Expensive acquisitions?  
Cost overruns?  
Implications for impairment testing

The perfect storm?
A lot can happen in a decade. For some, what looked like the perfect deal only a few short years ago is not looking as positive now. The current margin squeeze is persisting longer than anticipated, driven by a host of factors, including: rising costs, lower commodity prices, strong producer currencies and tepid economic demand, signalling a reset in expectations, particularly for those entities that bought up big over the past decade. This situation is also causing havoc for major capital projects. Reports of delays and capital overruns have become almost universal, with mining and metals entities struggling with steep capital cost inflation amid execution challenges on complex projects.

Some recent examples include: Anglo American’s Minar Rio project, initially estimated to be completed by the second half of 2013 for US$3.6b, now expected to be completed by 2015 at an estimated US$8b; and Barrick Gold’s Pascua-Lama project, initially estimated to be completed by 2013 for US$3b, now expected to be completed by mid-2014 at an estimated US$8b.

The impacts of this situation have been significant, with both shareholders and mining and metals executives paying the price. Multi-billion dollar write-offs have already been declared, leading to dramatically reduced profits. Share prices have fallen, rebounded and fallen again, wiping significant amounts off entity values. For those at the helm, the personal costs have been high, with a number of senior executives stepping down from their roles. And no part of the sector has escaped unscathed; there have been write-offs across all commodities. Examples include Rio Tinto’s US$14b impairment of its coal and aluminium assets; BHP Billiton’s US$3b impairment of its nickel, aluminium and various other assets; and Anglo American’s US$4b impairment of its Brazilian iron ore project.

This situation has also led to an investor base that now has a significantly lower appetite for risk but, at the same time, is demanding greater returns. The calls for greater discipline around capital allocation are becoming louder and stand in contrast to the calls this same investor base was making not so long ago, when it was pushing for growth and rewarded those that had the most attractive growth pipeline.

From a financial reporting perspective, this perfect storm has significantly increased the focus on impairment reviews. Now more than ever it is imperative that mining and metals entities undertake full and robust impairment assessments and provide the market with timely and transparent communications if they are to have any success in trying to manage the impacts on business value.

What you need to know
- Acquisitions that were previously considered positive are now being seen in a very different light due to capital cost overruns, higher operating costs, appreciating currencies and lower commodity prices.
- The difficult operating conditions are considered to have contributed to senior mining executives forgoing their bonuses and management changes at the highest levels.
- Expensive cost overruns on high-profile projects and disappointing acquisitions are also contributing to greater demand for executive accountability.
- Now more than ever, it is essential that mining and metals entities undertake full and robust impairment assessments and provide the market with timely and transparent communications if they are to have any success in trying to manage the impacts on business value.

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When is an impairment test required?

Where goodwill or indefinite life intangibles are recognised, an annual impairment test is mandated. Test this may be performed at any time during an annual period, provided it is performed at the same time each year. In addition, an entity is required to assess at each reporting date whether there are any indicators of impairment for its assets (including goodwill and indefinite life intangibles). Where the annual goodwill and indefinite life intangibles impairment test is conducted at a date other than the reporting date, if an indicator of impairment is present at the reporting date, goodwill and/or the indefinite life intangibles may need to be tested for impairment again. Given this, the identification of indicators of impairment is a crucial step in the process.

The indicators used will depend on the nature of the mining asset. For exploration and evaluation (E&E) assets, the appropriate indicators are set out in IFRS 6 Exploration for and Evaluation of Mineral Assets, whereas for producing or development assets, the indicators are set out in IAS 36 Impairment of Assets. Both standards provide examples of the indicators an entity should use, but stress that these are the minimum that should be considered and that the list is not exhaustive. These are discussed further below.

The indicators do not explicitly mean the affected asset(s) are impaired, they simply mean that they must be tested for impairment. The only exception is where there was sufficient headroom in a previous impairment calculation that would not impair. The only exception is where there was sufficient headroom in a previous impairment calculation that would not have been eroded by subsequent events or the asset is not sensitive to a particular indicator.

How we see it

In the past year, one or more of the indicators within IFRS 6 and/or IAS 36 (such as lower prices and market capitalisation falling below net assets) have been present for the mining and metals sector. Therefore, we expect that throughout this reporting season, most entities will need to prepare an impairment test, i.e., undertake a formal estimate of the asset’s recoverable amount as set out in IAS 36.

Exploration and evaluation (E&E) assets

When commodity prices fall, many mining and metals entities look to preserve cash and restrict discretionary expenditure – either through choice or through pressure from investors. Unfortunately, E&E spending is often one of the first victims of this increased frugality.

As noted above, IFRS 6 contains separate impairment triggers for E&E assets. One of the triggers is when no future E&E activity is possible, budgeted for or planned. Therefore, an entity that suspends its E&E activities, or merely expends holding costs without any clear plan to resume E&E activities, would need to carry out an impairment test.

E&E assets should also be tested for impairment when there is sufficient data to indicate that their entire carrying amount is not recoverable. For example, an impairment charge on an existing mine may indicate that any E&E assets related to a possible expansion of that mine may also be impaired.

While IFRS 6 contains separate E&E impairment triggers, any assets with such indicators must be tested and any resulting impairment loss must be measured, presented and disclosed in accordance with IAS 36.

Producing mines, smelters and plants or development projects

In relation to producing mines, smelters and plants or development projects, the minimum impairment indicators prescribed by IAS 36 take into account economic factors such as:

- Market value
- Adverse market and economic developments
- Changes in the discount rate
- Market capitalisation of the entity

IAS 36 also has several additional impairment indicators, such as:

- Declines in prices of products or increases in production costs
- Governmental actions, such as new environmental regulations, imposition of price controls and tax and royalty increases
- Actual production levels fall below forecast and/or a downward revision in production forecasts
- Serious operational issues and accidents
- Increases in the anticipated period over which reserves will be produced
- Substantial cost overruns during the development and construction phases of a mine
- Adverse drilling results
- Cancellation of planned expansion programmes

The basic premise of impairment testing is that each individual asset must be considered. However, IAS 36 recognises that, in some instances, the recoverable amount of some assets cannot be determined in isolation. This is because it is only the collective operation of an integrated group of assets that generates the cash flows that represent the real value to the entity.

To that end, IAS 36 introduces the concept of a cash generating unit (CGU), which is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows generated from other assets or groups of assets.

In deciding what a CGU might be for a mining and metals entity, it is important to consider a number of factors, which include whether:
There is an active market for the intermediate product produced, i.e., concentrate, Run of Mine (ROM) coal, bauxite, etc. This is considered to be one of the most important factors. That is, while the entity may use some or all of the product internally, e.g., to blend the output of two mines, if there is an active market for the pre-blended product(s), this would require the two mines to be treated as separate CGUs.

There are external users of the assets - this could occur, for example, where the entity is able to derive cash inflows from its processing assets, e.g., smelting or refining, under a tolling arrangement.

Several mines are operated as a ‘complex’ through the use of shared infrastructure.

There are stand-alone mines that operate on a portfolio basis - judgement will need to be exercised here, particularly when the production costs of the output of the separate mines differ considerably.

Diagram 1 – the IAS 36 impairment testing approach

The impairment test

In carrying out an impairment test, an entity is required to compare the carrying amount of an asset/CGU with its recoverable amount. The recoverable amount is defined as the higher of value in use (VIU) (which is often the net present value (NPV) of the cash flows derived from the life of mine model) and fair value less costs of disposal (FVLCD). If either the VIU or FVLCD is higher than the carrying amount, no further action is necessary as the asset/CGU is not impaired. Conversely, an asset/CGU is impaired when its carrying amount exceeds the higher of its VIU or FVLCD.

IAS 36 does not impose any restrictions on how an entity determines the FVLCD of an asset/CGU.

However, IFRS 13 Fair Value Measurement, which is effective from 1 January 2013, sets out specific guidance on how to determine fair value. The requirements of IFRS 13 apply to almost all situations where a fair value measurement is required, and this includes the determination of FVLCD for impairment testing.

IFRS 13 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date and assumes such a transaction takes place under current market conditions. It is explicitly an exit price notion. FVLCD, like fair value, is not an entity-specific measurement, but is focused on market participants’ assumptions for a particular asset or liability.

Before the issuance of IFRS 13, FVLCD in IAS 36 was already an exit value, but the requirements of IFRS 13 are different. For example, entities now have to consider the highest and best use (from a market participant perspective) to which the asset could be put. It is possible that a FVLCD calculation under IAS 36 (prior to the implementation of IFRS 13) may have been based on the existing use of an asset rather than its highest and best use. While this new requirement could (technically) result in a different fair value, it is generally presumed that an entity’s current use of those assets/CGUs would be its highest and best use (unless market or other factors suggest that a different use by market participants would maximise the value of the asset).

Diagram 1 below demonstrates how this concept fits within the impairment testing approach as required by IAS 36.
Assumptions underlying an impairment test

Carrying out an impairment test is generally not straightforward because numerous assumptions need to be made. These assumptions must be reasonable and supportable and greater weight should be given to external evidence, e.g., market forecasts. The following areas present particular challenges for mining and metals entities:

Future demand assumptions

Assessing the future demand for metals and commodities requires an understanding of the ultimate uses of these products. For example, the levels of construction activity and car manufacturing around the world are important factors in the demand for iron ore and copper. Future growth assumptions should, therefore, be justifiable in light of underlying trends in the level of economic activity and the level of competition that currently exists or is likely to exist in the future. Similarly, environmental legislation may affect how metals will be used in the future as well as the level of recycling or thrifting.

Commodity price assumptions

While forecasting commodity prices is difficult at the best of times, it is not always possible to know whether recent changes in commodity prices are temporary imbalances of supply and demand or the beginning of a longer-term trend. Given the long life of most mining and metals assets, an entity should not just consider price levels in, say, the past three or four years, it should also consider historical price levels for longer periods and assess how these prices are influenced by changes in underlying supply and demand levels.

This requires an understanding of the industry marginal cost curves to determine at which price levels competitors are forced to reduce production as this will determine long-term minimum price levels in the sector. It will also require an understanding of whether or not new low cost mines are about to commence production.

Metal and commodity price assumptions need to match the profile of the life of the mine. Spot and forward curve prices are more relevant for shorter life mines; long-term price assumptions are more relevant for longer life mines.

Cost inflation

Many of the recent increases in commodity prices are reflected in rising production costs to a large degree, as mining becomes more challenging. Additionally, strong demand for mining equipment, contractor’s services and a larger permanent workforce has led to levels of cost inflation higher than background inflation which will only dissipate slowly. Thus, cost cutting has become a key focus across the board for mining and metals entities as they seek to become leaner. As a result, many workforces have been cut back in higher cost countries such as Australia.

Uncontracted operating costs may be positively affected as cost inflation has rapidly decreased, with suppliers reducing prices due to falling demand. However, reduced production levels may increase fixed costs per unit of output.

Discount rates

In performing a VIU calculation under IAS 36 or where a FVLCD is calculated using an income approach, a mining and metals entity needs to discount its cash flows. The rate used needs to reflect the current market assessments of the time value of money and the risks for which the future cash flow estimates associated with the asset/CGU have not been adjusted.

One key input into the calculation of the appropriate discount rate is the risk-free rate of return. This is typically referenced to long-term government bond rates, which have fallen significantly over the past year or two. Without any offsetting adjustment elsewhere in the calculation of the discount rate, this would imply higher values. However, such increases are not generally supported by market evidence of higher values in the mining and metals sector. Hence, we would anticipate the need for an increased asset-specific risk premium to be included in this calculation to counteract this movement.

How we see it

Given the restrictions associated with a VIU calculation within IAS 36, it is becoming increasingly popular for mining and metals entities to prepare FVLCD calculations when undertaking their impairment testing. However, entities will need to fully assess the impact of the new fair value measurements requirements in IFRS 13 to ensure their calculations continue to be compliant.
In making such risk adjustments, an entity will also need to consider whether significant differences in risk exist between the various geographical locations and mining subsectors in which it operates. Sovereign risk reflective of the domicile of the mining asset/operation in question must also be considered. As demonstrated by some recent developments, this can be significant.

Mineral reserves
Commodity prices are a significant factor in determining which parts of the mineral resource are economically mineable. Lower commodity prices will generally change the cut-off grade of the ore that is commercially viable. In most cases, there will not be a linear relationship between the commodity price and mineral reserves. Instead, mineral reserves may not change at all in some price ranges where cut-off grades are unaffected, but may be highly price sensitive once prices drop below a certain level.

IFRS does not contain any guidance on how to determine mineral reserves. However, the assumptions used in determining mineral reserves should be consistent with the assumptions used for the purpose of carrying out the impairment test under IAS 36.

Exchange rates
The metal price decreases have been largest in US dollars and, hence, the biggest problem for the US dollar functional currency producers. Commodity-based currencies, such as the Canadian dollar, Australian dollar, South African rand, Brazilian real and Chilean peso, used to provide a hedge. However, appreciation in recent years of the local currencies in which operating costs are denominated is putting substantial pressure on margins.

VIU calculations require any foreign currency cash flows to be estimated in the currency in which they will be generated and then discounted using a discount rate appropriate for that currency. An entity should translate the present value calculated in the foreign currency using the spot exchange rate at the date of the VIU calculation.

This requirement is more complex than it may initially appear. Effectively an entity needs to perform separate impairment tests for cash flows generated in different currencies, but make them consistent with one another so that the combined effect is meaningful. This is an extremely difficult exercise to undertake. Many different factors need to be considered, including relative inflation rates and relative interest rates, as well as appropriate discount rates for the currencies in question. Because of this, the possibility for error is great and the greatest danger is understating the present value of cash outflows by using too high a discount rate. Given this, it is important entities seek input from experienced valuers who will be able to assist them in dealing with these challenges.

For FVLCD calculations, the requirements relating to foreign currency are not specified other than they must reflect what a market participant would use when valuing the asset/CGU.

In practice, entities that use a DCF analysis when calculating FVLCD will incorporate a forecast for exchange rates into their calculations rather than using the spot rate. A key issue in any forecast is the assumed time frame over which the exchange rate may return to lower levels. This assumption is generally best analysed in conjunction with commodity prices in order to ensure consistency in the parameters used, i.e., a rise in prices will usually be accompanied with a rise in currency.

Future cash flow assumptions
Deferral of capital expenditure or changes in production profiles also need to be matched by the deferral of production and hence, revenue, increased repairs and maintenance, and falling productivity through lower availability of plant and equipment. “In the money” hedge books provide no protection from accounting impairment.

Disclosures
Recent economic conditions have made impairment the focus of practically every regulator around the world. Regulators are generally critical of the lack of adequate disclosures in respect of IAS 36. A recent report issued by the European Securities and Markets Authority (ESMA) stated that, in many cases the disclosures “...were of the boilerplate variety and not entity-specific.”¹ This observation is consistent with those of regulators from other regions.

IAS 36 has specific requirements about the information to be disclosed in relation to actual impairments or impairment reversals recognised. There are further disclosure requirements for the estimates used to determine the recoverable amount of a CGU that contains goodwill, regardless of whether or not an impairment or impairment reversal has been recognised.

Specifically, in relation to disclosures relating to goodwill, ESMA provides the following recommendations for improvements to disclosures²:

- Provide more details as to the key assumptions used
- Include sensitivity analyses with sufficient detail and transparency
- Provide greater disclosure of how growth rates used to extrapolate cash flow projections have been determined
- Disclose specific discount rates for each material CGU, rather than just providing average discount rates or ranges

For CGUs without goodwill, the additional disclosure requirements in IAS 36 relating to CGUs with goodwill do not apply. Having said that, IAS 1 sets out the more general disclosure requirements for significant judgements and estimates. For an entity where impairment is potentially an issue, e.g., there have been impairment indicators and while there may not be an actual impairment, the difference between the carrying amount and recoverable amount of the CGU is not significant, the entity might conclude that the estimates used in the impairment assessment are significant and therefore disclosures may be warranted under IAS 1. In such a situation, appropriate IAS 1 disclosures could refer to:

- Details of the nature of the assumptions used
- Details of the sensitivity of the carrying amount to the methods, assumptions and estimates underlying their calculation, including the reasons for the sensitivity
- Information on the range of reasonably possible outcomes in the next financial year for the CGU’s carrying amount

¹ ESMA European enforcers’ review of impairment of goodwill and other intangible assets in the IFRS financial statements (January 2013)
² ESMA paper – pages 3 and 4
**How we see it**

Good disclosures are considered to be the cornerstone of high quality financial reporting. They are essential for investors in assessing the performance of an entity. In light of this and given the increased scrutiny from regulators on disclosures, entities should critically evaluate the quality of their impairment disclosures and ensure they are detailed, complete, transparent and sufficiently entity-specific.

**When things improve ... impairment reversals**

While not the key concern given the current economic environment, it is important to note that impairments are not necessarily permanent. For all assets, including intangible assets with an indefinite life, but excluding goodwill, IAS 36 requires that, at each reporting date, an entity must assess whether there is any indication that an impairment loss has disappeared or reduced. If this is the case, it is necessary to again determine the recoverable amount, i.e., the higher of FVLCD or VIU, so that the reversal can be quantified.

Having said that, restrictions apply, for example, impairment losses should only be reversed if there has been a change in the estimates used to determine the impairment loss, e.g., a change in cash flows or discount rate (for VIU), or a change in FVLCD. The service potential of the asset must genuinely improve if a reversal is to be recognised. Also, there is also a cap on how much of the impairment can be reversed.

**Final thoughts**

It is sometimes said in jest that there are only two types of forecasts: those that are lucky and those that are wrong. That sentiment certainly applies this year as mining and metals entities are trying to assess whether recent developments are a temporary aberration or the beginning of a longer-term trend. Although the direction of the market and the economy will become clearer over time, it is likely that mining and metals entities will make differing assumptions in carrying out their impairment tests. Given the uncertainties facing the sector, the impairments that have been announced and the additional regulatory attention this issue will attract in many countries, mining and metals entities should endeavour to include sufficiently detailed disclosures so users of their financial statements can clearly understand how the entity concluded whether or not their assets were impaired, or to enable users to form their own opinion.

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With a volatile outlook for mining and metals, the global sector is focused on cost optimization and productivity improvement, while poised for value-based growth opportunities as they arise. The sector also faces the increased challenges of changing expectations in the maintenance of its social license to operate, skills shortages, effectively executing capital projects and meeting government revenue expectations.

EY’s Global Mining & Metals Center brings together a worldwide team of professionals to help you succeed – a team with deep technical experience in providing assurance, tax, transactions and advisory services to the mining and metals sector. The Center is where people and ideas come together to help mining and metals companies meet the issues of today and anticipate those of tomorrow. Ultimately it enables us to help you meet your goals and compete more effectively.

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