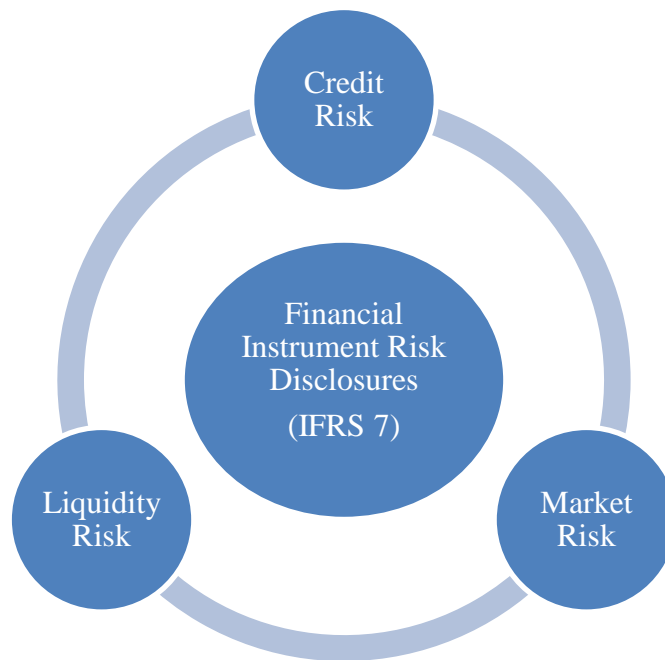


**USER PERSPECTIVES
ON
FINANCIAL INSTRUMENT RISK DISCLOSURES
UNDER
INTERNATIONAL FINANCIAL REPORTING STANDARDS
(IFRS)**

(Volume 1)



OCTOBER 2011

Foreword

Given the need to improve financial instruments risk disclosures, as evidenced by both the ongoing sovereign debt crisis and the 2007-09 market crisis, CFA Institute¹ has undertaken a study regarding the quality of existing financial instruments risk disclosures. The risk disclosures addressed in the study are credit, liquidity, market and hedging activities risk disclosures 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 upon the aforementioned study. The report proposes general and specific recommendations for improving these risk disclosures. As an extension to this paper, a separate report (**Volume 2**) provides a user perspective on the disclosures of derivatives and hedging activities.

Acknowledgement

This report was developed with significant contribution from the following colleagues: Sukanwal Nagpal, an MBA graduate from London Business School who assisted in gathering and reviewing IFRS 7 disclosure data used in the disclosure quality index (DQI) construction; Kate Fisher, who provided administrative support during the data gathering and report writing phase; Catherine Kleszczewski who helped proofread and format the report; Gerry White, and the Advocacy Outreach and Communications team of the Standards and Financial Market Integrity (SFMI) division, who provided review comments. We also acknowledge the participation and input of the CFA Institute members and non-member sell-side analysts who contributed their time and valuable insights.

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¹ With offices in Charlottesville, New York, Hong Kong, Brussels and London, CFA Institute is a global, not-for-profit professional association of more than 106,000 investment analysts, portfolio managers, investment advisers, and other investment professionals in 133 countries, of whom nearly 94,000 hold the Chartered Financial Analyst® (CFA®) designation. The CFA Institute membership also includes 135 member societies in 57 countries and territories.

User Perspectives on Financial Instrument Risk Disclosures under IFRS

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1 Overview

The overview section includes the following:

- Executive summary (**Section 1.1**);
- Objective and significance of study (**Section 1.2**);
- Scope and definitions (**Section 1.3**);
- Methodology (**Section 1.4**);
- Key findings (**Section 1.5**);
- Principal recommendations (**Section 1.6**);
- Key conclusion (**Section 1.7**); and
- Structure of detailed analysis of specific risk categories (**Section 1.8**).

1.1 Executive Summary

The imperative to improve financial instruments risk disclosures became apparent during both the on-going sovereign debt crisis and the 2007-09 market crisis. In this vein, CFA Institute has undertaken a study regarding the quality of financial instruments risk disclosures across financial and non-financial institutions. The risk disclosures addressed in the study are credit, liquidity, market and hedging activities risk disclosures under IFRS 7. This paper (**Volume 1**) provides a user perspective on financial instrument credit, liquidity and market risk disclosures based upon the aforementioned study. As an extension to this paper, a separate report (**Volume 2**) provides a user perspective on the disclosures of derivatives and hedging activities.

In its approach, the 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 construct a disclosure quality index (DQI), so as 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 **Sections 1.5.1** and **1.5.2**, the study's findings show that risk disclosures are both widely used and regarded as important by users. However, users have low level of satisfaction with these disclosures due to the following general shortcomings:

- Risk disclosures are difficult to understand. This is due to their incomplete nature and often fragmentary presentation. Identifying key information in these disclosures can sometimes be like searching for a needle in a haystack. This is discussed in more detail in **Section 1.5.3.1**.
- Market risk category is too broad. This is discussed in more detail in **Section 1.5.2**.
- Qualitative disclosures provided are uninformative and often not aligned to quantitative disclosures. This is discussed in more detail in **Section 1.5.3.2**.
- Users have low confidence in reliability of quantitative disclosures. This is discussed in more detail in **Section 1.5.3.3**.
- There is low consistency and comparability of disclosures. This is discussed in more detail in **Section 1.5.3.4**.
- Top-down and integrated messaging on overall risk management is missing. This is discussed in more detail in **Section 1.5.3.5**.

These shortcomings were evident from the user feedback and the review of risk disclosures in annual reports.

On the basis of the noted deficiencies, the report makes several general recommendations for improving disclosures. These include the following:

- **Executive Summary of Risk Disclosures is Required** – An executive summary of risk disclosures should be provided outlining details of entity-wide risk exposure and effectiveness of risk management mechanisms across different risk types. The executive summary should be provided for risk types considered to be significant for specific business models. This is discussed in more detail in **Section 1.6.1**.
- **Differentiated Market Risk Categories** – The components of market risk should be differentiated into more specific categories (i.e. interest rate, foreign currency and commodity). These proposed new categories should be treated with the same level of distinctiveness for reporting purposes as is the case with credit and liquidity risk under IFRS 7. This is discussed in more detail in **Section 1.6.2**.
- **Improved Alignment of Qualitative and Quantitative Disclosures** – Qualitative disclosures should better explain quantitative measurements. This is discussed in more detail in **Section 1.6.3**.
- **Standardisation and Assurance of Quantitative Disclosures** – Standardised and adequately audited quantitative disclosures are required to improve comparability. This is discussed in more detail in **Section 1.6.4**.
- **Improved and Integrated Presentation of Disclosures** – Integrated, centralised and tabular risk disclosures should be provided. For example, there should be disclosure of: a) the integration of risk exposure and risk management information; and b) interaction of different risk factors. This is discussed in more detail in **Section 1.6.5**.

Address Areas for Improvement of Specific Risk Disclosures

In addition, the specific improvements to credit, liquidity and market risk disclosures are articulated in **Sections 1.6.6, 2, 3 and 4**. There are common key areas for improvement across these specific risk categories. These include the need to provide: a) informative entity-specific qualitative disclosures; b) improved and more meaningful sensitivity analysis; c) sufficient disaggregation to inform on respective risk exposures; d) full disclosure of risks associated with counterparties; and e) risk information related to off-balance sheet exposures.

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. The 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 aiming to convey risk exposures and risk management policy effectiveness, as well as to foster a dialogue with investors. Such a paradigm shift is necessary before a principles-based disclosure approach can result in substantially useful information.

Enhancement of Quality Should be Overarching Focus of Disclosure Reform

Notwithstanding the need for improvement, a commonly cited argument against providing more information through disclosures tends to be that companies are already providing voluminous disclosures and that these disclosures are burdensome for users to read. Accordingly, reducing disclosure volume could be considered by some stakeholders, as what ought to be the focal point of disclosure reform. Users would likely concur that it is worthwhile to eliminate boilerplate information from disclosures (e.g. when companies either merely restate respective IFRS standards' requirements or provide generic descriptions of risk management). However, the overarching focus of improving disclosures 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 desired attributes, will not be burdensome for investors. In this vein, this report has outlined recommendations for improving financial instruments risk disclosures. If implemented, these recommendations would result in financial instruments risk disclosures that are more informative and easier for investors to process for securities valuation and analysis purposes.

1.2 Objective and Significance of Study

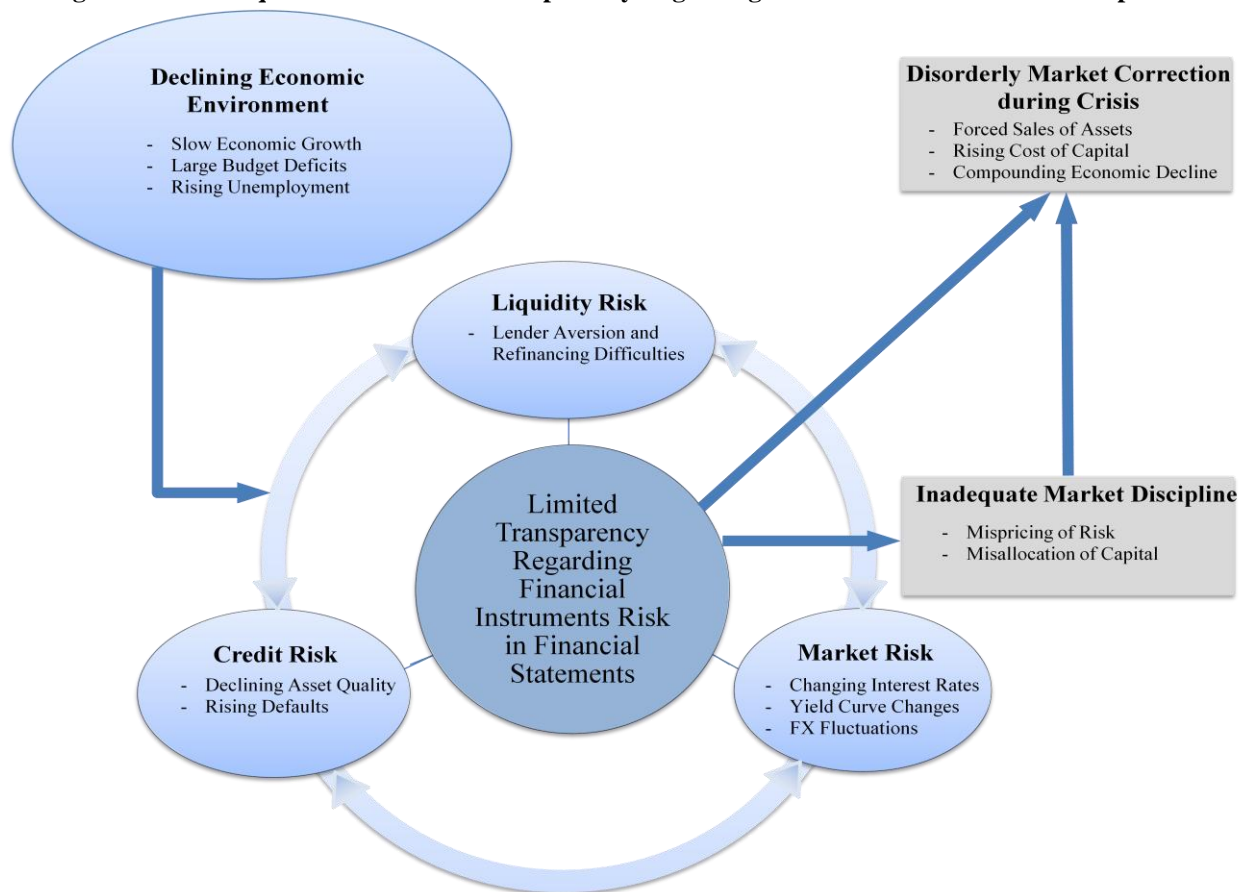
This section highlights the significance of this study due to the following factors:

- Importance of risk disclosures (**Section 1.2.1**);
- Contribution to risk disclosure reform dialogue (**Section 1.2.2**); and
- Articulation of investor perspective (**Section 1.2.3**).

1.2.1 Importance of Risk Disclosures

The importance of financial instrument disclosures as a means of helping users to understand the risks associated with on- and off-balance sheet items has been accentuated during both the ongoing sovereign debt crisis and the 2007-09 market crisis. As illustrated in **Figure 1-1**, these crises have highlighted the interconnectedness which exists 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. The limited transparency regarding these risk exposures contributes to the mispricing of risk and misallocation of capital, and abates investors' ability to provide market discipline on a timely basis. This limited transparency also contributes to the disorderly capital market correction in the valuation of companies during crisis periods.

Figure 1-1: Consequences of Limited Transparency Regarding Financial Instruments Risk Exposure



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

- 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 have the potential to inform² investors regarding a reporting entity's risk profile regardless of the measurement basis (i.e. fair value or amortised cost) applied.

1.2.2 Contribution to Risk Disclosure Reform Dialogue

The need to improve risk disclosures based on input from investors and other key stakeholders was noted in a 2011 white paper³ issued by the Financial Stability Board (FSB):

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. – Financial Stability Board

The following questions may assist in the evaluation of risk disclosures:

- Do investors understand the risk disclosures?
- Are risk disclosures important for investors?
- How do investors use risk disclosures in making investment decisions?
- How satisfied are investors with risk disclosures?
- How discrete will, or do, the risk disclosures need to be?
- What has been the quality and compliance with mandated risk disclosures under IFRS 7?
- To what extent are other useful related risk disclosures provided voluntarily?
- How can these risk disclosures be improved?

This study aims to address these questions. The findings of this study should inform the accounting standard-setters on their design of risk disclosures and enhance the understanding by financial statement preparers regarding the types of risk disclosure that are useful to investors. As noted in the Comprehensive Business Reporting Model (CBRM)⁴ developed by the CFA Institute:

Without clear and complete disclosures of a company's risk exposures, its plans and strategies for bearing and 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 expected future outcomes.

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

² Relevant information is capable of making a difference in the decisions of users by helping them to evaluate the potential effects of past, present, or future transactions or other events on future cash flows (*predictive value*) or to confirm or correct their previous evaluations (*confirmatory value*).

³ Financial Stability Board (2011), *Thematic Review on Risk Disclosure Practices-Peer Review Report*.

⁴ CFA Institute (2007), *A Comprehensive Business Reporting Model*.

1.2.1 Articulation of Investor Perspective

A number of recent studies have reviewed the extent to which reporting entities comply with IFRS 7 disclosures. These include reports by the following institutions:

- The predecessor body of the European Banking Authority (EBA) – the Committee of European Banking Supervisors (CEBS);⁵
- The predecessor body of the European Securities Market Authority (ESMA) – the Committee of European Securities Regulators (CESR);⁶
- KPMG;⁷ and
- PricewaterhouseCoopers (PwC).⁸

Generally, these studies reveal a trend of partial compliance with IFRS 7 requirements. While considering compliance with IFRS 7, these studies do not explicitly focus on users perspectives on the usefulness of such disclosures. One study⁹ which did, however, focus on user perspectives was that undertaken by the Association of Chartered Certified Accountants (ACCA). The ACCA study outlined investment analysts' views on narrative reporting including risk disclosures but did not identify the specific application by users of risk disclosures, nor review in detail reported company disclosures in a manner that could corroborate the received user feedback. Hence, the CFA Institute study intends to fill these gaps.

⁵ CEBS studies:

- a) CEBS (2010), *Follow-up Review of Banks' Transparency in Their 2009 Pillar 3 Reports*;
- b) CEBS (2010), *Assessment of Banks' Transparency in Their 2009 Audited Annual Reports*.

⁶ CESR (2009), *Application of Disclosure Requirements Related to Financial Instruments in the 2008 Financial Statements*.

⁷ KPMG studies:

- a) KPMG (2009), *Focus on Transparency: Trends in the Presentation of Financial Statements and Disclosure of Information by European Banks*;
- b) KPMG (2009), *Financial Reporting by Investment Managers*.

⁸ PricewaterhouseCoopers (2008), *Accounting for Change: Transparency in The Midst of Turmoil: A Survey of Banks' 2007 Annual Reports*.

⁹ Campbell, D. and Slack, R. (2007), *Narrative Reporting-Analysts' Perceptions of its Value and Relevance*, ACCA Monograph-Research Report 104.

1.3 Scope and Definitions

This paper (**Volume 1**) is derived from the study of IFRS 7 disclosures and focuses primarily on three financial instrument risk disclosure categories: credit risk, liquidity risk and market risk. **Volume 2**, which is an extension of this report, addresses the disclosures of derivatives and hedging activities. Derivatives and hedging disclosures are addressed separately due to the complex and unique nature of derivatives instruments and the need to comprehensively and separately deal with specific issues relating to derivatives instruments.

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 as it is a pervasive risk category impacting 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** – Similar to 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*¹⁰ provides a definition of 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. The focus of this study is on assessing disclosures associated with funding liquidity risk as it 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 at short notice without significantly influencing the market price, because of inadequate market depth or market disruption. Although not¹¹ covered in this paper, asset liquidity risk has a bearing on funding liquidity risk. For example, when highly liquid financial assets are held, entities are more likely to consider funding these instruments through short-term funding. Conversely, when financial assets held by entities become illiquid, there is an increased likelihood of lender aversion and corresponding refinancing difficulties by 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 is generally comprised of three key risks: currency risk, interest rate risk and other price risk (e.g. commodity price).

¹⁰ Jorion, P. (2011), *Financial Risk Manager Handbook – FRM Part I/Part II*. Wiley Finance.

¹¹ This study did not review in detail the Level 3 fair value disclosures for financial assets.

1.4 Methodology

As illustrated in **Figure 1-2**, this study was conducted through a combination of reviewing risk disclosure literature; obtaining user feedback through interview and survey techniques; and performing detailed analysis of company risk disclosure. The methodology is elaborated upon further below:

- **Financial Risk Disclosure Literature Review** – The framework used to analyse the usefulness of financial instrument risk disclosures is derived from various sources of literature including standard-setter, academic, and regulatory commentary (e.g. user comment letters).
- **User Feedback** – Direct user survey feedback from 133 respondents. This feedback was gathered from the administration of two surveys (i.e. an abridged and a comprehensive survey questionnaire). Respondents included 83 CFA Institute members who are users of financial statements and 50 external sell-side analysts¹² who were not CFA Institute members. A detailed description of the survey design is included within **Section 5.1** of the **Appendix**. Through these surveys, respondent users were queried on the following:
 - 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); and
 - The specific use and application of information from different disclosures by analysts and investors in the performance of security selection, valuation and risk analysis process.

In addition to the survey feedback, the views of three expert users were probed in further detail, through telephone interviews, so as to substantiate the application of IFRS 7 disclosures and the potential areas for improvement. Various insights were also distilled from discussions held by the Corporate Disclosure Policy Council (CDPC)¹³ of CFA Institute with standard-setters on risk disclosures. Key points from these discussions¹⁴ were integrated into the user feedback.

- **Company Analysis** – The company analysis was carried out by reviewing the risk disclosures in the annual report of 20 IFRS reporting companies, and thereafter, constructing a disclosure quality index (DQI). The company analysis provided a context to corroborate and evaluate user comments.

The company analysis was based on the usefulness¹⁵ dimensions of relevance and understandability of disclosures. The coverage was on both prescribed disclosures as well as voluntary disclosures that users

¹² The sell-side analysts were identified from research reports of large cap IFRS compliant companies. These sell-side research reports were downloaded from the Thomson Research Investext database.

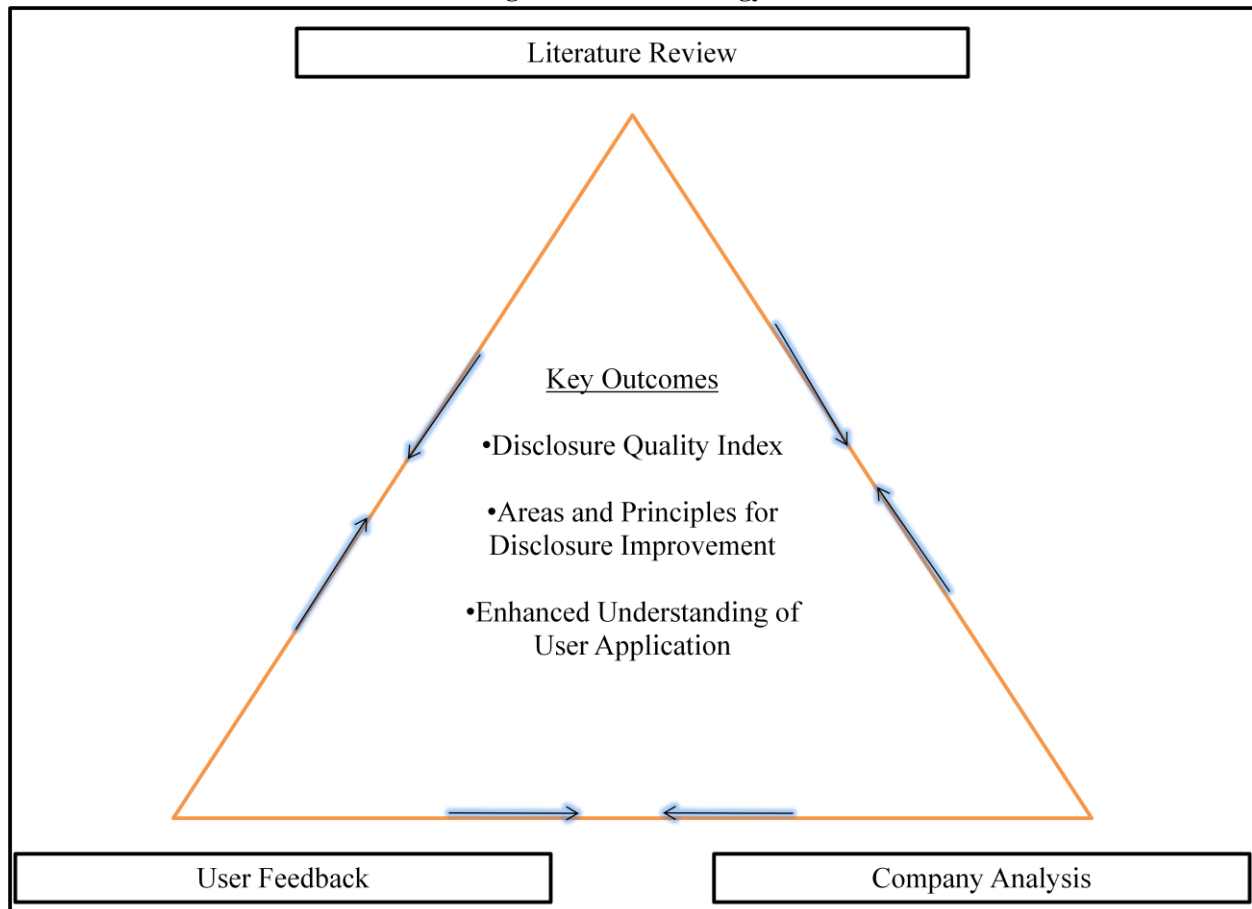
¹³ The objective of the CDPC is to foster the integrity of financial markets through its efforts to address issues affecting the quality of financial reporting and disclosures worldwide. The CDPC is comprised of investment professionals with extensive expertise and experience in the global capital markets, some of whom are also CFA Institute member volunteers. In this capacity, the CDPC provides the practitioners perspective in the promotion of high-quality financial reporting and disclosures that meet the needs of investors.

¹⁴ During recent liaison meetings with the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB), the CDPC members discussed various aspects of risk disclosures. This included, for example, what is required for a meaningful maturity analysis.

¹⁵ Botosan, C. (2004), *Discussion of a Framework for the Analysis of Firm Risk Communication*. The International Journal of Accounting, 39, Pg. 289-295. – The author emphasizes the need to anchor the analysis of usefulness of risk disclosures to the IASB conceptual framework. The author 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 information that can result in decision-useful information. These attributes include: a) relevance; b) reliability; c) comparability; and d) understandability.

had indicated were useful. The companies, whose disclosures were analysed, were large cap companies across a range of industries. These companies were selected based on their large risk exposures.

Figure 1-2: Methodology



1.5 Key Findings

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

IFRS 7 has brought a great amount of useful additional information compared to earlier financial statements 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

The above quote, which highlights a user's general view of IFRS 7 and pinpoints several shortcomings, is consistent with other observations¹⁶ made regarding information quality of risk disclosures, as shown below:

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 guidelines¹⁷ 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. – Cormac Butler

Other key findings from the study were that:

- Risk disclosures are widely used by investors;
- Discrete risk categories are more useful than general risk categories; and
- There are several specific and general areas of deficiencies across all these disclosures.

We elaborate on these findings in the sections which follow.

¹⁶ Butler, C. (2009), *Accounting for Financial Instruments*. John Wiley & Sons Ltd: West Sussex, England.

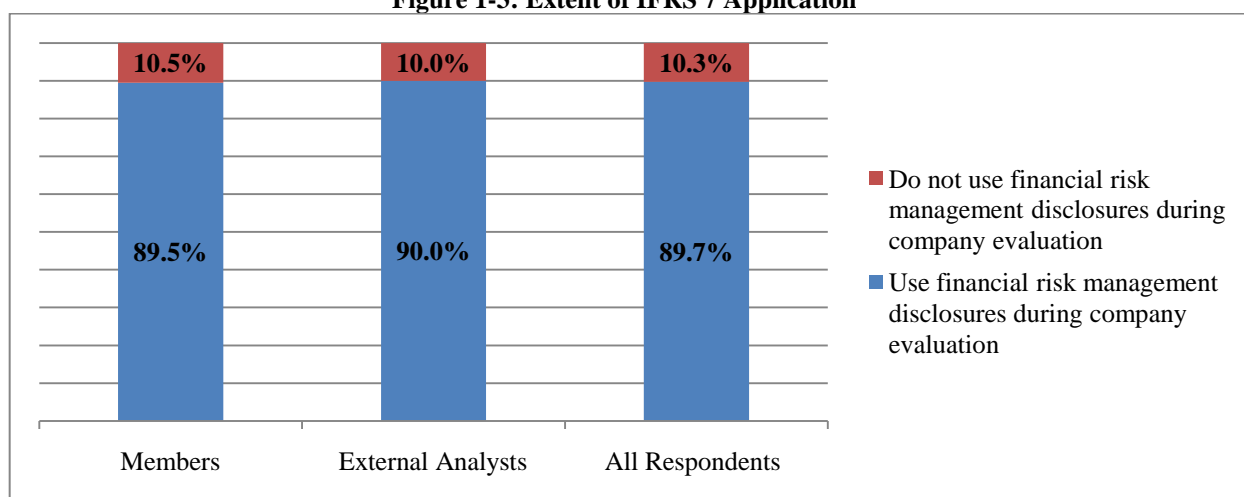
¹⁷ Ibid. – To illustrate the vagueness of risk disclosure requirements, the author refers to certain IFRS 7 guidelines such as those related to market risk disclosures. For example, he points to Paragraph 35 of IFRS 7 which requires quantitative data unless such data is unrepresentative at which time 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 is representative, and its alternative disclosure, up to the discretion of management. More specific requirements which correlate to the nature of the risk would be more useful to investors than such discretionary alternatives.

1.5.1 Risk Disclosures Are Widely Used By Investors

The findings from survey respondents in **Figures 1-3** and **1-4** 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 of: CFA Institute members {referred to as “Members” in **Figures 1-3** and **1-4**}; and sell-side equity analysts who are non-members {referred to as “External Analysts” in **Figures 1-3** and **1-4**}. Of the 107¹⁸ survey respondents to the abridged survey, 89.7 percent said they used these risk disclosures to help evaluate companies. Further, of those who utilize the risk disclosures, we found:

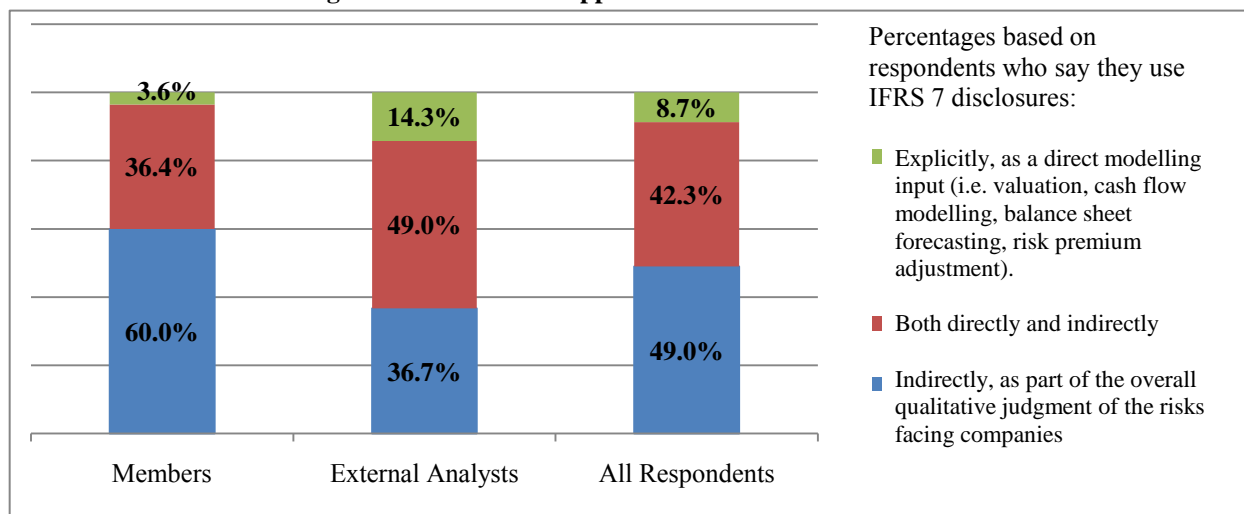
- 8.7 percent use them solely as a direct valuation modelling input;
- 49.0 percent use them indirectly as part of the qualitative judgment of risk exposure and risk management; and
- 42.3 percent use them both directly and indirectly.

Figure 1-3: Extent of IFRS 7 Application



¹⁸ Details of the comprehensive survey and abridged survey are included in **sections 1.4** and **5.1** in the **Appendix**. The abridged survey, which had 107 respondents, asked explicitly whether IFRS 7 disclosures were: a) used or not; and b) used either directly, indirectly or both? The aforementioned abridged survey (i.e. 107 responses) excludes the feedback from respondents to the comprehensive survey (i.e. 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 utilize the IFRS 7 disclosures. The content of responses to the comprehensive survey showed that all comprehensive survey respondents also use IFRS 7 disclosures. Therefore, if the comprehensive respondents were to be included in the chart analysis in **Figure 1-3**, then it would show an even higher percentage of application by all respondents (i.e. approximately 92.0 percent as opposed to the 89.7 percent from the abridged survey respondents).

Figure 1-4: Method of Application of IFRS 7 Disclosures

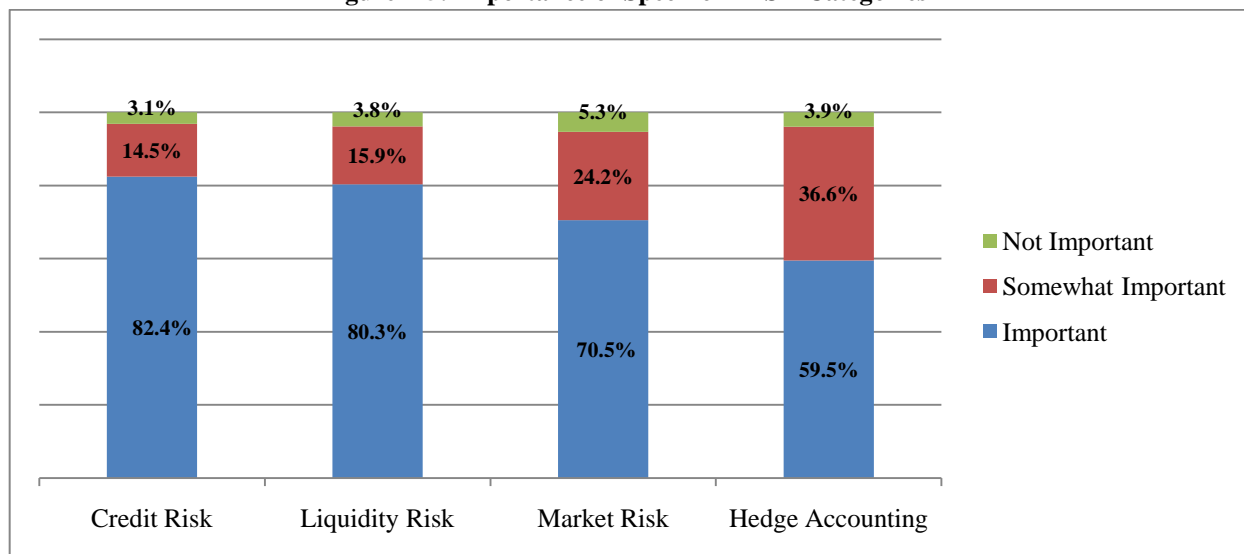


1.5.2 Discrete Risks Category Information Most Useful

Figure 1-5 shows that most respondents¹⁹ consider all the IFRS 7 categories of risk disclosure to be important. The proportion, as per risk category, of respondents that consider disclosures to be important, was as follows:

- 82.4 percent – Credit Risk,
- 80.3 percent – Liquidity Risk,
- 70.5 percent – Market Risk, and
- 59.5 percent – Hedge Accounting.

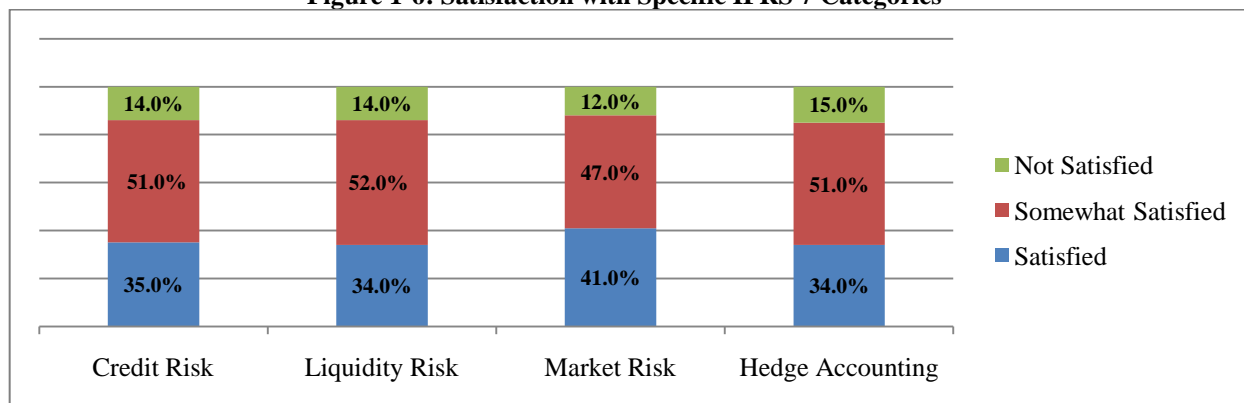
Figure 1-5: Importance of Specific IFRS 7 Categories



¹⁹ The users' ratings of importance of, and satisfaction with, different risk disclosure categories were obtained through the feedback from 133 respondents to both the comprehensive and abridged surveys. Both these surveys asked users to rate the importance of, and satisfaction with, credit risk, liquidity risk, market risk and hedge accounting disclosures.

Despite the high importance accorded to these disclosures there are, however, low levels of full satisfaction with all of these disclosures (i.e. 34 percent for hedge accounting and liquidity risk, 35 percent credit risk and 41 percent market risk), as reflected in **Figure 1-6**.

Figure 1-6: Satisfaction with Specific IFRS 7 Categories



It is not surprising that the categories considered to be most important by respondents were credit and liquidity risk disclosures. These two risk categories have a pervasive impact on all types of financial instruments and were featured prominently during the 2007-09 market crisis. As discussed in **Sections 2.1.1** and **3.1.1**, the findings, which differentiate results between CFA Institute members and non-members (i.e. mostly equity sell-side 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, it may be that some sell-side equity analysts are not using credit and liquidity risk disclosures as much as they should. This possibly results from the focus of such sell-side equity analysts on short-term earnings trends.

The respondent comments showed 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 lower level of importance assigned to these disclosures. As mentioned previously, the inadequacies of hedge accounting disclosures are comprehensively addressed in a separate report.

Respondent comments also showed that market risk as a category of definition is too broad. This could be contributing to the relatively lower level of importance attached to market risk disclosures. Illustrative respondent comments, supporting the view that market risk as a category is too broad, are as follows:

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 respondent comments highlighted the deficiencies of the specific risk disclosures, which are discussed throughout the rest of the document; many of these comments show why few users are fully satisfied with these disclosures.

1.5.3 Risk Disclosures Deficiencies

Risk disclosure deficiencies were identified by assessing various aspects of information quality, based on feedback from 26 comprehensive survey²⁰ respondents, including their evaluation of various attributes that impact usefulness, as reflected in **Figure 1-7** and **Figure 1-8**.

Figure 1-7: Comprehensive Survey Respondent Assessment of Information Content of General Disclosures

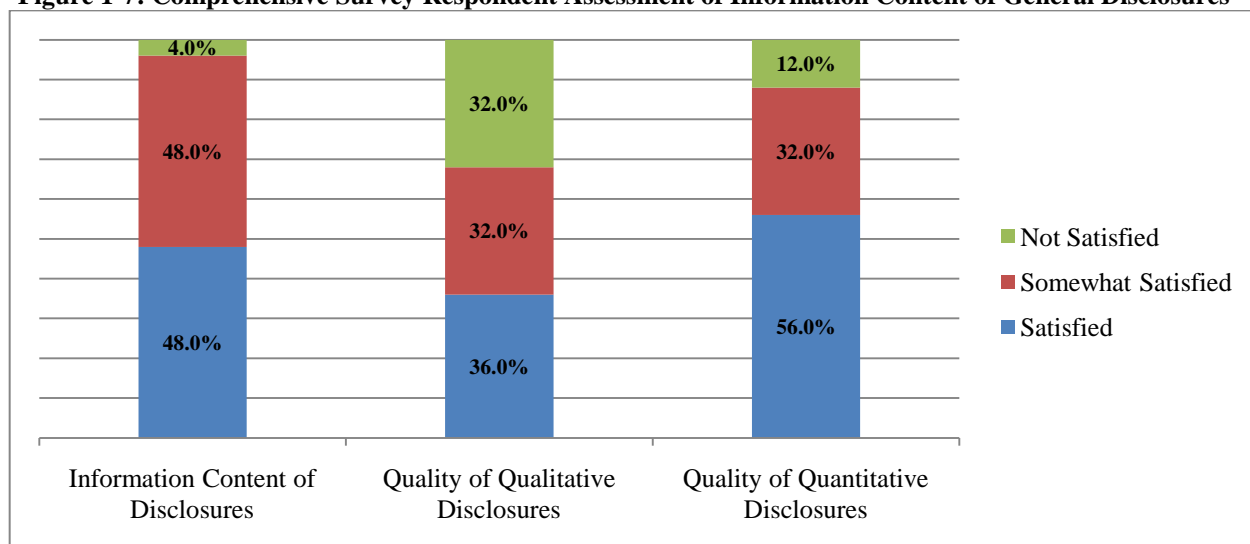
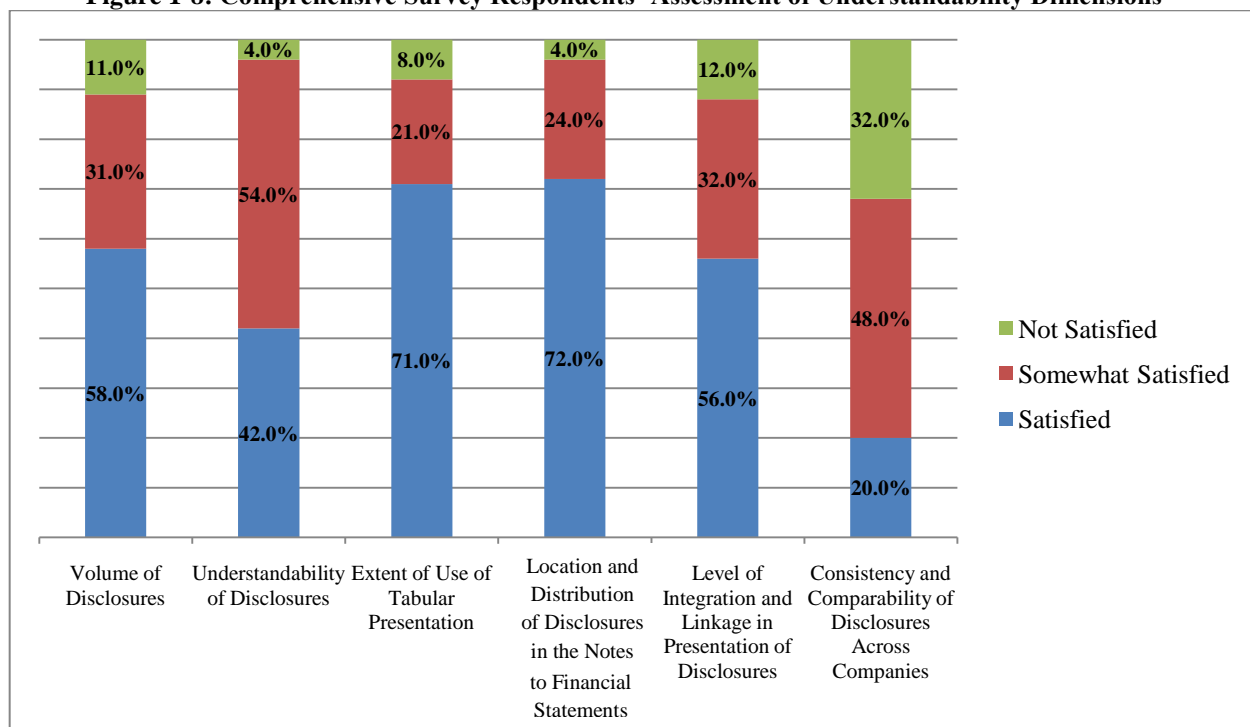


Figure 1-8: Comprehensive Survey Respondents' Assessment of Understandability Dimensions



²⁰ Details of the comprehensive survey and abridged survey are included in **Sections 1.4** and **5.1** in the **Appendix**.

A takeaway from the user rating of importance of, and satisfaction with, risk disclosures as well as certain accompanying respondent comments highlighted in **Section 1.5.2** is that market risk disclosure, as a definition category, may be too broad. In addition, the user feedback from the comprehensive survey and company analysis show the following general shortcomings of risk disclosures including that:

- Risk disclosures are difficult to understand (**Section 1.5.3.1**);
- Qualitative disclosures provided are uninformative (**Section 1.5.3.2**);
- Users have low confidence in reliability of quantitative disclosures (**Section 1.5.3.3**);
- There is low consistency and comparability of disclosures (**Section 1.5.3.4**); and
- Top-down and integrated messaging on overall risk management is missing (**Section 1.5.3.5**).

The company analysis affirmed many of these noted deficiencies as is described in **Sections 1.5.3.6, 2, 3, and 4**. The sections which follow elaborate on these risk disclosure deficiencies.

1.5.3.1 Risk Disclosures are Difficult to Understand

The results in **Figure 1-8** show a low degree of satisfaction with the understandability of risk disclosures. Only 42 percent of comprehensive survey respondents were satisfied with the understandability of risk disclosures. The difficulty in understanding risk disclosures was evident when reviewing disclosures made in issued financial statements. These risk disclosures are very difficult for users to understand and process due to their: a) often incomplete nature; and b) fragmentary and inconsistent presentation. Identifying key information in these disclosures can sometimes be like searching for a needle in a haystack. This is especially true for financial risk disclosure information for banking institutions, as there is often a fragmented presentation of IFRS 7 and Basel Pillar 3 information, even when the underlying information is related. For example, IFRS 7 requires presentation of maximum credit risk exposure information and Basel Pillar 3 requires exposure at default information. While related, this type of credit risk information is 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 managed.

1.5.3.2 Qualitative Disclosures Uninformative

The survey results in **Figure 1-7** show that the lowest user satisfaction is with the level of qualitative disclosures with only 36 percent “satisfied” and 32 percent “somewhat satisfied” with this information. Respondent comments reflected their experience of qualitative disclosures being generic, boilerplate in nature, and characterised by lengthy description but with little information content. The respondent comments also reflect the expectation 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 to be inadequate and disconnected with quantitative disclosures, as illustrated in the quotes below:

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

1.5.3.3 Users Have Low Confidence in Reliability of Quantitative Disclosures

Similarly, **Figure 1-7** shows that there is relatively low satisfaction with the quality of quantitative disclosures (i.e. only 56 percent are “satisfied”). A respondent’s comments, as shown below, reflect concerns regarding the reliability of the quantitative disclosures and the need for greater auditor scrutiny of the quantitative disclosures.

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

– Credit Analyst

Consistent with the user concerns on reliability of quantitative risk disclosures, the recent FSB report²¹ on risk disclosures noted that different practices are followed across jurisdictions as it relates to the extent to which auditors provide assurance on risk disclosures in an entity’s financial reports and how that level of assurance is disclosed.

1.5.3.4 Low Consistency and Comparability of Disclosures

The user assessment reflected in **Figure 1-8**, shows that the attribute with highest dissatisfaction is the consistency and comparability of IFRS 7 disclosures, with only 20 percent of comprehensive survey respondents “satisfied” and 32 percent “dissatisfied.” Certain respondent comments indicated that they would favour standardisation of disclosures across industries. Similarly, the disclosure quality index (DQI) scoring for the 20 companies, presented in **Tables 5-2** and **5-3** of the **Appendix**, shows that there is 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

1.5.3.5 Top-Down and Integrated Messaging on Overall Risk Management is Missing

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 partially reflected in **Figure 1-8** which shows that 56 percent of comprehensive survey respondents were satisfied with the level of integration and linkage in the presentation of disclosures. The following respondent 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

In addition, the company analyses show that it is not usual to have disclosures which show the interaction of different risk factors. For example, disclosures fail to show how credit risk may affect liquidity risk or market risk.

²¹ Ibid 3.

1.5.3.6 Company Analysis Affirms Disclosure Deficiencies

The company analysis including the construction of a disclosure quality index (DQI) is discussed in detail in subsequent sections. The company analysis corroborates several of the identified disclosure deficiencies that were highlighted by users through the comprehensive survey as highlighted in preceding sections and in **Figure 1-8**. These include:

- Risk disclosures are difficult to understand due to failure to provide key information in readily accessible and succinct fashion;
- Inadequate qualitative disclosures;
- Poor comparability due to inconsistent compliance with IFRS requirements;
- Lack of integrated disclosures.

The company analysis of financial risk disclosures and related user comments helped to identify areas for improvement as discussed under the following section on Principal Recommendations (**Section 1.6**) and in subsequent sections (**Sections 2, 3, and 4**) dealing in detail with different risk disclosure categories (i.e. credit, liquidity and market risk).

1.6 Principal Recommendations

The general recommendations derived from user feedback and company analysis are as follows:

- Executive summary of risk disclosures should be provided (**Section 1.6.1**);
- Differentiate the components of market risk (**Section 1.6.2**);
- Qualitative disclosures should explain quantitative measurements (**Section 1.6.3**);
- Standardised and adequately audited disclosures are required to improve comparability (**Section 1.6.4**); and
- Integrated, centralised and tabular risk disclosures should be provided (**Section 1.6.5**).

These general recommendations are explained in greater detail in the appropriately referenced sections. In addition, improvements required for specific risk disclosures are explained in **Section 1.6.6**. 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 aiming to convey risk exposures and risk management policy effectiveness, as well as to foster a dialogue with investors. Such a paradigm shift is necessary before a principles-based disclosure approach can result in substantially useful information.

1.6.1 Executive Summary of Risk Disclosures Should Be Provided

As discussed in **Section 1.5.3.1**, risk disclosures are difficult for investors to understand and incorporate into their investment decision making process due to their: a) often incomplete nature; and b) fragmentary and inconsistent presentation. To help alleviate the difficulties that investors face with processing risk related information, an investor oriented executive summary that distils key information on entity-wide risk exposures and effectiveness of risk management practices is necessary across different risk types. The executive summary should be provided for risk types considered to be significant for specific business models. This executive summary will help to minimise the processing effort incurred by investors and facilitate assimilation of key risk information made through the financial reports. The need for an executive summary is reflected in the respondent’s quote listed below:

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

1.6.2 Differentiate the Components of Market Risk

The user rating of importance of, and satisfaction with, risk disclosures combined with certain respondent comments highlighted in **Section 1.5.2**, illustrate that market risk disclosure, as a definition category, may be too broad. Accordingly, for definition purposes, it is worthwhile to consider differentiating the distinctive risk categories that are currently contained within the broad market risk disclosure category.

Our findings suggest that market risk could be broken down into at least three new risk categories, namely: interest rate; foreign currency; and commodity price risk. And, these new risk categories should be reported with the same level of distinctiveness as is the case with credit and liquidity risk categories under IFRS 7. This proposed decomposition could allow the provision of more specific information on quantitative risk exposure and sensitivity analysis. This, in turn, will likely enhance the quality of market risk disclosure information provided and this will be more informative and decision-useful to users.

1.6.3 Qualitative Disclosures Should Explain Quantitative Measurements

Section 1.5.3.2 highlights the deficiencies of qualitative disclosures. Qualitative disclosure should be used to sufficiently explain reported numbers on the balance sheet and other quantitative disclosures. These disclosures should not merely restate respective IFRS standards' requirements. Boilerplate disclosures and the regurgitation of IFRS requirements unwarrantedly increase the volume of disclosures, making them more burdensome to read, without proffering the 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

1.6.4 Standardised and Adequately Audited Quantitative Disclosures Required to Improve Comparability

As was noted in **Section 1.5.3.3**, users do not find quantitative risk disclosures to be reliable and there are questions regarding the adequacy of auditor scrutiny of quantitative risk disclosures. Hence, auditors should disclose their level of assurance on such risk disclosures. In addition, standardised, quantitative disclosures should be integrated into principles-based disclosure requirements. This will ensure the provision of consistent, complete and relevant information by reporting companies. An example of a successful integration of standardised disclosures is the adoption of fair value valuation hierarchy disclosure requirements. In contrast, the heavily principles-based articulation of quantitative market risk exposure requirements by IFRS 7 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. However, 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 information content.

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 could simply lead to boilerplate disclosures and encourage a 'tick-the-box' mindset by preparers. This could be true, if a specified disclosure is irrelevant for a particular business model. However, as elucidated in this paper, the reporting outcomes of IFRS 7 disclosure requirements, shows 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.

1.6.5 Integrated, Centralised and Tabular Risk Disclosures Should Be Provided

Section 1.5.3.5 highlights the perception by users of the poor integration of related risk disclosures. Greater emphasis should be placed on providing integrated disclosures. For example, risk disclosures should illustrate how market risk influences liquidity risk or credit risk. Risk disclosures can be improved through a better portrayal of the linkage between:

- *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 to investors.
- *Market Risk Factors, Credit Risk and Liquidity Risk* – The impact of significant interest rate changes or a downgrade in the credit rating of a company, on the expected liability maturity profile, would be useful in better assessing liquidity risk.
- *Market Risk Factors and Hedging Strategies* – An integrated discussion of market risk exposure measures with risk management policy should be provided. For example, the disclosure of value at risk (VAR) measures in relation to both the pre-hedging and post-hedging exposures can be complementary to hedge accounting disclosures in informing users on economic hedge effectiveness.
- *Liquidity Risk and Business Risk* – The impact of changes in the economic environment on the liquidity risk profile.

The quote below illustrates user 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 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.

– Mergers and Acquisitions Advisory Analyst

1.6.6 Improvements Required for Specific Risk Disclosures

Several improvements to the disclosures of specific risk categories (i.e. credit, liquidity and market) were identified and these should be implemented to better address user requirements. These disclosure improvement recommendations were derived from the company analysis and user comments and are discussed further in the respective discussion on credit, liquidity and market risk disclosures in **Sections 2, 3 and 4**. Examples of disclosure improvements needed to better address user requirements by risk category include:

- **Credit Risk**
 - *Comprehensive Credit Risk Qualitative Disclosures* – Improved qualitative disclosures that adequately explain quantitative credit risk disclosures and entity-specific credit risk management policy. Comprehensive qualitative credit risk disclosure requirements are discussed in more detail in **Section 2.3.1**.
 - *Impairment* – Comprehensive financial asset impairment disclosures including key inputs, methods and assumptions. Comprehensive financial asset impairment requirements are discussed in more detail in **Section 2.3.2**.

- *Maximum Credit Exposure* – Improved disaggregation of maximum credit exposure (i.e. including derivatives and off-balance sheet exposure). Maximum credit exposure requirements are discussed in more detail in **Section 2.3.3**.
- *Counterparty Risk* – More informative counterparty risk disclosures. This should include adequately disaggregated details of credit risk by counterparty in a manner that communicates if there is significant concentration risk associated with specific individual or homogenous groups of counterparties. It should also outline the exposure by credit rating category and significant covenants/rating triggers such as the impact of a downgrade in the credit ratings of the counterparty on the reporting entity's credit exposure. This disclosure is particularly important for the derivatives contracts where there are contingent credit risk commitments. Counterparty risk disclosure should also include counterparty valuation adjustment information (i.e. for example, when derivative contracts are netted). Counterparty risk disclosure requirements are discussed in more detail in **Section 2.3.4**.
- *Collateral* – Integrated information regarding collateral held versus collateral issued and an assessment of whether the entity-wide financial assets are over/under collateralised. Collateral disclosure requirements are discussed in more detail in **Section 2.3.5**.
- **Liquidity Risk**
 - *Comprehensive Liquidity Risk Qualitative Disclosures* – Qualitative and quantitative disclosures that sufficiently inform on effective asset/liability management, maturity mismatch risk and linkage with other risk categories (e.g. business, credit and market risk). Comprehensive qualitative liquidity risk disclosure requirements are discussed in more detail in **Section 3.3.1**.
 - *Maturity Analysis* – Improved maturity analysis disclosures including such analysis for all key on and off-balance sheet asset classes. In addition, there should be appropriate bucketing of maturity analysis, clearly conveying the time period(s) with significant refinancing or settlement obligations. Maturity analysis requirements are discussed in more detail in **Section 3.3.2**.
 - *Sensitivity Analysis* – Liquidity risk sensitivity analysis and stress tests. Liquidity risk sensitivity analysis is discussed in more detail in **Section 3.3.3**.
 - *Counterparty Risk* – Risks associated with key financiers or liquidity providers including concentration risk and significant covenants that have bearing on liquidity. Liquidity risk due to counterparties is discussed in more detail in **Section 3.3.4**.

- **Market Risk**
 - *Differentiate Market Risk Disclosure Components* – As discussed in **Sections 1.6.1** and **4.3.1**, market risk disclosure could be broken down into three new risk categories, namely: interest rate; foreign currency; and commodity price risk. And these should be on the same footing as the credit and liquidity risk categories.
 - *Comprehensive Market Risk Qualitative Disclosures* – Qualitative disclosures should be entity-specific and not boilerplate descriptions. There should be a linkage with disclosed quantitative numbers. Market risk disclosures should be integrated with other risk category disclosures. Comprehensive qualitative market risk disclosure requirements are discussed in more detail in **Section 4.3.2**.
 - *Quantitative Risk Exposure* – Quantitative economic risk exposure disclosures should be comprehensively outlined across all key risk factors, including for example: a disaggregated breakdown, by key currency type, of assets, liabilities, future purchase commitments and future sales commitments; the amount of floating rate assets or liabilities held; and exposure to commodity risk. Quantitative risk exposure requirements are discussed in more detail in **Section 4.3.3**.
 - *Improved Sensitivity Analysis and Stress Testing* – This should reflect the impact on the profit and loss statement, of assumptions of reasonably probable variation of key risk factors, as well as the corresponding impact of stress or extreme event scenario assumptions. It should also reflect the correlation and diversification effect on gains or losses due to the interaction of key risk factors. Market risk sensitivity analysis requirements are discussed in more detail in **Section 4.3.4**.

There are common key areas for improvement across the credit, liquidity and market risk categories. These include the need to provide: a) informative entity-specific qualitative disclosures; b) improved and more meaningful sensitivity analysis; c) sufficient disaggregation to inform on respective risk exposures; d) full disclosure of risks associated with counterparties; and e) risk information related to off-balance sheet exposures.

1.7 Key Conclusion

Overall, as elucidated in the 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. The 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 aiming to convey risk exposures and risk management policy effectiveness, as well as to foster a dialogue with investors. Such a paradigm shift is necessary before a principles-based disclosure approach can result in substantially useful information.

A commonly cited argument against providing more information through disclosures tends to be that reporting entities are already providing voluminous disclosures and that these disclosures are burdensome for users to read. Accordingly, reducing disclosure volumes could be considered by some stakeholders as what ought to be the focal point of disclosure reform. Users would likely concur that it is worthwhile to eliminate boilerplate information from disclosures (e.g. when companies either merely restate respective IFRS standards’ requirements or provide generic descriptions of risk management). However, the overarching focus of improving disclosures should be on enhancing the following desirable attributes of disclosures: a) adequate information content (i.e. relevant and complete information); b) ease of access and parsimonious presentation; c) understandability; and d) comparability. Risk disclosure information with these desired attributes will not be burdensome for investors. The need to focus on quality of information was pinpointed by the following quote from the aforementioned ACCA study²² on narrative reporting:

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.

– Analyst Respondent.

In this vein, this report has outlined recommendations for improving financial instruments risk disclosures. If implemented, these recommendations would result in financial instruments risk disclosures that are more informative and easier for investors to process for securities valuation and analysis purposes.

1.8 Structure of Detailed Analysis of Specific Risk Categories

This overview section has highlighted the key findings and areas for improvement in financial risk disclosures. **Sections 2, 3 and 4** further analyse credit, liquidity and market risk, respectively. The analysis is based on: evaluating user comments regarding specific risk disclosures; and the review of risk disclosures in annual reports across the sample of selected companies. Thereafter, the report makes detailed recommendations, within each section, for improvements across these specific risk disclosure categories.

²² Ibid 9.

2 Credit Risk Disclosures

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 Butler²³

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 as it is an integral category of risk, especially for financial institutions. Moreover, the recent financial crisis has heightened the importance of understanding counterparty risk which is an important subset of overall credit risk. Despite IFRS 7 capturing certain elements of credit risk disclosure, some critics²⁴ assert that IFRS 7 credit risk disclosures are too basic as they do not faithfully represent the complexity associated with counterparty and credit risk. Hence, this makes it all the more important to identify the gaps and areas of improvement within current disclosure requirements. The following sections include our analysis and basis for making recommendations regarding how credit risk disclosures can be improved. They include:

- User feedback on credit risk disclosures (**Section 2.1**);
- Company analysis of credit risk disclosures (**Section 2.2**);
- Findings and recommendations for improving credit risk disclosures (**Section 2.3**); and
- Conclusions (**Section 2.4**).

2.1 User Feedback

2.1.1 User Importance and Satisfaction Ratings

The comprehensive and abridged surveys sought respondent ratings on the importance of, and satisfaction with, the current level of credit risk disclosures. Respondent²⁵ ratings, illustrated in **Figure 2-1** and **Figure 2-2** indicate that these credit risk disclosures are considered to be important by a significant number of respondents (82.4 percent) and somewhat important (14.5 percent) by others. However, the aggregate data indicates that respondents are not satisfied with the disclosures to the same degree to which they consider these disclosures to be important. Effectively, 64.8 percent of respondents are “less than fully satisfied” with these credit risk disclosures (with 14.0 percent “not satisfied”).

The survey respondents comprised of: CFA Institute members {referred to as “Members” in **Figures 2-1** and **2-2**}; and sell-side equity analysts who are non-members {referred to as “External Analysts” in **Figures 2-1** and **2-2**}. There is a statistically significant difference between member respondents (86.6 percent) and external analysts (75.5 percent) in the importance they assign to credit risk disclosures. This finding could be a reflection, that relative to a composite set of users,²⁶ sell-side equity analysts do not assign as much importance to credit risk disclosures. Although, equity shareholders as residual risk bearers are sensitive to unexpected losses, it may be that some sell-side equity analysts are not using credit risk disclosures as much as they should. This could be because the focus of such sell-side equity analysts is on short-term earnings trends. Nevertheless, the overall inference drawn from these different groups of respondents regarding the importance of credit risk disclosures is consistent and shows that this category of risk is important to most users.

²³ Ibid 16.

²⁴ Ibid 16.

²⁵ Ibid 19.

²⁶ CFA Institute member survey respondents, including credit analysts, cover a range of asset classes including fixed income, equity and structured finance. The external non-member respondents were predominantly equity sell-side analysts.

Figure 2-1: Importance of Credit Risk Disclosures

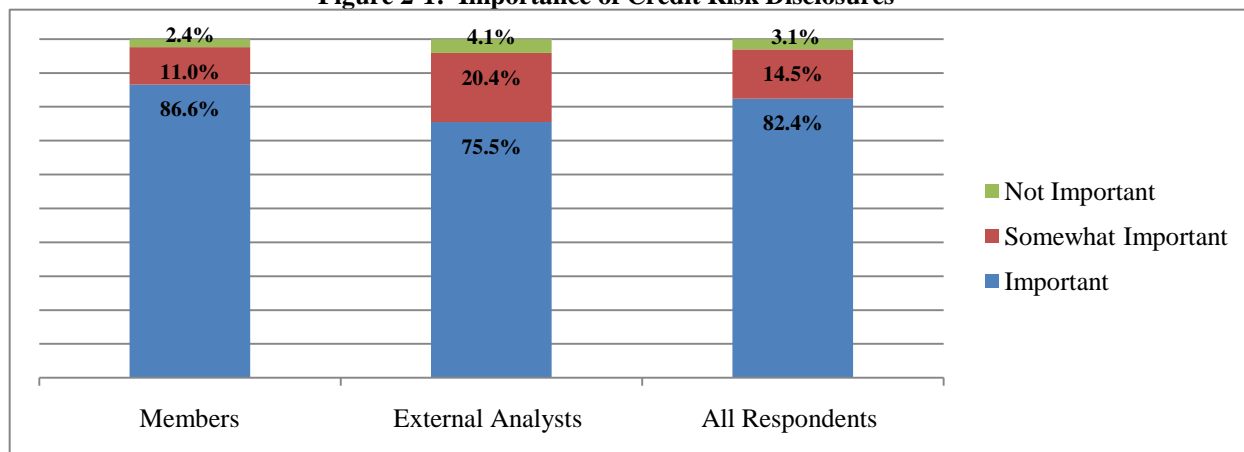
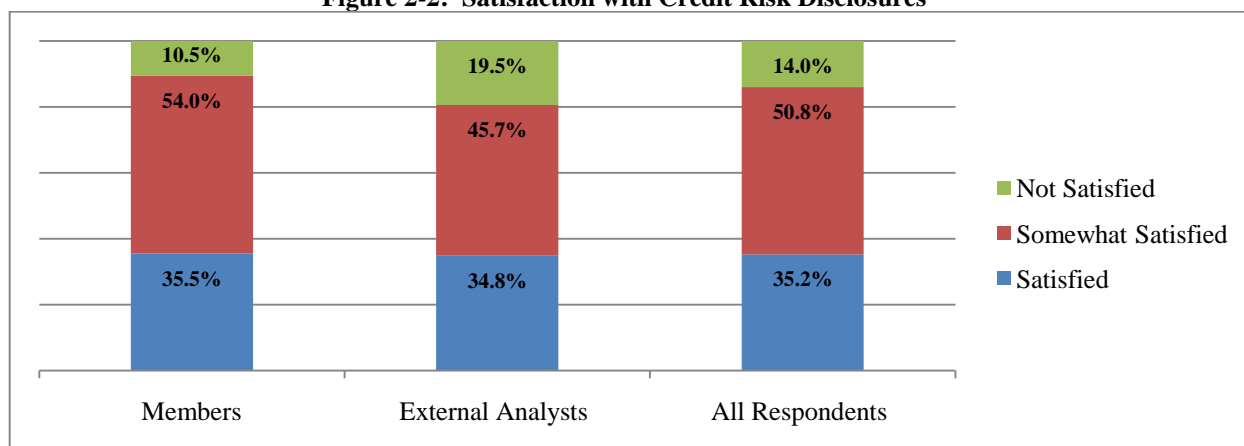


Figure 2-2: Satisfaction with Credit Risk Disclosures



2.1.2 User Application of Credit Risk Disclosures

As shown in **Section 2.1.1** above, most users (82.4 percent) consider credit risk disclosures to be important. User feedback from the comprehensive survey, exemplified by related quotes, showed the following as the primary applications of credit risk disclosures:

- Asset value forecasting and quality assessment;
- Earnings and cash flow forecasting; and
- Risk premium determination.

Related user quotes are provided below:

Asset Value Forecasting and Asset Quality Assessment

Credit risk disclosures help to develop a clear estimate of the true value of a business, 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.

– Mergers and Acquisition Advisor

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 provides 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

2.1.3 Relative Importance of Different Credit Risk Disclosure Components

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

- Impairment related disclosures (Nine respondents);
- Maximum credit risk exposure disclosures (Eight respondents);
- Collateral disclosures (Two respondents); and
- All three categories are most important (Three respondents).

From these responses, impairment and maximum credit exposure related disclosures seem to be considered by users to be the most useful components of credit risk disclosure. An analysis of the comments accompanying the survey responses indicates that some disclosures are not considered important by certain users simply because they are highly deficient for analytical purposes (e.g. collateral associated disclosures). In other words, if there was higher quality information provided for these disclosures, then users would probably assign a higher level of importance.

2.2 Company Analysis

The company analysis was completed by reviewing the credit risk disclosures in the 2009 financial statements of 20 companies preparing financial statements utilizing IFRS and, thereafter, constructing a disclosure quality index (herein referred to as the DQI). This analysis provides a context for further evaluating the user assessment regarding the importance of, and satisfaction with, these disclosures. It also provides an objective basis of identifying the areas for improvement.

2.2.1 Disclosure Quality Index (DQI) Analysis

2.2.1.1 Construction of Credit Risk Disclosure Quality Index (DQI)

The following items are included in the DQI shown in **Table 2-1**:

- Prescribed IFRS 7 disclosure requirements (i.e. impairments, maximum credit exposure and collateral information).
- Useful voluntary disclosures (e.g. concentration risk, covenants). These are included based on their articulated usefulness from user respondents.
- 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 disclosure dimension of the index after analysing the disclosures from the 2009 financial statements of the aforementioned 20 IFRS compliant companies. The basis of determining the DQI score is explained in the footnote to **Table 2-1**. For most of the dimensions (nine of 13), all the 20 companies analysed would be expected to comply with the related disclosure dimension. Each company was included in the population of eligible companies when determining the DQI scores. However, there are four components where it is possible that companies did not conform to disclosure requirements simply because the disclosure was not applicable. Such disclosure dimensions are: past due but not impaired, renegotiated financial assets, covenants and collateral held. For these four disclosure dimensions the eligible number of companies is still designated as 20 (i.e. the full sample of companies) because the evaluated companies did not adequately describe whenever certain disclosures were not applicable. Accordingly, this study effectively assumes that if any of the reviewed companies fails to disclose any assessed dimension of disclosure it is simply not complying with the particular disclosure requirements. As a result, it is possible that the DQI score could in fact be understating the level of compliance in the relation to the four dimensions, where the disclosures may not be applicable. Despite this possibility of understating compliance for some dimensions, the risk of misinterpreting the DQI findings is mitigated by corroborating these findings with those from other studies.

The DQI score findings 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 these disclosures), plus those from other studies, are discussed in **Section 2.3**. Taken together with the user feedback, the company analysis forms the basis for the recommendations made.

Table 2-1: Credit Risk Disclosure Quality Index (DQI)

DISCLOSURE DIMENSION(13 DIMENSIONS) (Items with asterisk (*) are prescribed IFRS 7 disclosures)	ELIGIBLE COMPANIES ²⁷	AVERAGE DISCLOSURE QUALITY INDEX (DQI) SCORE ²⁸
QUALITATIVE CREDIT RISK DISCLOSURE		
Method of measuring credit risk exposure.	20	22.5%
Adequately describes how credit risk management occurs including providing a clear linkage between the quantitative data and qualitative description.*	20	50.0%
IMPAIRMENTS		
Information about credit quality of financial assets that are not past due or impaired.*	20	70.0%
Renegotiated financial assets (that would be past due or impaired).*	20	40.0%
Aging schedule for past due amounts.*	20	90.0%
Impairment methods and inputs disclosed.*	20	60.0%
MAXIMUM CREDIT EXPOSURE		
Maximum credit exposure.*	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%
COUNTERPARTY RISK		
Provide details of counterparty covenants.	20	25.0%
Some description of concentration/counterparty risk.	20	42.5%
COLLATERAL		
Collateral amount held.*	20	60.0%
DISCLOSURES TO HELP USERS UNDERSTAND CREDIT RISK		
Adequate tabular presentation.	20	57.5%
Ease of use (i.e. adequate referencing and centralised location).	20	55.0%

²⁷ The 20 eligible companies included were Alcatel Lucent, Anglo American, Allianz, Barclays, BHP Billiton, BMW, BP, British Airways, Deutsche Bank, EADS, Fiat, GSK, HSBC, Iberdrola, Lufthansa, Nestle, Novartis, Nokia, RBS, and SAP.

²⁸ The 20 companies were individually assessed for compliance with each dimension and a score assigned as follows:

- 100 percent = Full compliance
- 50 percent = Partial compliance
- Zero percent = No compliance

Thereafter, an average score for the 20 companies was determined. Hence if 20 companies scored 100 percent, the disclosure index score would be 100 percent. If ten companies scored 100 percent, five scored 50 percent, and five companies scored zero percent, the average disclosure index score would be 62.5 percent.

2.2.1.2 Interpreting Credit Risk Disclosure Quality Index (DQI)

The average credit risk DQI percentages reported in **Table 2-1** is a measure of compliance with requirements for each disclosure dimension. 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 percent for full compliance, 50 percent for partial compliance and zero percent for non-compliance). In effect, the DQI score is based on underlying discrete ordinal data as: a) it does not precisely measure the extent of partial compliance; and b) the difference in quality between zero and 50 percent is not necessarily the same as that between 50 percent and 100 percent. Due to the underlying discrete ordinal data used for the evaluation of the quality of each disclosure dimension for each company, there should be cautious interpretation²⁹ of the average DQI percentages reported. For example, such data is not readily applicable for the purposes of inferential statistics related to the full population of companies. In addition, precise inferences about difference in quality, across disclosure dimensions, cannot be made based on the magnitude of numerical difference which exists between the average DQI score reported across the respective different disclosure dimensions.³⁰

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

²⁹ This 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 based a hypothetical 100 respondents who have been restricted to making discrete choices for a particular question (e.g. Likert scale where respondents can only select a rating of 1, 2, 3, 4 or 5).

³⁰ The numerical difference of 30 percent, between a score of 70 percent and 40 percent 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 that exists between 90 percent and 60 percent related to two other dimensions (e.g. aging schedule versus impairment inputs and methods).

2.3 Findings and Recommendations

The recommended disclosures are derived from the findings of the DQI construction as well as from respondent user comments on what additional disclosures they require. The sum of the findings shows that there is room to improve various aspects of credit risk disclosures.

Despite some degree of compliance with IFRS 7 requirements by all the companies analysed, it is also apparent that the combination of qualitative and quantitative credit risk disclosures provided is not sufficiently informative for users. This is because the qualitative disclosures are often boilerplate in nature with preparers simply restating the accounting standard requirements. Additionally, the quantitative disclosures are partially complete and are often disconnected from the qualitative description of risk management. The following improvements are proposed:

- Enhance qualitative credit risk disclosures (**Section 2.3.1**);
- Provide comprehensive financial asset impairment disclosure (**Section 2.3.2**);
- Greater disaggregation of maximum credit risk exposure (**Section 2.3.3**);
- More informative counterparty risk disclosure (**Section 2.3.4**); and
- Integrated collateral information (**Section 2.3.5**).

Below is an elaboration of the specific disclosure enhancements proposed:

2.3.1 Enhance 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 percent for this component. This shows significant room for improvement.
- Describe methods of managing credit risk and aggregate effectiveness of these methods. The DQI score was 50 percent for this component. This also shows that significant improvement is required.
- Make reference to and provide linkage with other disclosed credit risk quantitative data. For example those required under Basel Pillar 3 (e.g. exposure at default information).
- Substantiate reasons for excluding prescribed disclosures (e.g. collateral related disclosures) so as to allow users to differentiate between situations where a disclosure is not applicable from where it has simply not been provided.

2.3.2 Provide Comprehensive Financial Asset Impairment Disclosures

As reported in **Section 2.1.3**, several comprehensive survey respondents indicated that impairment related disclosures were the most important component of credit risk disclosures. As noted in the DQI, despite its importance to users, impairment data is inconsistently provided and the qualitative disclosures are often deficient. There was a DQI score of 70 percent for companies providing information regarding the credit quality of financial assets that are not past due or impaired and only 40 percent for renegotiated assets that would be past due or impaired. It is plausible that the failure to disclose the level of renegotiated assets could be due to this aspect of disclosure not being applicable for some of the sample companies analysed, and as a result, the DQI could be understating the level of compliance. It was difficult to correspondingly adjust the compliance analysis, for instances where disclosures were not applicable. This is because the reporting entities hardly ever adequately explained why they have not complied with IFRS 7 requirements even when they would have to be applicable. Nevertheless, the poor quality of all the highlighted impairment disclosures is corroborated through other studies.³¹ For example, these other studies show that there is poor disclosure of renegotiated assets.

In addition, although different impairment methods are applied to different financial assets (e.g. individual impairment versus collective impairment), the disclosure on impairment methods and inputs is often inadequate. The DQI score was 60 percent for the disclosure of impairment methods and inputs. The poor quality of disclosures of impairment methods is corroborated through other studies.³² The poor quality of impairment disclosures is also backed by the user comments noted below:

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 comparison across companies.

– Portfolio Manager

Hence, the following recommendations are proposed:

- Companies should significantly improve their disclosure on impairment approaches applied, including collective and individual impairment. Further, companies should clearly define the criteria for classifying assets as non-performing so as 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

³¹ Such other studies include the following:

a) Ibid 8. – The PwC survey of 22 banks found the following inadequacies with disclosures: i) individually impaired assets were disclosed but there was poor qualitative disclosure around these disclosures; and ii) poor disclosure relating to renegotiated assets that would otherwise be past due or impaired.

b) Ibid 6. – The CESR study found that: i) approximately 20 percent of 96 companies did not provide disclosures on age analysis (past due but not impaired); and ii) 30 percent 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.

³² Ibid 5(b). – The CEBS study found that most of the reporting banks could have been more specific on 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: major notions such as write-off, collective provision, past due assets or renegotiated loans, do not have the same meaning from one bank to the next, thus potentially leading to confusion for readers.

do not provide these disclosures, they should provide an adequate explanation as to why these are not applicable.

- CFA Institute's comment letter³³ on IASB's IFRS 9 Exposure Draft *Financial Instruments: Amortised Cost and Impairments* (Financial Instruments Impairments ED), 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.

A reinforcing comment on the need for more informative impairment disclosures is obtained from other user commentary to the Financial Instruments Impairment ED as shown below:

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. – Standard and Poor's³⁴

2.3.3 Greater Disaggregation of Maximum Credit Exposure

Similar to impairment, many comprehensive survey respondents considered maximum credit risk exposure to be the most important component. The DQI analysis shows that there is inconsistency and incompleteness in providing disaggregated maximum credit risk exposure. The DQI score for this component was 50 percent. The inadequacy highlighted by the company analysis is backed by user comments shown below:

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 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.

³³ CFA Institute (2010), Comment letter on IASB Exposure Draft, *Financial Instruments: Amortised Cost and Impairments*.

³⁴ Standard and Poor's (2010), Comment Letter to IASB Exposure Draft, *Financial Instruments: Amortised Cost and Impairment*.

2.3.4 More Informative Counterparty Risk Disclosures

The company analysis and user feedback shows that there is need to improve the disclosure of counterparty risks. Specifically, disclosures need to be improved in relation to: 1) counterparty concentration risk; and 2) significant covenants that impact on credit risk exposure.

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 percent. Respondents made several suggestions related to improving these disclosures as shown by the below quotes:

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

There is need to specifically include information about concentrations of credit risk; the top ten 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 ten percent 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 related to concentration credit risk should be provided:

- Significant exposure, in percentage terms, to individual counterparties or homogenous groups of counterparties;
- Disaggregation of credit exposure by credit rating; and
- Disaggregation of credit exposure by location, industry and other common risk factors.

Covenants with Counterparties

The disclosure quality index analysis shows the infrequent disclosure of covenants. This disclosure dimension had a DQI score of 25 percent. As noted earlier, the level of compliance could be understated, if some of the companies reviewed did not disclose covenants because they had no such covenants. Nevertheless, the key message is that the level of disclosures of either the presence or absence of covenants is very poor in general. This view is 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 the details of all significant covenants including credit ratings downgrades that impact on overall exposure be disclosed. This is particularly important for counterparties of derivatives contracts. This aspect of disclosure should also integrate into its description the recently

required counterparty valuation adjustment information (That is, for example, when derivatives contracts are netted).

2.3.5 Integrated Disclosure of Collateral Information

Obtaining collateral is one of the key mechanisms of credit quality enhancement. The company analysis showed that there is often patchy, incomplete and inconsistent information provided on collateral. The DQI score for disclosure of collateral was 60 percent. As noted previously, it is plausible that 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. This is because the reporting entities hardly ever adequately explained why they have not complied with IFRS 7 requirements even when they would have to be applicable. Nevertheless, the finding of poor quality of collateral disclosures is corroborated through other studies.³⁵

The following respondent comments indicate 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, the following disclosure enhancements are recommended:

- Disclosures outlining collateral valuation methodologies;
- Disclosures regarding the extent to which there is no collateral held in support of certain assets; and
- Integrated collateral disclosures that provide a bottom-line judgment of whether the financial assets are over or under-collateralised.

³⁵ Such other studies include the following:

- a) Ibid 8. – The PwC survey of 22 financial institutions found that there was inadequate disclosure of collateral information. This includes the failure to provide meaningful up-to-date fair value of collateral and that there was insufficient commentary on collateral held, other credit enhancement and repossessed collateral.
- b) Ibid 6. – The CESR survey found that approximately 30 percent of 96 companies did not disclose the nature and carrying amount of collateral and that 35 percent of 96 companies did not provide a description of collateral.
- c) Ibid 7(a). – The KPMG survey of 16 banks found that only five of 16 banks provided full disclosure of the fair value of collateral held against past due or impaired assets.

2.4 Conclusion

This section has highlighted the significant importance attached to credit risk disclosures by users with 82.4 percent of survey respondents noting its importance. It has further highlighted how these disclosures are applied by users, namely for: a) asset value forecasting and asset quality assessment; b) earnings and cash flow forecasting; and c) risk premium determination.

Finally, the company analysis and user comments have helped to formulate the areas where credit risk disclosures could be improved including providing the following: a) more informative qualitative credit risk disclosures; b) comprehensive financial asset impairment information; c) greater disaggregation of maximum credit risk exposure; d) more information on counterparty risk exposure; and e) integrated collateral information.

3 Liquidity Risk Disclosures

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

– Buy-Side Portfolio Manager

Similar to 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*³⁶ provides a definition of 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. The focus of this study is on funding liquidity risk as that 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 at short notice without significantly influencing the market price because of inadequate market depth or market disruption. Although not covered in this paper, asset liquidity risk has a bearing on funding liquidity risk. For example, when highly liquid financial assets are held, entities are more likely to consider funding these instruments through short-term funding instruments such as commercial paper. This is because when entities hold liquid assets, there is a low risk of them not fulfilling their financial obligations if required, and consequently their lenders face lower risk. Conversely, when financial assets held by entities become illiquid, there is an increased likelihood of lender aversion and a corresponding increase in the refinancing difficulties by these entities.

The European Financial Reporting Advisory Group (EFRAG) in its comment letter³⁷ to the 2008 IFRS 7 exposure draft, notes that liquidity risk is an expansive and multidimensional concept. This multidimensionality of liquidity includes several aspects such as:

- funding and asset liquidity; and
- short-term in addition to 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 also be of interest to users. EFRAG's letter highlights that a primary focus on the maturity analysis of liabilities can only result in a partial reflection of liquidity risk. EFRAG proposes considerations that are necessary to better portray liquidity risk, including the following:

- The liquidity of assets. For example, 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; and

³⁶ Ibid 10.

³⁷ EFRAG (2008), Comment Letter on IASB Exposure Draft: *Improving Disclosures About Financial Instruments*. This particular IASB exposure draft updated liquidity risk requirements (e.g. it required the provision of maturity analysis for derivatives liabilities).

- Stress analysis including testing whether the liquidity buffers would be sufficient to face the occurrence of a stress scenario.

Further, the U.S. Securities and Exchange Commission (SEC) issued a press release³⁸ in 2010 highlighting the importance of disclosures related to short-term borrowing for investors as these are necessary to inform on leverage, liquidity and funding risk. The SEC's release notes the following:

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.

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 proposes disclosures on short-term borrowings. The SEC Chairman Mary L. Schapiro notes the following regarding the proposed disclosures:

Investors would be better able to evaluate the company's ongoing liquidity and leverage risks.

Both the EFRAG comment letter and SEC 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. They include:

- User feedback on liquidity risk disclosures (**Section 3.1**);
- Company analysis of liquidity risk disclosures (**Section 3.2**);
- Findings and recommendations for improving liquidity risk disclosures (**Section 3.3**); and
- Conclusion (**Section 3.4**).

³⁸ SEC (2010), *SEC Proposes Measures to Enhance Short-Term Borrowing Disclosure to Investors*. Available at <http://www.sec.gov/newspress/2010/2010-169.htm>. 16 September 2010

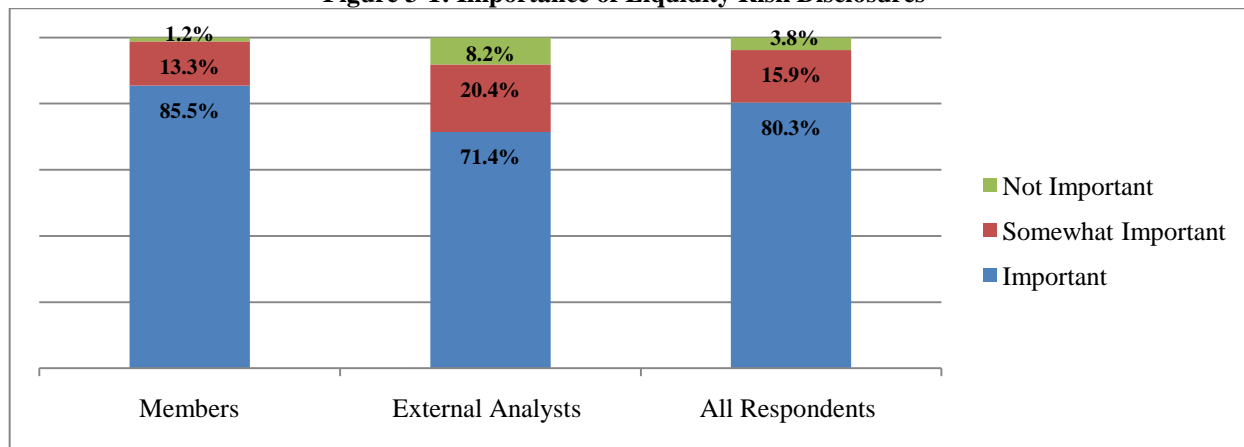
3.1 User Feedback

3.1.1 User Importance and Satisfaction Ratings

The comprehensive and abridged surveys sought respondent ratings on the importance of and satisfaction with the current level of liquidity risk disclosures. Respondent³⁹ ratings illustrated in **Figure 3-1** and **Figure 3-2** indicate that these liquidity risk disclosures are considered to be important by a significant number of respondents (80.3 percent) and somewhat important (15.9 percent) by others. However, the aggregate data indicates that respondents are not as satisfied with the disclosures to the same degree to which they consider these disclosures to be important. Effectively, 65.6 percent of respondents are “less than fully satisfied” (with 14 percent “not satisfied”).

The survey respondents comprised of: CFA Institute members {referred to as “Members” in **Figures 3-1** and **3-2**}; and sell-side equity analysts who are non-members {referred to as “External Analysts” in **Figures 3-1** and **3-2**}. There is a statistically significant difference between member respondents (85.5 percent) and external analysts (71.4 percent) in the importance they assign to liquidity risk disclosures. This finding could be a reflection that, relative to a composite set of users,⁴⁰ sell-side equity analysts do not assign as much importance to liquidity risk disclosures. Although, equity shareholders as residual risk bearers are sensitive to unexpected losses, it may be that some sell-side equity analysts are not using liquidity risk disclosures as much as they should. This could be because the focus of such sell-side equity analysts is on short-term earnings trends. Nevertheless, the overall inference drawn from these different groups of respondents regarding importance of liquidity risk disclosures is consistent and shows that this category of risk disclosures is important to most users.

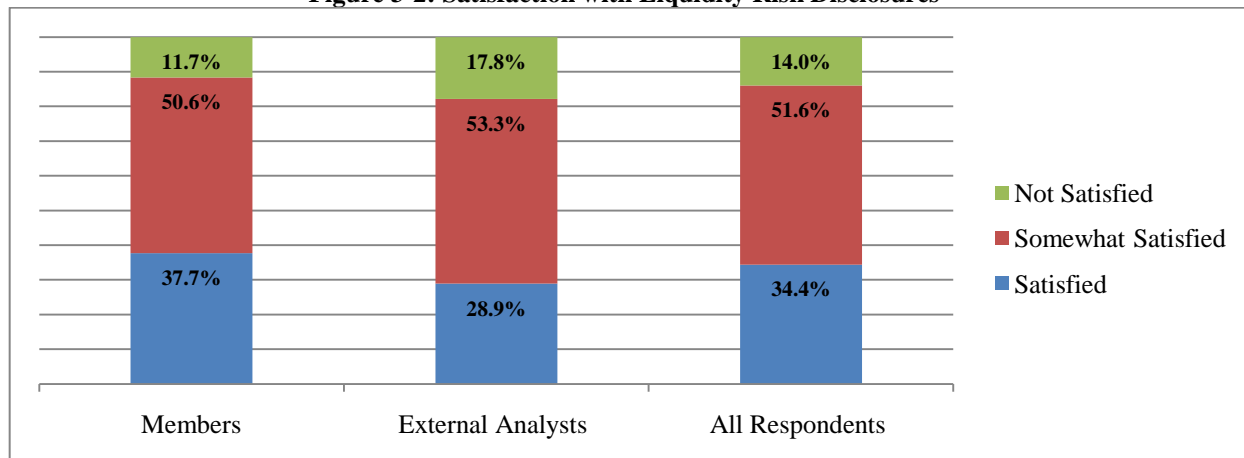
Figure 3-1: Importance of Liquidity Risk Disclosures



³⁹ Ibid 19.

⁴⁰ Ibid 25.

Figure 3-2: Satisfaction with Liquidity Risk Disclosures



3.1.2 User Application of Liquidity Risk Disclosures

Respondents to the comprehensive survey elaborated on how liquidity risk disclosures are used and these responses provide indicators as to why users considered these disclosures to be important. The primary use of liquidity risk disclosures are exemplified by the respective respondent quotes. The principal uses include:

- Asset/liability management assessment;
- Default risk assessment including refinancing/rollover risk;
- Valuation adjustment; and
- Risk premium adjustment.

User quotes are provided below:

Asset/Liability Management Assessment

These disclosures provide important information on effectiveness of a company's ALM process.
– Sell-Side Analyst

Liquidity risk disclosure helps me to try and 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

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 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/rollover debt. – Mergers & Acquisition Advisory Specialist

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 which results in liquidity risk. The expected financing costs of closing such a gap (i.e. maturity mismatch), reduces 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

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

3.1.3 Relative Importance of Different Liquidity Risk Disclosure Components

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

- Maturity analysis (16 respondents);
- Qualitative description of sources of liquidity risk (Three respondents); and
- Detailed financing facilities (One respondent).

From these responses, the maturity analysis is considered by users to be the most important component of liquidity risk disclosure.

3.2 Company Analysis

The company analysis was completed by reviewing the liquidity risk disclosures in the 2009 financial statements of 20 companies preparing financial statements utilizing IFRS and, thereafter, constructing a DQI. This analysis provides a context of further evaluating the user assessment regarding the importance of, and satisfaction with, these disclosures. It also provides an objective basis of identifying the areas for improvement.

3.2.1 Disclosure Quality Index (DQI) Analysis

3.2.1.1 Construction of Liquidity Risk Disclosure Quality Index (DQI)

The following items are included in the liquidity risk DQI shown in **Table 3-1**:

- 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). These are included based on indication of their usefulness from user comments.
- Attributes that improve understandability (e.g. tabular presentation).

The liquidity risk DQI has twelve dimensions. A DQI score was determined for each disclosure dimension of the index after analysing the disclosures from the 2009 financial statements of 20 IFRS compliant companies. The basis of determining the DQI score is explained in the footnote to **Table 3-1**.

All the 20 companies analysed would be expected to conform to the twelve liquidity risk disclosure related dimensions. Therefore, each company was included in the population of eligible companies when determining the DQI score for the respective disclosure dimension. The DQI score findings for the various dimensions analysed in the index plus those from other studies, are discussed in **Section 3.3**. Taken together with the user feedback, they form the basis for the recommendations made.

Table 3-1: Liquidity Risk Disclosure Quality Index (DQI)

DISCLOSURE DIMENSION (TWELVE DIMENSIONS) (Items in asterisk (*) are prescribed IFRS 7 disclosures)	ELIGIBLE COMPANIES ⁴¹	AVERAGE DISCLOSURE QUALITY INDEX (DQI) SCORE ⁴²
QUALITATIVE LIQUIDITY RISK DISCLOSURES		
Qualitative description of how company manages liquidity risk*	20	40%
MATURITY ANALYSIS		
Contractual undiscounted cash flows.*	20	100%
Maturity analysis non-derivative liabilities.*	20	100%
Maturity analysis derivative 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, etc.).	20	25%
Financial asset maturity analysis.	20	75%
Expected maturity analysis.	20	0%
OTHER KEY LIQUIDITY RISK INFORMATION		
Sensitivity analysis.	20	0%
Financing facilities.*	20	85%
Counterparty concentration profile.	20	35%
DISCLOSURES TO HELP USERS UNDERSTAND LIQUIDITY RISK		
Tabular presentation.	20	85%
Ease of use (i.e. adequate referencing and centralised location).	20	55%

⁴¹ The 20 eligible companies included were Alcatel Lucent, Anglo American, Allianz, Barclays, BHP Billiton, BMW, BP, British Airways, Deutsche Bank, EADS, Fiat, GSK, HSBC, Iberdrola, Lufthansa, Nestle, Novartis, Nokia, RBS, and SAP.

⁴² The 20 companies were individually assessed for compliance with each dimension and a score assigned as follows:

- 100 percent = Full compliance
- 50 percent = Partial compliance
- Zero percent = No compliance

Thereafter, an average score for the 20 companies was determined. Hence if 20 companies scored 100 percent, the disclosure index score would be 100 percent. If ten companies scored 100 percent, five scored 50 percent, and five companies scored zero percent, the average disclosure index score would be 62.5 percent.

3.2.1.2 Interpreting Liquidity Risk DQI

The average liquidity risk DQI percentages reported in **Table 3-1** is a measure of compliance with requirements for each disclosure dimension. However, as noted in **Section 2.2.1.2**, due to the underlying discrete ordinal data used for the evaluation of the quality of each disclosure dimension for each company, there should be cautious interpretation of the average DQI percentages reported. For example, precise inferences about difference in quality, across disclosure dimensions, cannot be made based on the magnitude of numerical difference which exists between the average DQI score reported across the respective different disclosure dimensions.⁴³

Nevertheless, for interpretation purposes, a higher DQI score for a particular disclosure dimension should simply connote a greater degree of compliance with the specific requirement. The analysis in the following sections is primarily based on this stated interpretation of respective liquidity risk DQI scores, where a higher score is simply an indicator of higher compliance with the requirements. No further inferential statistical analysis related to the full population of companies is conducted, based on the average DQI scores across different disclosure dimensions. The limited inference drawn from the average DQI scores should mitigate any concerns about the statistical precision of the reported averages.

⁴³ The numerical difference of 50 percent, between a score of 85 percent and 35 percent across two different dimensions (e.g. tabular presentation and counterparty profile), does not necessarily equate to the difference in quality that exists between 75 percent and 25 percent related to two other dimensions (e.g. asset maturity analysis and off-balance sheet maturity analysis).

3.3 Findings and Recommendations

The recommended disclosures are derived from the findings of the DQI construction, user survey respondent comments on what they require and the findings of other studies. The sum of findings shows there is scope to improve the liquidity risk disclosures, particularly with regards to ensuring they comprehensively reflect liquidity risk and convey the impact of other risk factors such as market and credit risk on liquidity. The following specific recommendations are provided:

- Qualitative liquidity disclosures require improvement (**Section 3.3.1**);
- Maturity analysis has several areas for improvement (**Section 3.3.2**);
- Sensitivity analysis required for liquidity risk (**Section 3.3.3**); and
- Disclosures should highlight risks associated with liquidity providers (**Section 3.3.4**).

Further comments on the aforementioned proposed enhancements are set forth below.

3.3.1 Qualitative Liquidity Disclosures Require Improvement

The DQI analysis shows that qualitative disclosures are deficient with a DQI score of 40 percent for qualitative disclosures. This study recommends that qualitative disclosures should provide a clear linkage between the qualitative description of liquidity risk and the reported quantitative disclosures. Qualitative disclosures should outline the main sources of liquidity, including policies for managing liquidity sources and uses. Such description should also clearly differentiate between measures taken to manage short-term versus long-term liquidity risk. Qualitative disclosures should further outline the impact of credit, 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

3.3.2 Maturity Analysis Has Several Areas for Improvement

The comprehensive user survey showed that most of the respondents considered the maturity analysis to be the most important component of liquidity risk disclosure. The company analysis DQI shows that there is a significant level of compliance with the prescribed maturity analysis requirements. In relation to compliance with maturity analysis, there was a DQI score of 100 percent for non-derivative financial liabilities and 95 percent 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 percent. However, across the analysed companies, there are several shortcomings with the maturity analysis information including:

- There is patchy and inconsistent provision of the maturity analysis for off-balance sheet liabilities. The DQI score for this disclosure dimension was 25 percent.
- 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. This lowers the comparability across companies. In addition, in many cases the buckets aggregated too many time periods (e.g. between one and five years as a single maturity bucket) in a manner that reduced the informativeness of the maturity disclosure.

A similar trend of partial compliance with maturity analysis is highlighted by other IFRS 7 studies.⁴⁴ The following user comments show the need for maturity analysis and how the 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 institution. – 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.

–Mergers and Acquisition Advisory Analyst

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 behoves management to clearly identify the specific period/s where significant liquidity risk economic exposure. – Portfolio Manager

The following disclosures improvements related to the maturity analysis are recommended based upon the result of this study:

- Both expected and contractual maturity of liabilities should be provided. For example, effective maturity is impacted by the prepayment optionality embedded within 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 so as to aid the asset and liability management and maturity mismatch analysis.
- Maturity buckets should be provided so as 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.

⁴⁴ These studies include:

a) Ibid 8. – The PwC survey of 16 banks' disclosures found that although there was compliance with the IFRS 7 requirements, it was never clear whether financial guarantees are included in the maturity analysis. Eight of 22 banks did not include off-balance sheet items in the liquidity table.

b) Ibid 7(b). – The KPMG study of 17 investment institutions found that only four of 17 included liquidity tables of off-balance sheet items such as leases and guarantees.

3.3.3 Sensitivity Analysis Required for Liquidity Risk

A liquidity risk sensitivity analysis disclosure was not provided in the 2009 annual reports by any of the companies assessed in the DQI. Given that the most recent economic crisis was essentially a liquidity crisis it seems unusual that companies are not providing such information. As per the illustrative quote below, 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 they should be based on the interaction of multiple risk factors (i.e. market, credit risk and impacts of an adverse economic environment).

3.3.4 Disclosures Should Highlight Risks Associated with Liquidity Providers

The company analysis and user feedback shows that there is need to improve the disclosure of risks associated with liquidity providers. This is in respect of: 1) liquidity provider concentration risk; and 2) significant covenants that impact on liquidity.

Liquidity Provider Concentration Risk

The disclosure quality index analysis, with a DQI score of 35 percent for concentration risk, shows that meaningful concentration risk associated with sources of funding is rarely provided by companies. Liquidity provider concentration risk disclosure is useful for investors, as illustrated by the following user 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, concentration risk of liquidity providers should be improved so as to inform users about the funding diversity and stability of reporting entities' funding sources. These disclosures should include a detailed description of financing providers, their concentration and the associated counterparty details.

Significant Covenants that Impact on Liquidity

Disclosures⁴⁵ regarding significant debt covenants that impact on liquidity are recommended given that covenants help inform on the liquidity risk. Several respondents indicated the need for these, as shown by the illustrative comment below.

Information concerning debt covenants and future anticipation of the level of liquidity risk and whether there is a risk of earlier repayment obligation, should be provided as an additional liquidity risk disclosure. – Buy-Side Portfolio Manager

⁴⁵ As a general point, the recent financial crisis illustrated the need for significant disclosure improvement, as it relates to the nature of entities' debt obligations (i.e. own credit risk). This includes providing general terms of covenants. The recent financial crisis illustrated that heretofore what were believed to be immaterial covenants were in fact relevant.

3.4 Conclusion

This section has highlighted the significant importance attached to liquidity risk disclosures by users with 80.3 percent of survey respondents noting their importance. This section has further highlighted how these disclosures are applied by users, namely for: a) asset/liability management assessment; b) default risk assessment; c) valuation adjustment; and d) risk premium determination.

Finally, the company analysis and user comments have helped to formulate the areas where liquidity risk disclosures could be improved. These areas of improvement include: a) more informative qualitative liquidity risk disclosures; b) improved maturity analysis; c) the inclusion of liquidity risk sensitivity analysis; and d) more information on risks associated with liquidity providers.

4 Market Risk Disclosures

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 is comprised of three types of risks associated with market prices: currency risk, interest rate risk and other price (e.g. commodity price) risk. IFRS 7 disclosures related to market risk primarily focus on risk exposure and sensitivity analysis including VAR disclosures.

There are several academic studies⁴⁶ that substantiate the information content of the market risk disclosures. The usefulness of market risk disclosures is also articulated in the Comprehensive Business Reporting Model (CBRM), which states that a well performed sensitivity analysis is one of the most useful disclosures for investors as it enables the forecast of future financial statement and cash flow effects when key inputs such as interest rates, prices and exchange rates change between reporting periods. Such disclosure has the benefit of increasing investor confidence in financial statements.

Despite the confirmatory empirical findings on usefulness of market risk disclosure components, such as VAR and sensitivity analysis, a limitation of such empirical studies is that they are based on showing the existence of an association between a particular information component and observed stock price, and such a statistical association does not necessarily illuminate on how information is actually used. In other words, such studies do not necessarily convey a cause and effect relationship. In elucidating on the user application 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. They include:

- User feedback on market risk disclosures (**Section 4.1**);
- Company analysis of market risk disclosures (**Section 4.2**);
- Findings and recommendations for improving market risk disclosures (**Section 4.3**); and
- Conclusion (**Section 4.4**).

⁴⁶ These academic studies include:

- a) Jorion, P. (2002), *How Informative are Value-at-Risk Disclosures?* The Accounting Review, Vol. 78 (No. 2), Pg. 449-469. – The author finds that disclosure of VAR of financial instruments across a sample of financial institutions helps predict the variability of trading revenues and, therefore, VAR measures are useful to capital markets participants.
- b) Linsmeier, T.J., Thornton, D. B., Venkatachalam, M. and Welker, M. (2002), *The Effect of Mandated Market Risk Disclosures on Trading Volume Sensitivity to Interest Rate, Exchange Rate, and Commodity Price Movements*, The Accounting Review, Vol. 77 (No.2), Pg. 343-377. – These authors provide evidence of the information content of market risk disclosures. They hypothesise that market risk disclosure requirements that were introduced in the U.S., 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 find 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.
- c) Rajgopal, S. (1999), *Early Evidence on the Informativeness of the SEC's Market Risk Disclosures: The Case of Commodity Price Risk Exposure of Oil and Gas Producers*, The Accounting Review, Vol. 74 (No.3), Pg. 251-280. – The author, looking at oil and gas companies, finds that measures of sensitivity analysis as prescribed by FRR 48 are significantly associated with the stock return sensitivities to oil and gas price movements.

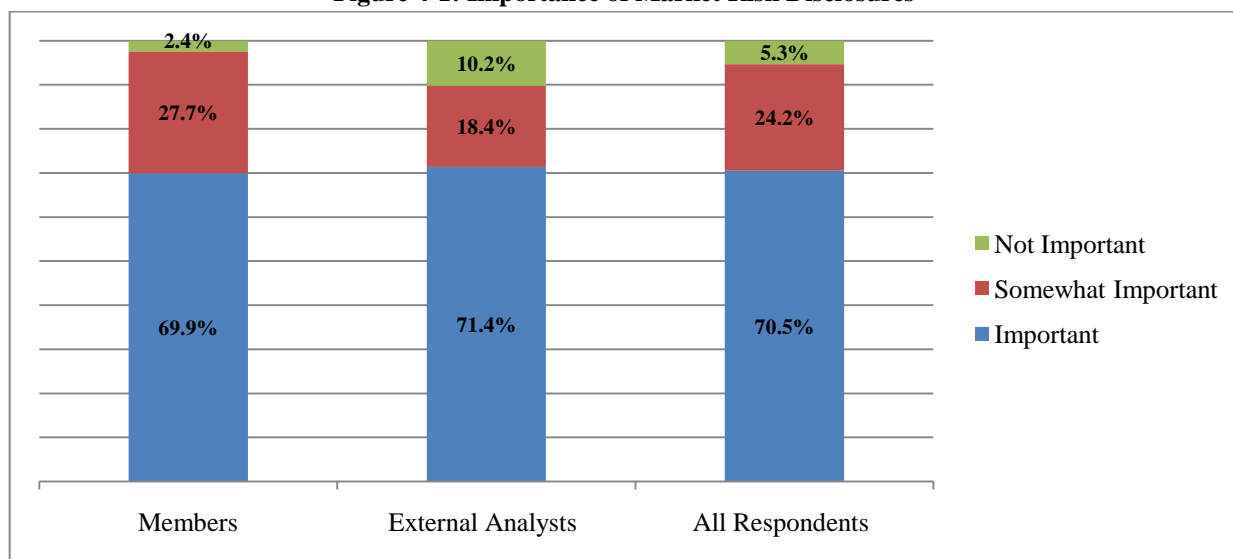
4.1 User Feedback

4.1.1 User Importance and Satisfaction Ratings

The comprehensive and abridged surveys sought respondent ratings on the importance of, and satisfaction with, the current level of market risk disclosures. Respondent⁴⁷ ratings illustrated in **Figure 4-1** and **Figure 4-2** indicate that these market risk disclosures are considered to be important by a significant number of respondents (70.5 percent) and somewhat important (24.2 percent) by others. However, the aggregate data indicates respondents are not as satisfied with the disclosures to the same degree which they consider these disclosures to be important. Effectively, 59.3 percent⁴⁸ are “less than fully satisfied” with these disclosures.

The survey respondents comprised of: CFA Institute members {referred to as “Members” in **Figures 4-1** and **4-2**}; and sell-side equity analysts who are non-members {referred to as “External Analysts” in **Figures 4-1** and **4-2**}. 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 assigned to market risk disclosures.

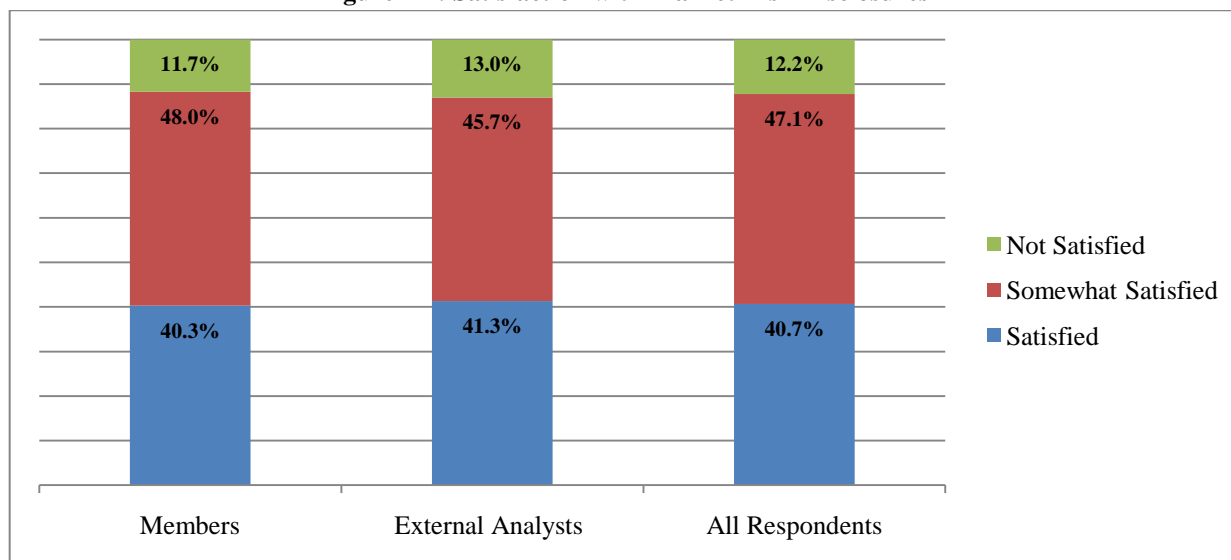
Figure 4-1: Importance of Market Risk Disclosures



⁴⁷ Ibid 19.

⁴⁸ 47.1 percent “somewhat satisfied” and 12.2 percent “not satisfied at all” as per **Figure 4-2**.

Figure 4-2: Satisfaction with Market Risk Disclosures



4.1.2 User Application of Market Risk Disclosures

The comments from respondents, shown by way of illustrative quotes, revealed various categories of application. These are:

- Valuation sensitivity analysis; and
- Assessing and benchmarking of quantitative risk exposure.

Valuation Sensitivity Analysis

Market risk disclosures can inform investors about the range of possible values of financial instruments. This, in turn, can convey the risk associated with these instruments. As articulated in the CBRM,⁴⁹ 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 a reasonableness assessment of reported values of financial instruments. In other words, they help users to understand the uncertainty associated with accounting measurement error. The quotes below represent the users' direct 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

⁴⁹ Ibid 4. – The CBRM asserts that: *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 of 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. – Portfolio Manager, Buy-Side

Assessing and Benchmarking of Quantitative Risk Exposures

Quantitative market risk disclosures can aid the downside risk assessment and help users to 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, impacts on 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

4.1.3 Relative Importance of Different Market Risk Disclosure Components

The comprehensive survey sought to understand the prescribed market risk disclosures (i.e. risk exposure, sensitivity analysis and qualitative description of methods and assumptions) users considered to be most useful. Disclosures considered to be most important by some of the 26 respondents were as follows:

- Sensitivity analysis (19 respondents); and
- Quantitative market risk exposure (Three respondents).

Clearly, sensitivity analysis is widely seen as important. It is likely that the poor quality of quantitative and qualitative market risk disclosures could be impacting whether users find them useful. In other words, if companies were making available complete and comprehensive information on quantitative risk exposure and appropriate qualitative description of methods and assumptions, users would also find them to be more useful.

4.2 Company Analysis

The company analysis was completed by reviewing the market risk disclosures in the 2009 financial statements of 20 companies preparing financial statements utilizing IFRS and, thereafter, constructing a DQI. This analysis provides a context for evaluating the user assessment regarding the importance of, and satisfaction with, these disclosures. It also provides an objective basis for identifying the areas for improvement.

4.2.1 Disclosure Quality Index (DQI) Analysis

4.2.1.1 Constructing Market Risk DQI

The following items are included in the market risk DQI shown in **Table 4-1**:

- 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, linkage with credit and liquidity risk categories). These are included based on indication of their usefulness from user comments.
- Attributes that improve understandability (e.g. tabular presentation and centralised location).

The market risk DQI has eleven disclosure dimensions. A DQI score was determined for each disclosure dimension of the index after analysing the disclosures from the 2009 financial statements of 20 IFRS compliant companies. The basis of determining the DQI score is explained in the footnote to **Table 4-1**. All of the 20 companies analysed would be expected to conform to the eleven market risk disclosure related dimensions. Therefore, each company was included in the population of eligible companies when determining the DQI score for the respective disclosure dimension.

The DQI score findings for the various dimensions analysed in the index (e.g. qualitative market risk disclosure, quantitative market risk disclosure, sensitivity analysis and disclosure attributes to help users understand market risk disclosures), plus those from other studies, are discussed in **Section 4.3**. Taken together with the user feedback they form the basis of the recommendations made.

Table 4-1: Market Risk Disclosure Quality Index (DQI)

DISCLOSURE DIMENSION (ELEVEN DIMENSIONS)	ELIGIBLE COMPANIES ⁵⁰	AVERAGE DISCLOSURE QUALITY INDEX (DQI) SCORE ⁵¹
(Items in asterisk (*) are prescribed IFRS 7 disclosures.)		
QUALITATIVE MARKET RISK DISCLOSURE		
Clear linkage between the qualitative description of methods and assumptions and quantitative data.*	20	35.0%
Adequately discusses and provides quantitative evidence of linkage of market risk exposure with hedging strategy.	20	47.5%
Adequately discusses and provides quantitative evidence of linkage with credit risk (e.g. credit VAR, credit spreads sensitivity).	20	20.0%
QUANTITATIVE MARKET RISK DISCLOSURE⁵²		
Adequate quantitative data of risk exposure.*	20	47.5%
SENSITIVITY ANALYSIS AND STRESS TEST		
Provides sensitivity analysis.*	20	85.0%
Sensitivity analysis provides impact on profit and loss and equity statement.*	20	60.0%
Reasonableness of sensitivity analysis.*	20	62.5%
Sensitivity analysis shows impact of interdependent risk factors (i.e. shows correlation effect within VAR description).*	20	20.0%
Provides stress test data (i.e. extreme loss events).	20	5.0%
DISCLOSURES TO HELP USERS UNDERSTAND MARKET RISK		
Adequate tabular presentation.	20	57.5%
Ease of use (i.e. adequate referencing and centralised location).	20	87.5%

⁵⁰ The 20 eligible companies included were Alcatel Lucent, Anglo American, Allianz, Barclays, BHP Billiton, BMW, BP, British Airways, Deutsche Bank, EADS, Fiat, GSK, HSBC, Iberdrola, Lufthansa, Nestle, Novartis, Nokia, RBS, and SAP.

⁵¹ The 20 companies were individually assessed for compliance with each dimension and a score assigned as follows:

- 100 percent = Full compliance
- 50 percent = Partial compliance
- Zero percent = No compliance

Thereafter, an average score for the 20 companies was determined. Hence if 20 companies scored 100 percent, the disclosure index score would be 100 percent. If ten companies scored 100 percent, five scored 50 percent, and five companies scored zero percent, the average disclosure index score would be 62.5 percent.

⁵² The DQI for quantitative market risk exposure disclosure is 47.5 percent. It could be that in certain instances there were no material and quantifiable risk exposures for the companies analysed. Therefore, reporting any such information would not be meaningful and the DQI of 47.5 percent would be understating the compliance with quantitative market risk exposure requirements. However, the DQI for disclosure of sensitivity analysis information is 85 percent, showing that there are some companies that are reporting a sensitivity analysis of market risk factors, but not concurrently disclosing a related quantitative risk exposure. It does not seem plausible for companies to have sensitivity analysis information without there being representative quantitative market risk exposure information. This observation reinforces the view that the DQI score of 47.5 percent fairly reflects the state of poor disclosure by companies of their quantitative market risk exposures.

4.2.1.2 Interpreting Market Risk DQI

The average market risk DQI percentages reported in **Table 4-1** is a measure of compliance with requirements for each disclosure dimension. However, as noted in **Section 2.2.1.2**, due to the underlying discrete ordinal data used for the evaluation of the quality of each disclosure dimension for each company, there should be cautious interpretation of the average DQI percentages reported. For example, precise inferences about difference in quality, across disclosure dimensions, cannot be made based on the magnitude of numerical difference which exists between the average DQI score reported across the respective different disclosure dimensions.⁵³

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

⁵³ The numerical difference of 27.5 percent, between a score of 47.5 percent and 20 percent across two different dimensions (e.g. quantitative evidence of linkage between market risk and hedging strategy versus quantitative evidence of linkage between market risk and credit risk), does not necessarily equate to the same difference in quality that exists between 87.5 percent and 60 percent related to two other dimensions (e.g. ease of use versus sensitivity analysis shows impact on profit and loss).

4.3 Findings and Recommendations

The recommended disclosures are derived from the findings of the DQI construction and respondent user comments on what they require along with the findings of other studies. The sum of findings of this study show there is scope to improve both qualitative and quantitative market risk disclosures particularly with regards to integrating them with other risk categories and better explaining the basis of measurement. The following recommendations are made:

- Differentiate the components of market risk (**Section 4.3.1**);
- Informative qualitative disclosure of market risk is required (**Section 4.3.2**);
- Quantitative market risk exposure requires improvement (**Section 4.3.3**); and
- Sensitivity analysis and stress-testing requires improvement (**Section 4.3.4**).

Below are specific disclosure improvements recommended based on user comments and the company analysis.

4.3.1 Differentiate the Components of Market Risk

As discussed in **Section 1.6.2**, market risk disclosure is too broad and could be broken down into at least three new risk categories, namely interest rate, foreign currency and commodity price risk. And, these new risk categories should be reported with the same level of distinctiveness as is the case with credit and liquidity risk categories under IFRS 7. This proposed decomposition could allow the provision of more specific information on quantitative risk exposure and sensitivity analysis. This, in turn, will likely enhance the quality of market risk disclosure information provided and this will be more informative and decision-useful to users.

4.3.2 Informative Qualitative Disclosures 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 percent, revealing the inadequacy of these disclosures for many reporting entities. Providing sensitivity disclosures without correspondingly informative description of the methods, inputs and assumptions, creates a situation where users cannot meaningfully interpret company disclosures.

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

4.3.3 Quantitative Market Risk Exposure Requires Improvement

The company analysis shows a DQI score of 47.5 percent on the quantitative market risk exposure, revealing 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, etc.). Further, there is need for a greater degree of standardisation of the market risk exposure information across companies, so as to allow comparability. The inadequacies of quantitative risk exposure are also noted in other studies.⁵⁴

⁵⁴ Ibid 7(b). – This KPMG study of 17 investment houses shows that nine of the 17 either failed to disclose their exposure to market price risk at the balance sheet date or stated their exposure was immaterial. However, twelve (which is more than the nine that provide exposure information), provide a sensitivity analysis. This 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 noted in footnote 52.

In addition, quantitative market risk disclosures should, where appropriate, be integrated with those provided under credit risk, liquidity risk and hedging activity categories. For example, the linkage of the following disclosures should be provided:

- *Market Risk Factors and Credit Risk* – The impact of significant changes in interest rate and foreign currency exchange rate 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 with risk management policy should be provided. For example, the disclosure of VAR measures in relation to both the pre-hedging and post-hedging exposures can be complementary to hedge accounting disclosures in informing users on economic hedge effectiveness.

4.3.4 Sensitivity Analysis and Stress Testing Requires Improvement

The comprehensive survey feedback showed that sensitivity analysis is considered to be the most important market risk disclosure component. However, for most companies, the sensitivity analysis information requires significant improvement. The DQI score for companies that show the profit and loss impact of changes in key market risk factors was 60 percent. It was 20 percent for showing impact of interdependent risk factors and five percent 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.⁵⁵ The following user quotes illustrate the shortcomings with the quality of sensitivity analysis that is provided:

Less than five percent 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

The following recommendations are made:

- **Sensitivity Analysis Method Including VAR Determination** – One of the interviewed respondents, highlighted problems with the reliability of VAR numbers. This is reflective of the need for more specific guidance that will result in consistent⁵⁶ and meaningful VAR disclosure by reporting entities. Such guidance will ensure comparability across companies and across reporting periods. Further, there is 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).

⁵⁵ Ibid 8. – The PwC survey of 22 banks showed: a) significant variation in what different banks assumed to be a reasonably possible shift in interest rates; b) only eleven of 22 banks provided a sensitivity analysis of interest risk; and c) only four of 22 banks disclosed the impact on both the income statement and equity.

⁵⁶ Some entities report: a) One-day VAR while others report ten-day VAR; and b) VAR at 95 percent confidence while others report VAR at 99 percent confidence.

- **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** – There is a need for issuers to delineate the impact of interdependencies between risk factors in order to convey the correlation risk of different risk factors, as illustrated by the below respondent quote:

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

In general, reservations about sensitivity analysis tend to be that users could:

- Potentially misinterpret the reported ranges. For example, the ranges may lead users to overstate the perceived riskiness of reporting firms. These concerns can be mitigated by providing qualitative disclosures that will enable users to appropriately interpret the low probability, if at all, associated with the upper or lower bounds of reported fair values.
- Confuse 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 allow users to make both point-in-time related judgments and, in part, convey some information with predictive value. The use of sensitivity analysis information to assess either point-in-time fair value variability or to make forward-looking fair value predictions should not be seen as mutually exclusive nor should the question of which of these two objectives is the primary consideration be seen as a reason for not providing the sensitivity analysis disclosures to investors. This is especially important as the respondent feedback and empirical evidence has unambiguously shown that sensitivity analysis disclosures are considered to be useful, albeit with scope for significant improvement.

4.4 Conclusion

This section has highlighted the significant importance attached to market risk disclosures by users with 70.5 percent of survey respondents noting their importance. Nevertheless, on average, market risk disclosures were not considered to be as important as credit and liquidity risk disclosures and are probably too broad as a description category. This study has further highlighted how these market risk disclosures are applied by users, namely for: a) valuation sensitivity analysis; and b) assessing and benchmarking of market risk exposures across companies.

Finally, the company analysis and user comments have helped to formulate the areas where market risk disclosures could be improved, and these include: a) the components of market risk should be differentiated; b) more informative qualitative disclosures; c) comprehensive, standardised and integrated quantitative market risk disclosures are necessary; and d) improved and more meaningful sensitivity analysis and stress testing should be provided.

5 Appendix

5.1 Survey Design

Table 5-1 below outlines the profile of users who provided input and their mechanisms for providing input to this study.

Table 5-1: Survey Respondent Profile

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 ⁵⁷	133	26%

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 profile. These members are part of an internal CFA Institute financial reporting survey pool.⁵⁸ The invitation broadly expressed the objective of the study and intended data gathering approach.
- Fifty members indicated their willingness to participate in the study. Hence, the comprehensive questionnaire along with a background document outlining the disclosure requirements and illustration of these disclosures was sent to the 50 members expressing a willingness to participate. Of these, 26 responded to the comprehensive questionnaire. These 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 300 members that had not participated in the comprehensive survey feedback (i.e. 274 members). The abridged version was also sent to a sample (i.e. 204 analysts) of external sell-side analysts known to cover companies that had reported IFRS 7 disclosures. The use of external analysts provides a control sample and enables the evaluation of the consistency of responses relative to 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 percent response rate; and
- 204 mostly sell-side equity analysts yielded 50 responses representing a 25 percent response rate.

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

⁵⁷ 24 members were included in both the comprehensive and abridged surveys. Hence, the total number of target respondents is 504 (i.e. 528 (i.e. 50+274+204) - 24) rather than the 528 which would result from the pure sum of target respondents. There is no duplication of actual respondents.

⁵⁸ The pool is comprised of members with an expressed interest in contributing to financial reporting matters based on their expertise in accounting and/or extensive use of financial statements.

5.2 Study Limitations

There are two principle study limitations in relation to the user feedback and company analysis as noted below:

User Input

The user assessment was based on input from 133 respondents. Although this was a high response rate (i.e. 26 percent of 504 respondents), there could still be challenges generalising these findings to the universe of investors. However, the focus of this paper was on obtaining high-quality feedback from expert users through the comprehensive survey, and thereafter, reinforcing findings through an abridged version of the survey so as to ensure broad-based input. The underlying assumption being 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 further extended. Further studies could be conducted that include greater input from a more diversified mix of investment professionals (e.g. credit/fixed income analysts and buy-side equity analysts) so as to further verify the views of different types of investment professionals on risk disclosures. As the abridged survey involving non-CFA Institute members was primarily focused on sell-side equity analysts, this could have skewed some of the overall findings towards primarily reflecting the views on risk disclosures, of this particular category of investment professionals.⁵⁹

Company Analysis

There could be subjectivity in the assessment of the disclosure adequacy during the construction of the DQI. This risk could arise due to the company financial statements data gathering being done by only two reviewers. However, any risk due to 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 and other studies in the evaluation of the quality of disclosures.

Another potential shortcoming of the study could relate to the DQI construction. As noted in the evaluation of credit risk disclosures in **Section 2.2.1**, it is possible that some companies did not have certain dimensions of disclosure simply because these were not applicable. However, most companies do not adequately describe when certain disclosures are not applicable. Accordingly, it is possible that the DQI score per company that is based on the assumption of all 20 companies being eligible for each disclosed dimension analysed could, in fact, be understating their level of compliance. Nevertheless, the risk of misinterpretation due to understating compliance is minimised by corroborating the conclusions drawn from this study with those made by other studies. As discussed in the findings and recommendations (**Sections 2.3, 3.3 and 4.3**), all other studies reviewed come to consistent conclusions regarding the disclosure attributes where there appears to be inadequate compliance by reporting companies.

⁵⁹ For example, this is the case in respect of the user assessment of the importance of, and satisfaction with, specific risk disclosures (i.e. credit liquidity, market and hedge accounting). The user assessment is derived from responses provided to the abridged and comprehensive surveys. The abridged survey had 107 respondents including 50 non-CFA Institute members, who were mainly equity sell-side analysts.

Finally, as noted in **section 2.2.1.2**, 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 percent for full compliance, 50 percent for partial compliance and zero percent for non-compliance). In effect, the DQI score is based on underlying discrete ordinal data as: a) it does not precisely measure the extent of partial compliance; and b) the difference in quality between zero and 50 percent is not necessarily the same as that between 50 percent and 100 percent. Due to the underlying discrete ordinal data used for the evaluation of the quality of each disclosure dimension for each company, there should be cautious interpretation⁶⁰ of the average DQI percentages reported. For example, such data is not readily applicable for the purposes of inferential statistics related to the full population of companies. In addition, precise inferences about difference in quality, across disclosure dimensions, cannot be made based on the magnitude of numerical difference which exists between the average DQI score reported across the respective different disclosure dimensions.

Nevertheless, for interpretation purposes, a higher DQI score for a particular disclosure dimension should simply connote a greater degree of compliance with the specific requirement. The analysis made is primarily based on this stated interpretation of respective average DQI scores, where a higher score is simply an indicator of higher compliance with the requirement. No further inferential statistical analysis in relation to the full population of companies is conducted based on the average DQI scores across different disclosure dimensions. The limited inference drawn from the average DQI scores should mitigate any concerns about the statistical precision of the reported averages.

⁶⁰ This 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 based a hypothetical 100 respondents who have been restricted to making discrete choices for a particular question (e.g. Likert scale where respondents can only select a rating of 1, 2, 3, 4 or 5).

5.3 Disclosure Quality Index (DQI) (Company Analysis)

Table 5-2 and **Table 5-3** show the disclosure quality assessment by company⁶¹ based on the dimensions discussed in the specific risk disclosure analysis in **Sections 2.2.1, 3.2.1** and **4.2.1**. The DQI⁶² 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, as shown on the descriptive statistics. The higher quality credit and liquidity risk disclosures in financial institutions could, in part, be explained by the significant pressures from regulators and investors for transparency during the 2007 to 2009 financial crisis. In **Table 5-4**, the statistics also indicate market risk disclosures of banking financial institutions are of a lower quality relative to credit and liquidity risk disclosures. This could be a factor contributing to the lower importance assigned to these disclosures as discussed in **Section 1.4.2**.

Table 5-2: Disclosure Quality Index (DQI) — 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%

⁶¹ The 20 companies whose disclosures were reviewed include: Alcatel Lucent, Anglo American, Allianz, Barclays, BHP Billiton, BMW, BP, British Airways, Deutsche Bank, EADS, Fiat, GSK, HSBC, Iberdrola, Lufthansa, Nestle, Novartis, Nokia, RBS, and SAP. **Tables 5-2** and **5-3** do not map specific company names to the individual company DQI scoring of 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 company's disclosures. As such, 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.

⁶² This 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 also applied to other areas of financial reporting disclosure (e.g. segment reporting, pensions and de-recognition). Such an index has the potential to incentivise higher quality disclosures and provide policymakers with objective evidence regarding the prevailing levels of disclosures and areas where they may be deficient.

Table 5-3: Disclosure Quality Index (DQI) — Banking Financial Institutions

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

Table 5-4: Mean Disclosure Quality Index (DQI) by Risk Type

Types of Institution	Credit Risk	Liquidity Risk	Market Risk
All	54%	58%	48%
Banking Financial Institutions	93%	74%	59%
Non-Banking Institutions	44%	54%	45%