A look at current financial reporting issues

Alternative financing for extractive industries

In depth
February 2015
In depth
A look at current financial reporting issues

Alternative financing for extractive industries

At a glance
Globally, the extractive industries (oil & gas, mining and metals) have suffered a lack of investor confidence, multi-billion dollar write downs, poor returns, volatile commodity prices and escalating operating costs. Compounding this challenge, the typical sources of funding might be more difficult to find, particularly in times when the equity or debt markets are not welcoming. Companies continue to look to alternative sources of finance and creative deal structures for growth and funding. These have included joint arrangements, divestments, mergers, streaming, royalty deals and offtake-linked pre-financing. New investment vehicles have emerged in this alternative finance space to take advantage of investor demand for commodity exposures and the seller demand for funding.

Alternative finance, by its nature innovative and deal specific, does not find a natural ‘home’ in the IFRS accounting standards. Accounting by the mining or oil & gas company or licence holder (called the ‘seller’ in this guide) has its own set of challenges; is it a disposal of an interest, forward sale of a commodity or straightforward debt, or something different? Accounting on the investor side can range from traditional ‘tangible asset’ type accounting, with the investment amortised as returns flow through, to derivative accounting with resulting volatility. Some are prepared to absorb the accounting volatility that can result from an alternative finance structure that exposes investors to commodity price and demand swings but protect them from cost overruns and operational risks. For others, accounting volatility might not be acceptable.

Regardless of whether the accounting ‘answer’ drives business decisions (including any follow-on tax implications), both investors and sellers should understand the accounting consequences when considering these deals.

There are no easy accounting answers. Each arrangement is unique (hence the ‘alternative’ label) and there is no ‘one size fits all’. This guide will help you to identify the key features of the deal and how those features impact the accounting.

How should you use this guide?
This guide sets out a road map to accounting for alternative financing structures. We highlight key considerations for both the seller and the investor. Understanding the economic motivations and outcomes for both the investor and seller can be critical when determining the accounting.

Our approach analyses each key feature in an arrangement and its ‘purpose’, then takes a step back to consider the substance of the arrangement to reach a robust and balanced accounting conclusion. There are examples at both ends of the accounting spectrum in this guide. We discuss the indicators that might result in more volatile profit and loss caused by instruments that are more financial in nature.
There is no ‘industry guidance’ in IFRS that sets out the accounting for these structures, but there are some specific rules in the standards, particularly around derivatives, that can create challenges. This guide identifies some of the common pitfalls.

**New guidance for revenue**

This In depth is based on IAS 18, ‘Revenue’. On 28 May 2014, the IASB issued their converged standard on revenue recognition, IFRS 15, ‘Revenue from contracts with customers’, which replaces that standard. The new standard introduces changes to the recognition and measurement of revenue and is effective for periods beginning on or after 1 January 2017. The new standard might mean a significant change from current accounting practice for alternative financing arrangements. The complexity of structures means that careful analysis will be required before reaching a conclusion on the appropriate accounting.

**What are ‘alternative’ financial structures?**

There are some finance arrangements that are frequently seen in the industry: royalty contracts, streaming contracts, purchases of an interest, convertible debt and asset backed financings among others. Some of those arrangements have existed in extractive industries for several decades, and some have emerged only recently. Table 1 provides a brief overview demonstrating the generic differences between the main types of arrangements.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>General description of each type of arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Royalty contract</strong></td>
<td>A contract that entitles its holder to a fixed percentage of revenue from a specific property. Typically, a royalty contract does not levy any interest, revenue becomes payable only when production from a specified property starts, and the contract runs into perpetuity.</td>
</tr>
<tr>
<td><strong>Streaming contract</strong></td>
<td>An investor makes an upfront payment to a resource company in return for the right to purchase a fixed percentage of future production of a commodity, often at a price below market value. The arrangement typically provides for on-going payments for each unit of commodities as they are delivered under the streaming agreement. Streaming arrangements are usually long term and frequently span the life of the related producing asset (or area of interest).</td>
</tr>
<tr>
<td><strong>Purchase of an interest</strong></td>
<td>Ownership of the commodity passes to a buyer by means of acquiring an interest in a respective licence or other contractual agreement. Usually includes a commitment to fund capital expenditure. The purchaser will typically not be the operator but might become a participant in a joint operation.</td>
</tr>
<tr>
<td><strong>Convertible debt</strong></td>
<td>A debt instrument that the holder can convert into a specified number of shares in the issuing company or, if not converted, it can be repaid at maturity.</td>
</tr>
<tr>
<td><strong>Asset backed finance</strong></td>
<td>A method of providing finance where the amount loaned is secured by assets (for example, accounts receivable, inventory, machinery, equipment and/or real estate).</td>
</tr>
</tbody>
</table>

These umbrella terms shelter a myriad of unique arrangements. Alternative finance is frequently a blend of several activities, depending on the needs of the seller and the risk appetite of the investor. Activities might include financing, trading commodities, purchase of an interest, and joint operations.

The challenges arise due to the unique and complex nature of each arrangement and the absence of specific guidance or industry practice for these transactions. The accounting answer seldom fits into a single accounting standard.

**Unravelling the mystery**

Combine a seller’s need for capital and an investor’s appetite for risk, and a creative investment will quickly appear. Alternative finance structures are evolving more rapidly than we can put pen to paper.

You will need to follow these primary steps to navigate your way to the right accounting conclusion:

1. Gather the **facts** and identify the parties to the arrangement.
2. Understand the **rights and obligations** under the contract.
3. Evaluate the economic **substance**.
4. Bring the analysis together to **conclude**.

Let’s consider each in turn.
1. **Gather the facts and identify the parties to the arrangement**

The ‘name’ or label given to an alternative finance arrangement is just that – a name. Scrutiny of the contractual arrangements that the parties execute is fundamental to reaching a robust conclusion. Seemingly minor changes can result in very different accounting. The contracts and any side agreements will ultimately drive the economics and the rights and obligations of the parties. This, in turn, will determine the accounting.

2. **Understand the rights and obligations under the contract**

The next step of analysis is to understand the rights and obligations of each party to the contract. Understanding the rights and obligations from the investor’s perspective is usually a good starting point. Once the economics of the deal are understood from the investor’s perspective, an analysis for the seller becomes easier.

The investor often provides capital up-front and might commit to further investment over the life of the project. What does this investment entitle the investor to in the future? An investor who has acquired the rights to a predictable stream of cash flows over a defined period has very different rights from an investor who is expecting 10,000 barrels of oil a month. A key question is: ‘How is the investor getting his return?’.

These questions likewise apply from the seller’s side.

We have categorised potential arrangements as follows:

a. Arrangements where the accounting standards readily apply.

b. Arrangements where the accounting answer is not clear.

a) **Arrangements where the accounting standards readily apply**

Much capital in the industry is still provided through traditional investments and there are familiar accounting outcomes. For example, if an investor acquires shares in an entity, it might have gained control, significant influence, joint control or simply hold the shares as a portfolio investment. The acquisition of an interest in a property or licence could be accounted for as an interest in a joint operation or the purchase of a non-financial asset. The following decision tree can direct you to other PwC guidance on these topics; each topic has its own complexities. If you arrive at the bottom of the decision tree, your arrangement falls in the category of ‘no clear accounting answer’ and this is where this guide is relevant.

**Figure 1: Decision tree**

![Decision Tree Image]

- **Have you acquired shares in an entity?**
  - Yes: Control, joint control or significant influence? See *Practical Guide on IFRS 10* Or associate accounting – See IAS 28 Or joint arrangements accounting – See *Practical Guide on Joint Arrangements - IFRS 11*  
  - No: Financial asset (for example, available for sale) See financial instrument accounting IAS39

- **Have you acquired a legal interest in a property?**
  - Yes: Fixed or intangible asset (See IAS 16 and IAS 38) Exploration and evaluation asset (See IFRS 6)  
  - No: Joint operation? See *Classification of joint arrangements*

Move on to ‘Arrangements when the accounting is not clear’
From the seller’s perspective, if shares are sold, the seller would derecognise the interest that is sold and account for any remaining interest held (such as a change from control to joint control or significant influence or recognition of non-controlling interest in a subsidiary). The sale of an interest in a property might result in derecognition of tangible and intangible assets associated with the property and, potentially, recognition of a related gain on disposal.

b) Arrangements where the accounting answer is not clear

Arrangements become more ‘interesting’ where the investor has acquired a right to receive cash, some quantity or value of a particular commodity, or the option to choose one or the other, or some combination of both. These fall into the category of alternative financing structures, and determining the substance can be challenging.

For example, an investment might result in the promise of cash in the future in return for the consideration paid upfront by the investor. The repayment of the initial investment and any return might be guaranteed, or it might be conditional on future events. The repayment and return could be entirely dependent on operating performance of a specified mine or field or property. Payment in cash might not be the only option for settlement.

An investor might also purchase the right to take delivery of a specified amount of a commodity. Delivery might be as the commodity is produced, without any additional payment, or it might require an additional payment per unit significantly lower than an outright purchase in the market. The investor might only have the right to acquire the commodity at a pre-agreed price or at a specified discount off the market price at the time of delivery. Often, the investor might elect to receive cash if he does not want to take physical delivery of the commodity.

The receipt of cash or an option to settle in cash might feel like a financial instrument. However, the specifics of each transaction need to be considered. Substance remains fundamental.

The investor might acquire a combination of rights. The right to receive a commodity might be limited to a total value (market price x quantity). This could be viewed as using the goods as a type of ‘currency’ (effectively settling in cash) or, for instance, it could be viewed as a cap on the value of goods to be delivered, depending on how the commodity price moved compared to the consideration exchanged upfront.

The accounting answer is complicated because the return can be structured in different ways (that is, returns like a lender return versus those of a part owner of a property). Investors are seldom seeking exposure to just one type of risk in exchange for their investment. Significant judgement might be involved, particularly where there are more options and rights available to the investor or seller. The decision tree below sets out some of the questions that you need to ask about the investor’s return and the possible accounting outcome that might result.

**Figure 2: Decision tree**

- **Right to cash only?**
  - Yes
    - Contingent on a milestone?
    - Linked solely to a specific property?
    - Guaranteed repayment?
    - Return of interest?
  - No
- **Right to a commodity only?**
  - Yes
    - Take physical delivery?
    - To be used according to entity’s expected use?
    - Immediate resale?
    - Full prepayment upfront with no additional cost?
    - Subsequent payments at below market price?
    - Fixed volumes?
  - No
- **Right to cash and commodity?**
  - Yes
    - Cash settlement alternative?
    - Ability to net settle?
    - Cash compensation for shortfall?
  - No

**Possible accounting outcomes:**
1. Financial instrument
2. Intangible asset

**Possible accounting outcomes:**
1. Financial instrument
2. Contract to buy a non-financial item
3. Acquisition of a mineral interest
4. Financing arrangement
5. Some combination thereof
From the investor’s perspective, there are four accounting outcomes for alternative financing arrangements that are frequently seen: tangible asset accounting; intangible asset accounting; financial instrument accounting; and a mix of all three. The accounting implications, from a profit or loss perspective, of each can be significantly different. Detailed analysis of key features of an arrangement and how risks are shared by parties to the arrangement is required to determine which of the possible outcomes in Figure 2 above is appropriate for a specific arrangement.

**Figure 3: Possible outcomes for the investor**

**Tangible asset**
- Depreciation, depletion and amortisation
- Revenue based on goods sold

**Intangible asset (such as royalty rights)**
- Revenue based on production
- Amortisation

**Exploration and evaluation asset**

**Financial instrument**
- Interest income
- Fair value for derivatives

**Combination**
- For example, intangible asset with an embedded derivative

If one party has a contractual right to cash, the counterparty usually has a contractual obligation to deliver that cash. Thus, what is a financial asset for one party will most likely be a financial liability for another.

Similarly, if the accounting outcome for an investor is the acquisition of an interest, since a contract exposes the investor to production, reserves, and price risks, this will generally mean that a seller transferred those risks to the investor. So the portion of reserves for which risks were transferred to the investor will often be deemed to be sold by the seller. Accordingly, the seller will most likely recognise a partial disposal of an interest, where the investor recognises the acquisition of an interest.

From the seller’s perspective, there are four common accounting outcomes in practice for alternative financing arrangements: financial instruments accounting; disposal of an interest (with or without an obligation to produce); and a mixture of both.
3. **Evaluate the economic substance**

The Oxford English Dictionary defines ‘substance’ as ‘The most important or essential part of something; the real or essential meaning’. We set out a series of indicators to help you to conclude on the ‘substance’ in the context of these types of arrangements.

The following diagram demonstrates a number of factors/questions to assess in an alternative finance arrangement. The indicators are equally relevant for both the seller and the investor. This is not a checklist (for example, a contract that requires payments described as interest is not automatically a financial liability), nor is any indicator determinative. The indicators interact with each other; more risk might drive an investor to seek more involvement in decision making, for example. We discuss each indicator in isolation here, but they must be weighed together to conclude on the substance of the arrangement.
Economic substance
Economic substance considers the financial and operational ‘big picture’ of an arrangement. It goes beyond considering the individual features as a checklist. Economic substance looks at the financial consequences for the investor and the seller and the risks and rewards for each party. It is an overall reasonableness check on the accounting answer.

3.1. Method of settlement
A contractual and unconditional right to cash, the commodity or another financial instrument (and an obligation to deliver such from the seller’s side) might push the entire contract into the scope of IAS 32 and IAS 39. Even if the contract as a whole is not in scope of the financial instruments guidance, a portion of it might be. Most forms of alternative finance have a hybrid of different types of returns for the investor. One or more embedded derivatives might be present, and financial instruments accounting might apply to at least some elements of the transaction.

Settlement in cash
A financial asset is defined as a contractual right to receive cash (or another financial instrument). Rights and obligations in the arrangements are normally established by an agreement between parties and represent contractual rights. The ability to exercise a contractual right or the requirement to satisfy a contractual obligation might be absolute, or it might be contingent on the occurrence of a future event outside the control of both parties. [IAS 32 para AG8]. A contingent right and obligation meet the definition of a financial asset and a financial liability under IAS 32.

Alternative finance arrangements frequently provide that there is no obligation on the seller to repay the investment in whole or in part if exploration or development of the related property is unsuccessful. The investor’s right to receive cash is therefore contingent on success of the development activities. The seller’s obligation to pay cash might, at first glance, seem to meet the definition of a financial liability. The contractual terms might waive repayment if development is unsuccessful, or they might limit repayment to the proceeds of a particular field.
Those terms indicate that the investor is prepared to accept the development and operational risk of a specific field as well as price and cost risk on development and production. An investor is likely to seek additional returns or rights for accepting this additional risk. For example, the investor might be entitled to the cash value of a certain percentage of the production of the field for its entire life. The investor might make some contribution to operating expenses or might pay an additional fee for lifting services. This type of residual interest and operational risk indicates that the investor has acquired an asset other than just a loan receivable. In a typical financing arrangement, an investor is exposed mainly to counterparty’s credit risk, and exposure to reserves, development and production risks is unusual.

Let’s look at two examples to compare and contrast the two different types of investments.

**Example 1**

Entity Y has a number of mining properties at different stages of exploration and development plus some producing properties. Entity Y needs financing to develop one of the properties where evaluation procedures have been completed and commercially viable reserves have been identified. Commercial production from the property is expected in three years.

An investor provides financing on the following terms:

- Entity Y and the independent reserve engineers have prepared a development plan and capital budget.
- The investor will provide capital equivalent to 50% of the development budget.
- The investment will take the form of a loan.
- The interest rate on the facility is 10% per annum, with capital and interest payable annually, beginning six months after the ‘commencement date’.
- ‘Commencement date’ is the earliest of a) first day of the month following the period in which average daily production reaches a pre-defined threshold, b) first day of the month following the date that entity Y ceases development activity for a period of one month for any reason other than force majeure, and c) entity Y declaring that it will abandon the project.
- Capital and interest are repaid in cash.

How might the seller and the investor account for the transaction?

**Solution – Investor**

**Investor:**

The investor has an unconditional right to receive cash even if the project is abandoned or unsuccessful. A contractual right to receive cash meets the definition of a financial asset. [IAS 32 para 11]. Repayment of the facility and accrued interest start when the property reaches certain production levels or is abandoned. The amounts that the investor will receive are fixed (or determinable); it is only their timing that is conditional.

There are other factors that indicate that the arrangement is a financing but, in view of the contractual right to receive cash, these are rather secondary:

- The facility amount is linked to entity Y’s financing needs and not a share of all future production volumes.
- The commercially viable reserves have been confirmed, which reduces the investor’s exposure to reserves risk.

**Solution – Seller**

As there is a contractual and unconditional obligation to deliver cash, the seller has a financial liability.
**Example 2**

Investor is a company focusing on acquisition of interests in producing or developing mines. Investor has a portfolio of agreements with the following terms:

- Investor makes an upfront payment to an operator of a mine.
- The agreement entitles Investor to receive royalty determined as 1.5% of the gross price of recoverable metal sold from the mining property.
- The royalty continues until all ore has been exhausted.
- The royalty is paid only if the mine produces, and Investor has no legal means to force the operator to produce.
- Cash is payable only upon the successful commercial production from the specific mine, and no cash compensation is received if development is unsuccessful.
- Investor is not involved in decision-making regarding operating the mine and has only protective rights.

How should this investment be accounted for?

**Solution – Investor**

Investor’s right to a share of revenue generated by the minerals of the mine meets the definition of an intangible asset that should be recorded in accordance with IAS 38, ‘Intangible assets’. Investor made this accounting conclusion having considered the following.

The arrangement does not fall into the scope of IAS 32, ‘Financial instruments: Presentation’, and IAS 39, ‘Financial instruments: Recognition and measurement’. Investor’s right to cash is dependent on successful development of the mine and extraction of minerals specific to the property. Investor has no contractual right to enforce development of the mine. Investor has no contractual rights if the other party fails to develop the mine and does not start production. Therefore, Investor is exposed to risks that would not be typical in a financial instrument.

Additionally, Investor does not obtain ownership rights of land, subsurface land or other tangible assets by virtue of the transaction which it intends to hold for use. Therefore, IAS 16, ‘Property, plant and equipment’, is not appropriate for this investment.

IAS 38 defines an intangible asset as an identifiable non-monetary asset without physical substance. A monetary asset is defined in IAS 39 as money held and assets to be received in fixed or determinable amounts of money. Investor’s right to cash does not result in a fixed or determinable amount of money in this case, because the volume produced and length of the arrangement is uncertain at inception. It does, however, result in a right to receive future economic benefits from the mine. Thus, the definition of an intangible asset is met.

**Solution – Seller**

The settlement is in cash, but contingent on successful commercial production from the specific mine, and there is no cash compensation if development is unsuccessful. Seller in such an arrangement does not record an obligation for future payments. Since there is no unconditional obligation to deliver cash, no financial obligation arises. The payments are made only when commodities are extracted and sold, so sale is the triggering event for recording the liability. Thus, at the date when parties enter the arrangement, the non-financial liability does not meet recognition criteria.

Seller could be deemed to sell a proportion of reserves, because a fixed percentage of revenue will be transferred to Investor over the life of the respective property. Settlement is based on revenue and not net income, so Investor’s entitlement basically represents a percentage of volume produced multiplied by a selling price. Seller could be seen as, in substance, transferring to Investor the right to economic benefits that will be generated by 1.5% of reserves. It might be appropriate to derecognise the carrying value of assets attributable to the proportion of reserves given up and recognise a related gain on disposal, since future economic benefits attributable to that portion of reserves have been transferred to Investor.

Seller is obligated to extract metals to make payments to Investor. Deferring recognition of gain for the part of consideration related to future extraction services might be appropriate. The portion of the upfront payment related to future extraction services will be recognised as revenue when metal is extracted. This will require an allocation of the upfront payment to two components: a payment for reserves; and future extraction services.
An investor determines that it holds a financial asset – What next? Financial assets first need to be classified as equity or debt under IAS 39. A contract that has no stated or predetermined maturity and represents a residual interest in the net assets of an entity has the economic characteristics and risks of an equity instrument. Instruments that do not meet this definition are debt investments.

The initial investment and the accrued interest in the Example 1 above will be repaid to the investor. There are fixed and determinable cash flows, and the instrument would qualify as a debt investment from the investor’s perspective. The debt investment is categorised under IAS 39 as either a loan and receivable, fair value through profit or loss, or available for sale. The classification drives subsequent measurement which ranges from amortised cost to changes in fair value captured either in other comprehensive income or in profit or loss.

This distinction impacts the profit or loss profile, valuation considerations and the assessment of derivatives. Investments in equity instruments are measured at fair value but can be classified as available for sale, with changes in fair value included in other comprehensive income rather than changes flowing through profit or loss.

The interest income from any debt investment, whether the instrument is carried at amortised cost or categorised as available for sale, is recognised in the income statement using the effective interest method. The effective interest method uses the estimated future cash flows through the expected life of the financial instrument based upon the instrument’s contractual terms. The actual cash flows from one of these transactions rarely match the original expectations. Any changes to expected or actual cash flows result in a revision to the effective interest rate calculation in most cases, and the adjustment is recorded in the income statement in the period in which it occurs.

This remeasurement of cash flows creates unexpected volatility, even though the financial asset is not measured at fair value through profit or loss. The same remeasurement concept applies for financial liabilities carried at amortised cost (which is the likely classification and measurement category, unless the seller has designated the financial liability at fair value through profit or loss).

**New guidance for financial instruments**

The IASB published the complete version of IFRS 9, ‘Financial instruments’, in July 2014 which replaces most of the guidance in IAS 39. Classification under IFRS 9 for investments in debt instruments is driven by the entity’s business model for managing financial assets and their contractual cash flow characteristics. Depending on those criteria, the asset will either be classified at amortised cost, fair value through other comprehensive income (FVOCI) or fair value through profit or loss (FVTPL). FVTPL is the residual category. Embedded derivatives in financial assets are no longer bifurcated, as these features will be assessed as part of the contractual cash flow characteristics test.

Investments in equity instruments are always measured at fair value. Equity instruments are those that meet the definition of ‘equity’ from the perspective of the issuer (as defined in IAS 32). Equity instruments that are held for trading are required to be classified at FVTPL. For all other equities, management has the ability to make an irrevocable election on initial recognition, on an instrument-by-instrument basis, to present changes in FVOCI rather than profit or loss. If this election is made, all fair value changes, excluding dividends that are a return on investment, will be included in OCI without recycling.

IFRS 9 will likely have a significant impact on these types of transactions, given the new criteria to qualify for classification (in other words, what qualifies in each category might look very different). For example, if the arrangement fails the contractual cash flow test, it would result in the whole instrument being classified at FVTPL. The changes to measurement for equity investments classified as FVOCI will also be a major change.

No changes were introduced for the classification and measurement of financial liabilities, except for the recognition of changes in own credit risk in other comprehensive income for liabilities designated at FVTPL.

IFRS 9 will be effective for annual periods beginning on or after 1 January 2018, subject to endorsement in certain territories.
Settlement by physical delivery of a commodity

The owner of the mineral interest (seller) might be obligated to deliver a specific amount of future production. The legal form of the arrangement is a contract to buy a non-financial item, the specified commodity. Contracts to buy or sell non-financial items are normally considered executory contracts and are outside the scope of the financial instruments guidance. However, certain contractual features or commercial terms might result in a contract to buy or sell a non-financial item being wholly or partially in the scope of IAS 39.

A contract that entitles the investor to a specific amount of a commodity is likely to be one of four types of arrangements, as follows:

i. A contract to buy a non-financial item in the scope of IAS 39 – a financial instrument.
ii. A contract to buy a non-financial item – outside the scope of IAS 39.
iii. Acquisition of a mineral interest.
iv. A financing arrangement.

Contracts to buy non-financial items that are in the scope of IAS 39 are accounted for at fair value. Contracts that are outside the scope of IAS 39 are accounted for based on their economic substance. The following decision tree summarises the process for determining whether the contract is within the scope of IAS 39 and the accounting treatment.

Figure 6: Decision tree

1. If a contract is to purchase a non-financial item in exchange for cash and the contract is not ‘net settleable’, the contract is outside the scope of IAS 39. Think about a purchase of machinery. If you are going to pay the purchase price of the drilling/excavation equipment when you acquire the machinery, the contract to buy the machinery in the future is not in the scope of IAS 39 (otherwise, everything would be in the scope of IAS 39).

2. A contract that can be net settled could be a derivative. The table presented in Appendix 2 aims to translate the ‘technical’ language in IAS 39 into normal commercial language to see if a contract, as the next general step, meets the definition of a derivative, based on three criteria.
3. Even if the definition of a derivative is met, financial instruments accounting might not apply. A contract to buy a non-financial item that is for the entity’s expected purchase, sale or usage requirements is outside the scope of the financial instruments guidance. These contracts are described as ‘own use’ contracts. Such contracts must result in physical delivery of the commodity and cannot be settled net in cash or through offsetting contracts. See further discussion in Appendix 2.

An investor that does not use the commodity in its own activities will not meet the ‘own use’ exemption. A derivative that fails the ‘own use’ exemption is accounted for at fair value through profit or loss.

It is more difficult to qualify for ‘own use’ when the commodity is readily convertible to cash. Many commodities are actively traded, although often with specific delivery points and in a specified condition. An active market exists when prices are publicly available on a regular basis and those prices represent regularly occurring arm’s length transactions for items that are homogenous, between willing buyers and willing sellers. Consequently, sale and purchase contracts for commodities in locations where an active market exists must be accounted for at fair value, unless ‘own use’ treatment can be evidenced. An entity’s policies, procedures and internal controls are therefore critical in determining the appropriate treatment of its commodity contracts. We consider two examples below.

Example 3

A construction company Z enters into a fixed price forward contract to purchase a specific volume of copper in accordance with expected usage requirements. Company Z also has a subsidiary that trades commodities. The contract permits company Z to take physical delivery of the copper at the end of one year or to net settle based on the market price of copper.

Does the forward contract meet the criteria for ‘own use’?

Solution

The contract meets the definition of a derivative because there is no initial net investment, the contract is based on the price of copper and it can be settled at a future date. However, if company Z intends to settle the contract by taking delivery and has no history for similar contracts of settling net in cash, or of taking delivery of the copper and selling it within a short period after delivery for the purpose of generating a profit from short-term fluctuations in price or dealer's margin, the contract is not accounted for as a derivative under IAS 39. Instead, it is accounted for as an executory contract.

Example 4

A refinery is looking to secure deliveries of oil over the next two years. It enters into a long-term contract with the seller to pay £10 million in advance for deliveries of oil. The fields are producing, so it has reserves to deliver sufficient oil to settle the £10 million. The refinery will take barrels each month and be ‘invoiced’ at current market price on the date of delivery. The invoiced amount will be deducted from the upfront payment.

How should this upfront payment be accounted for?

Solution

The definition of a derivative is not met, because the contract fails the ‘no initial net investment’ criterion due to the significant upfront payment. Also the ‘value changes in response to an underlying’ criterion is not met, because the exercise price is based on the current market price when the invoice is issued. No further cash outflows will be necessary to purchase the oil. The company has effectively prepaid for production. This is recorded as a prepaid asset at initial recognition (and deferred revenue by the seller). If the contract is for an extended period of time (say, 15 years), there might be a financing element to account for, given that the consideration was received upfront.

An arrangement that is not net settled and does not meet the definition of a derivative will be outside the scope of IAS 39. Substance-based accounting will apply, as discussed below. Be mindful that, even if the entire contract is outside the scope of IAS 39, it might include embedded derivatives (see section 3.6 below).

The assessment is much the same from the seller’s perspective, where a contract requires commodities to be delivered as settlement. The seller needs to determine: 1) if the contract can be settled net in cash; 2) if a contract is a derivative; and 3) if the ‘own use’ exemption is met. The ‘own use’ exemption is an area where the accounting might not be symmetrical. For example, a seller might meet the exemption but, if the investor counterparty is a financial institution, the investor might not get own use. Another example could be where the seller has a written an option to the holder to buy or sell a non-financial item: the own use exemption will not be met for the seller, because it is outside the seller’s control, but it might be met for the holder.
New guidance for financial instruments

The ‘own use’ assessment does not change under IFRS 9; however, entities will now be able to apply the fair value option irrevocably to contracts to buy or sell non-financial items which qualify for the ‘own use’ exemption on initial recognition if it eliminates or reduces an accounting mismatch. This option could be helpful to economically hedge any other commodity exposures that the entity might have.

Settlement in cash or commodity

The specific rights to either cash or commodity might be not immediately obvious from the terms of an arrangement. The arrangement might give the investor the right to a share of future production and introduce a requirement for the producer to make cash payments or substitute contracted volumes with volumes from another field or from market purchases (for instance, in respect of an unexpected production shortfall). The investor might also be entitled to more than repayment of principal and interest. The investor’s return might involve a combination of cash payments and entitlement to future production. There could be both fixed cash payments and payments contingent on future events, such as a project achieving certain milestones or cash flows that vary based on market price movements for the underlying commodity.

The situations outlined in Examples 3 and 4 occur in practice, but real life is often much more complex. The accounting treatment for contracts that are not in the scope of IAS 39 for either counterparty should continue down the path of substance and consider the additional indicators. Whilst no indicator is necessarily ‘determinative’ by itself, the manner of settlement and the rights of the investor are often very significant in the analysis.

3.2. Types of risks to which the investor is exposed

An investor might look to assume more risk in exchange for a greater return. Acquisition of an interest in a property exposes the investor to risks that are different from those associated with providing financing. The investor is mainly exposed to the credit risk, interest rate risk and possibly foreign exchange risk in a financing. Acquisition of an interest could expose the investor to exploration and development risk, reserves and production risk and commodity price risk.

The more variable the investor’s entitlement to future production, the more the investor is exposed to risks and rewards similar to an interest. Any minimum quantity deliverable to the investor, caps to the deliverable quantity or value need to be assessed carefully, as they can create a contractual obligation for the licence holder to ‘deliver cash or another financial instrument’.

Exposure to these risks might be evidenced by the following terms of the arrangement:

<table>
<thead>
<tr>
<th>Exploration/Development risk</th>
<th>• Investment not refundable should the exploration and/or development be unsuccessful.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• The arrangement covers the specified property only, and seller has no obligation to substitute production volumes from other fields or from market.</td>
</tr>
<tr>
<td>Reserve/Production risk</td>
<td>• No obligation on the seller to substitute production by volumes from other sources.</td>
</tr>
<tr>
<td></td>
<td>• No minimum quantity deliverable under the arrangement.</td>
</tr>
<tr>
<td></td>
<td>• No cap or maximum quantity deliverable.</td>
</tr>
<tr>
<td>Price risk</td>
<td>• Quantity of commodity does not vary as prices change.</td>
</tr>
<tr>
<td></td>
<td>• There are no price adjustment mechanisms involving cash compensation.</td>
</tr>
</tbody>
</table>
Example 5

A venture capital fund is looking for exposure to oil and gas. It acquires an interest in an oil and gas field through a farm-in arrangement with an owner of a licence, the ‘farmor’. The fund acquires a 40% interest in the property for a fixed amount and an agreement to fund the future capital expenditure set out in the development plan. The fund is entitled to 40% of the future production from the field.

The field is at the advanced exploration stage, with preliminary positive results. The fund expects that its share of future production will generate sufficient revenue to compensate it for the initial acquisition price paid to the farnor and subsequent exploration and development expenditures.

What is the nature of the fund’s investment?

Solution

The fund has acquired an interest in the property. It is entitled to a share of future production in proportion to its ownership. The fund is exposed to the risks and rewards of ownership: it bears exploration and development risk, reserves and production risk, and the price risk.

The fund will recognise all costs when incurred and will follow its normal accounting policies for capitalisation of intangible assets and fixed assets.

The following symbols are used in the Venn diagrams further in this guide to illustrate the key considerations and their potential impact on conclusions reached:

- Acquisition of an interest
- Financing arrangement
- Development, production and price risks
- Interest, credit and FX risks

3.3. Type of returns

Returns are correlated closely with risks. An investment that has been structured to earn a return similar to a market rate of interest or a fixed return is more indicative of a financing arrangement. A residual interest can blur the lines between financial-type returns and operating-type returns. A return that arises solely from the profits of the legal entity that owns the mine/field might legally be an equity return from shares or a financial instrument. This is particularly the case when the entity holds more than one property and might have other operations. However, if the underlying entity only holds one property and returns are generated specifically from that property, the distinction between financial and non-financial might be less clear. The investor, in substance, might be purchasing a direct interest in the property. Further analysis is required to determine the substance of the arrangement and assess whether the residual interest is more financial or operating in nature.
3.4. How the investment is structured and priced

The structure of the investment is a broad but very important part of the facts to be gathered and assessed to determine the substance. No single factor is likely to be determinative, and all relevant factors and the interaction between them should be considered in determining the substance of the arrangement.

Nature of the investor

The investor might be a financial institution, a venture capital mining or oil & gas fund or an operating company. This might give an indication of the purpose of the arrangement. Financial institutions are less likely to accept significant exposure to the operational risks arising from investing in mineral interests. A financial institution might not have an intention or ability to take its share of production, and an investment is more likely to be financial in nature.

A venture capital fund or an oil & gas company might be more willing to accept greater risks and participate in the day-to-day operations. This might be indicative of an interest in an oil & gas property and not financing.

Duration of the arrangement

The term or duration of the arrangement might be established in various ways. It could be an explicit repayment period over a fixed number of years, it could cover the period of the licence for the property or it could be expressed in a fixed number of units of production to be delivered to the investor. A fixed number of units of production or a fixed repayment period significantly shorter than the expected life of the property would be indicative of a financing or a contract to buy commodities rather than an interest in that property. An arrangement that spans the expected life of the related property is more indicative of acquiring an interest in that property. The investor might participate only in certain phases of a project, and the duration of the arrangement will fall between the two extremes discussed above. Judgement will be required in such circumstances, and other factors might weigh more heavily than the duration when the assessment is made.
Linkage to a specific property

An alternative finance arrangement might be linked to a specific property, with repayment only from the production from that mine or field. This significantly increases the production and operating risk and is more indicative of the investor acquiring an interest in that property. The contract might stipulate that repayment of the investor’s upfront payment depends on the success of exploration or development activities on the specified property.

For example, the arrangement might contain the following terms:

1. The upfront payment is to be repaid only with production from the specific property covered by the arrangement.
2. The licence holder is not required to substitute production volumes that had been expected to be produced from the nominated property with those produced from other properties or from market purchases if development of the specified property is unsuccessful.
3. The licence holder is not obligated to compensate the investor for any shortfall in the expected production.
**Determination of the initial investment**

The amount of the investment and the manner in which it is determined might also give an indication of the substance of the arrangement. The upfront payment might be simply based on the seller’s capital needs and have no connection to the expected production from the property. This would be indicative of a financing arrangement.

Alternatively, the investment might be based on the expected production from the property and the return required by the investor. This is an indicator (but not necessarily conclusive) that the investment is an acquisition of an interest in a property.

Pricing can be very important when an investment is tied to expected production. The investment might comprise only an initial payment by the investor, or it might be combined with subsequent payments over the life of the arrangement (as discussed in the next section). Pricing might provide further evidence of whether the investor is purchasing an interest directly in the property or entering into a financial instrument. Let’s look at an example below.

**Illustration**

Investor A is prepared to make an upfront payment as well as a series of ongoing periodic payments to company B to enter a streaming arrangement. The pricing is a function of the expected production from the field subject to the streaming arrangement and the return required by investor A.

Investor A uses a discounted cash flow (‘DCF’) model. The DCF model uses the following key inputs:

- investor A’s estimate of the total volume of reserves that will be subject to the streaming arrangement, based on reserve information available to and interpreted/analysed by investor A to determine the reserve quantities;
- estimate of the anticipated production profile of the field;
- the amount and timing of the periodic payments per barrel produced; and
- a discount factor reflecting the fixed hurdle rate of return that company B is seeking to achieve.

In this case, the deal has been priced by both parties based on expected production and a future fixed hurdle rate per barrel for the price of oil. This pricing would be more indicative of a purchase of an interest.

Other deals might be priced in a different manner. For example, a number of commodities in the mining industry are traded on the London Metal Exchange (LME) or other exchanges. Contracts for (or based on) the delivery of such commodities, including financial instruments (such as certain future contracts, forward contracts, and option contracts), are priced and valued based on the future pricing observable on these exchanges.¹ In many cases, these futures prices are not the same as expected future spot prices.² Consequently, the value placed on mineral properties (by both potential investors and vendors) will not be based on the future prices used to value financial instruments, but on their expectations of the future, long-term spot prices. Knowing which pricing inputs were used by the parties can thus help to discern whether the substance of the arrangement was viewed by those negotiating it as a transfer of an interest in a property, or a contract for a finished commodity that might be a financial instrument.

---

¹ Future prices for the more distant time horizons might not be directly observable, but they are still based on the nearer-term prices which are.

² A full description of the reasons for this divergence between ‘future’ prices and expected future spot prices is beyond this publication, but it is available through a variety of easy-to-find sources.
Future payments for delivered commodities

A contract between the investor and the licence holder might envisage future payments by the investor for delivered production volumes. The future payments might be fixed per unit or vary with market prices. These payments might represent the final payment for the purchase of the commodity or participation in the additional costs to extract or deliver the commodity. The first part of the analysis is to determine the nature of the payment and how it relates to the initial investment as part of the overall pricing. For example, is this simply a deferral of the cash flows over the life of the arrangement to spread the funding over the extraction process? Or does the additional amount fluctuate in a way that the investor absorbs a share of the operating costs from the property? It would be useful to understand whether the additional payment is fixed or variable, and whether it is calculated by reference to a market price of the commodity or extraction/lifting service or overall costs. If the payment is fixed, there is often a ‘lower of’ mechanism, where the investor pays the lesser of the fixed cost and current market price. These additional payments might indicate the right to purchase the commodity at a discounted price. Given the different accounting consequences of each alternative, it is critical to understand how the ongoing payments relate to the overall pricing of the arrangement.

Illustration

Building on the Illustration immediately above, an investor agrees to pay the upfront payment that could be used in developing a specific oil and gas field. This payment entitles the investor to a stream of production from a field. The upfront payment is non-refundable and there is no minimum deliverable quantity. Once production commences, the investor will pay a fixed periodic payment per barrel when acquired. This periodic payment is the lower of the prevailing market price and a fixed amount.

The periodic charge should be closely evaluated to determine if it represents a type of lifting and/or marketing cost associated with the production and sale of the barrels. The additional charge could represent payment for the service to physically extract the oil from the field (even though the oil itself has been paid for upfront). Or, if the payment has no relationship to the costs incurred, this could represent a derivative contract to acquire oil at a favourable price in the future. Or the combination of the upfront and periodic payments represents the total cash flows required to purchase the production, and the spreading mechanism does not change the actual substance or economics to purchase oil.

A critical step in evaluating the nature of these payments is to consider how they relate to the ‘bigger picture’ of how the deal has been priced. This will help you to understand which of these alternatives reflects the substance of the arrangement.
Correlation between the investor’s contribution and return

The size of the investor’s contribution in comparison to total investment required for developing a property, and the correlation between contribution and entitlement to future property production, might also provide a reference point for determining the substance of the arrangement. Any disproportion between the investor’s share in total development expenditures and the share in future production needs to be understood. Why would the investor accept a lower share of future production? Are there other arrangements compensating the investor? Are any additional payments to the investor envisaged by the contract?

Where the investor’s share in future production is lower, for example, than the share in total development expenditures, such a disproportion might limit the investor’s return to repayment of initial investment and a return similar to a market rate of interest on that initial investment. The arrangement is, therefore, more akin to providing a loan than acquiring an interest in a property.

**Illustration**

An entity contributes 50% of the total capital expenditures for a property. If purchasing an interest, the entity would typically be entitled to 50% of the total future production. If, for example, the entity is entitled to 60% of the future production, it would be necessary to understand why this is disproportionate.
**Financial penalties for non-delivery**

There are two types of possible financial penalties for the failure to deliver commodities. An arrangement might contain penalty mechanisms for non-delivery of physical volumes. For example, if the seller does not meet production targets and is unable to deliver the output as per the agreed schedule, the shortfall might be settled in cash. This could be structured as a type of volume flexibility in the contract, to allow the investor and the seller flexibility under the quantity of the commodity that is to be delivered. Where both parties expect to deliver and use the output (that is, an operating company), this feature ensures performance under the contract. Such penalty mechanism in itself is not a decisive factor in determining the substance of the arrangement as a whole. These contracts, however, should be carefully considered from the perspective of both parties to understand if they would satisfy the ‘own use’ criteria and, if not, this feature might result in derivative accounting.

Alternatively, the contract might be structured to ensure that the investor always receives a return, whether in cash or commodity. Where cash compensation or penalty is clearly stipulated in the contract, and it is structured such that there is limited risk for the investor, this might be indicative of a financing arrangement.

3.5. Involvement in decision making

Another relevant consideration is the level of involvement in decision making and access to information. Decision-making rights granted to the investor might be solely protective, such as veto rights in respect of a sale of a portion of interest in the specified property or making significant amendments to the development plan for that property.

Alternatively, the arrangement might grant participating rights to the investor, such as participation in the development plan, work program, budgets and major transactions. Such activities could significantly affect the returns from the property and are often referred to as ‘relevant activities’. An investor that has the ability to vote when decisions over relevant activities are made is more likely to have acquired an interest in the property. The decision making usually aligns with the level of risk and rewards from an investment in the property and how involved the investor would like to be in driving the success of that property.

If an investor has only protective rights and does not participate in decision making over relevant activities, it does not automatically signal that the arrangement is financing. For example, in some royalty arrangements, the investor might be less involved in the decision making. Less involvement in decision making prompts further investigation as to what the investor has purchased.
3.6. *Exotic features*

Typical ‘fancy’ features include caps, floors or a collar on total volume of production or the price of a commodity that can be received under the contract. The buyer of a collar is exposed to price movements within a range, usually the market price of a commodity. Additional examples might include price clause indexation based on a commodity other than that deliverable under the contract (such as coal prices indexed to oil prices) or a pricing formula that has an inflation component.

Embedded derivatives that are closely related to the host instrument are accounted for as part of the host. If not closely related, the derivative is accounted for separately and measured at fair value through profit or loss. Alternative financing structures can be long term contracts (30 years is not unusual), and an embedded derivative requiring separation can create considerable volatility in the income statement over a long period.
4. **Bring the analysis together to conclude**

The Venn diagram below helps to summarise the elements of substance that are discussed in this publication. It will help you to assess whether you are tipping from one accounting conclusion into another.

**Case studies**

Two examples are provided below to help you to apply this publication and break down the potential complexity in these arrangements. These are based on real transactions and include many of the more ‘common’ features. These examples are not meant to provide rules or a playbook, because judgement is always required. The suggested conclusions reached in the examples below are driven by the specific facts and circumstances of each transaction. If you change the facts, the answer might well change.
Case study 1

Investor is a precious metals streaming company looking to enlarge its portfolio of gold interests. It entered into an agreement with an operator on the following terms:

- Investor will acquire from the operator an amount of gold equal to 25% of the life of mine gold production from its currently producing mine.
- Investor made total upfront cash payment of $500 million which was based on the expected production from the mine based on an expected future spot price for gold.
- It will make further ongoing payments of the lesser of $400 per ounce of gold (subject to an inflationary adjustment of 1% beginning in the fourth year) or the prevailing market price per ounce of gold delivered.
- The ongoing payment is set at a level meant to offset the operator’s typical cost to produce an ounce of gold.
- Investor is not directly involved in the ownership or operation of the mine and has no contractual rights relating to the operation.
- Investor is not entitled to any compensation if forecasted gold production targets are not met in any specified period or if the operator shuts down or discontinues the operations on a temporary or permanent basis.

How should each party account for the arrangement?

Solution - Investor

We consider the following indicators:

a) The contract cannot be settled net, so it is not in the scope of IAS 39 and does not represent a financial instrument (see Figure 6 above).

b) Investor’s entitlement to commodities is not limited by volume or monetary amount. Thus, the investment does not seem to represent an advance payment for a specific production entitlement.

c) Investor’s return is not limited to a market rate of interest or a fixed return on its initial investment. Investor has an exposure to future expansion of the operation of the mine. The absence of cash compensation and linkage to a specific mine expose Investor to reserves and production risks. The ongoing payments ($400 per ounce) represent Investor’s share in costs to produce gold. All these factors serve as additional indicators that Investor has acquired an interest in the mine.

Accounting for this type of arrangements as a tangible asset (Gold Interest or Mineral Interest) at cost less accumulated depletion and impairment is the method which is broadly seen in practice.

Solution – Seller

The same considerations are also relevant for Seller. Seller will account for this arrangement as a partial disposal of an interest in a property.

Seller should carefully consider whether immediate recognition of gain on disposal is appropriate. The upfront cash payment might comprise multiple elements – for example, a payment for the property in its current stage of development, an obligation to develop the property to achieve its full potential, and future extraction services.

Seller should therefore carefully consider what elements are included into the initial investment and whether recognition of gain and revenue is appropriate for all, only some or none of them. For example, where the initial payment is significantly larger than fair value of the property at its current stage of development, the initial payment might include consideration for the future development activities. Thus, deferring recognition of gain for the part of consideration related to future development activities (and recognition of revenue for future extraction services, if any) might be appropriate.
Case study 2

Entities A (‘Investor’) and B (‘Licence Holder’) have concluded a Risk Sharing Arrangement (RSA) for a fully explored field with proved commercial reserves. Key terms of the RSA are as follows:

- The term of the RSA covers the term of the licence.
- Investor does not acquire any interest in Licence Holder or any related entity.
- At inception of the RSA, the Field Development Plan (FDP) is approved by the parties.
- The FDP covers work program and budget.
- The parties share Project Costs in the proportion of 51% by Licence Holder and 49% by Investor, payable on the basis of cash calls issued by the project (effectively by Licence Holder).
- The RSA provides that Investor cannot call for early repayment of its contributions.
- Investor’s contribution is reimbursed only if actual production from the field exceeds a threshold established by the agreement (that is, dependent on success).
- Investor is not entitled to any share of production and is reimbursed in cash.
- The RSA establishes a formula for calculating Investor’s cash reimbursement.
- The total amount payable to Investor is capped by a formula based on IRR of the project.
- Licence Holder will face significant penalties if it abandons the project.

How should the parties account for this arrangement?

Solution - Investor

Investor has a contractual right to receive cash which is contingent upon successful development of the related property. Under paragraph AG8 of IAS 32, the contingent right to receive cash meets a definition of a financial asset. Classification of the instrument determines its measurement in the financial statements.

The instrument has risks more similar to that of a debt investment than an equity investment. The instrument would not meet the definition of loans and receivables, since payments under the contract are not fixed or determinable. The most appropriate classification for this type of instrument would be ‘available for sale’ debt investment. The asset will be initially recognised at fair value and remeasured at each reporting date. The effect of remeasurement will be recorded in other comprehensive income. However, changes in the expectations of cash flows would still be captured in profit or loss in the period when they occur (using the original effective interest rate, as required by paragraph AG8 of IAS 39).

Other terms of the arrangement also indicate that the transaction represents a form of financing provided by Investor to Licence Holder rather than acquisition of an interest in the property. There is a cap on the total amount that Investor is entitled to. Thus, Investor shares risks of the development but the upside potential is limited. Investors that acquire interests in mineral properties participate in any upside as well as downside.

Another indication is a disproportion between the contribution towards project expenditures and entitlement. The share of project expenditures is 49% of total costs, while the entitlement is not 49% of future production or profits, but rather based on a formula.

Solution – Licence Holder

Under these circumstances, accounting by Licence Holder will most likely be symmetrical. Licence Holder assumed a contractual liability to deliver cash, which represents a financial liability. The element of contingency does not bring this liability outside the scope of IAS 39, as discussed above. Other indicators, such as the cap introduced for the amount to be repaid and the disproportion between financing and returns, are also applicable to the analysis of accounting outcome for the seller and support the financial liability conclusion.
Appendix 1: Extracts from financial statements

Time and again, we have highlighted in this publication that alternative financing arrangements can be extremely complex and, in many cases, significant judgement will be involved in developing accounting treatment. IAS 1, ‘Presentation of Financial Statements’, requires the disclosure of significant judgements that management has made in the process of applying the entity’s accounting policies and that have the most significant effect on the amounts recognised in the financial statements. The judgement applied by management in respect of financing arrangements might, and in many cases will, have significant impact on financial statements. In such cases, plentiful disclosures will be required in the summary of significant accounting policies or other notes. The disclosures should present alternative classifications of a financing arrangement that management considered and reasons for selecting the accounting treatment applied.

In this Appendix, we present a selection of disclosures from financial statements of several major players in royalty and stream financing which represent an investor side. These disclosures are presented in this guide to illustrate accounting approaches adopted in the industry for various arrangements. Accounting approaches adopted by these companies represent the views of management and might not represent the views of PwC.

Exhibit 1

Extract from Franco-Nevada financial statements 31 December 2013
e. Mineral, stream and oil & gas interests

Mineral, stream and oil & gas interests consist of acquired royalty and stream interests in producing, advanced/development and exploration stage properties. Mineral, stream and oil & gas interests are recorded at cost and capitalised as tangible assets with finite lives. They are subsequently measured at cost less accumulated depletion and depreciation and accumulated impairment losses. The cost of mineral, stream and oil & gas interests was determined by reference to the cost model under IAS 16 Property, Plant and Equipment. The major categories of the Company’s interests are producing, advanced and exploration.

Producing mineral and stream interests are depleted using the units-of-production method over the life of the property to which the interest relates, which is estimated using available estimates of proven and probable reserves specifically associated with the mineral or stream properties. Producing oil & gas interests are depleted using the units-of-production method over the life of the property to which the interest relates, which is estimated using available estimated proved and probable reserves specifically associated with the oil & gas properties. Management relies on public disclosures for information on proven and probable reserves from the operators of the producing mineral and stream interests. For the oil & gas interests, management engages an independent petroleum consultant to prepare annual reserve reports.

On acquisition of a producing mineral or stream interest, an allocation of its fair value is attributed to the exploration potential of the interest. The estimated fair value of these acquired resources and exploration potential is recorded as an asset (non-depreciable interest) on the acquisition date. Updated reserve and resource information obtained from the operators of the mineral and stream properties is used to determine the amount to be converted from non-depreciable interest to depreciable interest.

Mineral, stream and oil & gas interests for advanced and exploration stage assets are recorded at cost and capitalised in accordance with IFRS 6 Exploration for and Evaluation of Mineral Resources. Acquisition costs of advanced and exploration stage mineral, stream and oil & gas interests are capitalised and are not depleted until such time as revenue-generating activities begin. The Company may receive advanced minimum payments prior to the commencement of production on some of its interests. In these circumstances, the Company would record depletion expense as described above, up to a maximum of the total of the advanced minimum payment received.
f. Working interests in oil & gas properties

Acquired oil & gas working interests are accounted for at cost and capitalised as tangible assets of developing or operating properties, or in accordance with IFRS 6 for exploration properties. For each oil & gas property on which the Company has a working interest, the Company bears its proportionate share of the gross costs of capital and operations based on information received from the operator. Such capital costs are capitalised to the respective asset.

Capitalised costs are depreciated when the asset is available for its intended use on a units-of-production basis, whereby the denominator is the estimated barrels of oil equivalent used in proved and probable reserves.

Note 7 – Royalty, stream and working interests, net

The following tables summarise the company's royalty, stream and working interests carrying values as at December 31, 2013 and 2012, respectively:

<table>
<thead>
<tr>
<th>As at 31 December 2013</th>
<th>Cost</th>
<th>Accumulated depletion(1)</th>
<th>Impairment</th>
<th>Carrying value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Royalties</td>
<td>$1,055.1</td>
<td>$(338.9)</td>
<td>$–</td>
<td>$716.2</td>
</tr>
<tr>
<td>Streams</td>
<td>975.0</td>
<td>(337.0)</td>
<td>(107.9)</td>
<td>530.1</td>
</tr>
<tr>
<td>Oil and Gas</td>
<td>792.0</td>
<td>(214.5)</td>
<td>$–</td>
<td>577.5</td>
</tr>
<tr>
<td>Advanced</td>
<td>202.7</td>
<td>(14.8)</td>
<td>$–</td>
<td>187.9</td>
</tr>
<tr>
<td>Exploration</td>
<td>46.8</td>
<td>(3.3)</td>
<td>(5.0)</td>
<td>38.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,071.6</strong></td>
<td><strong>$(908.5)</strong></td>
<td><strong>$(112.9)</strong></td>
<td><strong>$2,050.2</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>As at 31 December 2012</th>
<th>Cost</th>
<th>Accumulated depletion(1)</th>
<th>Impairment</th>
<th>Carrying value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Royalties</td>
<td>$933.5</td>
<td>$(285.3)</td>
<td>$–</td>
<td>$648.2</td>
</tr>
<tr>
<td>Streams</td>
<td>974.4</td>
<td>(282.5)</td>
<td>$–</td>
<td>691.9</td>
</tr>
<tr>
<td>Oil and Gas</td>
<td>846.4</td>
<td>(123.0)</td>
<td>(74.1)</td>
<td>649.3</td>
</tr>
<tr>
<td>Advanced</td>
<td>231.2</td>
<td>(30.3)</td>
<td>$–</td>
<td>200.9</td>
</tr>
<tr>
<td>Exploration</td>
<td>36.2</td>
<td>(2.9)</td>
<td>$–</td>
<td>33.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,021.7</strong></td>
<td><strong>$(724.0)</strong></td>
<td><strong>$(74.1)</strong></td>
<td><strong>$2,223.6</strong></td>
</tr>
</tbody>
</table>

(1) Accumulated depletion includes previously recognized impairment charges.
Exhibit 2
Extract from Anglo Pacific financial statements 31 December 2013

2.7 Intangibles

b. Royalty interests

Royalty interests represent the net smelter return royalties acquired on the Four Mile project in South Australia, the Salamanca uranium project in Spain, the Black Thor, Black Label and Big Daddy chromite projects in Northern Ontario, Canada and a number of tenements in the Athabasca Basin region of Canada, together with the gross revenue royalties covering the Amapá iron ore system in Brazil, the Mount Ida magnetite iron ore project in Western Australia and three exploration licences, including the Railway iron ore deposit, in the central Pilbara region of Western Australia.

Most of the royalties listed above have been pre-existing royalties acquired by the Group. These royalties mainly exist by way of the sale of land or certain prospecting rights, with the retention of a royalty for any future discoveries of economically viable resources.

Upon acquisition, the Group effectively assumes the position of the original holder, who will usually have had an interest in the underlying mineral at some point. These royalties should survive any change in ownership of the asset or bankruptcy of the operator. These royalties, although entitling the Group to cash upon the commencement of production, are not considered to fall within the definition of financial assets in accordance with IAS 39. The Group considers, amongst the characteristics listed in the above paragraph, that they do not contain an absolute right to receive cash as the Group cannot force the operator to produce and, furthermore, the counterparty can avoid the payment of cash by deciding not to produce. This is in contrast to the Group’s royalty interests structured as financing arrangements.

The Group does not own the physical rights to the minerals contained within these deposits. The royalties receivable from the interests held are derived from the rights attached to the underlying mineral resources. In line with IAS 38 ‘Intangible assets’ these royalties are recognised at cost.

The useful life of the royalty interests will be determined by reference to planned mine life on commencement of mining and the cost of the royalty contract will be amortised on a systematic basis over the life of the mine. Amortisation rates are adjusted on a prospective basis for all changes to estimates of the life of mine.

2.9 Financial instruments

c. Mining and exploration interests

Mining and exploration interests are recognised and derecognised on a trade date where a purchase or sale of an investment is under a contract whose terms require delivery of the investment within the timeframe established by the market concerned, and are initially measured at fair value, including transaction costs. Mining and exploration interests are classified upon initial recognition as either available-for-sale or as assets at fair value through profit or loss, depending on the characteristics of the particular instrument and its purpose.

Interests classified as available-for-sale are measured at subsequent reporting dates at their fair value. For available-for-sale investments, gains and losses arising from changes in fair value are recognised directly in other comprehensive income and accumulated in the investment revaluation reserve, until the security is disposed of or is determined to be impaired, at which time the cumulative gain or loss previously recognised in other comprehensive income is included in profit or loss for the period. Unquoted investments are measured at cost where fair value cannot be reliably determined. When a market price can be established these investments are revalued to fair value accordingly.

For those mining and exploration interests which contain an embedded convertible option, these embedded derivatives are separated and recognised at fair value through profit or loss with gains and losses arising from changes in fair value being recognised directly in the income statement. The fair values of such instruments are assessed with reference to the relevant factors, which include, inter alia, equity prices in active markets, commodity prices, production profiles and management representations. These assets are reviewed regularly to ensure that the initial classification remains correct given the asset characteristics and the Group’s investment policies. These assets may be initially recognised using transaction price as the best evidence of fair value at acquisition (see note 18). Options can be carried at cost if they are linked to unquoted equities where fair value cannot be reliably measured.
e. Royalty instruments

Royalty instruments are recognised or derecognised on completion date where a purchase or sale of the royalty is under a contract, and are initially measured at fair value, including transaction costs. Royalty instruments give the Group a right to future cash flows and are recognised as available-for-sale financial assets in accordance with IAS 39. These royalties are different to the Group's intangible royalties as there is a means to securing future cash flows irrespective of the success of the underlying project. Royalty instruments are classified as either debt or equity instruments depending on the nature of the individual agreement. Considerations such as contractual interest rates, defined repayment terms and the means to recover initial investment distinguish whether the financial asset is debt or equity. Some royalty contracts include clauses relating to the possibility of conversion to equity in the Company granting the royalty. These clauses are treated as embedded derivatives and are classified as fair value through profit or loss. Similar to the Group's royalty intangibles, these assets are assessed for impairment at each reporting date. For equity financial assets any cumulative loss previously recognised in equity is reclassified in the income statement for the period. For debt financial assets the impairment charge reverses previous gains reflected in the income statement and no further effective interest will be recognised.

4.2 Critical judgements in applying the Group’s accounting policies

Areas of judgement that have the most significant effect on the amounts recognised in the financial statements are:

a. Classification of mining and exploration interests – Note 2.9 and note 18.

b. Classification of royalty instruments and royalty interests.

The Directors review each royalty acquired to determine whether there is a contractual right to receive cash which would meet the definition of a financial asset, or if the royalty receivable for the interest acquired is derived from the rights attached to the underlying asset/mineral resource. In the latter case these are treated as an intangible asset – Note 2.7(b) and note 17.

Key differing characteristics between intangible and financial assets

i. Primary or secondary royalties

Generally speaking, any secondary royalties which the Group acquires are likely to be intangible assets which have historically originated from the sale of land to a developer whilst the seller has retained an interest to benefit from any reserve expansion. The Group, in this instance, has not provided finance to the operator but has acquired an indirect interest in the underlying mineral. Primary royalties tend to be negotiated as financing agreements between the Group and the operator directly and are much more likely to fall within the definition of IAS 39.

ii. Interest in the underlying mineral

Quite often, the Group will have a registered interest in the underlying mineral. The nature of secondary royalties is often such that they are considered interests in the underlying land as the Group effectively assumes the role of the original counterparty. With financial assets, although there may be security in place over the assets of the counterparty, this does not constitute an interest in the underlying mineral.

iii. Limited rights to enforce the receipt of cash

Intangible royalties are structured such that there is no means for the royalty holder to force the operator to produce. Therefore, there is no contractual right to receive cash as the operator can avoid this obligation by refusing to produce. Cash is payable upon the successful commercial production at the underlying mine. There is no recourse to amounts invested, nor any production milestones. The receipt of future cash flow is solely dependent on production commencing at the mine.

With financial assets, there is usually a contracted interest rate, maturity date (or milestones which need to be achieved), conditions of default and security. These are all characteristics of debt instruments and ensure the contractual right, or means of recourse where breaches occur, to future cash. A key differential is that there is a right to receive cash regardless of the success of the underlying operation.

iv. Bankruptcy/change in control

Generally, a royalty may often survive any change in control of the mine or bankruptcy of the developer. In the latter, there is no recourse to funds invested. Where there is a sale of a mine which the Group has financed it would be expected that the Group would have the right to carry its royalty across. If this is not possible, then the financial asset will be repaid. In events of bankruptcy, the Group will seek to recover its financial asset through the courts.
Key differing characteristics between available for sale debt versus equity financial assets

Upon determining that a royalty interest is a financial asset, the next step is to determine whether it is a debt instrument or an equity interest.

<table>
<thead>
<tr>
<th>Debt financial asset</th>
<th>Equity financial asset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time-based interest charge on outstanding principal</td>
<td>No interest rate</td>
</tr>
<tr>
<td>payable quarterly</td>
<td></td>
</tr>
<tr>
<td>Defined maturity date</td>
<td>No maturity date, continues into perpetuity</td>
</tr>
<tr>
<td>Minimum payment terms, irrespective of the development of</td>
<td>Payment is not dependent upon the successful development of the mine</td>
</tr>
<tr>
<td>the mine</td>
<td></td>
</tr>
<tr>
<td>Enforceable security</td>
<td>No provision for the return of principal</td>
</tr>
</tbody>
</table>

Equity instruments can sometimes display characteristics similar to debt. However, their return is related solely to performance which is a riskier type of return involving more than just credit risk.

Other judgements in relation to royalty interests

Where a royalty agreement contains a convertible option within it, the contracts are reviewed to determine whether the assets should be classified as a derivative at fair value through profit or loss or can be classified as an available for sale financial asset with an embedded derivative – Note 2.9 and note 16.

Exhibit 3
Extract from Sandstorm Gold Ltd financial statements 31 December 2013

f. Mineral interest and royalties

Agreements for which settlements are called for in gold, the amount of which is based on production at the mines and capitalised on a property by property basis, are recorded at cost less accumulated depletion and impairment loss, if any. Project evaluation costs that are not related to a specific agreement are expensed in the period incurred.

Producing mineral interests are depleted using the units-of-production method over the life of the property to which the interest relates, which is estimated using available information of proven and probable reserves and the portion of resources expected to be classified as mineral reserves at the mine corresponding to the specific agreement. For those mineral interests that have commenced production, all costs associated with mineral interests are depleted and no amounts would remain classified as non-depletable.

The acquisition costs of acquired resources and exploration potential is recorded as an asset (non-depletable interest) on the acquisition date. The value of the exploration potential is classified as non-depletable and accounted for in accordance with IFRS 6, Exploration and Evaluation of Mineral Resources until such time as the technical feasibility and commercial viability have been established at which point the value of the exploration potential is classified as either depletable or non-depletable in accordance with IAS16, Property, Plant and Equipment.
Mineral interests and royalties

Carrying amount

As of and for the year ended December 31, 2013

<table>
<thead>
<tr>
<th>Location</th>
<th>Opening</th>
<th>Additions</th>
<th>Impairment</th>
<th>Foreign exchange translation</th>
<th>Ending</th>
<th>Opening</th>
<th>Depletion</th>
<th>Inventory depletion adjustment</th>
<th>Ending</th>
<th>Carrying amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aurizona, Brazil</td>
<td>21,500</td>
<td>4,320</td>
<td>–</td>
<td>–</td>
<td>25,820</td>
<td>3,026</td>
<td>1,267</td>
<td>–</td>
<td>4,293</td>
<td>21,527</td>
</tr>
<tr>
<td>Bachelor Lake, Canada</td>
<td>22,171</td>
<td>500</td>
<td>–</td>
<td>–</td>
<td>22,671</td>
<td>652</td>
<td>4,315</td>
<td>(50)</td>
<td>4,917</td>
<td>17,754</td>
</tr>
<tr>
<td>Black Fox, Canada</td>
<td>37,758</td>
<td></td>
<td>–</td>
<td>–</td>
<td>37,758</td>
<td>8,299</td>
<td>5,645</td>
<td>(28)</td>
<td>13,916</td>
<td>23,842</td>
</tr>
<tr>
<td>Hugo North Extension and Heruga, Mongolia</td>
<td>–</td>
<td>37,580</td>
<td>–</td>
<td>–</td>
<td>37,580</td>
<td>13,916</td>
<td>23,842</td>
<td>–</td>
<td>37,580</td>
<td></td>
</tr>
<tr>
<td>Ming, Canada</td>
<td>20,068</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>20,068</td>
<td>3,145</td>
<td>872</td>
<td>–</td>
<td>4,017</td>
<td>16,051</td>
</tr>
<tr>
<td>Santa Elena, Mexico</td>
<td>13,342</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>13,342</td>
<td>4,405</td>
<td>3,324</td>
<td>–</td>
<td>7,731</td>
<td>5,611</td>
</tr>
<tr>
<td>Serra Pelada, Brazil</td>
<td>60,181</td>
<td>23</td>
<td>–</td>
<td>(52,204)</td>
<td>8,000</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>8,000</td>
</tr>
<tr>
<td>Royalties</td>
<td>25,973</td>
<td>86,108</td>
<td>(3,166)</td>
<td>(2,430)</td>
<td>106,485</td>
<td>–</td>
<td>8,515</td>
<td>–</td>
<td>8,515</td>
<td>97,970</td>
</tr>
<tr>
<td>Other</td>
<td>4,277</td>
<td>6,068</td>
<td>–</td>
<td>–</td>
<td>10,345</td>
<td>740</td>
<td>–</td>
<td>–</td>
<td>740</td>
<td>9,605</td>
</tr>
<tr>
<td>Total</td>
<td>205,270</td>
<td>134,599</td>
<td>(55,370)</td>
<td>(2,430)</td>
<td>282,069</td>
<td>20,269</td>
<td>23,938</td>
<td>(78)</td>
<td>44,129</td>
<td>237,940</td>
</tr>
</tbody>
</table>

Exhibit 4

Extract from Silver Wheaton financial statements 31 December 2013

2.9. Silver and Gold interests

Agreements for which settlement is called for in silver and/or gold, the amount of which is based on production at the mines, are stated at cost less accumulated depletion and accumulated impairment charges, if any. The cost of the asset is comprised of its purchase price, any closing costs directly attributable to acquiring the asset, and, for qualifying assets, borrowing costs. The purchase price is the aggregate cash amount paid and the fair value of any other non-cash consideration given to acquire the asset.

Depletion

The cost of these silver and gold interests is separately allocated to reserves, resources and exploration potential. The value allocated to reserves is classified as depletable and is depleted on a unit-of-sale basis over the estimated recoverable proven and probable reserves at the mine corresponding to the specific agreement. The value associated with resources and exploration potential is the value beyond proven and probable reserves at acquisition and is classified as non-depletable until such time as it is transferred to the depletable category as a result of the conversion of resources and/or exploration potential into reserves.
### Silver and gold interests – 31 December 2013

<table>
<thead>
<tr>
<th></th>
<th>Cost</th>
<th>Accumulated depletion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(In thousands)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Balance – 1 Jan 2013</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Balance – 31 Dec 2013</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Balance – 1 Jan 2013</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Depletion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Balance – 31 Dec 2013</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Carrying amount – 31 Dec 2013</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Silver interests</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Dimas</td>
<td>$190,331</td>
<td>-</td>
</tr>
<tr>
<td>Yauliyacu</td>
<td>285,292</td>
<td>-</td>
</tr>
<tr>
<td>Penasquito</td>
<td>524,626</td>
<td>-</td>
</tr>
<tr>
<td>Barrick</td>
<td>631,223</td>
<td>9,932</td>
</tr>
<tr>
<td>Other</td>
<td>563,114</td>
<td>127,068</td>
</tr>
<tr>
<td><strong>Total Silver Interests</strong></td>
<td><strong>$2,194,586</strong></td>
<td><strong>$137,000</strong></td>
</tr>
<tr>
<td><strong>Gold interests</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>777</td>
<td>$354,454</td>
<td>$5</td>
</tr>
<tr>
<td>Sudbury</td>
<td>-</td>
<td>623,864</td>
</tr>
<tr>
<td>Salobo</td>
<td>-</td>
<td>1,330,311</td>
</tr>
<tr>
<td>Other</td>
<td>47,774</td>
<td>202</td>
</tr>
<tr>
<td><strong>Total Gold Interests</strong></td>
<td><strong>$402,228</strong></td>
<td><strong>$1,954,382</strong></td>
</tr>
<tr>
<td><strong>Total Interests</strong></td>
<td><strong>$2,596,814</strong></td>
<td><strong>$2,091,382</strong></td>
</tr>
</tbody>
</table>

The value allocated to reserves is classified as depletable upon a mining operation achieving commercial production and is depleted on a unit-of-sale basis over the estimated recoverable proven and probable reserves at the mine. The value associated with resources and exploration potential is allocated at acquisition and is classified as non-depletable until such time as it is transferred to the depletable category, generally as a result of the conversion of resources or exploration potential into reserves.
## Appendix 2: A helpful guide to derivatives

<table>
<thead>
<tr>
<th>IAS 39 says</th>
<th>IAS 39 translated</th>
<th>Helpful links</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition of a derivative:</strong></td>
<td><strong>Generally, an underlying could be any variable whose changes are observable or otherwise objectively verifiable. It might be the price or rate of an asset or liability that changes in response to change in the market factors. The underlying will generally be the referenced index that determines whether or not the derivative instrument has a positive or negative value. Examples include:</strong></td>
<td><strong>Often, the investor will receive a return referenced to commodity sales owned by one party to the contract (and not the commodity price index at a point in time). For example, right to cash is driven by volumes produced from a specific mine owned by a counterparty to the contract. The underlying would be volumes from the mine, and the value of the contract would be tied to the volumes produced. If the non-financial variable is not specific to a party to the contract, the definition of a derivative will not be met. If the non-financial variable is specific to a party to the contract, such as volumes from a mine not owned by either party, this part of the definition of a derivative would be met.</strong></td>
</tr>
<tr>
<td>A derivative is a financial instrument or other contract with all three of the following characteristics:</td>
<td><strong>an interest rate (such as LIBOR),</strong></td>
<td></td>
</tr>
<tr>
<td>- its value changes in response to the change in a specified variable, sometimes called the 'underlying';</td>
<td><strong>security price (such as listed share),</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>a commodity price (for example, indexed to the price of gold),</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>a foreign exchange rate (such as EUR/USD spot rate),</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>an index (such as FTSE 100) or a credit rating (such as Moody’s), or</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>a non-financial variable (such as sales volume).</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Derivative instruments might have more than one underlying or variable (for example, a foreign currency contract based on sales volume). The underlyings are foreign currency and sales volumes. If a contract has two or more underlyings and one of those is a financial variable, the entire contract would be accounted for as a derivative (assuming the other two conditions are met).</strong></td>
<td></td>
</tr>
<tr>
<td>- it requires no initial net investment or an initial investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors; and</td>
<td><strong>The second part of the definition is that the derivative has no initial net investment or one that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors. Professional judgement is required in interpreting 'smaller than it would be', as it does not necessarily mean insignificant in relation to the overall investment.</strong></td>
<td></td>
</tr>
</tbody>
</table>

The purpose of many of these arrangements is for the seller to monetise reserves and raise finance to fund development. The upfront payment that the investor makes is often determined as present value of projected cash flows that the investor expects to obtain from the arrangement during its term. An upfront payment in these arrangements is likely to represent an initial investment. Only if this initial investment is ‘smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors’ will the second condition in the definition above be met. Thus, it
<table>
<thead>
<tr>
<th>IAS 39 says</th>
<th>IAS 39 translated</th>
<th>Helpful links</th>
</tr>
</thead>
<tbody>
<tr>
<td>is important to understand the substance of the upfront payment and pricing mechanism used to determine the amount of the upfront payment and subsequent payments, if any. Another key question is what is a comparative instrument to perform this test (that is, the other contract ‘that would be expected to have a similar response to changes in market factors’). The upfront payment might represent a prepayment for commodities to be delivered in future, where it forms a considerable part of the total present value of commodities to be delivered over the contract term (that is, the amount required to buy all the commodities upfront). If the upfront payment is not a significant portion of the total present value of commodities, it might be argued that the initial investment is a premium paid to enter into a forward contract or a purchased option to buy commodities in future. In the latter case, and provided other conditions are satisfied, the contract might represent a derivative.</td>
<td>All derivatives are settled at a future date. Forward contracts are settled at a specified date, whilst an option is settled on exercise or at maturity. Expiry at maturity is a form of settlement. The third condition is normally met because these contracts are generally settled at a future date. Derivatives can be settled net in cash (that is, the entity has the right to receive or the obligation to pay a single net amount) or gross in cash/other financial asset (that is, physical exchange of amounts in the contract). For many contracts, there is an option to net settle in cash or take gross physical delivery of the commodity.</td>
<td></td>
</tr>
</tbody>
</table>
## Acknowledgements

### Authors

<table>
<thead>
<tr>
<th>Mary Dolson</th>
<th>Tina Farnington</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone: +44 20 7804 2930</td>
<td>Telephone: +44 20 7212 2826</td>
</tr>
<tr>
<td>Email: <a href="mailto:mary.dolson@uk.pwc.com">mary.dolson@uk.pwc.com</a></td>
<td>Email: <a href="mailto:tina.farington@uk.pwc.com">tina.farington@uk.pwc.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yelena Belokovylenko</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone: +44 20 7213 5464</td>
</tr>
<tr>
<td>Email: <a href="mailto:yelena.x.belokovylenko@uk.pwc.com">yelena.x.belokovylenko@uk.pwc.com</a></td>
</tr>
</tbody>
</table>

### Contributors and reviewers

<table>
<thead>
<tr>
<th>Jason Burkitt</th>
<th>Nicholas Stevenson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone: +44 20 7213 2515</td>
<td>Telephone: +44 20 7213 4580</td>
</tr>
<tr>
<td>Email: <a href="mailto:jason.e.burkitt@uk.pwc.com">jason.e.burkitt@uk.pwc.com</a></td>
<td>Email: <a href="mailto:nicholas.p.stevenson@uk.pwc.com">nicholas.p.stevenson@uk.pwc.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Robert Marsh</th>
<th>Jessica Taurae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone: +1 604 806 7765</td>
<td>Phone: +44 20 72125700</td>
</tr>
<tr>
<td>Email: <a href="mailto:robert.marsh@ca.pwc.com">robert.marsh@ca.pwc.com</a></td>
<td>Email: <a href="mailto:jessica.taurae@uk.pwc.com">jessica.taurae@uk.pwc.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coenraad Richardson</th>
<th>Michael O’Riordan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone: +27 (11) 797 4713</td>
<td>Telephone: +1 (214) 754-5433</td>
</tr>
<tr>
<td>Email: <a href="mailto:coenraad.richardson@za.pwc.com">coenraad.richardson@za.pwc.com</a></td>
<td>Email: <a href="mailto:michael.anthony.oriordan@us.pwc.com">michael.anthony.oriordan@us.pwc.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scott Bandura</th>
<th>Derek Carmichael</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone: +1 403 509 6659</td>
<td>Telephone: +44 20 7804 6475</td>
</tr>
<tr>
<td>Email: <a href="mailto:scott.bandura@ca.pwc.com">scott.bandura@ca.pwc.com</a></td>
<td>Email: <a href="mailto:derek.j.carmichael@uk.pwc.com">derek.j.carmichael@uk.pwc.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tim Eastmond</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone: +44 20 7212 1237</td>
</tr>
<tr>
<td>Email: <a href="mailto:tim.eastmond@uk.pwc.com">tim.eastmond@uk.pwc.com</a></td>
</tr>
</tbody>
</table>