



30 Cannon Street, London EC4M 6XH, United Kingdom
Tel: +44 (0)20 7246 6410 Fax: +44 (0)20 7246 6411
Email: iasb@iasb.org Website: www.iasb.org

**International
Accounting Standards
Board**

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INFORMATION FOR OBSERVERS

Board Meeting: 22 June 2007, London

Project: Extractive Activities research project

Subject: Findings from user survey (Agenda Paper 15A)

Purpose

1. This paper presents and discusses the results of a user survey that was conducted by the research project team to develop a better understanding of the information needs of users involved in analysing minerals and oil & gas companies.

Outline of paper

2. This paper is structured as follows:
 - (a) paragraphs 3-5 explain the background to the user survey;
 - (b) paragraphs 6-14 provide some background on the types of users that were part of the survey; and
 - (c) paragraphs 15-52 summarise and discuss the survey findings.

Background

3. The October 2006 edition of IASB *Update* reported on the Board's previous discussion relating to identifying the preferred measurement objective for minerals and oil & gas reserves and resources. It stated:

The Board held its third education session on the extractive activities research project.

At this session, the project team discussed the suitability of fair value as the measurement objective in accounting for minerals and oil and gas reserves and resources. The team had consulted extensively with the project's international advisory panel and others on the measurement of reserve and resource volumes and values. Several concerns with estimating fair value for reserves and resources were identified, in particular:

- the uncertainties inherent in the assumptions required to estimate the volume and fair value of reserves and resources; and
- the effort required to estimate fair value as at the reporting date for an entity's reserve and resource assets in time to meet financial reporting deadlines.

The Board acknowledged difficulties in estimating fair value of reserve and resource assets. However, the Board agreed with the project team that historical cost does not provide the most relevant information for these assets. Therefore, the Board asked the project team to further research current value approaches as potential measurement bases. This research is to include consideration of current value methodologies that contain as many attributes of fair value as possible, but address the identified difficulties.

The Board also noted that it does not consider disclosing value-based information about reserves and resources is an acceptable alternative to recognition.

The Board acknowledged the contribution made by the advisory panel and other industry participants and encouraged the project team to continue to obtain further input from those parties as the project progresses.

4. Following this meeting, the research project team prepared and conducted a comprehensive survey of financial reporting users to seek input on:
- (a) how current value information on minerals and oil & gas reserves and resources included in financial statements might be used by users;
 - (b) attributes that should be included in a current value measurement of a minerals or oil & gas deposit for financial reporting purposes for it to be useful to users;
 - (c) information that should be disclosed in financial statements to provide support for a current value measurement;
 - (d) how historical cost information on reserves and resources currently included in financial statements is used by users; and

- (e) usefulness of a current value measurement relative to existing historical cost measurement models.
5. The research project team has held a total of 34 user interviews, either as face-to-face interviews or phone interviews. (An analysis of the types of users interviewed is provided in the next section of this paper.) A copy of the survey questions is attached for information [Not attached in observer notes].

Types of users surveyed

6. The 34 user interviews can be categorised as follows:
- (a) users who cannot command tailored financial reporting information – specifically:
 - (i) Buy-side analysts / fund managers: 6 interviews;
 - (ii) Sell-side analysts: 21 interviews; and
 - (b) users who can command tailored financial reporting information but usually commence their analysis with publicly available information – specifically:
 - (i) Venture capital: 2 interviews;
 - (ii) Lenders: 3 interviews; and
 - (iii) Debt-ratings agencies: 2 interviews.
7. The user survey interviewees were drawn from Australia, Canada, South Africa, the United Kingdom and the United States of America. The responses from the users surveyed should therefore provide insights to the decision-usefulness of the different types of information generated by mining and oil & gas companies reporting in different jurisdictions. The users surveyed have a mix of backgrounds (e.g. as a geologist or a finance professional), and market specialisations (mining or oil & gas, large producers or small explorers, specific minerals etc) and generally have 10 or more years experience in analysing mining or oil & gas companies.

Sophisticated and less sophisticated users

8. The discussion paper *Preliminary Views on an improved Conceptual Framework for Financial Reporting: The Objective of Financial Reporting and Qualitative Characteristics of Decision useful Financial Reporting Information* (July 2006) (hereafter the 'proposed *Framework*'), at paragraph BC2.40, states that "financial reports should be understandable by both sophisticated and relatively unsophisticated users". This comment suggests that, in setting accounting standards, regard should be given to both what information relatively unsophisticated users might want to be provided and how they might use the information that is provided in financial reports.
9. The proposed *Framework* sets out the expectations that standard setters have for users and preparers of financial reports. In setting out the expectations of users, paragraph QC4 states:

In developing financial reporting standards, standard-setters presume that those who use the resulting information will have a reasonable knowledge of business and economic activities and be able to read a financial report. Standard-setters also presume that users of financial reporting information will review and analyse the information with reasonable diligence. Financial reporting is a means of communicating information and, like most other types of information, cannot be of much direct help to those who are unable or unwilling to use it or who misuse it. ...Likewise, one does not need to be an accountant or a professional investor to use financial reporting information, but it is necessary to learn how to read a financial report. And users need to study the information with the degree of care consistent with both the underlying transactions and other events and the related financial reporting to make a well-informed investment or credit decision.

10. Paragraph BC2.40 sets out the expectations of preparers. It states:

... The overall financial sophistication of users of an entity's financial reports may affect the extent to which those users understand potentially complex financial reporting. It follows that some types of entities, for example, entities with a significant number of relatively unsophisticated equity holders, may need to be especially careful to ensure that those users can understand the entity's financial reports. However, all entities need to consider the understandability of their financial reports and should enhance understandability in whatever ways are feasible.

11. The results from this user survey provide an insight into the information needs of sophisticated analysts. Almost all of the analysts interviewed are minerals or oil & gas industry specialists, and some sell-side analysts follow (on a full-time basis) as few as four companies. The analysts surveyed included analysts that follow the large, and very large, minerals and oil & gas producers as well as analysts that follow smaller producers and explorers.
12. The research project team notes that other recent research published by international accounting firms has also focussed on the views of the sophisticated user. For instance:

- (a) the PricewaterhouseCoopers report, *Measuring Assets and Liabilities: Investment Professionals' Views*, published February 2007, which reported on the findings from interviews with over 50 buy-side and sell-side analysts; and
 - (b) KPMG's report, *Oil and Gas: What does good business reporting look like? – The analysts' view*, published November 2006, which reported on the findings from a survey of oil & gas analysts on what they want from a company's narrative reporting.
13. The research project team has not been successful in identifying user groups that are representative of the less sophisticated end of the user spectrum.
14. It is likely that other users do not have the time, resources or expertise to analyse the broad range of value-relevant information pertaining to the value of a mining or an oil & gas company in the same way as a sophisticated user. Less sophisticated users might therefore be more reliant on the financial statements and note disclosures to provide sufficient information for them to make their investment decisions. As noted in paragraph 10 above, it is important to be “especially careful to ensure that those users can understand the entity's financial reports” – this statement has implications for standard setters as well as preparers. In many cases, however, it is expected that less sophisticated users will rely, to some extent, on the more sophisticated users to provide them with analysis to make their decisions (e.g. Dun and Bradstreet reports for suppliers; broker reports and recommendations for shareholders).

Survey findings

15. The core findings from the user survey are:
- (a) the financial statements and note disclosures provide some information that is necessary for users to make an informed investment decision in relation to a minerals or oil & gas company – primarily information related to cash flow and current period expenditures – but the information provided in financial statements and note disclosures alone is not sufficient to meet the needs of analysts and much information is sourced elsewhere;
 - (b) there is very limited interest in placing a valuation of reserves and resources (at current value or fair value) on the balance sheet;

- (c) there is limited interest in disclosing a valuation of reserves and resources (at current value or fair value);
- (d) measuring reserve and resource assets on the balance sheet according to a historical cost measurement model (e.g. successful efforts, full cost, area of interest) does not generate much useful information;
- (e) analysts generally would prefer more, and/or improved, disclosure of key valuation inputs so that those inputs could be incorporated into their own valuation models; and
- (f) directors sign off was generally identified as the preferred assurance or responsibility process that could be applied to the reporting of reserve information.

Sources of decision-useful information

16. As a high level summary, most users surveyed indicated that the minimum information relating to minerals or oil & gas properties (including exploration properties) they need to make an informed investment or lending decision in relation to a mining or oil & gas company is information on:
- (a) reserve and resource volumes – noting that there are different views as to which categories of reserves, or reserves and resources, should be reported;
 - (b) scheduling of development and production and expected life of the mine or field;
 - (c) production statistics (if producing);
 - (d) capital expenditures;
 - (e) operating expenditures; and
 - (f) fiscal regime (e.g. taxation, royalty or Production Sharing Contract (PSC) arrangements) – noting this is especially important in the oil & gas industry where PSCs in particular often have a non-linear relationship with changes in the estimate of recoverable oil & gas from the deposit.

17. This information is used by the analysts as an input (or reference) to their own valuation models, noting many analysts attempt to build a company valuation on a bottom-up basis. That is, they begin the company valuation by valuing, where possible, the individual assets that are material to the company. One mining analyst remarked that his aim is to develop a model that can generate a profit or loss statement and cash flow statement for each ore body.
18. Some analysts conceded that it was not always possible to build up a company valuation on an asset-by-asset basis. This might depend on the availability of the relevant information by mine or field. However it also depends on the size and complexity of the company. For instance, one analyst mentioned that he uses discounted cash flow techniques for valuing individual mines and companies with up to four mines. But for diversified companies, which may have numerous mines, different commodities and a range of optionalities associated with future prospects, he places more reliance on financial metrics (such as current earnings multiples, free cash flow yields, dividend yields etc) than on discounted cash flow techniques when making an investment assessment. Similarly, for integrated oil & gas companies that have numerous and significant upstream and downstream operations, it was noted that the detailed use of discounted cash flow techniques may not be as meaningful because the company valuation can be materially influenced by its downstream operations. Consequently, the use of financial metrics is more prevalent in analysing these companies and discounted cash flow techniques may be used to a more limited extent in analysing the upstream operations. It is understood that the portfolio effect associated with having a diverse array of projects might enable analysts to assume relatively stable levels of future production, which therefore may permit valuations to be made on an ongoing cash flow basis.
19. There were differing opinions as to exactly what information is considered the minimum necessary to make an investment decision. Many of these differences can be attributed to information that is more relevant to either minerals or oil & gas. For example, mining analysts tend to also want information on grades (i.e. the quality of the mineral), distribution of the mineralisation (e.g. contiguous or erratic), existence of by-products (as the price of by-products may influence mining decisions), and mining and milling methods. Similarly, additional information requested by oil & gas analysts included information on reservoir qualities and the separate reporting of reserve

information by location (i.e. onshore or offshore) and by type (e.g. liquids, gas, non-conventional energy such as gas-to-liquids and oil sands).

20. There are also some different information needs depending on whether the company is engaged in exploration projects, in development or production projects, or in upstream and downstream business. Due to the degree of uncertainty associated with exploration activities, the information needs are generally related to:
- (a) costs – specifically, understanding what is the cash flow and where it is being spent; and
 - (b) management risk – specifically, understanding the reputation of management and its track record, both in exploration and also in progressing projects from exploration to development.

Information on drilling results can also be relevant, although users expressed the need for great caution in evaluating early stage exploration results due to the high level of uncertainty associated with them.

21. The importance of information on exploration activities also depends on the company involved. Materiality is central to any analysis. One analyst explained that once the upstream is big enough, they will generally treat exploration as an operating cost. Understandably different analysts will have different views on what is and is not material, and therefore the assets that should or should not be included in their assessments.
22. Interestingly, analysts' perceptions regarding the usefulness of information also seems to be determined by their familiarity with the information reported, which in turn seems to be influenced by the jurisdiction where the company reports. For example, the standardised measure of proved oil & gas reserves, as required by FAS 69 *Disclosures about Oil and Gas Producing Activities*, was identified by some, but not all, oil & gas analysts that follow companies that report under, or reconcile to, US GAAP as providing information that is of some use. (The usefulness of this information is discussed further at paragraph 39.) In contrast, mining analysts generally did not think that a similar disclosure would assist them in their analysis.

23. Despite there being some differences in information needs, a common theme that has emerged from the survey has been the acknowledgement that much of the information users need is obtained outside of the financial statements and notes. The information provided in the financial statements and notes that is relevant to the valuation of a reserve and resource asset seems to be limited to cashflow information and cost and sales revenue information. Actual costs incurred are often used by analysts as a guide to estimating future capital and operating cost expenditures, not only for input into a valuation model for a particular property, but also for other properties held by the company or other properties held by other companies that have similar characteristics.
24. Other useful information provided in the financial statements and note disclosures includes information on debt, other liabilities, receivables, and working capital. This information is relevant for valuing the entity, but is not directly relevant for valuing the minerals or oil & gas property assets that the entity controls.
25. All other information that is relevant to the valuation of a reserve and resource asset seems to be obtained outside of the financial statements and note disclosures. For instance, the information could be obtained from:
- (a) the management commentary section of the annual report, noting this might include the reserves and resources statement (i.e. the disclosure of reserve and resource volumes), which is considered to be an essential input to any valuation of reserves and resources;
 - (b) other reporting released to the market, such as quarterly production reports and feasibility studies;
 - (c) analyst presentation packages and other information that is provided on company websites;
 - (d) consultant reports and databases, which can include analysis on industry trends and risks as well as comprehensive databases that contain data on reserves, costs and production (among other things), and possibly also valuations, for most projects worldwide;¹ and

¹ Consultants that provide this material include Wood Mackenzie (for oil & gas) and Brook Hunt (for minerals).

- (e) site visits (noting that this seems to be a more common occurrence for mining analysts than oil & gas analysts), which might include inspecting the mine site and infrastructure, discussions with geologists, engineers and mill managers etc.
26. The various sources through which analysts obtain information is reflective not only of the breadth of the information they use in their analysis. It also reflects the frequency with which some of that information is made publicly available. For instance, some information such as reserve and resource volume estimates are updated and reported annually. Production statistics are often reported quarterly. Other information, such as information on development plans and costs and anticipated production schedules is obtained from feasibility studies or project approval documents, and the analysts will input, adjust and maintain this information in their own valuation models.

Usefulness of a current value measurement model

27. Very limited interest was registered for measuring reserves and resources assets at current value and for current value to be reported in the financial statements. There seemed to be some acknowledgment that, in principle, a current valuation could provide relevant information, although its usefulness would depend on the quality of the information. In this context, information quality will largely be driven by the assumptions used and whether the analyst agrees with those assumptions. Disclosure of all key assumptions would be required for analysts to verify that the information provided in the financial statements can be used in their analysis.

Benefits of a current value measurement

28. Users suggested that measuring reserves and resources at a current or fair value in the financial statements may have benefits such as:
- (a) providing a reference point or “sanity check” that the analyst could use to compare either with their own valuations and to rationalise any differences or to compare with some other companies that have similar projects;
 - (b) providing some insights into a company’s long-term planning price, hurdle rate and cost assumptions, noting that this information would be obtained either by reverse engineering the valuation or by referring to the accompanying disclosures that would be necessary to understand the valuation presented;

- (c) adding rigour to management’s decision making by “forcing” management to think about the best estimate assumptions it is using when it prepares its valuation. To realise this benefit of a current value, the research project team considers that forecast assumptions reflecting market-participant expectations would have to be used. The types of assumptions that should be used in preparing a current value estimate is discussed further in the context of the proposed building blocks of a current value measurement model (refer Agenda Paper 15B); and
- (d) comparing different companies (to a limited extent). To facilitate such comparison, consistent assumptions would be required – possibly similar to the approach of the standardised measure of oil & gas proved reserves currently required by FAS 69.

Concerns with a current value measurement

- 29. Concerns raised by analysts with a current value measurement can be described as concerns relating to the preparation and presentation of the estimate.
- 30. Preparation concerns principally relate to the uncertainties associated with the valuation estimate. As discussed at the October 2006 meeting, the income approach would be expected to be used in almost all cases to fair value a mineral or oil & gas property (or a valuation of reserves, or reserves and resources, attached to that property). The market approach is generally not suitable due to the absence of recent and comparable market sales transactions for similar properties. The cost approach is not suitable as the costs associated with finding and developing a mineral or oil & gas property have no necessary connection to the future cash flows that are expected to be generated from the property. In the case of a current valuation of a mineral or oil & gas property, the income approach is expected to be the only available measurement approach as the scope of the current value estimate may include just a portion of that property – for instance, the current valuation could relate only to the mineral or oil & gas reserves and exclude any value attributable to the property’s discovered resources or undiscovered “blue sky” potential.
- 31. A current value estimate prepared in accordance with the income approach, most likely using a discounted future cash flow model, is a product of the assumptions used to forecast the future cash flows. Estimating the future cash flows attributable to a

minerals or oil & gas property requires many assumptions to be made, and many of these assumptions are based on unobservable inputs. Some assumptions used are project-specific – for instance, estimates of reserves volumes, extraction methods, production rates and project risks. By their nature, project-specific assumptions are not based on observable market inputs. Other assumptions used relate to assessments of market conditions – for instance, commodity prices, development and operating costs (which will be influenced by market and project-specific factors), discount rates, and market and political risks. Similarly, many of the assumptions regarding future market conditions are not based on readily observable market inputs. As illustrated in the October 2006 agenda papers (regarding the valuation assigned to the Olympic Dam mine), a valuation of reserves and resources can be susceptible to material changes in value based on small changes in the assumptions used.

32. Given that the valuation would be based on so many subjective inputs/assumptions, analysts were not of the opinion that accounting for reserves and resources at a current value or fair value would be useful to them or that they would, in fact, make any significant use of it. Analysts generally view their core competence as making assessments on future uncertainties such as prices, costs, likelihood of development and development timetable. Consequently, analysts prepare valuations of mineral or oil & gas properties based on their own assumptions. Certainly for some assumptions, such as the timing of development, the company's stated expectations are useful input – but even here analysts will sometimes use a different assumption based on other information and their own judgement. For other assumptions, such as price forecasts, the company's view is generally irrelevant to the analyst in terms of valuing a minerals or oil & gas property.
33. Part of the concern regarding estimation uncertainty related to the potential for management bias to be reflected in the valuation. This bias may be “innocent” in that management genuinely holds an optimistic view of the future – or may be less so, for example where management chooses an assumption that it recognises as aggressive. This was a commonly held concern. One analyst commented that he would be concerned that management may use the valuation to explain or justify (their view of) the share price of the company.

34. To address concerns about the extent of subjective assumptions used in a current valuation of reserves and resources and the potential for management bias, it was widely recommended that there would need to be extensive disclosure of the underlying assumptions, including long-term prices, volumes, capital expenditure and operating costs. To be useful, disaggregated disclosure would have to be provided, possibly at a mine or field level. However most analysts commented that they did not believe that this level of disclosure would be practical to prepare (especially for companies such as ExxonMobil and BHP Billiton that have numerous fields and mines worldwide), both in terms of the volume of information and commercial sensitivities with disclosing some of the inputs (e.g. forecast price assumptions). Some analysts noted that concerns regarding management bias may be able to be minimised if the valuation (and assumptions) were audited or prepared by independent consultants. Any additional assurance of the reserve estimates (values or volumes) would add to both the cost and time needed to prepare the financial report. Furthermore, most analysts indicated that they did not believe the additional cost and effort associated with the audit or independent preparation of the valuation could be justified as they would remain hesitant to rely on the valuation because they will have some different views on the assumptions used in the estimate.
35. Presentation concerns relate to the consequential effect on the income statement arising from period-to-period changes in current value, if the current value measurement is presented on the balance sheet. This concern is reflective of a broader concern that many analysts seem to have with the presentation of the income statement. Their concern is that the income statement has become less reflective of the operating performance of the company as a result of unrealised gains and losses affecting the net profit/loss. Instead, if current value measurement is to be used, many analysts suggested that it would be important to separately identify changes in value from the “true performance of the business”. The survey found that analysts already currently make adjustments to the income statement to reverse out other unrealised gains and losses, such as those associated with hedging contracts and embedded derivatives.
36. The research project team does not believe that concerns about period-to-period changes in a current value of reserves and resources “polluting” the income statement is, by itself, sufficient justification for not including a current value measurement of reserve and resources in the balance sheet. Analyst concerns regarding the presentation of the

income statement should instead be considered as part of the IASB's project on Financial Statement Presentation.

Sophisticated vs unsophisticated users

37. The user survey findings suggest that sophisticated users do not need financial reports to attempt to ascribe a value to reserves and resources assets. These users feel they are better qualified to ascertain the value of those assets. However, as discussed above, regard should be given to the information needs of less sophisticated users.
38. Some (sophisticated) users interviewed suggested that a current value estimate could be of use to less sophisticated users as it would provide some indication of the value of the asset which would not otherwise be available from the financial statements. However, concern was also expressed that less sophisticated users might view a current value number in audited financial statements as more reliable than it really is. An estimated current value of reserves and resources is a single point number from a range of possible values derived from several inputs each of which itself may be a range of possible values – e.g. volumes, prices, development costs. The concern expressed in the interviews is that non-sophisticated users might not understand that the current value in the financial statements represented a single point in a range of possible values and that modest changes in one or more assumptions could result in a significantly different current value. Potentially this could lead to inappropriate decisions by users.
39. The FAS 69 standardised measure and the disclosure of “net future revenue” required in Canada by National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* are examples of current value estimates. Some oil & gas analysts noted that the FAS 69 standardised measure provides some insight into, among other things, future development and operating costs and the impact of commodity price changes on the value of reserves. The general view among these oil & gas analysts seemed to be that the standardised measure should be treated with caution and is a long way from being perfect, but nevertheless it is referred to because that information may not be provided elsewhere. As one analyst suggested, it is not the measure itself which is useful, but the changes – and the reconciliation of those changes – that is useful. This view seems to be consistent with the comments in the FAS 69 Basis for Conclusions, which notes that the standardised measure is not intended to be representative of value, but rather its

objectives are to provide users with information that can be used for their own valuation and to allow for a reasonable comparison of reserves. Relevant extracts from the FAS 69 Basis for Conclusions include the following paragraphs:

77. The Board finally settled on a standardized measure of discounted net cash flows to achieve some of the characteristics of a fair market value measure without the extreme subjectivity inherent in either direct estimation of market value or entity-specific discounted net cash flows. Although it cannot be considered an estimate of fair market value, the standardized measure of discounted net cash flows should be responsive to some of the key variables that affect fair market value, namely, changes in reserve quantities, selling prices, production costs, and tax rates.

...

80. Disclosure of the principal components of the standardized measure of discounted future net cash flows provides users with information concerning the factors involved in making the calculation. Users then have standardized data they can adjust as necessary for their own individual estimates of future changes and risks in order to prepare their own assessments of future cash flows. In addition, disclosing both undiscounted and discounted net cash flows provides a means of comparing proved oil and gas reserves both with and without the subjectivity introduced by management's estimate of production timing, although management generally is in a better position than a user to forecast both the production timing and the recovery method of the enterprise's proved oil and gas reserves.

...

83. The Board was persuaded by respondents' comments that the standardized information can be useful and is, in fact, being used. The Board is concerned, at the same time, that users of financial statements understand that it is neither fair market value nor the present value of future cash flows. It is a rough surrogate for such measures, a tool to allow for a reasonable comparison of mineral reserves and changes through the use of a standardized method that recognizes qualitative, quantitative, geographic, and temporal characteristics. Absent such a tool, there is no reasonable basis for comparing these most important assets and activities; values are not determinable and quantities are not comparable. In addition, the standardized measure provides users with a common base upon which they can prepare their own estimates of future cash flows.

40. The NI 51-101 disclosure of “net future revenue” is essentially the discounted amounts of future revenues less costs. This is currently required on two bases – using forecast prices and current prices, although there are proposals to drop the current price case. Extensive disclosures of assumptions are required. In general, analysts familiar with these disclosures did not use the valuation itself, although one analyst mentioned that the disclosure would be an initial reference for a valuation assessment on a company he did not follow and for which he had not developed inputs for his own models. The analyst qualified this remark by stating that he would probably then obtain analysis from analysts in other firms that do follow the company and that he would usually find that information more useful in understanding the value of the oil & gas property. Another analyst indicated that he is from a smaller firm that does not have detailed models for oil & gas and therefore has found the NI 51-101 disclosures useful as they

incorporate estimates of production, operating costs etc. based on information provided by the company to the independent evaluator – but adjusted by the evaluator based on their expertise. The analyst noted they do not have the data to do this themselves as it would require extensive assumptions about inputs.

41. Thus, there is acknowledgement from at least some analysts who are familiar with the reporting requirements under FAS 69 or NI 51-101 that the required disclosures in total provide useful information. However, the common theme that seemed to emerge from their responses was that it is the extensive disclosure of, or insights into, the assumptions that is important rather than the net present value calculation. Consequently, there is a question as to whether a current value estimate such as a standardised measure or net future revenue is the best method for disclosing this information on assumptions or whether the information should be disclosed directly.

Summary

42. The general consensus among the analysts surveyed is that the disadvantages with preparing and presenting a current value measurement would significantly outweigh the advantages and as a result sophisticated analysts would not use this information.

Reserves and resources valuation disclosure

43. The concerns raised by the users surveyed about the uncertainties associated with the preparation of a current valuation of reserves and resources, the potential for management bias, and the risk that unsophisticated investors might misunderstand the valuation apply equally to the presentation of a current value on the balance sheet or in note disclosure.

Usefulness of the existing historical cost measurement model

44. The users surveyed confirmed that measuring mineral and oil & gas properties on the balance sheet according to a historical cost measurement model (e.g. successful efforts, full cost, area of interest) does not generate much useful information.
45. The usefulness of historical cost measurement appears to be generally limited to ratio analysis, such as for determining Return on Capital Employed, noting that the historical cost measure is only used because it is the only number available. Analysts recognise

that the historical cost measurement is deficient when used for ratio analysis because it is neither representative of the total capital employed (due to accounting policy choices on expense versus capitalise decisions for exploration and evaluation expenditures, impairment writedowns of unrecoverable capitalised costs, and/or depreciation and amortisation charges) and nor is it a good proxy for determining the asset position of the company.

46. The historical cost measurement is also used to predict depreciation charges in future years, although this use is related to predicting reported earnings rather than future cash flow generating potential. Reported earnings (and depreciation) are not normally used in valuing a minerals or oil & gas entity – but users are often required to produce an earnings forecast and this earnings forecast may be compared with other entities. The research project team notes that if historical cost were not the accounting basis then historical cost depreciation would be irrelevant. Consequently, this is not considered to be sufficient justification for ongoing use of a historical cost accounting model for reserves and resources.

Usefulness of disclosures

47. Users generally indicated that they would prefer more, and/or improved, disclosure of key valuation inputs so that those inputs could be incorporated into their own valuations.
48. Presentation of more disaggregated information has been a common request, especially from users covering the oil & gas industry. However, users preferring more disclosure acknowledged there are practical limitations to what could be reasonably disclosed. One analyst commented that he believes the industry is almost at the boundaries of practical disclosure at the moment, and noted that if disclosures go much further, it might penalise shareholders because commercially sensitive information might be disclosed. This observation is understood as relating to the combination of regulatory disclosures that are required to be made in leading jurisdictions and established best practices that have evolved in voluntary disclosures.
49. Disclosure of reserve and resource information is discussed further in Agenda Paper 15D.

Assurance and responsibility

50. Information that is presented in the financial statement and note disclosures is generally subject to assurance processes (i.e. audit) and responsibility for the information is usually clearly defined (i.e. in terms of the relative responsibilities of directors, managers and auditors). A consequence of disclosing reserve and resource information in the financial statements and note disclosures is therefore that those disclosures would be subject to the same degree of assurance and responsibility as other financial reporting information.
51. The user survey responses were mixed as to whether reserve and resource information, specifically reserve volume estimate or reserve valuations, should be subject to audit, prepared by a competent person who may be a company employee, or prepared or reviewed by an independent reserves consultant. Reasons for the differing views included that the:
- (a) existing system works well (which was generally a comment in respect of the competent person system in minerals reporting);
 - (b) the cost of audit would be prohibitive;
 - (c) there would be a lack of appropriately qualified independent consultants to perform the audits or reviews; and
 - (d) the degree of imprecision and/or subjective assessments that are required means that an independent review may not greatly enhance the usefulness of the information reported.
52. However a common theme among the users interviewed was for directors to take – and be seen to be taking – responsibility for the reporting of reserve information, and to do so by requiring directors to sign off on the disclosure. Analysts believed this would be a significant improvement to reserves reporting. One reason for this is that the analysts felt that directors might impose stronger internal controls on the estimation and reporting of reserves information.