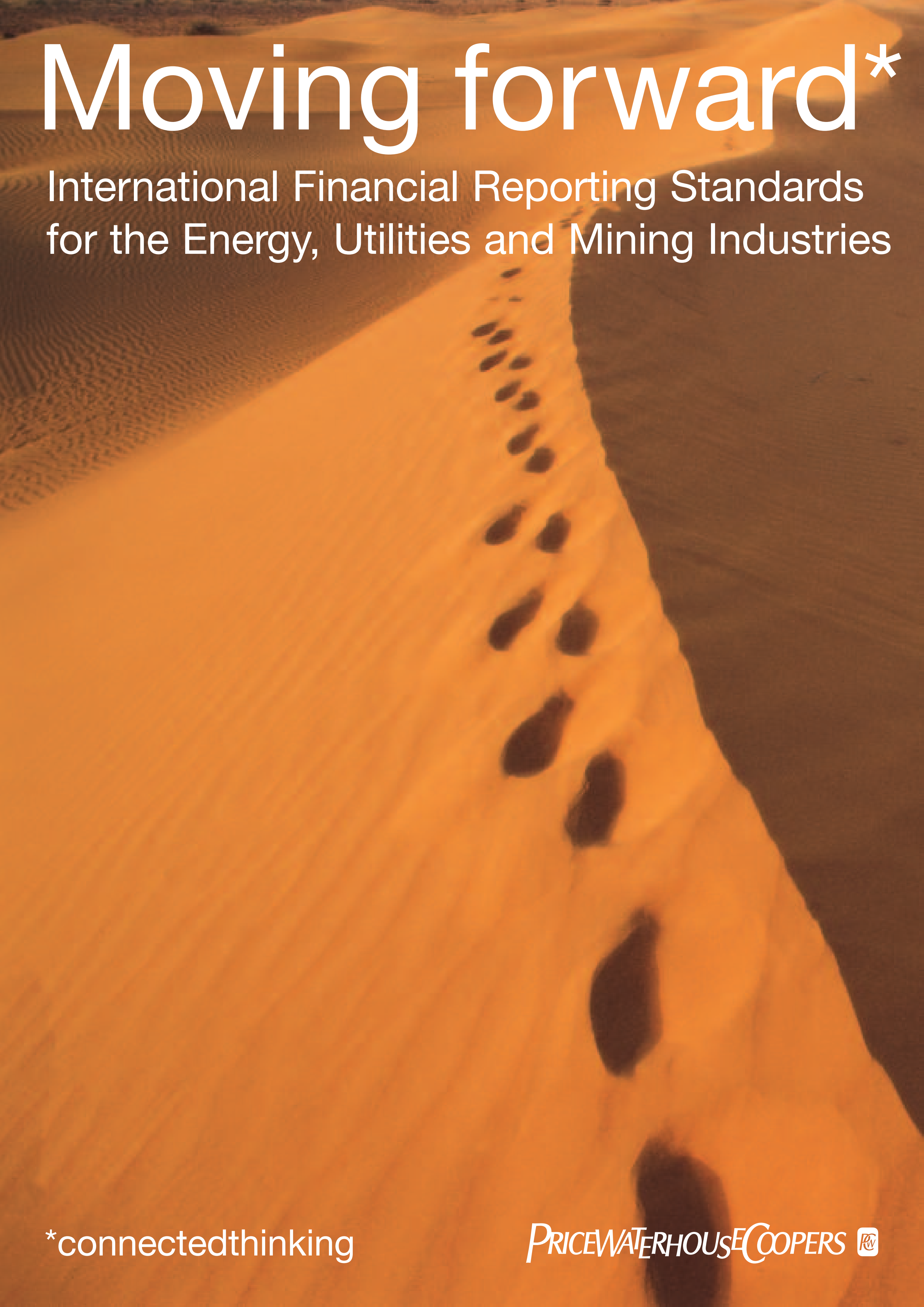
Moving forward*

International Financial Reporting Standards for the Energy, Utilities and Mining Industries



*connectedthinking

PricewaterhouseCoopers

Contents

1 Introduction

With the first round of IFRS annual reporting coming soon, it is a good time to reflect on what has been achieved and what still needs to be done. IFRS has advanced the international transparency and comparability of financial statements, but for our industries (energy, utilities and mining) there are some unique application problems.

In October 2005 PwC hosted a roundtable event for companies at which representatives discussed some of the challenges of transition to IFRS. Following that event we published *Implementation Challenge* to record some of the insights which were discussed.

There is, however, only so much which can be covered in one day and we felt it appropriate to highlight some further topics which should be at the forefront of preparers' minds. We also take the opportunity to provide more background and reflect on how accounting might develop in the future. Topics covered in *Implementation Challenge*[1] have not all been repeated here.

Much of this publication is devoted to IAS 39, which has impacted greatly on the financial reporting of most companies. We also cover some other specific issues for utilities and for mining and upstream oil and gas companies.

We trust this publication *Moving forward* and the roundtable discussion document *Implementation Challenge* will help the industry set an agenda for accounting topics for future discussion. We would welcome the opportunity to discuss it further with you.

[1] Topics included in *Implementation Challenge* are:
- Emission rights; IFRIC 4; income statement presentation
- For Oil and Gas companies: IFRS 6 shelter; impairment and cash generating units; overlift and underlift; jointly controlled assets, operations and entities; production sharing contracts
- For utilities: IAS 39 and executory contracts, embedded derivatives and hedging; cash generating units; component approach.

2

IAS 39 – Financial Instruments: Recognition and Measurement

*

2.1 An outline of IAS 39

IAS 39 has had a major impact upon how energy, utility and mining companies account for power, gas, oil and other mineral contracts. Before we discuss some of the application problems which exist it is worthwhile reflecting upon the aims of IAS 39 and why it was produced.

There have been some notable corporate failures that arose in the past because long term contracts were entered into which then resulted in significant losses. Under existing accounting practices such contracts were not always fully valued and recognised in the financial statements. The International Accounting Standards Board decided that a change was needed to address this.

IAS 39 requires that certain contracts to “buy or sell a non-financial item” are recorded at fair value with changes in value between reporting dates taken to the income statement. In deciding which contracts should be valued, the following guidance is given:

- The standard only applies to contracts that can be “settled net in cash or ……” i.e. it applies to contracts that have the characteristics of financial instruments. In practice, a wide variety of contracts can meet this definition.
- It doesn’t apply to contracts that “were entered into and continue to be held …… in accordance with the entity’s expected purchase, sale or usage requirements” (the “own use” contracts). The standard is not seeking to value ordinary business contracts unless they are being used for trading activities.
- It says that if similar contracts are within scope then all contracts of that type should be in scope. This prevents different accounting treatments for contracts which are essentially the same.
- Contracts with written options are interpreted as being not part of ordinary activities as they introduce additional risk and therefore all these contracts must be valued.

IAS 39 recognises that some contracts that do not fall under the definition of own use within the standard could still be part of ordinary risk management activities. Therefore, it permits hedge accounting, under which hedging instrument gains and losses are recognised when the hedged item hits the income statement, provided strict documentation standards and other requirements are complied with.

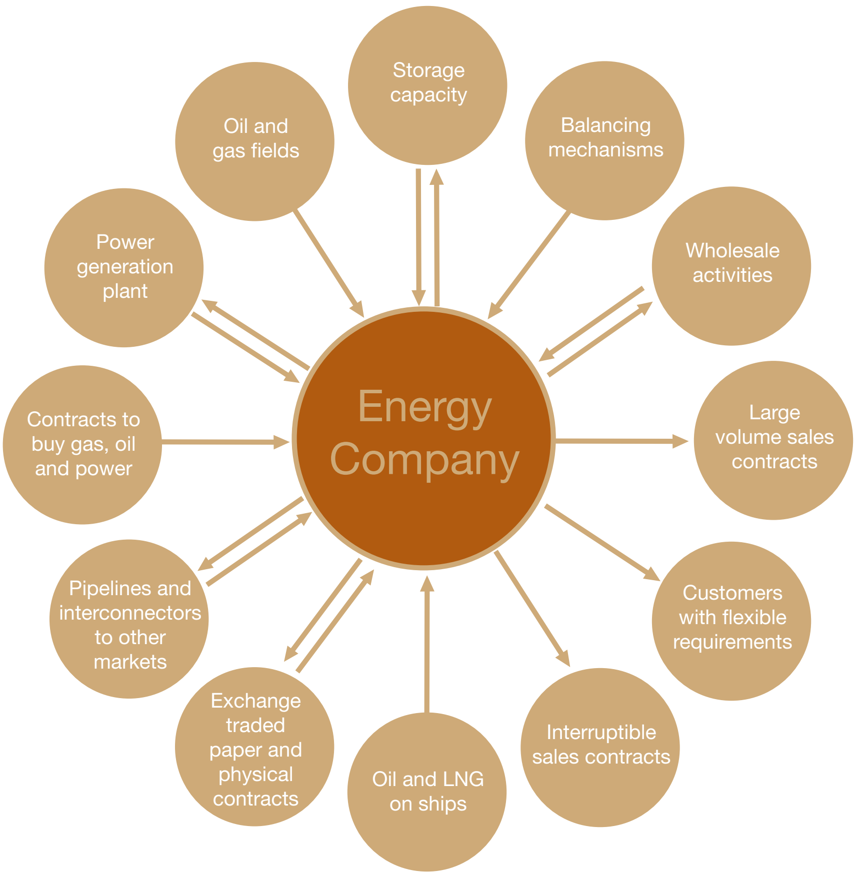
Furthermore, IAS 39 recognised that derivatives can be contained within other ordinary business contracts and where this is the case requires that the derivative is isolated and valued as a separate “embedded derivative”.

It might, therefore, be concluded that any company that is solely engaged in buying, producing, refining and selling commodities should be largely outside the scope of this standard and should continue to account for its contracts as it had done previously. However, as we will see in the next section this is often not the case given the characteristics of some of the markets involved and the complex activities undertaken. In addition, IFRS 7 raises questions of the need for additional disclosures as a minimum.

2.2 Identifying which contracts are "own use"

2.2.1 The application problem

Energy, utility and mining companies today often operate in competitive markets and utilise a variety of different contracts and physical assets in their businesses. For example, a typical energy company may use some or all of the following.



Each of the bubbles represents an instance where energy either flows to or flows from (and in some cases both to and from) the energy company.

Gas, power and oil are fungible assets, that flow. That is to say, you often cannot track the flow of the commodity from a particular contract. In this environment it can be difficult to identify those contracts that need to be fair valued under IAS 39 and those that do not.

For example:

- A company sources gas for its customers from long and short term purchase contracts, storage and from its own gas fields. Its overall aim is to optimise its portfolio to derive maximum value. Demand from its customers is seasonal. To optimise its position it will vary what it takes under contracts, from fields and from the wholesale market in response to physical demand and market prices. Gas is also sold on the wholesale market when this is economic. Under IAS 39 this means some contracts need to be fair valued (because not all the gas is going to the company's customers) but deciding which are and which aren't is problematic and if they are all managed within a single risk management framework then they are all treated as trading contracts as it is impossible to identify which contracts net settle.

- A power generator makes decisions about how much power to generate and how much to purchase for its customers under contracts, based upon levels of demand and the differential between gas and electricity prices, the 'spark spread'. It buys and sells in the market as these factors change in the run up to the delivery period. This process of 'reoptimisation' or constant churning of purchase and sales contracts makes it difficult to identify which contracts are net settled and which are not under IAS 39. Identifying some contracts for valuation and treating others as executory contracts appears inconsistent with the business model of many companies; however, this is what is required under the standard.

The main guidance as to whether a contract needs to be fair valued or not is contained within paragraphs 5, 6 and 7 of the standard. When seeking to apply these paragraphs to energy companies a number of questions arise.

Para	Description	Questions
5	Contracts that "were entered into and continue to be held ……. in accordance with the entity's expected purchase, sale or usage requirements" are not in scope	• If an entity wholesales excess gas or electricity as part of an ordinary balancing process does this bring certain purchase contracts within the scope of the standard? • Where ordinary practice is to buy under a fixed volume contract and sell excess gas in the summer then is this contract in scope? • What happens if a contract has a minimum take level and on a particular day demand from customers happens to be less than this minimum take?
6	Defines what "can be settled net ….." means and widens the definition to include situations where "similar contracts" are settled net.	• When are contracts similar? Does this mean similar terms or can you create dissimilarity through different operational structures? • What does net settlement by "entering into offsetting contracts" mean? Does this mean no net cash flows between the entity and the counterparty? Can a long term contract be offset by a short term contract? Does the offsetting have to be with the same counterparty? • If an entity sells excess gas or electricity from purchase contracts in periods of lower demand does this mean it is "generating a profit from short term fluctuations in price"? • Where contracts have interruption rights could this be interpreted as net settlement?
7	Written options are within the scope of the standard	• Where a sales contract allows the customer to decide what volume of gas it wishes to take, is this a written option?

In practice an entity may enter into a variety of contracts to meet its customer's requirements. Because demand is unpredictable it may need to sometimes sell off excess commodity. Applying the rules within the standard, would seem to imply that, generally, purchase contracts can be excluded as outside the standard's scope only if the commodity purchased is always used to supply the entity's customers. In practice this means that some contracts are not fair valued whilst others are, but the split between the two groups may well be different from how the entity views the contracts for its risk management practices. The accounting doesn't necessarily show the whole picture, or reflect the economic risk position.

2.2.2 Future IFRS?

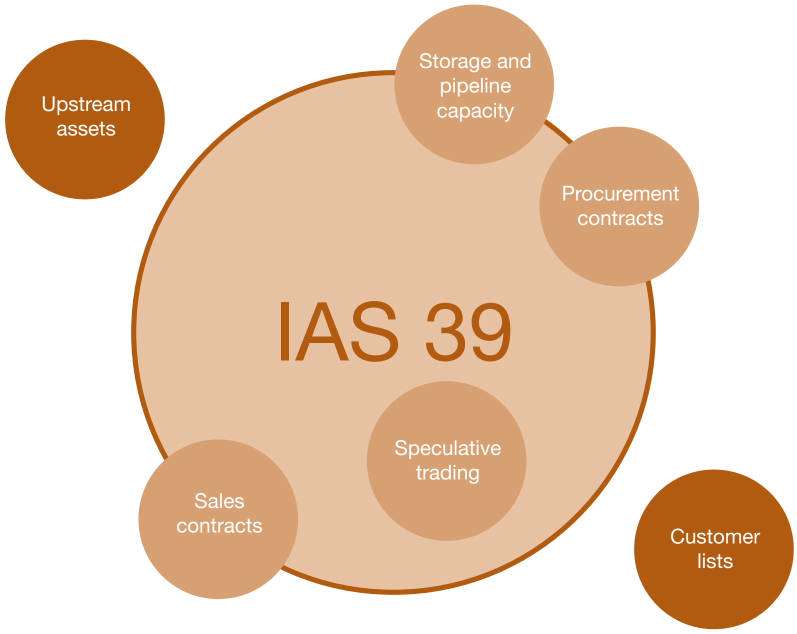
It seems that there is no easy answer as to how to improve the accounting in this area. In the short term, disclosure will play a key role in ensuring a business's position is fully understood.

There are perhaps two learning points from the recent round of IFRS implementations.

1. Companies might consider whether they have sufficient clarity around the different types of activities that they are undertaking. Do they really clearly understand which are ordinary procurement/sales activities and which have the characteristics of speculative trading? A reflection upon how IAS 39 defines these activities may bring improved clarity for the business and more closely aligned accounting. Clearly defined book and operating structures are likely to be a fundamental part of this.

Equally, if IAS 39 is to be revised then should it be structured so that it allows accounting that reflects an organisation's risk management model and practices?

2. IAS 39 has started to move us down the road towards fair value accounting, but have we stopped at the right place? The graphic opposite summarises, broadly, where we are now.



Contracts entered into for speculative trading purposes are fair valued. In addition, some delivered purchase and some delivered sales contracts are fair valued. As we said earlier in this section, energy companies' activities are complex and upstream assets, customer lists and capacity contracts are also integral to what they do. Some people might advocate it would have been better to move further on the journey to full fair value accounting and value all contracts, upstream assets and customers. But that is a huge step and is that what users of accounts want? Such a decision has to be made through the development of the overall accounting framework.

Are the valuations sufficiently reliable to warrant inclusion within financial statements, and are accounts becoming too complex for most users to understand? Should the standard setters be trying to reduce the number of contracts that are fair valued directly to the income statement, through a less rigid interpretation of what represents a "hedge"? We suggest the industry should take up this aspect in the wider debate on the use of fair value accounting in the preparation of accounts. In the meantime, disclosure will play a key role in exploring the overall commodity price exposures faced by the business.

2.3 Contracts that are not fair valued

2.3.1 The application problem

Whilst under IAS 39 valuation becomes more widespread, in some cases contracts that the entity may regard as having value are not recognised in the financial statements. Two examples of this are storage and pipeline capacity contracts, where there are generally no active trading markets.

	Accounting treatment	Business perspective
Capacity contracts	Not fair valued and outside the scope of IAS 39 because there is no net settlement	Business recognises value that can be derived from the difference in commodity price either end of the pipeline or between the injection and withdrawal dates for storage

Often capacity contracts aren't actively traded and because they don't meet the net settlement criteria in IAS 39 they cannot be fair valued. This can result in an unusual accounting result for speculative traders who use capacity as part of a wider strategy. We illustrate this using two examples:

- A speculative trader contracts to buy power in the future in France and sell power on the same day in England. He holds capacity in the UK-France interconnector to transmit from one location to the other. Under IFRS he can't fair value the capacity contract or recognise the connectivity between the two markets and has to fair value the sale and purchase contracts using local quoted prices, which can give a completely different periodic result from the value he believes he has created (cash flow, ultimately).

- A speculative trader enters into a contract to buy gas in the future, he has storage capacity to hold the gas for six months and he enters a sales contract to sell the gas six months later in the winter. The trader views this as a 'closed' position but under IFRS the capacity contract isn't recognised and the fair value of the position will continue to change with movements in gas market prices even though there is no intention to purchase any more gas.

The timing of the reported results in the financial statements is not consistent with the value that the trader believes has been created (and, potentially, his bonus calculation!).

2.3.2 Future IFRS?

It is often possible to value capacity even though there isn't an active market for the capacity itself. Valuation is possible because the contract value can be derived by comparing prices at either end of the pipeline or interconnector, or by comparing prices prior to and after storage capacity periods. Perhaps future IFRS should require valuation of these capacity contracts when they are entered into and used as an integral part of a trading portfolio; as distinct from those who use capacity for 'own-use' activities.

2.4 Comparability of valuations

2.4.1 The application problem

For many commodities, market prices aren't always available for the periods of the contracts which the entity is required to fair value. In addition many contracts have volume flexibility because the buyer (or seller) has a choice about the volumes to take. Pricing in some contracts is derived from a basket of indices such as oil and related products, power, coal, gas and inflation measures. Therefore, many assumptions have to be made about future variables and different entities may well make different assumptions.

Two important aspects of valuation are the derivation of forward price curves and the modelling of volume flexibility. The diagram below also shows some of the other key inputs to valuation models.

Forward price curves

Where contracts are relatively short term, there are often quoted prices from an active market to provide a guide to fair value. However, long term contracts are common for some commodities. Therefore, if these contracts (or any embedded derivatives), need to be fair valued, there are no quoted prices available for the later periods of the contract duration and a valuation model has to be used. One of the key inputs for the model is future commodity prices.

Therefore, a “forward curve” for prices will need to be derived, often for many years into the future.

Typically price curves have two distinct periods: an active market period where price information is readily available and a no active market period where prices are determined typically based upon assumptions and inputs into a model. There will also need to be a way of connecting the two curves.

Normally, the active market period prices are the same for all preparers of financial statements but there are many variables in determining other parts of the curves, for example:

- How long is the active market period? There is often no distinct end date but instead the number of trades struck falls to a very low level. Companies may have different views on when an active market period ends.
- What assumptions and inputs are appropriate for the no active market period and what linkage is there between different commodities e.g. oil and gas or gas, power and carbon?
- When and how often should curves be reviewed and changed?

When a contract is entered into, IAS 39 says that there should be no “Day One” profit recognised. This means that a company cannot instantly recognise a profit because its own view of future prices differs from the contract price. In practice, however, many companies have long term contracts that were signed many years ago and, therefore, recognise assets and liabilities today based upon their own models. Every company is likely to have a different view of future commodity and power prices and, therefore, comparison between companies financial statements is not straightforward. Hence, disclosure of the assumptions made is likely to be of key importance in assisting users of the accounts.

Optionality

Sometimes a significant part of the valuation can be derived from the optionality that exists within a contract, for example the ability to choose to purchase more or less gas in a particular period. Often there are complex contract terms that stipulate how much commodity must be taken in different time periods. Option valuation is a complex topic with market price volatility measures being one key input. Companies may take a variety of approaches to valuing optionality and, therefore, it is likely that a contract will be ascribed a different fair value in the balance sheets of each party to the same contract.

2.4.2 Future IFRS?

With a move towards fair value accounting it is inevitable that valuation models will be required. It is also inevitable that companies will have different views about future prices. One approach might be for companies to provide full disclosure about their pricing assumptions and risks faced. However, it is unclear whether this would actually improve comparability – it could simply highlight the lack of comparability. Also, companies will be reluctant to disclose information that is commercially sensitive. A sensible route forward may be for industry to develop, in consultation with other stakeholders, a framework for providing meaningful disclosures in this area, which can then be used consistently by each company.

2.5 Hedge accounting requirements

2.5.1 The application problem

IAS 39 sets out some stringent requirements to be met to apply hedge accounting. Many companies have found that activities undertaken for “hedging purposes” don’t qualify for hedge accounting treatment. This may well be an appropriate outcome in some situations because the effectiveness testing has demonstrated that the instruments used are not as effective in mitigating risk as had previously been anticipated. However, in many cases it appears that the accounting requirements can’t be readily reconciled with the underlying business activities. Also, many companies have simply decided that they are not prepared to invest the time and effort required to achieve hedge accounting under IAS 39 – so that transactions that would be regarded as hedges if the documentation was put in place are treated in the same way as speculative trades.

Example

- An entity needs to procure power to meet its customers’ requirements. Customers consume most power in the day time (peak) and less at night (off-peak).

- The entity can’t buy power in the delivery profile it needs and, therefore, it has to buy and sell power to create ‘shape’.

- The entity purchases power under fixed volume contracts and then enters into sales contracts to get rid of excess power in the off-peak period. The entity sees both these activities as part of its hedging strategy. Sales and purchase contracts are not always entered into at the same time since there is limited liquidity in the market. The entity contracts when the required contracts are available at an acceptable target price.

- Under IAS 39, hedge accounting isn’t easily achievable for the sale and purchase contracts. IAS 39 does allow two contracts to be treated together as a hedging instrument, but because in this case the purchases and sales are entered into at different times this is much more complex to achieve.

A further potential problem occurs for energy companies with contracts where the pricing is derived from a basket of many different indices. An example might be a long term gas purchase contract where the contract price escalates in line with a basket of different indices including oil and foreign exchange rates. The energy company may put in place derivatives to mitigate the exposures that it may have in relation to some of these indices. The company might therefore mitigate its exposure to oil prices by entering into an appropriate commodity swap or mitigate its exposure to foreign exchange by entering into a currency swap.

Under IAS 39 the hedged item can only be designated for either foreign currency risk, or for the risk of changes in fair value for the entire item. So in the example given above the currency risk can be the hedged item, but the oil indexation in isolation cannot be the hedged item. The standard cites difficulties in isolating and measuring the appropriate portion of the cash flows or fair value changes of the hedged item as the reason for not permitting the designation of the oil indexation risk.

2.5.2 Future IFRS?

It is clear that IAS 39 is producing some anomalous results, with many companies deciding to highlight the fair value adjustments taken through the income statement in alternative earnings measures they present. It would be nice to think that the standard-setters will take this into account when they review the current rules on hedge effectiveness and designation of hedged items and move towards a position where IAS 39 better reflects the company's risk management model.

2.6 Disclosures

2.6.1 The application problem

Given the application challenges described above, finding a way to meaningfully disclose information to help the reader understand the results and overall risks in the business is difficult but important.

In addition to challenges in relation to how amounts are disclosed in the income statement companies also need to consider the disclosures required by IAS 32 and IFRS 7.

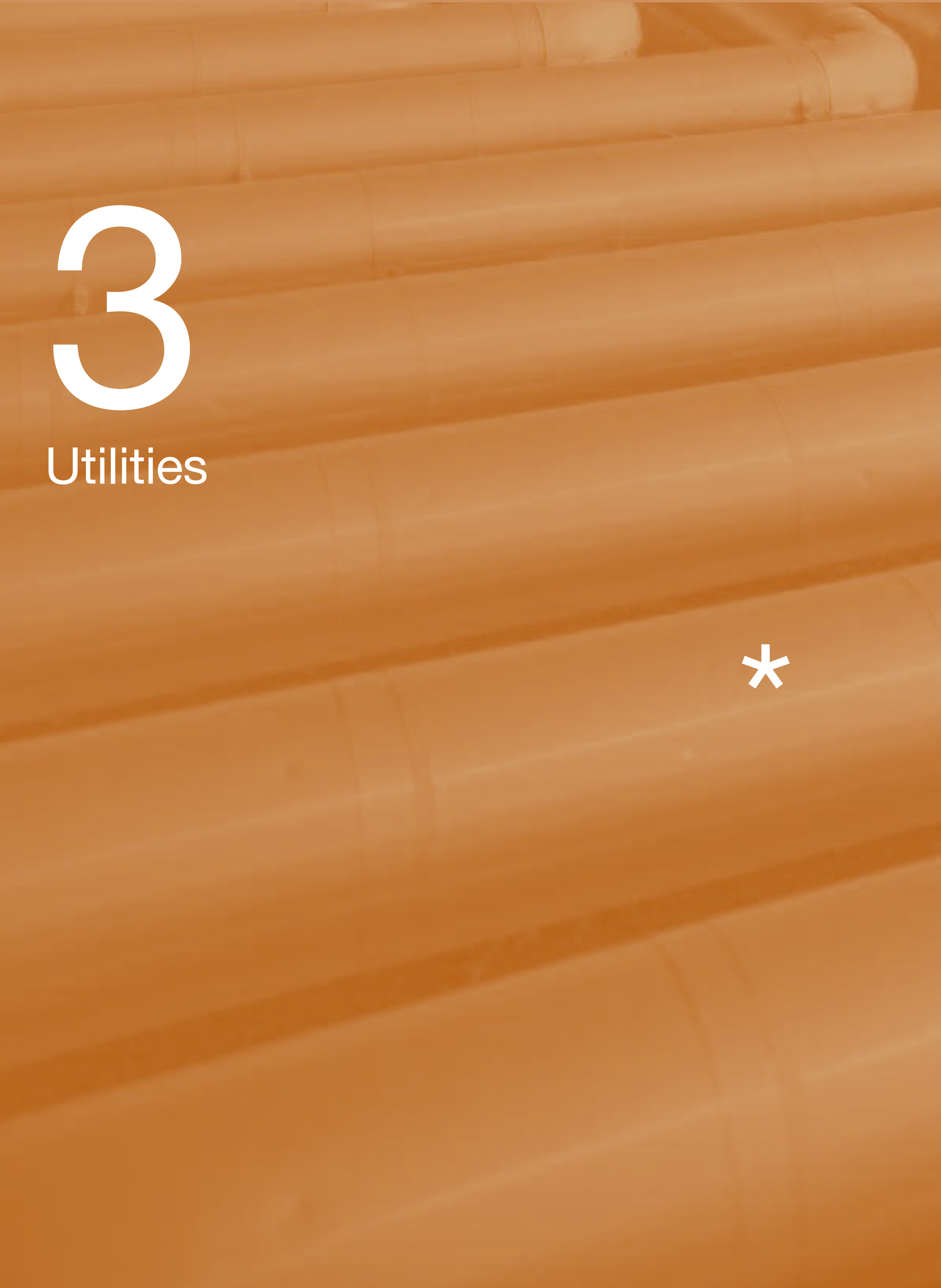
IFRS increases the level of disclosure which needs to be given in the financial statements about risks faced by the company. This includes information about credit, liquidity and market risk. The current requirements are set out in IAS 32, but companies should also be mindful of IFRS 7 which will replace the disclosure requirements of IAS 32 from 2007 with earlier adoption encouraged.

IFRS 7 encourages companies to share with readers the risk information that management use in running the business. However, the divergence between accounting and economic effects adds complexity. For example, the impact of different future price assumptions on the financial statements may be very different from the impact on the business as a whole, because not all contracts are fair valued in the financial statements. It is likely to be difficult to explain the overall situation clearly and concisely and commercial considerations may constrain the extent of disclosure.

2.6.2 Future IFRS?

We think there needs to be a distinction made in financial reporting between profits or losses generated by changes in long term contract valuations which are unrealised and results which have been realised through activities in the period. Is it correct to report both realised and unrealised profits and losses as part of the headline net income figure or should unrealised results be reported differently? Time is needed to consider all stakeholders' reactions to the significant changes introduced by IAS 39. In particular, analysts are going to learn more about the risk position of the company as a result of IAS 39 and we need to listen to them and others before proposing any future changes to the standard. In the meantime, disclosures will be critical for an understanding of every company's position.

3
Utilities



*

3 Utilities

3.1 Regulatory assets and liabilities

Under existing GAAP, in certain instances, assets and liabilities are recognised by utilities to reflect amounts which will be recoverable / payable through the tariffs agreed by the regulator. For example, a grid operator may incur certain costs due to storm damage and agree with the regulator to recover these through future tariffs. Another example is “stranded costs” – as part of market liberalisation physical assets may need to be sold for a loss, which the regulator agrees can be recovered through a higher future tariff. Under US GAAP specific guidance exists (under FAS 71) on how to account for these types of cost, but there is no equivalent accounting standard under IFRS.

IFRIC has said that it will not commence a project to issue specific guidance in this area, but instead has stated that the accounting should be determined based upon the IASB’s Framework for the preparation and presentation of financial statements and relevant Accounting Standards. Relevant Accounting Standards might include those which cover tangible assets, debtors, financial assets and intangible assets, but only the intangible assets standard (IAS 38) would appear to be applicable in this case.

Under IAS 38, an intangible asset has to meet certain identifiability and recognition criteria. Regulatory assets arising as part of a utility’s normal business activities wouldn’t normally meet these criteria, though there may be some specific situations that require careful thought.

Conversely, when a utility is acquired, under business combination rules an intangible asset may be recognised. Recent revisions to IAS 38 specifically refer to this situation and state that when intangible assets are acquired separately or as part of a business combination, recognition criteria will be met and fair value can normally be measured with sufficient reliability.

3.2 Accounting for networks

In the past under some existing GAAP, network companies applied renewals accounting for expenditure related to their networks. Under this approach expenditure was fully expensed and no depreciation was charged against the network assets.

Under IFRS there is no equivalent accounting standard that would permit this approach and normal fixed asset accounting rules apply as set out in IAS 16. This is a big change for network companies and introduces some interesting application challenges:

- How do you split the total asset down into its significant parts?

IAS 16 requires that this analysis is done but how many parts should there be and how should the split be achieved? It would seem sensible to consider a number of factors in doing this - the cost of different parts, how the asset is split for operational purposes, physical location of the asset and technical design considerations. The extent to which this is possible will be reliant upon the existence of a reliable fixed asset register.

- When should expenditure be expensed and when should it be capitalised?

For example, if part of a pipeline is repaired or replaced, how are the costs accounted for? It would appear to us that materiality should be a key consideration when deciding this. If replacement costs are material to a significant part of the asset then provided recognition criteria are met (cost can be reliably measured and future economic benefits are probable) the cost should be capitalised.

- How do you determine useful life?

Network companies may be used to a working assumption that assets have an infinite life. Under IAS 16 all significant assets will have a finite life which needs to be determined. The life will be determined as the time remaining before the asset needs to be replaced. Maintenance and repair activities may extend this life, but ultimately it will need to be replaced.

- In calculating depreciation charges a residual value must also be determined. In many cases this value is likely to be scrap only or zero since IAS 16 defines it as the disposal proceeds if the asset were already of an age and in the condition expected at the end of its useful life.

3.3 Decommissioning, restoration and similar liabilities

IFRIC1 provides guidance on how to account for existing decommissioning, restoration and similar liabilities. These types of liability arise for utilities (particularly in relation to nuclear facilities), mining and upstream oil and gas companies. In applying the requirements of the standard there are a number of areas where careful consideration is required.

- Measurement of the liability can be difficult. The timing of future cashflows is often uncertain, and future price increases can be difficult to estimate. In practice, situations can arise where the liability in the financial statements could be lower than a current appraisal of the cost, because future price rises are expected to be lower than the discount rate used.

- The decommissioning cost has to be allocated to components of the related asset. How to do this is not prescribed, but we would think that a systematic approach based upon cost or book value may be possible.

- A decrease in the liability results in a decrease in the related assets as well. Could this be interpreted as an impairment or a trigger to reconsider an existing impairment loss? We think a decrease in the liability shouldn't trigger either of these events.

- How do you handle first time adoption when you don't have historical data on what liability was anticipated on commissioning the asset? IFRIC 1 and IFRS 1 permit an entity to estimate the liability at transition date and use historical interest rates to calculate the implied corresponding cost in fixed assets. For UK companies this may not be a problem as they have dealt with the liabilities under FRS 12 for several years in a manner similar to IAS 37.

- How are decommissioning funds accounted for? There is separate detailed guidance on this topic in IFRIC5.

4

Mining and upstream oil and gas

*

4.1 Functional Currencies

Many companies have found that identifying the functional currency for different parts of a global group can be complex. Under IAS 21, some primary indicators must be given priority in determining an entity's functional currency, as follows:

- The currency:
- that mainly influences sales prices for goods and services; and
- of the country whose competitive forces and regulations mainly determine the sales prices of the goods and services.
- The currency that mainly influences labour, material and other costs of providing goods or services.

Many commodities are sold in US dollars, but this does not necessarily mean that the US dollar is the main influence over the selling prices of those commodities. The selling prices are determined in global markets, and for many commodities the price quoted in US dollars will rise and fall in response to changes in the US dollar exchange rate. Also, it is not practicable to identify a single country whose competitive forces and regulation impact upon selling prices because global supply and demand are the main factors in the short term and the marginal cost of production drives price in the longer term.

The main currency that influences labour, material and other costs will vary by country, often depending upon the stage of development of the country.

Consequently, a lot of judgement is required when determining functional currency. It would be helpful for Industry to consider the need for IFRIC to issue guidance on how the IAS 21 principles should be applied to companies selling products that are priced in global markets.

4.2 Business Combinations

Under many existing GAAPs the distinction between an asset purchase and a business combination has not been that significant from an accounting perspective, because under either approach the subsequent accounting is similar. However, under IFRS this changes because:

- Any goodwill recognised on acquisition is not amortised.
- Deferred tax is generally not recognised under an asset acquisition (because of the “initial recognition” exemption contained in paragraph 15 of IAS 12) but is for a business combination.

Therefore, decisions on when there is a business combination become more significant and can be judgemental in some situations. In most cases, a producing field or mine is likely to be a business whilst a licence to explore, on its own, is just an asset. However, projects that lie in development terms between the two are likely to be more difficult to judge and the variety of different structures used (e.g. incorporation, jv etc) depending upon the jurisdiction/fiscal environment can add complexity to the accounting when, in fact, all in substance are similar.

Further complications arise where there is a stepped acquisition during the life of a producing field or mine. Acquiring a further tranche of shares when the development has reached the point where it has become a business may result in a requirement to capitalise and amortise the company's whole share of these reserves, even though for previous tranches nothing was recognised.

Instances where significant goodwill was recognised under prior GAAP tended to be relatively unusual, since the majority of the acquisition cost was typically allocated to the licenses for oil and gas companies or the mineral property for mining companies. However, there will be situations where goodwill might well arise – for example, where an acquisition is expected to produce synergies with an existing field or mine. Therefore, oil and gas and mining companies cannot simply assume that goodwill never arises. Where goodwill does arise, companies are not allowed to amortise it – even where the goodwill is linked to a wasting asset such as a field or mine. Rather, the goodwill has to be tested for impairment on a regular basis – in the expectation that impairment charges will be needed over the life of the field or mine. Some in the industry may believe it would clearly make more sense for the goodwill to be amortised on the same basis as the field or mine to which it relates.

Calculating the fair value of a licence or mineral property, and the associated deferred tax in situations where the uplift is not attributed to goodwill, is not straightforward either. In practice, many companies are using simultaneous equations to determine the value of the licence/mineral property and associated deferred tax liability, to arrive at the appropriate net balance. The tax rate used must take account of any industry specific income related taxes.

IFRS 3 also has implications for utilities and many other businesses because it requires more extensive valuation of intangible assets on acquisition. For utilities such intangibles may include customer relationships.

4.3 Revenue based taxes

Under some existing GAAP, revenue based taxes were reported in the income statement as part of operating costs. Under IFRS this approach may no longer be appropriate and the specific characteristics of the charge need to be considered to determine whether it qualifies as a tax, royalty or is treated another way under IFRS. The analysis needs to be undertaken territory by territory.

Where there is a change in treatment this presents an interesting application issue since deferred tax accounting in this instance is not straightforward with questions arising about the treatment of any allowances given, tax free periods, decommissioning costs and other costs of investment.

4.4 Impairment testing

For mining and upstream oil and gas companies with large assets, impairment continues to be an important issue. There are a number of complications that arise when applying IAS 36, the standard on impairment, to these companies. Examples are given below.

Under IAS 36, “value in use” is calculated based upon an estimate of the future cash flows the entity expects to derive from the asset. For assets with a long life, this calculation is heavily dependent upon the company’s view of the long term price for the particular commodity that it sells – and in certain circumstances there might be good arguments that can be made to indicate that the price assumptions should differ from current market price. However, paragraph 54 of IAS 36 says that when calculating value in use, future cash flows in foreign currencies should be discounted and then translated using the spot exchange rate at the date that the value in use calculation is performed. This might mean that the value in use calculations will reflect long term commodity price assumptions and current exchange rates. For many of the countries producing commodities, however, this means that the assumptions will be inconsistent - because commodity prices have a significant bearing on the relative strength of the local currency.

IAS 36 also restricts the extent to which value in use calculations can be adjusted to reflect future capital expenditure and cost savings. Essentially, the future cash flows should be calculated for the asset in its current condition, and future improvements in asset performance should not be taken into account, except where they are necessary to make the asset ready for use. These restrictions are difficult to apply to the mining industry, in particular, where:

- For many commodities, there is evidence that costs decline in real terms over the long term. Indeed, some mining companies take this into account in determining their projected selling prices. A value in use calculation that allows for a real term decline in selling prices but has to assume flat production costs, is unlikely to provide a reliable benchmark for valuing a company’s assets.

- A company will often have to move its mining operations around different parts of the orebody and this will require additional capital expenditure. Practice is that such expenditure can be taken into account in calculating value in use under IAS 36 as the mine can be considered an incomplete asset (IAS 36.42). Therefore, value in use could include cash outflows to complete the asset and cash inflows from the completed asset. Estimated future cash flows expected to arise from improving or enhancing the asset's performance should be excluded from the value in use calculation. (Similarly, if a network company needs to invest in network expansion to reach new customers, then revenue attributable to these future customers must be stripped out of the calculation).
- With a mine, there are certain cost savings that may arise over the life of the operation. For example, in years when ore grades are low there might be less material to process through the smelting and refining facilities and also the costs incurred on overburden removal will drop towards the end of an open pit.

These difficulties mean that many companies will not regard the value in use calculations prepared under IAS 36 as providing an appropriate basis for determining impairment provisions (or reversals). Although these calculations may be sufficient to demonstrate that no impairment is required, many companies may be forced to adopt the "fair value less costs to sell" model when an impairment is actually required. The problem here is that IAS 36 contains little guidance on how this alternative model should be applied.

4.5 Joint Venture accounting

In the mining and upstream oil and gas industries, joint ventures to develop orebodies and fields are common and historically have often been accounted for using proportional consolidation techniques under which the company's share of line items is recorded in the income statement and balance sheet.

Under IAS 31, a similar accounting approach is required for joint ventures that are not constituted as an entity (so-called jointly controlled assets). It also continues to be permitted for joint ventures that are set up as an entity. In the latter case, however, the standard also permits an alternative approach to be used (the equity method) under which the joint venture results are separately identified in one line. This potentially allows companies to adopt a different accounting treatment for some joint ventures simply because of the legal form they take, even though in substance a jointly controlled entity might operate on an almost identical basis to an unincorporated joint venture.

It is also interesting to note that some companies that have decided to apply equity accounting to their joint ventures, have also disclosed prominently supplementary information about those joint ventures – such as their share of turnover. This seems to reflect a belief that users of the accounts expect to be provided with such information in cases where a substantial proportion of the Group's profit is derived from joint ventures.

A further aspect of IAS 31 relates to the definition of joint ventures. For a joint venture to exist in accounting terms, strategic financial and operating decisions need to have the unanimous consent of all parties. This can impact upon the accounting for certain jurisdictions and joint venture arrangements.

The IASB is currently undertaking a project on joint venture accounting. In December 2005 the Board decided to eliminate proportional consolidation for jointly controlled entities and therefore to allow only equity accounting. However the Board also decided to expand the scope of its project to consider the definition of joint ventures because they felt the current standard didn't adequately address the difference between a joint venture entity and an undivided interest in the assets and liabilities of a joint arrangement.

4.6 Revenue received from sale of inventory mined during development

It is not uncommon in the mining industry for there to be a long commissioning period, sometimes over 12 months, during which production is gradually increased to design capacity. The question which arises under IFRS is how the revenues and costs incurred during the commissioning period should be accounted for.

IAS 16 requires that costs can only be capitalised if they are “directly attributable” to the asset, and it also says that revenue from saleable material produced during the testing phase should be deducted from the cost of constructing the asset. So, what does this mean for a mine with an extended commissioning period? In commissioning a new block caving mine, for example, in which the production rate increases as the cave goes higher, how should the company determine which costs are directly attributable to enhancing the operating capability of the asset and those which represent costs of producing saleable material? This is likely to be a difficult judgement.

One option might be to regard all costs and revenues as operating items (and report a trading loss), but this ignores the reality that a substantial proportion of the costs will deliver future economic benefit - and would be incurred even if the company was removing waste material rather than ore.

It is questionable whether all revenues earned during the commissioning period, particularly if they are substantial, should be deducted from the cost of developing the mine, and this would only be appropriate if it can clearly be shown that they are directly attributable to bringing the asset to the condition necessary for it to be capable of operating in the manner intended by management. The example in IAS 16 of what might fall into this category is revenues earned from sales of samples produced when testing equipment and this would suggest that the standard setters did not envisage a situation where more than an insignificant amount of revenue would be treated in this way.

This is another example of a topic for which the IFRS accounting rules do not cater for the specific complexities of the extractive industries, and in the absence of any additional guidance it is likely that practice will vary.

4.7 Accounting for production stage stripping costs

In the mining industry, companies may be required to remove overburden and other waste materials to access ore reserves. The costs they incur are referred to as "stripping costs”. During the development of a mine (before production begins), the stripping costs are capitalised as part of the depreciable cost of constructing the mine. Those capitalised costs are then depreciated over the productive life of the mine.

For many ‘open pit’ mines, stripping costs continue during the production phase of the mine as it is not necessary or economic for them all to be incurred up-front. How should these costs be accounted for under IFRS?

Practice varies, mainly because in some situations the stripping costs are evenly spread over the mine life whereas in others they fluctuate significantly from year-to-year. Where the costs are spread evenly, companies tend to treat them as a production cost for the year in which they are incurred. In other cases, mining companies generally defer any ‘excess’ stripping costs incurred in the earlier years of a mine’s life and then amortise those costs in later years when less is spent on waste removal. Various different methods have evolved within the industry to calculate the amounts to defer (and then amortise), but they all are based around a comparison of the current year ratio of ‘waste to ore extracted’ (or waste to saleable production) against the expected life of mine average.

Under IFRS, there is no clear guidance on what approach should be adopted – indeed, IAS 16 does not apply to mineral rights and reserves. There seems to be a strong case for deferring production stage stripping costs in situations where they are a necessary part of gaining access to sections of the orebody that will not be mined until future periods. The difficulty with the industry approach is that it uses the waste ratio to determine how much stripping activity should be attributed to future production. This builds in an assumption that costs recognised should be equalised over time - and some would question whether this is an appropriate benchmark.

Until recently, deferral of stripping costs has been permitted under US GAAP but in March 2005 the EITF published Issue 04-06 “Accounting for stripping costs in the mining industry”. Going forward, this will prohibit the deferral of production stage stripping costs as a non-current asset and instead requires that they are treated as a variable production cost. Interestingly, however, the EITF concluded initially that the costs should be capitalised and appeared to change its mind because of the difficulty in establishing how they should be spread over the life of the mine.

In practice, we doubt that many of the companies that defer production stage stripping costs will change their treatment under IFRS to reflect this EITF pronouncement. In those situations where stripping costs fluctuate significantly, mining companies argue strongly that it is appropriate for the excess costs to be attributed to future production. Although most would acknowledge that there are imperfections in the current methodology, they still consider that it better reflects the reality of how mines are developed than the alternative of treating all waste removal as a current year production cost. The concern within the industry is that the IASB could decide to adopt the requirements of EITF 04-06 in the interests of international harmonisation.

4.8 Resources and reserves

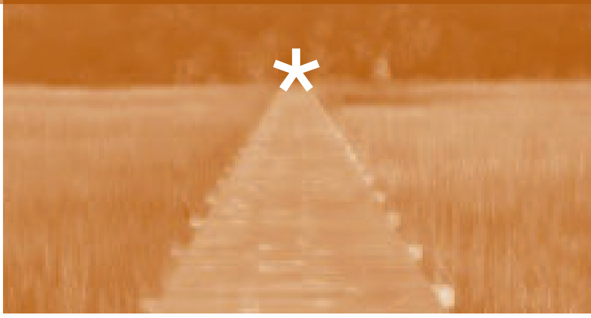
Resources and reserves are what make mining and oil and gas production possible and are the largest value generator for mining and upstream oil and gas companies. They represent the future pipeline of production and are thus of significant importance operationally and financially.

However, despite being a producer's biggest asset and a fundamental driver of market value, value is not directly ascribed to reserves and resources in the financial statements save for the deferral of exploration costs and recognition at fair value in business combinations. If derivative instruments that were previously off balance sheet now have to be recognised at fair value, some might argue that companies should be able (or required?) to do the same with resources and reserves? Perhaps a half way house of disclosure only of the fair value? The arguments against this are primarily related to the practicalities such as inherent measurement issues (as they are an estimate); concern about inconsistencies (issues such as commodity price and exchange rate assumptions for example) not to mention increased income statement volatility. Accordingly, the IASB is considering this concept as part of its extractive activities project. Whatever the outcome of the project, robust measurement and disclosure of reserves and resources is becoming increasingly important.

In the interim, reserves and resources still impact many of the major judgemental areas within the financial statements. To further complicate this area of accounting, it is a geologist, not an accountant, who determines the reserves and resources of an entity without always necessarily understanding the accounting implications of their decisions. For this reason it is important that geologists and accountants work closely together in the determination of reserves and the resulting impact on the financial statements in the following areas:

- Depreciation and amortisation
- Impairment
- Provision for rehabilitation
- Business combinations
- Financial instruments
- Recognition of exploration and evaluation costs
- Disclosure

5 Looking ahead



As companies implement IFRS for their own businesses and circumstances, it is clear that the interpretation and application of the standards will evolve. Providing clear explanations of the accounting and of financial trends is likely to be a continuing challenge.

As the standard setting process moves on, part of the challenge for energy, utility and mining companies will be to highlight the particular issues these sectors face. To date a lot of media and commentators attention has been focused on particular standards' impact on other sectors such as financial services and issues such as financial instruments. The IASB extractive industries group will be an important focal point. A discussion paper from the group is scheduled for late 2006 so engagement by companies now, early in the process, will be timely. It will also be important to broaden the coverage of the group's work – for example to paragraphs 5, 6, and 7 in IAS 39 which have a major impact on energy commodity contracts.

Much of the onus is placed on the standard setters. However, if standards are to develop in an effective way that brings us closer to the goals of transparency, comparability and bringing useful information to the market, preparers and users need to engage in a proactive dialogue with the standard setters. Energy, utility and mining companies need to play their part in this process individually and through industry groupings, as the agenda of the IASB and its extractive industry group gains momentum.

Contact us

Energy & Utilities

Paul Rew
UK Energy and Utilities Leader
Utilities IFRS
Telephone: +44 20 7804 4071
Email: paul.rew@uk.pwc.com

Mark King
Oil & Gas IFRS
Telephone: +44 20 7804 6878
Email: mark.king@uk.pwc.com

Ross Hunter
IAS 39 IFRS
Telephone: +44 20 7804 4326
Email: ross.hunter@uk.pwc.com

James Johnson
UK Energy & Utilities Marketing
Telephone: +44 20 7804 7399
Email: james.johnson@uk.pwc.com

Mining

Brian Taylor
Mining IFRS
Telephone: +44 20 7213 2518
Email: brian.c.taylor@uk.pwc.com

Jason Burkitt
Mining IFRS
Telephone: +44 20 7213 2515
Email: jason.e.burkitt@uk.pwc.com

Michael Cracknell
UK Mining Marketing
Telephone: +44 20 7213 1737
Email: michael.cracknell@uk.pwc.com

PricewaterhouseCoopers (www.pwc.com) provides industry-focused assurance, tax and advisory services for public and private clients. More than 130,000 people in 148 countries connect their thinking, experience and solutions to build public trust and enhance value for clients and their stakeholders.

PricewaterhouseCoopers refers to the network of member firms of PricewaterhouseCoopers International Limited, each of which is a separate and independent legal entity.

The Global Energy, Utilities and Mining group (www.pwc.com/energy) is the professional services leader in the international energy, utilities and mining community, advising clients through a global network of fully dedicated specialists.

© 2006 PricewaterhouseCoopers. All rights reserved. PricewaterhouseCoopers refers to the network of member firms of PricewaterhouseCoopers International Limited, each of which is a separate and independent legal entity. *connectedthinking is a trademark of PricewaterhouseCoopers LLP.

*connectedthinking

www.pwc.com/energy
www.pwc.com/ifrs

*connectedthinking

PricewaterhouseCoopers