension, we assumed that it was simply not complying with the particular disclosure requirements. Thus, a DQI score could be understating the level of compliance with the four dimensions where the disclosures may not be applicable. Despite the possibility of understating compliance for some dimensions, the risk of misinterpreting our DQI findings is mitigated by corroborating these findings with those from other studies.

The DQI scores for the various dimensions analysed in the index (e.g., qualitative disclosure, impairments, maximum credit exposure, counterparty risk, collateral, and attributes that help users understand disclosures), plus those from other studies, are discussed in Section 5.3. Taken together with the user feedback, the company analysis forms the basis of our recommendations.

### 5.2.1.2. Interpreting Credit Risk DQI

The average credit risk DQI percentages reported in Table 5.1 are a measure of compliance with the requirements for each disclosure dimension. The DQI percentages per disclosure dimension are derived from the evaluation of each disclosure dimension per company on the basis of discrete data measurements (i.e., 100% for full compliance, 50% for partial compliance, and 0% for non-compliance). In effect, the DQI score is based on underlying discrete ordinal data because (1) it does not precisely measure the extent of partial compliance and (2) the difference in quality between 0% and 50% is not necessarily the same as that between 50% and 100%. Because of the underlying discrete ordinal data used for evaluating the quality of each disclosure dimension for each company, the reported average DQI percentages should be interpreted cautiously.<sup>22</sup> For example, such data are not readily applicable for purposes of inferential statistics related to the full population of companies. In addition, precise inferences about differences in quality across disclosure dimensions cannot be based on the magnitude of numerical differences between the reported average DQI scores across the various dimensions.<sup>23</sup>

Nevertheless, for purposes of interpretation, a higher DQI score for a particular disclosure dimension should simply connote a greater degree of compliance with that requirement. The analysis in the following sections is based primarily on this stated interpretation of credit risk DQI scores, whereby a higher score is merely an indicator of higher compliance with the requirement. We conducted no further inferential statistical analysis of the full population of companies with respect to the average DQI scores across the disclosure dimensions. The limited inferences to be drawn from the average DQI scores should mitigate any concerns about the statistical precision of the reported averages.

<sup>22</sup>The same interpretation challenge exists when average scores are derived from any underlying ordinal dataset. For example, the interpretation of an average response score of 3.4 is based on a hypothetical 100 respondents who have been restricted to making discrete choices for a particular question (e.g., with the Likert scale, respondents can select a rating of only 1, 2, 3, 4, or 5).

<sup>23</sup>The numerical difference of 30 percentage points between scores of 70% and 40% across two different dimensions (e.g., information on neither past due nor impaired versus information on renegotiated assets) does not necessarily equate to the same difference in quality between scores of 90% and 60% for two other dimensions (e.g., aging schedule versus impairment inputs and methods).

## 5.3. Findings and Recommendations

We derived the recommended disclosures from the DQI construction findings and from respondents' comments on what additional disclosures they require. Overall, our findings show that there is room for improvement of various aspects of credit risk disclosure.

Despite some degree of compliance with IFRS 7 requirements by all the companies analysed, the combination of qualitative and quantitative credit risk disclosures is insufficiently informative for users. The reason is that the qualitative disclosures often use boilerplate language, with preparers simply restating the accounting standard requirements. Moreover, the quantitative disclosures are incomplete and often disconnected from the qualitative description of risk management. We propose the following improvements:

- Enhanced qualitative credit risk disclosures (Section 5.3.1)
- Comprehensive financial asset impairment disclosures (Section 5.3.2)
- Greater disaggregation of maximum credit risk exposure (Section 5.3.3)
- More-informative counterparty risk disclosures (Section 5.3.4)
- Integrated disclosure of collateral information (Section 5.3.5)

### 5.3.1. Enhanced Qualitative Credit Risk Disclosures

The DQI analysis shows that qualitative credit risk disclosures are often deficient. These disclosures could be improved by requiring reporting entities to

- adequately describe the method of measuring entity-specific credit risk exposure (the DQI score was 22.5% for this component, which shows significant room for improvement);
- describe methods of managing credit risk and the aggregate effectiveness of these methods (the DQI score was 50% for this component, which also shows that significant improvement is needed);
- refer to and provide links to other disclosed credit risk quantitative data—for instance, those disclosures required under Basel Pillar 3 (e.g., information about exposure at default); and

- substantiate reasons for excluding prescribed disclosures (e.g., collateral, related disclosures) to allow users to differentiate between situations in which a disclosure is not applicable and those in which it has simply not been provided.

### 5.3.2. Comprehensive Financial Asset Impairment Disclosures

As reported in Section 5.1.3, several comprehensive survey respondents indicated that impairment-related disclosures are the most important component of credit risk disclosures. As noted in the DQI, despite the importance to users, impairment data are inconsistently provided and the qualitative disclosures are often deficient. The DQI score was 70% for companies that provided information regarding the credit quality of financial assets that are neither past due nor impaired, and it was only 40% for renegotiated assets that would be past due or impaired. The failure to disclose the level of renegotiated assets could be due to this aspect of disclosure not being applicable for some of the companies analysed; as a result, the DQI could be understating the level of compliance. Because the reporting entities rarely adequately explained why they did not comply with IFRS 7 requirements even when those requirements were applicable, it was difficult to adjust the compliance analysis—for instance, in cases where disclosures were not applicable. Nevertheless, the poor quality of all the pertinent impairment disclosures is corroborated in other studies that found, for example, inadequate disclosure of renegotiated assets.<sup>24</sup>

In addition, although different impairment methods are applied to different financial assets (e.g., individual impairment versus collective impairment), disclosures of impairment methods and inputs are often inadequate. The DQI score was 60% for the disclosure of impairment methods and inputs. The poor quality of disclosures of impairment methods is corroborated by other studies.<sup>25</sup> The poor quality of impairment disclosures is also cited in the following user comments:

<sup>24</sup>PwC (2008) includes a survey of 22 banks that found the following inadequacies with disclosures: (1) individually impaired assets were disclosed but with poor qualitative disclosure around those disclosures and (2) inadequate disclosures regarding renegotiated assets that would otherwise be past due or impaired.

CESR (2009) found that (1) approximately 20% of 96 companies did not provide disclosures on age analysis (past due but not impaired) and (2) 30% of 96 companies did not disclose by class of financial asset the carrying amount of financial assets that were renegotiated but that would otherwise have been past due or impaired.

<sup>25</sup>CEBS (2010a) found that most of the reporting banks could have been more specific about the methodology of determination of collective impairment. It also found that disclosures on credit impairment across the banking industry appeared very heterogeneous in both presentation and content. Several semantic issues lie at the heart of the observed heterogeneity: Such major notions as write-offs, collective provisions, past due assets, and renegotiated loans do not have the same meaning from one bank to the next, potentially leading to confusion for users.

*Companies should make a statement about their impairment and write-off policies. Such a statement should put figures into context, as different companies may have different approaches to impairments. This will help make figures between industry peers more comparable.*

—Credit analyst

*There is the need to have a qualitative note that clearly defines the criteria to determine and measure impairment. This will help the reader to make comparisons across companies.*

—Portfolio manager

We propose the following recommendations:

- Companies should significantly improve their disclosures of applied impairment approaches, including collective and individual impairments. Further, companies should clearly define the criteria for classifying assets as non-performing to enable comparability.
- Companies should fully comply with the prescribed IFRS 7 impairment disclosures, including past due, renegotiated assets, and assets that are neither past due nor impaired. When companies do not provide these disclosures, they should offer an adequate explanation as to why these disclosures are not applicable.
- The CFA Institute comment letter<sup>26</sup> on IASB's IFRS 9 Exposure Draft *Financial Instruments: Amortised Cost and Impairments* stated the following:

Disclosures such as (1) estimates and changes in estimates, including relevant inputs and assumptions used in determining credit losses, (2) disaggregated gains/losses for changes due to credit versus other factors, (3) credit allowance development versus write-offs, and (4) stress testing should be required.

Standard & Poor's also submitted a comment letter<sup>27</sup> calling for more-informative impairment disclosures:

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<sup>26</sup>CFA Institute (2010).

<sup>27</sup>Standard & Poor's (2010).



Estimates and changes in estimates need meaningful disclosure. In our view, the information resulting from any accounting model is only ever as good as the information and method that are used to estimate it. As analysts, we need appropriate information in order to anticipate the result based on various scenarios and to interpret the reported result for what it represents.

Understanding the various aspects that underpin the estimation of losses under the impairment model would be important in our view. This includes providing information in the notes on the considerations behind, and the consequences of, the probability weighting of expected losses; the basis for grouping assets into portfolios and classes (terms, collateral, performance factors, etc.) and the resulting components of those categories; and how those groupings and components change over time.

### 5.3.3. Greater Disaggregation of Maximum Credit Risk Exposure

As with impairments, many comprehensive survey respondents considered maximum credit risk exposure the most important component. The DQI analysis reveals inconsistency and incompleteness in the provision of disaggregated maximum credit risk exposure. The DQI score for this component was 50%. The inadequacy highlighted in the company analysis is reflected in user comments:

*Reporting entities should put more emphasis on disclosing off-balance-sheet exposures (i.e., unfunded commitments and facilities), any recourse obligations for transferred assets, and credit enhancements provided to various parties and the associated credit risk exposure.*

—Structurer

*There is a need to specifically include off-balance-sheet exposures through credit default swaps or guarantees.*

—Valuation consultant

Accordingly, we recommend that the disaggregation of maximum credit exposure, including derivatives-related credit risk and off-balance-sheet commitments (e.g., financial guarantees, irrevocable lending commitments, and contingent commitments), always be provided.

### 5.3.4. More-Informative Counterparty Risk Disclosures

The company analysis and user feedback reveal a need to improve the disclosure of counterparty risk. Specifically, disclosures need to be improved regarding (1) counterparty concentration risk and (2) significant covenants that affect credit risk exposure.

#### 5.3.4.1. Counterparty Concentration Risk

The disclosure quality index shows that the disclosure of counterparty credit risk is often inadequate. The DQI score for this component was 42.5%. Respondents made several suggestions for improving these disclosures:

*It should be required to discuss concentration of risk by industry, location, or other common risk factor.*

—Asset seller

*There is a need to specifically include information about concentrations of credit risk; the top 10 counterparty credit exposures and credit ratings of counterparties would be useful.*

—Valuation consultant

*Industry concentration of debtors and for past due items (where material). This should be provided alongside the counterparty credit rating associated with such debtors.*

—Buy-side analyst

*Are there receivables from a single counterparty that exceed 10% of the total debtors' book value? If yes, this should be disclosed.*

—Credit analyst

*What percentage of accounts receivable is from the top five customers? What is the credit rating range of these customers?*

—Buy-side portfolio manager

*Loans and advances to related parties should be detailed in this disclosure. Second, risk arising from custodial arrangements for financial assets should be addressed.*

—Portfolio manager

Accordingly, the following information on concentration credit risk should be provided:

- Significant exposure (in percentages) to individual counterparties or homogeneous groups of counterparties
- Disaggregation of credit exposure by credit rating
- Disaggregation of credit exposure by location, industry, and other common risk factors

#### 5.3.4.2. Covenants with Counterparties

The DQI analysis shows the infrequency of disclosures of covenants. This disclosure dimension had a DQI score of 25%. As noted earlier, the level of compliance could be understated if some of the companies did not disclose covenants because they had none. Nevertheless, the key message is that the level of disclosure of either the presence or absence of covenants is very poor in general, as reflected in the following user comment:

*Management should discuss significant covenants, if any, especially the negative ones, as they could limit the activities a company can undertake.*

—Portfolio manager

Accordingly, we recommend that the details of all significant covenants, including credit rating downgrades that affect overall exposure, be disclosed—particularly for counterparties of derivatives contracts. This aspect of disclosure should also include in its description the required counterparty valuation adjustment information (e.g., when derivatives contracts are netted).

#### 5.3.5. Integrated Disclosure of Collateral Information

Obtaining collateral information is one of the key mechanisms of credit quality enhancement. The company analysis shows that the information provided on collateral is often patchy, incomplete, and inconsistent. The DQI score for disclosure of collateral information was 60%. As noted previously, the low level of compliance may be attributable to the

collateral held disclosure not being applicable for some of the companies analysed. As a result, the DQI score could be understating the level of compliance because the reporting entities rarely adequately explained why they did not comply with IFRS 7 requirements even when those requirements were applicable. Nevertheless, the finding of poor quality of collateral disclosures is confirmed in other studies.<sup>28</sup>

The following respondent comments suggest how collateral disclosures can be improved:

*Quantitative disclosures relating to collateral are the most important, and efforts should be made to improve them. The fair value of collateral in relation to the total credit exposure does not necessarily indicate the collateral coverage ratio. The level of over-collateralisation or under-collateralisation is critical information, which should be available to investors.*

—*Sell-side analyst*

*Nature of collateral should be disclosed, and sensitivity analysis under extreme scenarios should be added.*

—*Corporate finance analyst*

*There should be more specific information on collateral valuation methodologies.*

—*Buy-side analyst*

Accordingly, we recommend the following disclosure enhancements:

- Disclosures outlining collateral valuation methodologies
- Disclosures regarding the extent to which there is no collateral held in support of certain assets

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<sup>28</sup>PwC (2008) includes a survey of 22 financial institutions that found inadequate disclosure of collateral information, including the failure to provide a meaningful up-to-date fair value of collateral, and insufficient commentary on collateral held, other credit enhancement, and repossessed collateral.

CESR (2009) found that approximately 30% of the 96 companies surveyed did not disclose the nature and carrying amount of collateral and that 35% of the 96 companies did not provide a description of collateral.

KPMG (2009b) found that only 5 of the 16 banks surveyed provided full disclosure of the fair value of collateral held against past due or impaired assets.

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- Integrated collateral disclosures that provide a bottom-line judgment of whether the financial assets are over- or under-collateralised

## 5.4. Conclusion

Section 5 has highlighted the high importance that users attach to credit risk disclosures, with 82.4% of survey respondents so noting. It has also highlighted how users apply these disclosures—namely, for (1) asset value forecasting and asset quality assessment, (2) earnings and cash flow forecasting, and (3) risk premium determination.

Finally, the company analysis and user comments have helped identify the areas where credit risk disclosures could be improved, including (1) more-informative qualitative credit risk disclosures, (2) comprehensive financial asset impairment information, (3) greater disaggregation of maximum credit risk exposure, (4) more information on counterparty risk exposure, and (5) integrated collateral information.

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## 6. Liquidity Risk Disclosures: Analysis, Findings, and Recommendations

*Liquidity risk disclosure helps me try to create a scenario of how the company will manage their liquidity and where challenges might arise from in the future.*

*—Buy-side portfolio manager*

Just as it did for credit risk, the 2007–09 economic crisis has served to highlight the importance of effective management of liquidity risk. Liquidity risk consists of both funding liquidity risk and asset liquidity risk. IFRS 7 defines liquidity risk as the risk that an entity will encounter difficulties in meeting obligations arising from the settlement of financial liabilities through the delivery of cash or another financial asset. The *Financial Risk Manager Handbook*<sup>29</sup> defines the two components of liquidity risk as follows:

- Funding liquidity risk is the current or prospective risk arising from an institution's inability to meet its liabilities and obligations as they come due without incurring unacceptable losses. Funding liquidity risk also arises because of the possibility that the entity will be required to pay its financial liabilities earlier than expected. This study focuses on funding liquidity risk in order to be consistent with IFRS 7's definition and primary coverage of liquidity risk.
- Asset liquidity risk, or market/product liquidity risk, is the risk that a position cannot easily be unwound or offset on short notice without significantly influencing the market price because of inadequate market depth or market disruption. Although not covered in this report, asset liquidity risk has a bearing on funding liquidity risk. For example, when entities hold highly liquid financial assets, they are more likely to consider funding these instruments through short-term funding instruments, such as commercial paper. The reason is that when entities hold liquid assets, there is a low risk that they will not fulfill their financial obligations; consequently, their lenders face lower risk. Conversely, when financial assets held by entities become illiquid,

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<sup>29</sup>Jorion (2011).

there is an increased likelihood of lender aversion and a corresponding increase in the refinancing difficulties for these entities.

The European Financial Reporting Advisory Group (EFRAG) noted in its comment letter<sup>30</sup> on the 2008 IFRS 7 exposure draft that liquidity risk is an expansive and multidimensional concept. This multidimensionality of liquidity includes

- funding and asset liquidity and
- both short-term and long-term liquidity.

Liquidity risk is also intertwined with credit, market, and business risk. The EFRAG comment letter touches on several analytical issues that would interest users. EFRAG's letter highlights that a primary focus on the maturity analysis of liabilities can result in only a partial reflection of liquidity risk. EFRAG proposes considerations that are necessary to better portray liquidity risk, including the following:

- The liquidity of assets (e.g., whether assets can be easily sold or refinanced in order to raise funds)
- The stability and diversification of the sources of funding, including the regular sources and potential sources resulting from the occasional sale or refinancing of assets
- Stress analysis, including testing whether the liquidity buffers would be sufficient to face a stress scenario

The US Securities and Exchange Commission (SEC) issued a press release<sup>31</sup> in 2010 that highlighted the importance to investors of disclosures related to short-term borrowing because such disclosures are necessary to inform investors about leverage, liquidity, and funding risk. The SEC's release noted:

In order to fund operations, many financial institutions and other companies engage in short-term borrowing that is a financing arrangement that generally matures in a year or less. Such borrowing arrangements have become increasingly common and can take many forms, including commercial paper, repurchase agreements, letters of credit, promissory notes, and factoring.

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<sup>30</sup>See EFRAG (2008). This IASB exposure draft updated liquidity risk requirements (e.g., it required the provision of maturity analysis for derivatives liabilities).

<sup>31</sup>SEC (2010).

Due to their short-term nature, a company's use of these kinds of financing arrangements can fluctuate significantly during a reporting period. As such, when a company reports at the end of a reporting period the amount of short-term borrowings outstanding, that amount is not always indicative of its funding needs or activities during the full period.

In addition, the SEC release proposed disclosures on short-term borrowings. Regarding the proposed disclosures, SEC Chair Mary L. Schapiro commented, "Investors would be better able to evaluate the company's ongoing liquidity and leverage risks."

Both the EFRAG comment letter and the SEC press release highlight reasons why liquidity risk disclosures are important to users. The following sections include our analysis and basis for making recommendations regarding how liquidity risk disclosures can be improved:

- User feedback on liquidity risk disclosures (Section 6.1)
- Company analysis of liquidity risk disclosures (Section 6.2)
- Findings and recommendations for improving liquidity risk disclosures (Section 6.3)
- Conclusion (Section 6.4)

## 6.1. User Feedback on Liquidity Risk Disclosures

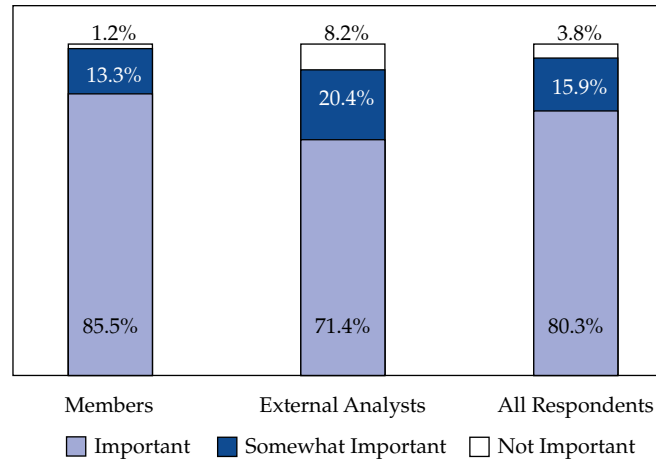
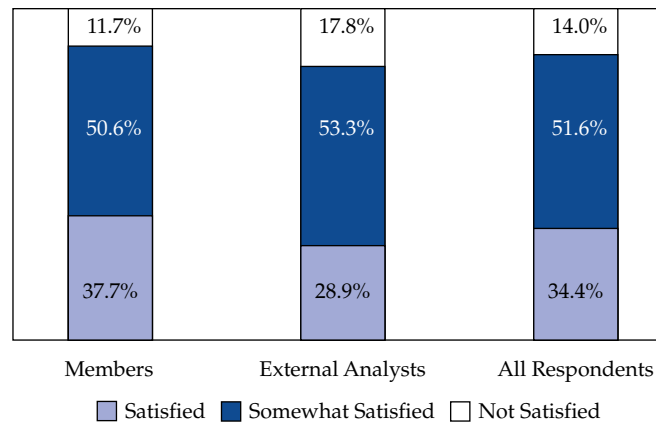
### 6.1.1. User Importance and Satisfaction Ratings

Both the comprehensive survey and the abridged survey sought respondents' ratings on the importance of, and satisfaction with, the current level of liquidity risk disclosures. Respondents' ratings, depicted in **Figure 6.1** and **Figure 6.2**, indicate that liquidity risk disclosures are considered important by a significant number of respondents (80.3%) and somewhat important by others (15.9%).<sup>32</sup> The aggregate data also indicate that respondents are dissatisfied with the disclosures to a smaller degree than they consider them important: 51.6% of respondents are "somewhat satisfied" and 14.0% are "not satisfied," meaning that 65.6% of respondents are less than fully satisfied.

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<sup>32</sup>Users' ratings of the importance of, and satisfaction with, different risk disclosure categories were obtained from the feedback from 133 respondents to both the comprehensive survey and the abridged survey. Both surveys asked users to rate the importance of, and satisfaction with, credit risk, liquidity risk, market risk, and hedge accounting disclosures.



**Figure 6.1. Importance of Liquidity Risk Disclosures****Figure 6.2. Satisfaction with Liquidity Risk Disclosures**

The survey respondents included CFA Institute members (referred to as “Members” in Figures 6.1 and 6.2) and sell-side equity analysts who were non-members (referred to as “External Analysts” in Figures 6.1 and 6.2). There is a statistically significant difference between member respondents (85.5%) and external analysts (71.4%) in the importance they assign to liquidity risk disclosures. This finding could be an indication that sell-side equity analysts do not assign as much importance to liquidity risk disclosures as does a composite set of users.<sup>33</sup> Although equity shareholders, as residual risk bearers, are sensitive to unexpected losses, some sell-side equity analysts may not be using liquidity risk disclosures as much as they should—possibly a result of their focusing on short-term earnings trends. Nevertheless, the overall inference to be drawn from these different groups of respondents regarding the importance of liquidity risk disclosures is consistent, showing that this risk category is important to most users.

### 6.1.2. User Applications of Liquidity Risk Disclosures

Respondents to the comprehensive survey elaborated on how they use liquidity risk disclosures and why they consider them important. The principal uses include

- asset/liability management assessment,
- default risk assessment, including refinancing/rollover risk,
- valuation adjustment, and
- risk premium adjustment.

These uses of liquidity risk disclosures are exemplified by respondents’ comments.

#### 6.1.2.1. Asset/Liability Management Assessment

*These disclosures provide important information on effectiveness of a company’s ALM [asset/liability management] process.*

*—Sell-side analyst*

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<sup>33</sup>The CFA Institute member respondents, including credit analysts, covered a range of asset classes (e.g., fixed income, equity, and structured finance). The external non-member respondents were predominantly sell-side equity analysts.

*Liquidity risk disclosure helps me try to create a scenario of how the company will manage their liquidity and where their challenges might arise from in the future.*

*—Buy-side portfolio manager*

### 6.1.2.2. Default Risk Assessment, Including Refinancing/Rollover Risk

*The utilization of banking facilities, together with a maturity profile of liabilities, provides an indication as to the extent the company can meet its liabilities. These disclosures—in unison with other information, such as the gearing and cash flow—provide a comprehensive picture of the company and are inputs towards a fundamental credit analysis.*

*—Credit analyst*

*Once you know the maturities, you can assess the probability of default of a reporting entity much better.*

*—Sell-side analyst*

*Comparing a company's short-term assets, such as cash and accounts receivable, with all liquidity needs could reveal the going-concern pressures faced by a company.*

*—Portfolio manager*

*Liquidity risk disclosure shows how much debt funding will be required in the near future. If significant maturities are in the near future, the reader will question/research the ability of the company to raise/roll over debt.*

*—Merger and acquisition advisory specialist*

### 6.1.2.3. Valuation Adjustment

*Liquidity risk should affect the short-term cash flow projections and hence the valuation of the company.*

*—Structurer*

*In the event a reporting firm does not have sufficient financial assets to meet its financial liabilities and the firm is not in a position to remedy this mismatch, an investor should undertake a distress valuation of the firm as opposed to a going-concern valuation.*

—Investment banking analyst

*Contractual maturity of liabilities compared to liquidity of assets provides insight into any maturity mismatch of assets and liabilities that results in liquidity risk. The expected financing costs of closing such a gap (i.e., maturity mismatch) reduce the value of the firm.*

—Buy-side analyst

*We want to know what the demand for cash is over the coming periods and relate this to the estimated cash flows from operations.*

—Buy-side portfolio manager

#### 6.1.2.4. Risk Premium Adjustment

*Based upon the nature and extent of liquidity risk, investors are able to discount future cash flows taking into account a liquidity spread to reflect this kind of risk. The level of cash or collateral drag can also be taken into account while calculating the potential earnings power. The estimation of the (relative) liquidity ratio can also be used to increase/diminish the (relative) volatility of earnings.*

—Industry consultant

*Given the market perception on availability of financing for those entities with a short weighted average term to maturity, I would place a refinancing risk premium to discount the valuation in order to reflect the incremental risk.*

—Corporate finance analyst

*I will assign a much higher cost of equity to a firm facing a significant maturity mismatch between financial assets and liabilities.*

—Portfolio manager

**Table 6.1. Liquidity Risk Disclosure Quality Index**

Disclosure Dimension (12 Dimensions)	Eligible Companies <sup>a</sup>	Average DQI Score <sup>b</sup>
<b>Qualitative Liquidity Risk Disclosure</b>		
Qualitative description of how company manages liquidity risk*	20	40%
<b>Maturity Analysis</b>		
Contractual undiscounted cash flows*	20	100%
Maturity analysis, non-derivatives liabilities*	20	100%
Maturity analysis, derivatives liabilities*	20	95%
Maturity analysis of off-balance-sheet commitments and other financial instruments without contractually stipulated maturity (e.g., financial guarantees, irrevocable lending commitments)	20	25%
Financial asset maturity analysis	20	75%
Expected maturity analysis	20	0%
<b>Other Key Liquidity Risk Information</b>		
Sensitivity analysis	20	0%
Financing facilities*	20	85%
Counterparty concentration profile	20	35%
<b>Disclosures to Help Users Understand Liquidity Risk</b>		
Tabular presentation	20	85%
Ease of use (i.e., adequate referencing and centralised location)	20	55%

\*A prescribed IFRS 7 disclosure.

<sup>a</sup>The 20 eligible companies were Alcatel Lucent, Allianz, Anglo American, Barclays, BHP Billiton, BMW, BP, British Airways, Deutsche Bank, EADS, Fiat, GSK, HSBC, Iberdrola, Lufthansa, Nestle, Nokia, Novartis, RBS, and SAP.

<sup>b</sup>The 20 companies were individually assessed for compliance with each dimension and a score was assigned as follows:

100% = Full compliance    50% = Partial compliance    0% = No compliance

An average score for the 20 companies was determined. If 20 companies scored 100%, the DQI score would be 100%. If 10 companies scored 100%, 5 scored 50%, and 5 scored 0%, the DQI score would be 62.5%.

### 6.1.3. Relative Importance of Different Liquidity Risk Disclosure Components

Respondents were asked which of the prescribed liquidity disclosures they considered most important. The responses from some of the 26 respondents to the comprehensive survey are as follows:

- Maturity analysis (16 respondents)
- Qualitative description of sources of liquidity risk (3 respondents)
- Detailed financing facilities (1 respondent)

These responses indicate that users consider the maturity analysis the most important component of liquidity risk disclosures.

## 6.2. Company Analysis

We conducted the company analysis by reviewing the liquidity risk disclosures in the 2009 financial statements of 20 IFRS-reporting companies and then constructing a DQI. This analysis provides a context for further evaluating the user assessments regarding the importance of, and satisfaction with, liquidity risk disclosures. It also provides an objective basis for identifying the areas in need of improvement.

### 6.2.1. DQI Analysis

#### 6.2.1.1. Construction of Liquidity Risk DQI

The following items are included in the liquidity risk DQI in **Table 6.1**:

- Prescribed IFRS 7 disclosure requirements (qualitative description of liquidity risk management, maturity analysis of derivatives and non-derivatives financial liabilities, contractual undiscounted cash flows, and financing facilities)
- Useful liquidity risk voluntary disclosures (liquidity sensitivity analysis, financial asset maturity analysis, expected maturity analysis, counterparty concentration profile; included on the basis of their usefulness per respondents' comments)
- Attributes that improve understandability (e.g., tabular presentation)

The liquidity risk DQI has 12 dimensions. A DQI score was determined for each dimension after analysing the disclosures in the 2009 financial statements of 20 IFRS-compliant companies. (The basis for determining the DQI score is explained in the footnotes to Table 6.1.)

All 20 companies would be expected to comply with the 12 liquidity risk disclosure dimensions. Therefore, each company was included in the population of eligible companies when determining the DQI score for each dimension. The DQI scores for the various dimensions analysed in the index, plus those from other studies, are discussed in Section 6.3. Taken together with the user feedback, the company analysis forms the basis of our recommendations.

### 6.2.1.2. Interpreting the Liquidity Risk DQI

The average liquidity risk DQI percentages reported in Table 6.1 are a measure of compliance with the requirements of each disclosure dimension. Because of the underlying discrete ordinal data used for evaluating the quality of each disclosure dimension for each company, however, the reported average DQI percentages should be interpreted cautiously. For example, precise inferences about differences in quality across disclosure dimensions cannot be made on the basis of the magnitude of numerical differences between the reported average DQI scores across the various dimensions.<sup>34</sup>

Nevertheless, for purposes of interpretation, a higher DQI score for a particular disclosure dimension should simply connote a greater degree of compliance with that requirement. The analysis in the following sections is based primarily on this stated interpretation of liquidity risk DQI scores, whereby a higher score is merely an indicator of higher compliance with the requirement. We conducted no further inferential statistical analysis of the full population of companies with respect to the average DQI scores across the disclosure dimensions. The limited inferences to be drawn from the average DQI scores should mitigate any concerns about the statistical precision of the reported averages.

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<sup>34</sup>The numerical difference of 50 percentage points between scores of 85% and 35% across two different dimensions (e.g., tabular presentation and counterparty profile) does not necessarily equate to the same difference in quality between scores of 75% and 25% for two other dimensions (e.g., asset maturity analysis and off-balance-sheet maturity analysis).

## 6.3. Findings and Recommendations

We derived the recommended disclosures from the DQI construction findings, from respondents' comments on what additional disclosures they require, and from the findings of other studies. Overall, our findings show that there is room for improvement of various aspects of liquidity risk disclosure, particularly with respect to ensuring that they comprehensively reflect liquidity risk and convey the impact of other risk factors, such as market and credit risk, on liquidity. We propose the following recommendations:

- Qualitative liquidity disclosures need improvement (Section 6.3.1).
- Maturity analysis has several areas in need of improvement (Section 6.3.2).
- Sensitivity analysis is required for assessing liquidity risk (Section 6.3.3).
- Disclosures should highlight the risks associated with liquidity providers (Section 6.3.4).

### 6.3.1. Qualitative Liquidity Disclosures Need Improvement

The DQI analysis suggests that qualitative disclosures are deficient, with a DQI score of 40%. We recommend that qualitative disclosures provide a clear link between the qualitative description of liquidity risk and the quantitative disclosures. Qualitative disclosures should outline the main sources of liquidity, including policies for managing liquidity sources and uses. The description should also clearly differentiate between measures taken to manage short-term and long-term liquidity risk. Qualitative disclosures should also outline the impact of credit risk, market risk, and general business risk factors on liquidity.

*More qualitative discussion from management about levels of risk and mitigation strategies would be helpful, particularly for liquidity risk exposures.*

—Valuation consultant

### 6.3.2. Maturity Analysis Has Several Areas in Need of Improvement

The comprehensive survey results show that most of the respondents consider maturity analysis the most important component of liquidity risk disclosure. The company analysis DQI reveals a significant level of compliance with the maturity analysis requirements; regarding such compliance, there was a DQI score of 100% for non-derivatives financial



liabilities and 95% for derivatives financial liabilities. A significant number of companies in the index voluntarily provided financial asset maturity analysis, as shown by the DQI score of 75%. Across the analysed companies, however, the maturity analysis information they provided has several shortcomings:

- There is patchy and inconsistent provision of the maturity analysis for off-balance-sheet liabilities. The DQI score for this disclosure dimension was 25%.
- None of the analysed companies provided an expected, as opposed to contractual, maturity schedule for financial assets or financial liabilities.
- There is wide variation in the presentation of maturity analysis with respect to disaggregation into maturity buckets, which lowers the comparability across companies. Moreover, in many cases, the buckets aggregated too many time periods (e.g., between one and five years for a single maturity bucket) in a manner that reduced the informativeness of the maturity disclosures.

A similar trend of partial compliance with the maturity analysis dimension is confirmed by other IFRS 7 studies.<sup>35</sup> The following user comments show the need for maturity analysis and how maturity analysis can be improved:

*As economic maturities may differ significantly from contractual maturities (e.g., due to prepayment risk of mortgage-backed securities), information on economic maturities and modelling assumptions might be helpful in assessing liquidity risk, particularly for financial institutions.*

—Buy-side analyst

*Maturity analysis of financial assets should be mandatory. It helps users to see the duration relationship and compare the asset duration to liability duration.*

—Merger and acquisition advisory analyst

<sup>35</sup>PwC (2008) surveyed 16 banks' disclosures and found that although there was compliance with IFRS 7 requirements, it was never clear whether financial guarantees were included in the maturity analysis. In addition, 8 of 22 banks did not include off-balance-sheet items in the liquidity tables.

KPMG (2009a) found that only 4 of 17 investment firms surveyed included liquidity tables of off-balance-sheet items, such as leases and guarantees.

*It is desirable to have a consistent disaggregation of maturity buckets across companies as it allows comparability across reporting entities and makes it easier for the analyst to develop consistent models.*

—Accounting and valuation analyst

*What is crucial is for investors to identify the time period(s) with significant liquidity risk economic exposure. However, one cannot be too prescriptive on how to disaggregate the maturity buckets as this depends on the business model. In some cases, significant exposure is in the near term, but in many other business models this is not the case. Nevertheless, it behooves management to clearly identify the specific period(s) with significant liquidity risk economic exposure.*

—Portfolio manager

The following recommendations for improving disclosures regarding maturity analysis are based on the results of this study:

- Both expected and contractual maturity of liabilities should be provided. For example, effective maturity is affected by the prepayment optionality embedded in certain financial instruments (e.g., callable bonds).
- Maturity analysis of off-balance-sheet items (e.g., financial guarantees, backstop facilities) should be required.
- Maturity analysis of financial assets should be mandatory to aid asset and liability management and maturity mismatch analysis.
- Maturity buckets should be provided to allow users to clearly understand the economic periods (i.e., time buckets) with significant economic exposure (i.e., refinancing and/or due obligations).
- Business models with similar risk profiles should have similar disaggregation of maturity buckets.

### 6.3.3. Sensitivity Analysis Is Required for Assessing Liquidity Risk

None of the companies in the DQI provided a liquidity risk sensitivity analysis disclosure in their 2009 annual reports. Given that the most recent economic crisis was essentially a liquidity crisis, it seems unusual that companies are not providing such information. As illustrated by this comment, respondents requested the disclosure of liquidity stress testing:

*Should mandate a disclosure of management's projected cash needs, including "best case," "worst case," and "most likely" scenarios.*

—Valuation consultant

Users indicated that stress tests should be conducted and should be based on the interaction of multiple risk factors (i.e., market risk, credit risk, and the impacts of an adverse economic environment).

### 6.3.4. Disclosures Should Highlight Risks Associated with Liquidity Providers

Both the company analysis and the user feedback reveal a need to improve the disclosure of risks associated with liquidity providers in two areas: (1) liquidity provider concentration risk and (2) significant covenants that affect liquidity.

#### 6.3.4.1. Liquidity Provider Concentration Risk

The DQI analysis, with a DQI score of 35% for concentration risk, shows that companies rarely provide meaningful information on concentration risk associated with sources of funding. Investors find liquidity provider concentration risk disclosures useful, as exemplified in the following comment:

*For the financing facility disclosure, it would be good to understand whether there is financier concentration risk. This would help assess the refinancing risk.*

—Buy-side analyst

Accordingly, reported details about the concentration risk of liquidity providers should be expanded to inform users about the funding diversity and stability of reporting entities'

funding sources. These disclosures should include a detailed description of the financing providers, their concentration, and the associated counterparty details.

#### 6.3.4.2. Significant Covenants That Affect Liquidity

We recommend disclosure of significant debt covenants that affect liquidity because covenants help inform about liquidity risk.<sup>36</sup> Several respondents indicated the need for such disclosures, including this one:

*Information concerning debt covenants and future anticipation of the level of liquidity risk and whether there is a risk of earlier repayment obligation should all be provided as an additional liquidity risk disclosure.*

*—Buy-side portfolio manager*

## 6.4. Conclusion

Section 6 has highlighted the high importance that users attach to liquidity risk disclosures, with 80.3% of survey respondents so noting. It has also highlighted how users apply these disclosures—namely, for (1) asset/liability management assessment, (2) default risk assessment, (3) valuation adjustment, and (4) risk premium determination.

Finally, the company analysis and user comments have helped identify the areas where liquidity risk disclosures could be improved, including (1) more-informative qualitative liquidity risk disclosures, (2) improved maturity analysis, (3) the inclusion of liquidity risk sensitivity analysis, and (4) more information on risks associated with liquidity providers.

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<sup>36</sup>The recent financial crisis illustrated the need for significant disclosure improvement, especially concerning the nature of entities' debt obligations (i.e., own credit risk), including providing the general terms of covenants. The recent crisis demonstrated that what had been deemed immaterial covenants were, in fact, relevant.

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## 7. Market Risk Disclosures: Analysis, Findings, and Recommendations

As defined in IFRS 7, market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk associated with market prices: currency risk, interest rate risk, and other price (e.g., commodity price) risk. IFRS 7 disclosures concerning market risk primarily focus on risk exposure and sensitivity analysis, including VaR disclosure.

Several academic studies have substantiated the informational content of market risk disclosures.<sup>37</sup> The usefulness of market risk disclosures is also articulated in the Comprehensive Business Reporting Model, which states that a well-performed sensitivity analysis is one of the most useful disclosures for investors because it facilitates the forecast of future financial statement and cash flow effects when such key inputs as interest rates, prices, and exchange rates change between reporting periods. Such a disclosure has the benefit of increasing investor confidence in financial statements.

Despite the confirmatory empirical findings on the usefulness of market risk disclosure components, such as VaR and sensitivity analysis, a limitation of these empirical studies is that they are based on showing a statistical association between a particular information component and the observed stock price and such an association does not necessarily illuminate how information is actually used. In other words, such studies

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<sup>37</sup>Jorion (2002) found that disclosure of the VaR of financial instruments across a sample of financial institutions helps predict the variability of trading revenues and thus VaR measures are useful to capital market participants.

Linsmeier, Thornton, Venkatachalam, and Welker (2002) provided evidence of the informational content of market risk disclosures. They hypothesized that market risk disclosure requirements that were introduced in the United States, under the SEC's Financial Reporting Release No. 48 (FRR 48), would reduce investor uncertainty and diversity of opinion regarding the impact on firm value of changes in interest rate, foreign exchange, and commodity prices. They found that when firms disclose FRR 48-mandated information about their exposure to market risk factors, trading volume sensitivity to changes in the market risk factors declines.

Looking at oil and gas companies, Rajgopal (1999) found that measures of sensitivity analysis, as prescribed by FRR 48, are significantly associated with stock return sensitivities to oil and gas price movements.

do not necessarily convey a cause-and-effect relationship. In elucidating user applications of these disclosures, this study aims to fill that gap. The following sections include our analysis and basis for making recommendations regarding how market risk disclosures can be improved:

- User feedback on market risk disclosures (Section 7.1)
- Company analysis of market risk disclosures (Section 7.2)
- Findings and recommendations for improving market risk disclosures (Section 7.3)
- Conclusion (Section 7.4)

## 7.1. User Feedback

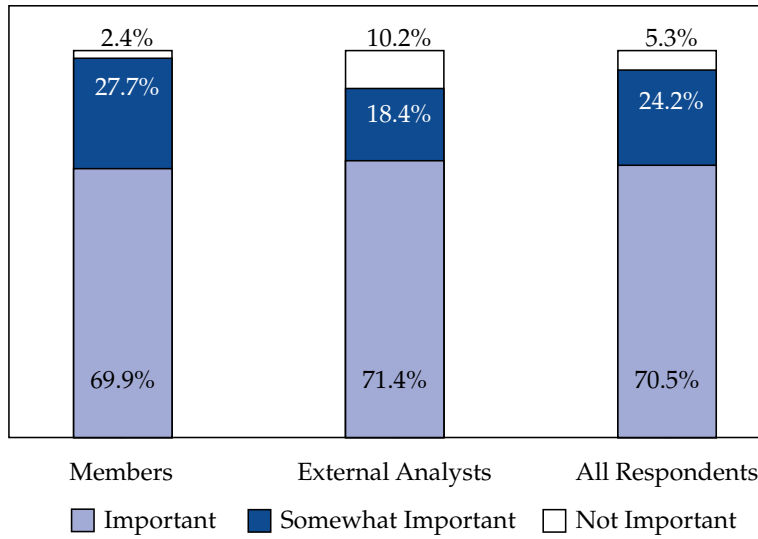
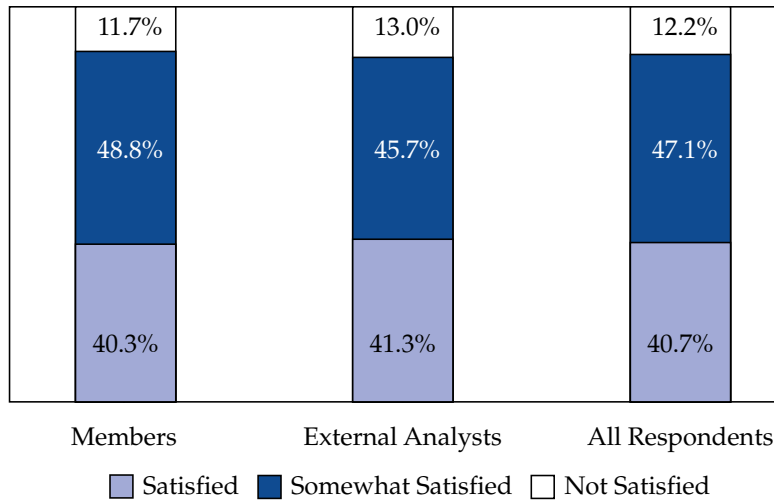
### 7.1.1. *User Importance and Satisfaction Ratings*

Both the comprehensive survey and the abridged survey sought respondents' ratings on the importance of, and satisfaction with, the current level of market risk disclosures. Respondents' ratings, depicted in **Figure 7.1** and **Figure 7.2**, indicate that market risk disclosures are considered important by a significant number of respondents (70.5%) and somewhat important by others (24.2%).<sup>38</sup> The aggregate data also indicate that respondents are dissatisfied with the disclosures to a smaller degree than they consider them important: 47.1% of respondents are "somewhat satisfied" with market risk disclosures and 12.2% are "not satisfied," meaning that 59.3% of respondents are less than fully satisfied.

The survey respondents included CFA Institute members (referred to as "Members" in Figures 7.1 and 7.2) and sell-side equity analysts who were non-members (referred to as "External Analysts" in Figures 7.1 and 7.2). Unlike in the credit risk and liquidity risk categories, there is no statistically significant difference between member and external analyst respondents in the level of importance they assign to market risk disclosures.

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<sup>38</sup>Users' ratings of the importance of, and satisfaction with, different risk disclosure categories were obtained from the feedback of 133 respondents to both the comprehensive survey and the abridged survey. Both surveys asked users to rate the importance of, and satisfaction with, credit risk, liquidity risk, market risk, and hedge accounting disclosures.

**Figure 7.1. Importance of Market Risk Disclosures**

**Figure 7.2. Satisfaction with Market Risk Disclosures**


## 7.1.2. User Application of Market Risk Disclosures

Respondents' comments reveal two main categories of application:

- Valuation sensitivity analysis
- Assessment and benchmarking of quantitative risk exposure

### 7.1.2.1. Valuation Sensitivity Analysis

Market risk disclosures can inform investors about the range of possible values of financial instruments, which, in turn, can convey the risk associated with these instruments. As articulated in the CBRM,<sup>39</sup> sensitivity analysis serves as an input in the prediction of future cash flow, earnings, and asset value and in the overall firm valuation. In other words, poor disclosures can lead to gross mispricing of risk and misallocation of capital.

Market risk disclosures enable an assessment of the reasonableness of financial instruments' reported values; that is, they help users understand the uncertainty associated with accounting measurement error. The following comments represent users' articulation of the benefits of sensitivity analysis:

*Estimation of profits can become complex, and a sensitivity analysis provided by the firm can help to provide a basic understanding for a firm's sensitivity to certain market variables. In essence, valuation models will need to accommodate market risks and the corresponding sensitivities so that the valuation can be adjusted in line with changing forecasts for these variables.*

—Credit analyst

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<sup>39</sup>The 2007 CFA Institute report on the CBRM states:

Sensitivity analysis is a useful mechanism of conveying the range of valuation outcomes, and its importance for meaningful risk analysis cannot be overstated. In preparing sensitivity analysis, priority should be on relevant and decision-useful information to users. We believe that investors are best served when managers provide sufficient information about the estimation model or process and the key inputs and assumptions so that investors can judge the reasonableness of the assumptions and ranges and compare them with the assumptions and ranges used in similar circumstances by other firms. In addition, it is helpful to know how management uses sensitivity analysis in its risk management process and which assumptions are central to a firm's largest risks.



*The sensitivity analysis for changes in various market risk variables shows impact on income statement and equity, which can be easily incorporated in the valuation process.*

—*Sell-side analyst*

*They do have the potential to have a material impact on my assessment of value. If I have a view on future commodity or market prices, I will use the sensitivity table as a proxy to measure impact on profitability.*

—*Buy-side analyst*

*Very useful in estimating the earnings per share (EPS) and the distribution of possible outcomes around your point estimate.*

—*Buy-side portfolio manager*

### 7.1.2.2. Assessment and Benchmarking of Quantitative Risk Exposure

Quantitative market risk disclosures can aid the downside risk analysis and help users assess the risk exposure across comparable firms (e.g., firms in the same industry).

*By taking exposure to market risk into account and the sensitivity to certain parameters into account, we can come up with a range value. That analysis also helps explain why any value we find is not the “true” value, but a possible value based on different factors.*

—*Portfolio manager*

*Disclosures about exposure to currencies, interest rates, commodity and even equity prices and a corresponding sensitivity analysis can be very useful, provided that they have a material influence on the earnings and/or equity of the reporting company.*

—*Credit analyst*

*Details about the currency and interest rate profile of financial assets and liabilities would enable analysis of an entity’s exposure to beneficial and adverse movements in*

*the two mentioned risk factors. Movements in the risk factors impact earnings, cash flows, and book values—all of which are important variables in valuation.*

—Portfolio manager

*Disclosures are useful when comparing benchmark firms (i.e., assuming comparable methodologies of value-at-risk measures).*

—Buy-side analyst

### 7.1.3. Relative Importance of Different Market Risk Disclosure Components

The comprehensive survey sought to identify the prescribed market risk disclosures (i.e., risk exposure, sensitivity analysis, and qualitative description of methods and assumptions) that users consider most important. Two disclosures were considered most important by a number of the 26 respondents:

- Sensitivity analysis (19 respondents)
- Quantitative market risk exposure (3 respondents)

Clearly, sensitivity analysis is widely seen as important. The poor quality of quantitative and qualitative market risk disclosures could be affecting whether users find them useful. In other words, if companies were releasing complete and comprehensive information on quantitative risk exposure and appropriate qualitative descriptions of methods and assumptions, users would find the disclosures more useful.

## 7.2. Company Analysis

We conducted the company analysis by reviewing the market risk disclosures in the 2009 financial statements of 20 IFRS-reporting companies and then constructing a DQI. This analysis provides a context for evaluating user assessments of the importance of, and satisfaction with, these disclosures. It also provides an objective basis for identifying areas in need of improvement.

**Table 7.1. Market Risk Disclosure Quality Index**

Disclosure Dimension (11 Dimensions)	Eligible Companies <sup>a</sup>	Average DQI Score <sup>b</sup>
<b>Qualitative Market Risk Disclosure</b>		
Clear link between qualitative description of methods and assumptions and quantitative data <sup>*</sup>	20	35.0%
Adequately provides and discusses quantitative evidence of link between market risk exposure and hedging strategy	20	47.5%
Adequately provides and discusses quantitative evidence of link with credit risk (e.g., credit VaR, credit spread sensitivity)	20	20.0%
<b>Quantitative Market Risk Disclosure<sup>c</sup></b>		
Adequate quantitative data on risk exposure <sup>*</sup>	20	47.5%
<b>Sensitivity Analysis and Stress Test</b>		
Provides sensitivity analysis <sup>*</sup>	20	85.0%
Sensitivity analysis provides impact on profit and loss and equity statement <sup>*</sup>	20	60.0%
Reasonableness of sensitivity analysis <sup>*</sup>	20	62.5%
Sensitivity analysis shows impact of interdependent risk factors (i.e., shows correlation effect in VaR description) <sup>*</sup>	20	20.0%
Provides stress test data (i.e., extreme loss events)	20	5.0%
<b>Disclosures to Help Users Understand Market Risk</b>		
Adequate tabular presentation	20	57.5%
Ease of use (i.e., adequate referencing and centralised location)	20	87.5%

<sup>\*</sup>A prescribed IFRS 7 disclosure.

<sup>a</sup>The 20 eligible companies were Alcatel Lucent, Allianz, Anglo American, Barclays, BHP Billiton, BMW, BP, British Airways, Deutsche Bank, EADS, Fiat, GSK, HSBC, Iberdrola, Lufthansa, Nestle, Nokia, Novartis, RBS, and SAP.

<sup>b</sup>The 20 companies were individually assessed for compliance with each dimension and a score was assigned as follows:

100% = Full compliance    50% = Partial compliance    0% = No compliance

An average score for the 20 companies was determined. If 20 companies scored 100%, the DQI score would be 100%. If 10 companies scored 100%, 5 scored 50%, and 5 scored 0%, the DQI score would be 62.5%.

<sup>c</sup>The DQI score for disclosure of quantitative market risk exposure was 47.5%. In certain instances, there may have been no material and quantifiable risk exposures for the companies analysed. Therefore, any such information reported would not be meaningful, and the DQI of 47.5% would be understating compliance with requirements for reporting quantitative market risk exposure. However, the DQI score for disclosure of sensitivity analysis information was 85%, showing that some companies are reporting a sensitivity analysis of market risk factors but are not concurrently disclosing a related quantitative risk exposure. It does not seem plausible that companies have sensitivity analysis information without also having information on quantitative market risk exposure. This observation reinforces the view that the DQI score of 47.5% fairly reflects the poor state of companies' disclosure of their quantitative market risk exposures.

## 7.2.1. DQI Analysis

### 7.2.1.1. Construction of Market Risk DQI

The following items are included in the market risk DQI shown in **Table 7.1**:

- Prescribed IFRS 7 disclosure requirements (i.e., quantitative risk exposure, sensitivity analysis, and qualitative description of methods and assumptions)
- Useful voluntary disclosures (e.g., stress test, link with credit and liquidity risk categories; included on the basis of their usefulness per respondents' comments)
- Attributes that improve understandability (e.g., tabular presentation and centralised location)

The market risk DQI has 11 disclosure dimensions. A DQI score was determined for each dimension of the index after analysing the disclosures in the 2009 financial statements of 20 IFRS-compliant companies. (The basis for determining the DQI score is explained in the footnotes to Table 7.1.) All 20 companies analysed would be expected to comply with all 11 market risk disclosure dimensions. Therefore, each company was included in the population of eligible companies when determining the DQI scores.

The DQI scores for the various dimensions analysed in the index (e.g., qualitative market risk disclosure, quantitative market risk disclosure, sensitivity analysis, and attributes to help users understand market risk disclosures), plus those from other studies, are discussed in Section 7.3. Taken together with the user feedback, the company analysis forms the basis of our recommendations.

### 7.2.1.2. Interpreting Market Risk DQI

The average market risk DQI percentages reported in Table 7.1 are a measure of compliance with the requirements for each disclosure dimension. However, as noted earlier, because of the underlying discrete ordinal data used for evaluating the quality of each disclosure dimension for each company, the reported average DQI percentages should be interpreted cautiously. For example, precise inferences about differences in quality

across disclosure dimensions cannot be based on the magnitude of numerical differences between the reported average DQI scores across the various dimensions.<sup>40</sup>

Nevertheless, for purposes of interpretation, a higher DQI score for a particular disclosure dimension should simply connote a greater degree of compliance with that requirement. The analysis in the following sections is based primarily on this stated interpretation of market risk DQI scores, whereby a higher score is merely an indicator of higher compliance with the requirement. We conducted no further inferential statistical analysis of the full population of companies with respect to the average DQI scores across the disclosure dimensions. The limited inferences to be drawn from the average DQI scores should mitigate any concerns about the statistical precision of the reported averages.

## 7.3. Findings and Recommendations

We derived the recommended disclosures from the DQI construction findings, from respondents' comments on what additional disclosures they require, and from the findings of other studies. Overall, our findings show that there is room for improvement of both qualitative and quantitative market risk disclosures, particularly with respect to integrating them with other risk categories and better explaining the basis of measurement. We make the following recommendations:

- The components of market risk must be differentiated (Section 7.3.1).
- Informative qualitative disclosure of market risk is required (Section 7.3.2).
- Disclosure of quantitative market risk exposure needs improvement (Section 7.3.3).
- Sensitivity analysis and stress testing need improvement (Section 7.3.4).

### 7.3.1. Components of Market Risk Must Be Differentiated

As noted earlier, market risk disclosure is too broad a category and could be broken down into at least three new risk categories—interest rate, foreign currency, and commodity

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<sup>40</sup>The difference of 27.5 percentage points between scores of 47.5% and 20% across two different dimensions (e.g., quantitative evidence of a link between market risk and hedging strategy versus quantitative evidence of a link between market risk and credit risk) does not necessarily equate to the same difference in quality between scores of 87.5% and 60% for two other dimensions (e.g., ease of use versus sensitivity analysis showing impact on profit and loss).

price—which should be reported with the same level of distinctiveness as the credit and liquidity risk categories under IFRS 7. This proposed decomposition could foster the provision of more-specific information on quantitative risk exposure and sensitivity analysis, which, in turn, would likely enhance the quality of market risk disclosure information, making it more informative and decision-relevant to users.

### ***7.3.2. Informative Qualitative Disclosure of Market Risk Required***

There is clearly a need to improve disclosure of the methods, inputs, and assumptions applied in the sensitivity analysis. The DQI score for qualitative disclosure was 35%, revealing the inadequacy of the disclosures provided by many reporting entities. Offering sensitivity disclosures without informative descriptions of the methods, inputs, and assumptions applied prevents users from meaningfully interpreting company disclosures.

There is also a need to cross-reference and integrate market risk qualitative disclosures and both quantitative exposure information and exposures concerning credit, liquidity, and derivatives, as appropriate.

### ***7.3.3. Disclosure of Quantitative Market Risk Exposure Needs Improvement***

The company analysis shows a DQI score of 47.5% for quantitative market risk exposure, suggesting that this disclosure is often deficient. Quantitative disclosure should be comprehensive across all key risk factors (e.g., foreign currency exposure across key currencies, fixed versus floating interest rate risk exposure). Further, there is a need for a greater degree of standardisation of the market risk exposure information across companies to allow comparability. The inadequacies of the disclosure of quantitative risk exposure are also noted in other studies.<sup>41</sup>

In addition, quantitative market risk disclosures should be integrated, as appropriate, with disclosures of credit risk, liquidity risk, and hedging activity. For example, the links between the following disclosures should be provided:

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<sup>41</sup>For example, KPMG (2009a) found that 9 of the 17 investment houses surveyed either failed to disclose their exposure to market price risk at the balance sheet date or stated that their exposure was immaterial. However, 12 of the firms (which is more than the 9 that provided exposure information) offered a sensitivity analysis. This finding reveals the inherent contradiction of firms that provide sensitivity analysis information and yet concurrently fail to provide details of underlying market risk exposure. This observation is consistent with our findings as stated in Note 48.

- *Market risk factors and credit risk*—The impact of significant changes in interest rates and foreign currency exchange rates on the reported credit risk exposures
- *Market risk factors and liquidity risk*—The impact of significant interest rate changes on the expected liability maturity profile
- *Market risk factors and hedging strategies*—An integrated discussion of market risk exposure measures and risk management policy (e.g., the disclosure of VaR measures regarding both pre-hedging and post-hedging exposures can complement hedge accounting disclosures in informing users about economic hedge effectiveness)

### 7.3.4. Sensitivity Analysis and Stress Testing Need Improvement

The comprehensive survey feedback shows that sensitivity analysis is considered the most important market risk disclosure component. For most companies, however, the sensitivity analysis information needs significant improvement. The DQI score for companies that show the profit and loss impact of changes in key market risk factors was 60%. It was 20% for showing the impact of interdependent risk factors and 5% for providing stress test information. There was also an observable significant variation in the form of sensitivity analysis provided. This finding of inadequate sensitivity analysis information is backed by other studies.<sup>42</sup> The following comments emphasise the poor quality of the sensitivity analysis that companies provide:

*Less than 5% of companies provide useful sensitivity analysis information.*

—Credit analyst

*The weakness of sensitivity analysis is the high degree of subjective estimates and assumptions required—and the relatively benign impacts usually presented for the alternate scenarios.*

—Portfolio manager

We make the following recommendations:

- *Sensitivity analysis method, including VaR determination*—One of the interviewed respondents highlighted problems with the reliability of VaR numbers. This comment

<sup>42</sup>For example, PwC (2008) surveyed 22 banks and found (1) significant variation in what different banks assumed to be a reasonably possible shift in interest rates, (2) only 11 of 22 banks provided a sensitivity analysis of interest risk, and (3) only 4 of 22 banks disclosed the impact on both the income statement and equity.

reflects the need for better guidance that will result from reporting entities making consistent and meaningful VaR disclosures.<sup>43</sup> Such guidance will ensure comparability across companies and across reporting periods. There is also a need to reiterate the importance of providing accompanying qualitative disclosures that can assist users in appropriately interpreting sensitivity analysis information.

- *Reasonable probable assumptions*—Standard-setters should also provide guidance that will facilitate a consistent treatment of assumptions applied in the sensitivity analysis, such as reasonably possible shifts of risk factors (i.e., interest rate levels, yield curve shifts, foreign currency exchange rate, and other price risk).
- *Back testing VaR*—To ascertain the reasonableness of VaR calculations and inputs, entities should disclose the number of days that daily VaR was breached during the reporting period.
- *Stress testing of extreme loss events*—Financial statement preparers should provide stress test–related disclosures. The need for stress testing was articulated in the discussion of other risk categories (e.g., liquidity risk).
- *Impact of interdependent risk factors*—Issuers need to delineate the impact of interdependencies between risk factors in order to convey the correlation risk of different risk factors, as illustrated by the following comment:

*I would be interested in knowing the impact on income statement and equity from changes in various market risk variables at the same time. These composite scenarios can be more useful than single-factor sensitivity analysis. Moreover, correlations between different market risk variables should also be disclosed, so as to facilitate the user of financial statements in understanding the potential impact of change in one market risk variable on another.*

—*Sell-side analyst*

Reservations about sensitivity analysis are twofold.

- Users could misinterpret the reported ranges. For example, the ranges may lead users to overstate the perceived riskiness of reporting firms. These concerns can

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<sup>43</sup>Some entities report 1-day VaR, whereas others report 10-day VaR; some entities report VaR at the 95% confidence level, whereas others report VaR at the 99% confidence level.



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be mitigated by providing qualitative disclosures that enable users to appropriately interpret the low probability of risk, if any, associated with the upper or lower bounds of reported fair values.

- Users could become confused about whether the ranges depict point-in-time fair value uncertainty or whether they have predictive value and are intended for forward-looking purposes. Any quantitative disclosure—including point estimates, range, or distribution of values—should both allow users to make point-in-time judgments and convey some information with predictive value. The use of sensitivity analysis information to assess point-in-time fair value variability and to make forward-looking fair value predictions should not be seen as mutually exclusive. And any question about which of these two objectives is the primary consideration is no reason for not providing sensitivity analysis disclosures to investors. This recommendation is especially important because both the user feedback and empirical evidence unambiguously show that sensitivity analysis disclosures are considered useful, albeit with room for significant improvement.

## 7.4. Conclusion

Section 7 has documented the high importance that users attach to market risk disclosures, with 70.5% of survey respondents so noting. Nevertheless, on average, market risk disclosures are not considered as important as credit and liquidity risk disclosures and probably constitute too broad a category. Section 7 has also highlighted how users apply these market risk disclosures—namely, for (1) valuation sensitivity analysis and (2) assessment and benchmarking of market risk exposures across companies.

Finally, the company analysis and user comments have helped identify the areas where market risk disclosures could be improved, including (1) the differentiation of the components of market risk; (2) more-informative qualitative disclosures; (3) comprehensive, standardised, and integrated quantitative market risk disclosures; and (4) more meaningful sensitivity analysis and stress testing.

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# 8. Appendix

## 8.1. Survey Design

**Table 8.1** outlines the profiles of users who provided input to this study and their mechanisms for providing that input.

The survey participants were identified as follows:

- An invitation was sent to a pool of 300 CFA Institute members known to be users of financial statements based on their occupational category profiles. These members are part of an internal CFA Institute financial reporting survey pool.<sup>44</sup> The invitation broadly expressed the objective of the study and the intended data-gathering approach.
- Some 50 members indicated their willingness to participate in the study. Hence, the comprehensive questionnaire, along with a background document outlining the disclosure requirements and an illustration of these disclosures, was sent to the 50 members expressing a willingness to participate. Of these 50 members, 26 responded to the comprehensive questionnaire. These 26 respondents included credit analysts, buy- and sell-side equity analysts, portfolio managers, financial institution consultants, and corporate finance analysts.

In addition, an abridged version of the survey was sent to the balance of the 300 members who had not participated in the comprehensive survey feedback (i.e., 274 members). The abridged version was also sent to a sample of 204 external sell-side analysts known to cover companies that had provided IFRS 7 disclosures. The use of external analysts allowed a control sample and enabled the evaluation of the consistency of responses relative to the CFA Institute member responses. The sample characteristics of the abridged version of the survey are as follows:

- 274 survey pool members yielded 57 responses, representing a 21% response rate.
- 204 mostly sell-side equity analysts yielded 50 responses, representing a 25% response rate.

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<sup>44</sup>The pool comprises members with an expressed interest in contributing to financial reporting matters based on their expertise in accounting and/or extensive use of financial statements.

**Table 8.1. Survey Respondent Profiles**

Respondent Profile	Target Respondents	Actual Respondents	Effective Response Rate
Comprehensive member survey	50	26	50%
Abridged survey sent to members	274	57	21%
Abridged survey sent to external sell-side analysts	204	50	25%
Total	504 <sup>a</sup>	133	26%

<sup>a</sup>24 members were included in both the comprehensive survey and the abridged survey. Hence, the total number of target respondents is 504, or 528 (i.e., 50 + 274 + 204) – 24, rather than the 528 that would result from the pure sum of target respondents. There is no duplication of actual respondents.

In addition to the survey feedback, the views of three expert users were probed in further detail, through telephone interviews, to substantiate the application of IFRS 7 disclosures and the potential areas for improvement.

## 8.2. Study Limitations

There are two principal study limitations concerning the user feedback and company analysis.

### 8.2.1. User Input

The user assessment was based on input from 133 respondents. Although this is a high response rate (26% of 504 respondents), there could still be challenges in generalising these findings to the universe of investors. However, the focus of our study was on obtaining high-quality feedback from expert users through the comprehensive survey and then reinforcing our findings through an abridged version of the survey to ensure broad-based input. The underlying assumption was that expert users were likely to better appreciate the potential utility of the relatively complex IFRS 7 disclosures. Nevertheless, this type of study could be extended to include greater input from a more diversified mix of investment professionals (e.g., credit/fixed-income analysts and buy-side equity analysts) to further verify the views of different types of investment professionals on risk disclosures. Because the abridged survey involving non-members was focused primarily on sell-side equity analysts, this approach could have skewed some

of the overall findings mainly towards reflecting the views on risk disclosures (of this particular category of investment professionals).<sup>45</sup>

### 8.2.2. Company Analysis

There could be subjectivity in the assessment of disclosure adequacy during the construction of the DQI. This risk could arise from the fact that the company financial statement data gathering was done by only two reviewers. However, any risk of potential subjectivity is mitigated by corroborating the index evaluation findings with a number of different studies. The results of the index construction show consistent conclusions between this study and other studies in the evaluation of the quality of disclosures.

Another potential shortcoming of our study could concern the DQI construction. As noted in the evaluation of credit risk disclosures in Section 5, some companies may not have provided certain disclosure dimensions simply because those dimensions were not applicable. However, most companies do not adequately inform investors when certain disclosures are not applicable. Accordingly, each company's DQI score, based on the assumption that each disclosure dimension applied to all 20 companies, could, in fact, be understating each company's level of compliance. Nevertheless, the risk of misinterpretation from understating compliance is minimised by corroborating the conclusions drawn from this study with those made by other studies. As discussed in Sections 5, 6, and 7, all other studies reviewed have come to consistent conclusions regarding disclosure attributes where there appears to be inadequate compliance by reporting companies.

Finally, as noted earlier, there should be cautious interpretation of reported average DQI percentages. The DQI percentages per disclosure dimension are derived from the evaluation of each disclosure dimension per company on a discrete data measurement basis (i.e., 100% for full compliance, 50% for partial compliance, and 0% for no compliance). In effect, the DQI score is based on underlying discrete ordinal data because (1) it does not precisely measure the extent of partial compliance and (2) the difference in quality between 0% and 50% is not necessarily the same as that between 50% and 100%. Because of the underlying discrete ordinal data used for the quality evaluation of each disclosure dimension for each company, there should be cautious interpretation of

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<sup>45</sup>For example, this was the case regarding the user assessment of the importance of, and satisfaction with, specific risk disclosures (i.e., credit risk, liquidity risk, market risk, and hedge accounting). The user assessment was derived from responses provided to the abridged and comprehensive surveys. The abridged survey had 107 respondents, including 50 who were not CFA Institute members, who were mainly sell-side equity analysts.

the average DQI percentages reported.<sup>46</sup> For example, such data are not readily applicable for purposes of inferential statistics concerning the full population of companies. In addition, precise inferences about differences in quality across disclosure dimensions cannot be made on the basis of the magnitude of numerical differences between the reported average DQI scores across the various dimensions.

Nevertheless, for purposes of interpretation, a higher DQI score for a particular disclosure dimension should simply connote a greater degree of compliance with that requirement. Our analysis is based primarily on this stated interpretation of average DQI scores, whereby a higher score is merely an indicator of higher compliance with the requirement. We conducted no further inferential statistical analysis of the full population of companies on the basis of average DQI scores across the various dimensions. The limited inferences to be drawn from the average DQI scores should mitigate any concerns about the statistical precision of the reported averages.

### 8.3. Disclosure Quality Index (Company Analysis)

**Table 8.2** and **Table 8.3** show the disclosure quality assessment by company<sup>47</sup> based on the dimensions discussed in the risk disclosure analyses in Sections 5.2.1, 6.2.1, and 7.2.1. The DQI<sup>48</sup> illustrates the inconsistency in quality of disclosures across both financial and non-financial institutions. The financial institutions are discernibly better in their credit risk disclosure quality and also have relatively higher-quality liquidity and market risk disclosures,

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<sup>46</sup>The same interpretation challenge exists when average scores are derived from any underlying ordinal dataset. For example, the interpretation of an average response score of 3.4 is based on a hypothetical 100 respondents who have been restricted to making discrete choices for a particular question (e.g., the Likert scale, where respondents can select a rating of only 1, 2, 3, 4, or 5).

<sup>47</sup>The 20 companies whose disclosures we reviewed are Alcatel Lucent, Allianz, Anglo American, Barclays, BHP Billiton, BMW, BP, British Airways, Deutsche Bank, EADS, Fiat, GSK, HSBC, Iberdrola, Lufthansa, Nestle, Nokia, Novartis, RBS, and SAP. Tables 5.2 and 5.3 do not map specific company names to the individual company DQI scores for the credit risk, liquidity risk, and market risk categories. The company names are not displayed because the disclosure quality index, as applied in this report, was meant to illustrate the overall quality and consistency of disclosures and not to opine on the quality of individual companies' disclosures. Thus, not providing specific company names and disclosure quality indexes does not weaken the illustration of inconsistent disclosures and the case for overall enhancement. Developing disclosure quality ratings for individually identifiable companies would be worth considering as a separate exercise for a wider sample of companies.

<sup>48</sup>The idea of a disclosure quality index can be extended and applied to a broader universe of companies (e.g., all constituents of FTSE 100, CAC-40, and DAX-30) and can also be applied to other areas of financial reporting disclosure (e.g., segment reporting, pensions, and de-recognition). Such an index could incentivise higher-quality disclosures and provide policymakers with objective evidence regarding the prevailing levels of disclosures and areas where they may be deficient.

**Table 8.2. Disclosure Quality Index: Non-Banking Institutions**

Company	Credit Risk	Liquidity Risk	Market Risk
Number of dimensions in index	13	12	11
Company 1	42%	54%	27%
Company 2	42%	54%	50%
Company 3	23%	46%	64%
Company 4	58%	42%	41%
Company 5	62%	58%	32%
Company 6	27%	63%	45%
Company 7	35%	54%	23%
Company 8	46%	25%	64%
Company 9	58%	75%	36%
Company 10	35%	42%	68%
Company 11	54%	58%	68%
Company 12	35%	50%	18%
Company 13	69%	83%	50%
Company 14	50%	50%	50%
Company 15	35%	50%	64%
Company 16	35%	58%	23%

**Table 8.3. Disclosure Quality Index: Banking Institutions**

Company	Credit Risk	Liquidity Risk	Market Risk
Number of dimensions in index	13	12	11
Banking Institution 1	92%	71%	59%
Banking Institution 2	88%	71%	27%
Banking Institution 3	100%	79%	59%
Banking Institution 4	92%	75%	91%

**Table 8.4. Mean Disclosure Quality Index by Risk Type**

Type of Institution	Credit Risk	Liquidity Risk	Market Risk
All	54%	58%	48%
Banking institution	93%	74%	59%
Non-banking institution	44%	54%	45%

as shown in the descriptive statistics. The higher-quality credit and liquidity risk disclosures by financial institutions could be partly explained by the significant pressure from regulators and investors for transparency during the 2007–09 financial crisis. In **Table 8.4**, the statistics also indicate that the quality of market risk disclosures by banking institutions is lower than that of credit and liquidity risk disclosures, which could contribute to the lower importance assigned to these disclosures, as discussed in Section 1.4.2.

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## 9. Definitions

Below are definitions of the three risk categories covered in this report:

- **Credit risk**—IFRS 7 defines credit risk as the risk of non-payment or non-performance of financial assets. Credit risk is very important because it is a pervasive risk category that affects most financial instruments. It is especially important for banking institutions whose business models are predicated on the effective origination and management of credit risk. Further, the last decade has witnessed the proliferation of credit derivatives, securitisations, and financial guarantees—all of which have had a bearing on the overall transformation of the credit risk profile of entities that engage in the use of these instruments.
- **Liquidity risk**—As with credit risk, the economic crisis has served to highlight the importance of the effective management of liquidity risk. Liquidity risk consists of both funding liquidity risk and asset liquidity risk. IFRS 7 defines liquidity risk as the risk that an entity will encounter difficulties in meeting obligations arising from financial liabilities that are settled by delivering cash or another financial asset. The *Financial Risk Manager Handbook*<sup>49</sup> provides the following definitions of the two components of liquidity risk:
  - ▲ Funding liquidity risk is the current or prospective risk arising from an institution's inability to meet its liabilities and obligations as they come due without incurring unacceptable losses. Funding liquidity risk also arises because of the possibility that the entity will be required to pay its financial liabilities earlier than expected. The focus of this study is on assessing disclosures associated with funding liquidity risk, which is consistent with IFRS 7's definition and primary coverage of liquidity risk.
  - ▲ Asset liquidity risk, or market/product liquidity risk, is the risk that a position cannot easily be unwound or offset on short notice without significantly influencing the market price because of inadequate market depth or market disruption. Although not covered in this report, asset liquidity risk has a bearing on funding liquidity risk.<sup>50</sup> For example, when entities hold highly liquid financial assets, they are more likely to consider funding such instruments through short-term funding. Conversely, when financial assets held by entities become illiquid, there

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<sup>49</sup>Jorion (2011).

<sup>50</sup>This study did not review in detail the Level 3 fair value disclosures for financial assets.



is an increased likelihood of lender aversion and corresponding refinancing difficulties for the entities.

- **Market risk**—IFRS 7 defines market risk as the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk generally comprises three key risks: currency risk, interest rate risk, and other price (e.g., commodity price) risk.

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