

# Implications of an IFRS conversion on property, plant and equipment from a US tax perspective\*



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For capital-intensive businesses, including companies in the manufacturing and utility industries, property, plant and equipment (PP&E) may account for over 25% of their balance sheet's total assets. From componentization to measurement and asset impairment differences, the conversion from US GAAP to International Financial Reporting Standards (IFRS) has the ability to impact the financial reporting of many organizations. In addition, these differences may also have implications on a company's tax accounting, compliance, planning, processes, and systems.

PricewaterhouseCoopers has prepared this article to assist tax executives in understanding the complexities surrounding the differences in accounting for PP&E between US GAAP and IFRS, as well as to gain an understanding of how these differences may potentially impact their organization's tax function. This article will address the following three major areas of difference:

- Componentization of assets—aggregation vs. separation
- Measurement—historical cost vs. fair value
- Tangible asset impairments

## Componentization

Componentization is perhaps the most notable difference in accounting for PP&E between IFRS and US GAAP. Under componentization, PP&E is segmented into significant components and recorded and depreciated separately. IFRS requires componentization, while US GAAP allows for a more aggregated approach to account for PP&E.

For example, under US GAAP, an airplane may be treated as a single depreciable asset while, under IFRS, it is typically treated as several separate units of depreciable property, including the airframe, engines, and other components. Exhibit 1 illustrates the application of componentization to an airplane to demonstrate the difference in accounting between IFRS and US GAAP.

**Exhibit 1: Componentization**  
(simplified for illustration purposes)

An airplane was placed in service on 1/1/08. The total cost of the entire airplane was \$100,000,000. The airplane had a useful life of 20 years and a residual value of \$0. The straight-line method of depreciation is used for all assets.

**Components**

- Airframe: \$60,000,000/useful life of 20 years
- Engine components: \$32,000,000/useful life of eight years (average)
- Other components: \$8,000,000/useful life of five years

**Component and depreciation determinations:**

**US GAAP**

| Component    | Amount             | Depreciation expense at 12/31/08 |
|--------------|--------------------|----------------------------------|
| Airplane     | 100,000,000        | 5,000,000                        |
| <b>Total</b> | <b>100,000,000</b> | <b>5,000,000</b>                 |

**IFRS**

| Component         | Componentized amount | Depreciation expense at 12/31/08 |
|-------------------|----------------------|----------------------------------|
| Airframe          | 60,000,000           | 3,000,000                        |
| Engine components | 32,000,000           | 4,000,000                        |
| Other components  | 8,000,000            | 1,600,000                        |
| <b>Total</b>      | <b>100,000,000</b>   | <b>8,600,000</b>                 |

For PP&E assets, it is likely that the unit of property (UOP) used for US tax purposes will also be substantially different than the unit of property used for financial reporting purposes under IFRS. Current US tax guidance<sup>1</sup> requires taxpayers to follow the UOP principles established under case law. Generally, for US tax purposes, a UOP is determined by considering the functional interdependence of one component with another component. Separate significant components are typically not treated as separate units of property. For example, an airplane, including its functionally interdependent parts, such as an airframe, engine components, auxiliary power unit, and wheels, are held to constitute a single UOP for US tax purposes.

As a result of the differences between IFRS and the current US tax law, organizations will likely be required to recombine separate asset components for book purposes into a different (e.g., a single) UOP for tax purposes. This will create significant disparities between book and tax records, as well as book and tax amounts (i.e., book-tax differences). For example, componentizing assets for book purposes may require different economic recovery lives to be assigned to certain assets, thus impacting book and tax depreciation determinations. Componentization may also trigger different placed in service dates and more frequent disposal or retirement activity when a different UOP is assigned to a related asset for book versus tax purposes. These, and other potential book-tax disparities (e.g., asset transfers, repairs, impairments, and valuations), will likely require the processes and systems within a company's financial and tax functions to be modified and the individuals that manage PP&E within the organization to be coordinated while carefully making several detailed and separate determinations and calculations.

While componentizing assets under IFRS, organizations may discover that erroneous or unfavorable UOP determinations were made historically for tax purposes. Companies may therefore use asset componentization efforts for book purposes as an opportunity to take a fresh look at their UOP assignments for tax purposes to determine if tax accounting method changes related to depreciation are required or desired. Taxpayers that are able to change UOP determinations to accelerate depreciation for tax purposes may lessen the disparities between book and tax records with respect to PP&E, while also increasing cash flow and decreasing cash tax liabilities.

<sup>1</sup> In 2008, the US Treasury released proposed regulations that may impact the unit of property principles. Companies should monitor these proposed regulations to understand the potential impact on PP&E, as well as the potential impact on book-tax differences.

## Measurement

Subsequent to initial recognition, under IFRS, an organization has an option to use the cost method or the revaluation method to measure PP&E. The adoption of the cost or revaluation method is applicable to an entire class of PP&E based on the company's policy elections. In comparison, US GAAP measures PP&E at its historical cost and prohibits revaluation over the depreciable life of the asset.

It is anticipated that very few companies will adopt the revaluation method under IFRS. However, if the revaluation method is chosen, an item of PP&E whose fair value can be measured reliably will be carried at a revalued amount, which is determined based on its fair value at the date of the revaluation less any subsequent accumulated depreciation and impairment losses. Revaluations are required to be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the end of the reporting period.

If the carrying amount of a PP&E asset is increased as a result of a revaluation, the increase is recognized in equity under the heading of revaluation surplus. The revaluation surplus amount recorded is then adjusted on an asset-by-asset basis by the amount of future revaluation increases or decreases. Adjustments to the revaluation surplus account are recorded in equity; however, the revaluation surplus account can never result in a debit balance. In other words, if the revaluation surplus account for a PP&E asset decreases to zero, any further decreases (i.e., below zero) are recorded as an expense in the income statement. Exhibit 2 illustrates revaluation under IFRS.

### *Exhibit 2: IFRS revaluation (simplified for illustration purposes)*

Entity A has a policy to record its PP&E under the IFRS revaluation method.

Entity A purchased a machine for \$30,000 on 1/1/08. The useful life of the machine is 10 years. On 12/31/08, the machine was revalued to \$36,000.

The following table illustrates revaluation under IFRS:

| Year 1                                     | Before<br>revaluation<br>adjustment<br>at 12/31/08 | Adjustment<br>for<br>revaluation<br>surplus | After<br>revaluation<br>adjustment<br>at 12/31/08 |
|--|--|---|---|
| Cost                                       | \$30,000   | \$6,000<br>[\$9,000 less \$3,000]           | \$36,000  |
| Accumulated<br>depreciation<br>at 12/31/08 | (3,000)  | 3,000                                       | 0   |
| Net carrying<br>amount                     | \$27,000   | \$9,000                                     | \$36,000  |

Based on the above table, revaluation under IFRS will result in a carrying amount at 12/31/08 of \$36,000 compared to a historical cost carrying amount of \$27,000. The \$9,000 revaluation surplus is recognized in equity.

*Note, this example demonstrates one method for allocating revaluation gains and losses between cost and accumulated depreciation whereby any accumulated depreciation at the date of the revaluation is eliminated against the gross carrying amount (cost) of the asset and the net amount is restated to the revalued amount of the asset. Companies may also restate accumulated depreciation proportionately with the change in the gross carrying amount (cost) of the asset so that the carrying amount of the asset after revaluation equals its revalued amount.*

For US tax purposes, historical cost is generally used to establish tax basis. If an organization chooses to use the revaluation method for book purposes, it will likely need to maintain separate records within its tax processes and systems in order to properly document and track the cost and carrying amount of the asset, as well as to make the necessary depreciation and other determinations under the US tax law.

A company's election to revalue PP&E may also affect its state apportionment factors. This could result in an impact to the company's effective tax rate and cash tax liabilities. Further, a company's use of the revaluation method for PP&E may also impact its property tax liabilities.

### Tangible asset impairments

Under US GAAP, recognizing tangible asset impairments requires testing for the current value based on current market conditions, such as declines in market value or obsolescence. The impaired assets are required to be maintained at historical cost on the balance sheet unless the carrying amount (i.e., the net amount of the asset as currently recorded after accumulated depreciation or a previously recognized impairment) is less than the fair value. The loss recognized from the impairment is recorded in the income statement. US GAAP does not permit the reversal of any impairment loss.

Unlike US GAAP, IFRS permits the reversal of impairments for tangible fixed assets, regardless of whether the company uses the cost method or the revaluation method to measure PP&E. Specifically, for tangible assets, IFRS requires that an entity determine whether there is any indication that an impairment loss may exist, may no longer exist, or may have decreased at each balance sheet date. If any indication of a change in a previously recorded impairment exists, the entity is required to estimate the recoverable amount of the related asset to determine if all or only a portion of the prior impairment should be reversed.

Despite the differences between US GAAP and IFRS with respect to the reversal of impairments, US tax law recognizes losses only when the tangible fixed asset is retired, sold, abandoned, destroyed, or otherwise permanently withdrawn from use in the organization's trade or business. As a result, book-tax difference amounts related to impairment adjustments will continue. Due to the potential book changes related to asset impairments, organizations will need to ensure that the data within the tax function's processes and systems is properly managed.

### What this means for your company

Adopting IFRS PP&E accounting policies may have a significant impact on an organization's tax function. Differences between US GAAP and IFRS related to fixed asset componentization, measurement, and the accounting for tangible asset impairments may all impact an organization's tax accounting, planning, and compliance. In addition, tax systems and processes may need to be modified upon conversion to IFRS to ensure historical tax information continues to be maintained appropriately and book-tax differences continue to be computed accurately. As companies continue their IFRS adoption efforts, it is critical that the tax and financial reporting functions are properly coordinated to identify opportunities and avoid surprises during the conversion process.

# Contacts

Clients of PricewaterhouseCoopers may want to open a dialogue about IFRS with their PwC engagement partner or the primary authors of this paper who welcome any questions about the tax implications of IFRS:

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PricewaterhouseCoopers is committed to helping companies navigate the conversion from US GAAP to IFRS. With that in mind, please visit [www.pwc.com/usifrs/tax](http://www.pwc.com/usifrs/tax) to view our comprehensive library of tax IFRS thought leadership, webcasts and tools addressing the business and technical issues that companies should be considering in anticipation of the move from US GAAP to IFRS.

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