

# my biology trip

An overview of biological asset valuation.

■ The Hong Kong Institute of Certified Public Accountants (HKICPA) has recently adopted a new accounting standard, Hong Kong Accounting Standard 41 – Agriculture (HKAS 41), to better reflect the fair value of a company's biological assets. It hopes to provide users of financial statements with a more complete picture of the company's assets. However, valuation of biological assets requires more attention be paid to the unique nature of the subject asset.

#### WHAT ARE BIOLOGICAL ASSETS?

Biological assets are defined under HKAS 41 as living animals or plants. In an agricultural environment, biological assets are produced, sold or transformed into additional biological assets from controlled processes that manage their growth and maturation. In sharp contrast to conventional fixed assets like real estate and machinery, biological assets constantly change through time as dictated by their own growth cycle that includes growth, degeneration,





production and procreation. These changes can be varied and difficult to trace as the actual growth cycle of the biological assets may be affected by factors such as weather, natural effect of growth, liveability, disease, management of the assets, environmental conditions, etc.

#### HOW ARE BIOLOGICAL ASSETS VALUED?

Under HKAS 41, it is presumed that the fair value for most biological assets can be determined reliably in normal circumstances. For certain types of biological assets (i.e. animals and fishes), market exists for similar, though not identical, biological assets and prices in these markets can often provide a basis for determining the fair values of these biological assets. In the absence of market prices, other accepted valuation methodologies exist for estimating fair values of biological assets such as sector benchmarks and net present value of expected cash flows. There are instances in which fair value cannot be determined reliably. In such cases, HKAS 41 suggests historical cost should continue to be employed.

#### MARKET APPROACH

If an active market exists for a biological asset, the most reliable measure of the value of the biological asset is the market price as determined in the location in which the asset is intended to be sold or used. Given there are different species and varieties of a biological asset, it is important to identify the species and varieties of the subject biological asset. The market price can vary between different varieties under same species of asset. Valuations for the same biological asset or agricultural produce will vary between different market locations due to disparate market environments and conditions, which may result from regulatory, transportation, or seasonal differences.

Besides projecting prices for the biological asset, the valuer also has to determine its quantity as of the valuation date. It is important that the owner of the biological asset has proper records of the subject asset and reasonable control and maintenance procedures in place. Inspections, verification procedures and various sampling analyses are then carried out to ensure the integrity and

reliability of those records before the data is used to form the basis for the quantity of the biological assets.

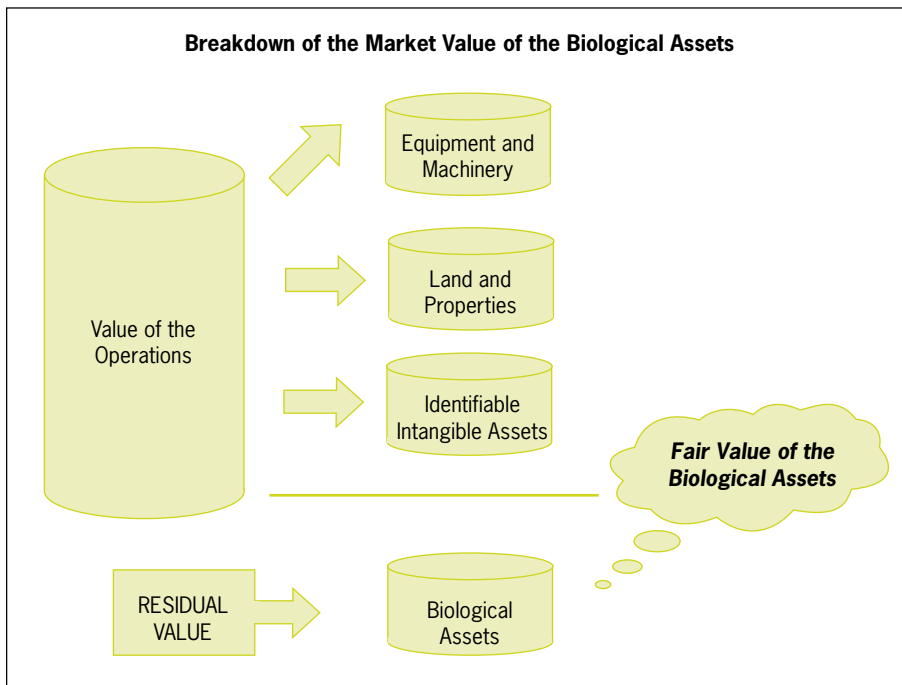
#### INCOME APPROACH

In the absence of an existing market for the biological asset, income approach may be an alternative approach in valuing the biological asset. By adopting the income approach in valuing a biological asset, value depends on the present worth of future economic benefits to be derived from the subject biological asset.

This approach warrants a thorough understanding of their special physical and biological attributes in order to arrive at a credible and reasonable result. Since these attributes and external factors are likely to have a major bearing on the expected future economic benefit, assistance and advice from expert consultants on the biological attributes of the asset under review can serve as valuable input when performing the valuation.

As an example, below depicts one of the valuation methodologies, referred to as

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business residual method, to derive the market value of the biological assets.

Under the method, one determines the market value of the operation derived from the biological assets. The value of the land, equipment & machinery, other assets and identifiable intangible assets (such as brand names) are then deducted from the market value of the operation. The resulting residual value can then be allocated as the market value of the biological assets.

**CONCLUSION**

While new accounting standards have been introduced to ensure adequate reflection of fair value of a company's biological and other intangible assets, we all must be mindful of the unique issues and challenges in valuing these assets. Experience, expertise and independence are key ingredients needed to ensure reliable results and credible opinions of value. ■

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