

The Cost Model and the Revaluation Model under HKAS 16 “Property, Plant and Equipment”

(Relevant to AAT Examination Paper 7: Financial Accounting and Paper I: PBE Financial Accounting)

Annie Mok Yuet-ngo, Department of Accountancy, City University of Hong Kong

David Lai Tai-wai, Department of Accounting, Hong Kong University of Science and Technology

This article discusses the two models – the cost model and the revaluation model – of subsequent measurement after initial recognition of property, plant and equipment as stipulated in HKAS 16.

Introduction

Under the requirements of HKAS 16, an item of property, plant and equipment shall be recognized as an asset when it is probable that future economic benefits associated with the item will flow to the entity and the cost of the item can be measured reliably. The amount recognized at this “initial measurement” stage shall be the cost of the asset. In addition to the purchase price, the cost of the asset also includes import duties, non-refundable purchase taxes, installation costs, etc.

Once an entity has recognized an item of property, plant and equipment as an asset in its books, the entity can choose between two models (or methods) to account for the asset in subsequent measurement periods, i.e., the period(s) after the asset has been acquired and before its disposition. The two models are the cost model and the revaluation model.

The entity shall apply the same model to the entire class of property, plant and equipment to which that asset is of similar nature and use in the entity’s operations. For example, the entity shall apply the same model, be it the cost model or the revaluation model, to all motor vehicles because all motor vehicles may be grouped as a single class of asset. On the other hand, if the entity has chosen the cost model for motor vehicles, the entity may choose a different model for furniture and fixtures, because furniture and fixtures is a different class of asset.

Cost model

When an entity adopts the cost model, the property, plant and equipment shall be carried at its cost less subsequent accumulated depreciation and impairment losses:

Carrying amount under the cost model = cost – accumulated depreciation – accumulated impairment losses.

The cost is a historical figure and does not change. On the other hand, the entity needs to compute depreciation on the asset. The choice of a suitable depreciation method such as the straight-line method or accelerated depreciation method is a matter of

professional judgment and entity policy. In addition, the entity needs to perform an impairment test and compute impairment losses (if any) on the asset pursuant to HKAS 36 "Impairment of Assets". The discussion of HKAS 36 is outside the scope of this article and the syllabus of Paper 7: Financial Accounting.

Revaluation model

When an entity adopts the revaluation model, the property, plant and equipment shall be carried at a revalued amount less subsequent accumulated depreciation and accumulated impairment losses:

Carrying amount under the revaluation model = revalued amount – accumulated depreciation – accumulated impairment losses.

The revalued amount refers to the fair value of an item of property, plant and equipment at the date of revaluation. In order for the revaluation model to be used, it should be possible to measure the fair value of an item of property, plant and equipment reliably. Reliable measurement may be obtained through external evidence such as market-based evidence or internal estimates using an income or a depreciated replacement cost approach.

The entity shall make the revaluations with sufficient regularity to avoid material differences between the carrying amount and that which would be determined using fair value at the end of the reporting period.

The revaluation model stipulated in HKAS 16 is different from the fair value model stipulated in HKAS 40 "Investment Property".

Revaluation surplus under revaluation model

HKAS 16 also introduces the term "revaluation surplus" and describes its usage. (The revaluation surplus is also known as the revaluation reserve.) The following discusses the circumstances when entries are put through the revaluation surplus account.

1. When an asset's carrying amount increases:

The revaluation surplus is credited when an asset's carrying amount increases due to revaluation. This increase is recognized in "Other comprehensive income" and accumulated in equity under the "revaluation surplus" heading unless a previous revaluation decrease of the same asset has been recognized in the profit or loss. When the carrying amount of the asset has fallen in previous years and the decrease has been recognized in profit or loss, the increase in the current year shall then be recognized in profit or loss to the same extent.

2. When an asset's carrying amount falls:

When an asset's carrying amount falls subsequent to a revaluation, the decrease is recognized as a loss unless there is a credit balance in the revaluation surplus. When there is a credit balance in the revaluation surplus of the same asset, the

revaluation surplus can be debited for the amount of decrease to the extent of that credit balance.

3. Transfer to retained earnings:

Even though the revaluation surplus and retained earnings are both equity accounts, they are separate accounts. The revaluation surplus may be transferred to retained earnings (an entry made to debit the revaluation surplus and credit retained earnings) in two circumstances. In both circumstances, the transfers from the revaluation surplus to retained earnings are not made through the profit or loss:

- In derecognition of an item of property, plant and equipment, the revaluation surplus of the derecognized item may be transferred directly to retained earnings. (Derecognition means the removal of an item of property, plant and equipment from an entity's accounting records.)
- The revaluation surplus may also be transferred to retained earnings even though the asset is still in use by an entity. The amount of transfer is the difference between the depreciation based on the revalued carrying amount of the asset and the depreciation based on the asset's original cost.

Conclusion

An entity can choose either the cost model or the revaluation model to account for property, plant and equipment after it has been initially recorded in the books as an asset. The cost model is simple while the revaluation model is more complicated.

Reference: HKAS 16 Property, Plant and Equipment