EUROPEAN

PUBLIC SECTOR ACCOUNTING

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CHAPTER 10
OVERVIEW OF IPSAS ON PUBLIC SECTOR SPECIFIC TOPICS

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SUMMARY

This chapter sets forth the IPSAS content by reviewing relevant norms. The hierarchy of IPSASB announcements and the set of IPSAS financial statements are briefly explained. Still, the focus of this chapter is on selected IPSAS referring to specific balance sheet items, namely property, plant and equipment (IPSAS 17, 21, 26), revenue from non-exchange transactions with the related recoverables (IPSAS 23) and service concessions and the related assets and liabilities (IPSAS 32). Each standard is summarized in brief and for each accounting field, definition, initial recognition and subsequent measurement is introduced.

KEYWORDS

Public sector specific standards, IPSAS, non-cash generating assets

https://doi.org/10.14195/978-989-26-1861-6_10

1. Introduction and background

As IPSASs, their spread and use, and also objectives and users of IPSAS financial statements, have already been introduced in previous chapters of this book, this chapter directly turns to the delimitation of selected thematic areas of IPSASs. It was made clear that, in general, the IPSASB uses IFRSs as basis of reference for IPSAS development. However, for some public sector specific topics, there are no corresponding IFRS, so that the IPSASB pronounced self-standing IPSASs. These public sector specific standards are in the focus of this and the subsequent chapter: whereas Chapter 10 aims to introduce accounting for certain balance sheet items by using selected IPSAS, Chapter 11 reviews a case study that applies these standards. Therefore, the original texts of the standards and other pronouncements of the IPSASB are used.[1]

This section will provide some background to IPSASs, whereas in Section 2 the IPSASs selected for Chapters 10 and 11 are briefly derived. The main sections of this chapter will then explain the accounting rules for accounting for property, plant and equipment (PPE, Section 3), revenue from non-exchange transactions (Section 4) and service concessions from the perspective of the grantor (Section 5). The final section gives a short conclusion. Chapter 11 then proceeds with a case study corresponding to the IPSAS introduced here.

Before, however, the hierarchy of IPSASB pronouncements needs to be reviewed in order to clarify their degree of bindingness. Four levels of bindingness are distinguished as shown in Figure 10.1. In the first level, only the accrual-based standards and the annual improvements to IPSAS, if effective yet, or the cash-based standard are binding. If a specific economic transaction is not addressed in a corresponding IPSAS, on a second level, requirements of other IPSASs that deal with similar or related topics are to be used. If still fruitless', the Conceptual Framework (CF) can be consulted on level 3, to find information with respect to definitions, accounting criteria and measurement methods. If the accounting treatment of an economic

[1] The chapters rely on the 2018 Handbook of IPSAS Pronouncements.

transaction cannot be handled by using the previously named sources, on the least binding level 4, pronouncements of other standard setters can be applied, if these are consistent with the IPSASB CF (e.g., those of the IASB or GASB); or (other) authoritative literature (including the IPSAS Preface); or accepted best practices in the public and private sectors (including IPSASB's Recommended Practice Guidelines – RPG) can be applied.

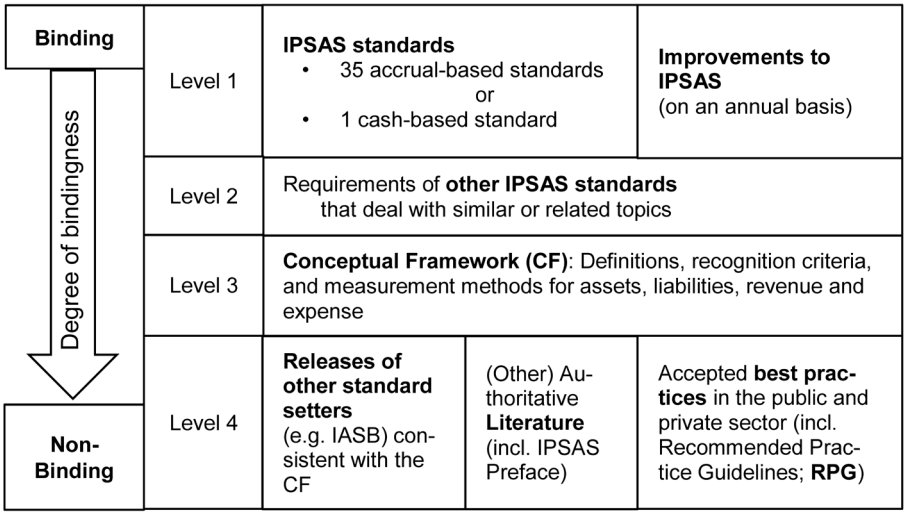

Figure 10.1: Hierarchy of IPSAS Pronouncements

In total, 42 IPSASs have been published by the IPSASB, of which IPSAS 6, 7, 8, 15 and 25 have been superseded by other standards (as of September 2019). The majority of standards, namely twenty one, focus on specific balance sheet items. There are three general standards on accounting recognition and measurement and eighteen general standards on reporting.[2]

According to IPSAS 1.66, financial statements have to be presented by the reporting entities at least annually. A set of IPSAS financial statements consists of: a) a statement of financial position[3], b) a statement of financial

[2] A list of standards and their focus can be downloaded from the lecture material.

[3] Also called balance sheet or statement of assets and liabilities.

performance[4], c) a statement of changes in net assets/equity, d) a cash flow statement, e) a comparison of budget and actual amounts, and f) the notes (IPSAS 1.21). According to IPSAS 1.53 an entity shall, for all amounts reported in the financial statements, present comparative information at least in respect of the preceding period.

Further information, e.g. about the distinction between current and non-current items, is provided in Chapter 9.

2. Selected Public Sector Specific IPSASs

Most IPSASs are based on existing IFRSs.[5] However, for some accounting issues in the public sector there are no corresponding private sector norms. Thus, the following standards have been developed without an equivalent IFRS:

- IPSAS 21: Impairment of non-cash generating assets;
- IPSAS 22: Disclosure of financial information about the general government sector;
- IPSAS 23: Revenues from non-exchange transactions;
- IPSAS 24: Presentation of budget information in financial statements;
- IPSAS 32: Service concession arrangements: Grantor;
- IPSAS 40: Public sector combinations.

Also, to some extent, IPSAS 33 (First-time adoption of accrual basis IPSASs) can be seen as public sector specific IPSAS, as the transition from cash to accrual accounting is not addressed in IFRSs.

In the following, IPSASs 21, 23 and 32 will be considered as these are related to accounting for specific balance sheet items. A such, when introducing the impairment of non-cash and cash generating assets, IPSAS 21 and 26 are respectively used. When an entity receives resources and

[4] Also known as statement of revenues and expenses or income statement, operating statement or profit and losses.

[5] See IPSASB (2018), Introduction to the IPSASB, p. 1.

provides no or nominal consideration, IPSAS 23 needs to be applied, i.e. when non-exchange transactions occur. Also service concessions are a typical transaction in the public sector, in which an operator uses an asset to provide a public service on behalf of a public entity (grantor), for a specified period of time, being compensated by the public entity. IPSAS 24 is partially also addressed in Chapter 4 on budgetary accounting and IPSAS 40 is referred to in Chapter 13. IPSAS 17 is not strictly public sector specific, but used here as an introduction to PPE accounting.

3. Accounting for property, plant and equipment

This section introduces accounting for property, plant and equipment (PPE) and will refer to IPSAS 17 for the definition, recognition, initial and subsequent measurement of PPE, and IPSAS 21 and 26 for impairment.

3.1. Definition of PPE

According to IPSAS 17.13, PPE are defined as tangible (i.e. physical) assets for the purposes of production or supply of goods or services, administrative purposes or rental to others, which are expected to be used during more than one reporting period (i.e. as non-current assets). PPE also include specific public sector assets such as specialized military equipment and infrastructure assets (IPSAS 17.5). Some assets are out of scope of IPSAS 17, e.g. investment property (see IPSAS 17.6-8) for which other standards may apply (e.g. IPSAS 11, 13 or 16).

It is important to add that for heritage assets, IPSAS 17 can be voluntarily used (IPSAS 17.9). Basically, heritage assets are assets with a (1) cultural, environmental, educational or historical value, which are additionally characterised by (2) sale prohibitions or restrictions laid upon the assets, (3) the difficulty to estimate their useful lives, and (4) their irreplaceability. Typical examples are historical buildings, archaeological sites, nature reserves, and works of art (IPSAS 17.10). If heritage assets are accounted

for, the disclosure requirements for PPE of IPSAS 17 are mandatory, whereas the measurement requirements of IPSAS 17 can be complied with optionally. An IPSASB project for heritage accounting is currently under development; however, its proposed optional accounting treatment hinders comparability of financial statements.

The structure of PPE presentation in the statement of financial position is not explicitly prescribed by IPSAS. According to IPSAS 1.93, classes of assets have to be presented either in the financial statement or in the notes, depending on the size, nature and functions of the amounts (IPSAS 1.94). Examples for these classes are provided in IPSAS 17.52, such as land, operational buildings and administrative equipment. These classes are particularly relevant for initial and subsequent measurement such as using the revaluation model. Individually insignificant items (e.g., chairs or cutlery parts in a school) can be presented as an aggregate value according to IPSAS 17.18.

3.2. Recognition of PPE

An item of PPE is to be recognized in the balance sheet if and only if: a future flow of economic benefits or service potential is expected from that item, and its cost or fair value can be measured reliably. In this context, reliable means free from material error and bias, so that the measurement faithfully represents what it purports or could reasonably be expected to represent. The reliance on the service potential, i.e. an asset's capacity to provide services that contribute to the entity's objectives (without necessarily generating net cash inflows) (IPSAS CF 5.8), is a public sector specific divergence of the IPSAS CF from the IASB CF (see also Chapter 8). In the private sector definition of an asset, only future flows of economic benefits in terms of cash flows determine an asset. This, however, is often not applicable in the public sector for, e.g., the majority of infrastructure assets such as streets or school buildings.

Also, the public entity needs control over the item, in order to recognize the item (IPSAS CF 5.11). This does not necessarily refer to legal ownership,

but economic ownership is relevant according to the "substance over form" principle (IPSAS CF BC 3.10, 3.15). The date of recognition thereby is the point in time of transfer of the economic ownership (= control), i.e. the date on which the risks and rewards pertaining to ownership get transferred. This generally corresponds to the acceptance of an asset.

3.3. Initial recognition of PPE

For the recognition of PPE in the accounts, the initial value is to be determined. According to IPSAS 17.26, measurement at recognition of PPE has to be undertaken at cost. In order to determine the cost, the way how the public entity gained control of the asset needs to be distinguished: (1) Acquisition of the asset can, on the one hand, be realised through either (1a) an exchange transaction or through (1b) a non-exchange transaction. Here, the acquisition or purchase costs need to be determined. On the other hand, (2) self-construction of an asset is also possible. Here, the costs, also called conversion or production or manufacturing costs[6], are relevant (IPSAS 17.36). In the following, determination of the cost according to these three variants are explained:

(1a) Initial measurement of an item received by an **acquisition through an exchange transaction,** i.e. a typical purchase, is at cost (IPSAS 17.30). For determining the acquisition cost, three phases are distinguished (acquisition itself, use and end of useful life) of which each is important. The "acquisition cost" contains the sum of:

1) Purchase price (cash price equivalent) including non-refundable duties and purchase taxes less trade discounts and rebates,
2) Costs directly attributable to bring the item into service,
3) Costs of obligations for dismantling and removing the item and restoring the site at the end of the useful life, if recognized as provision (IPSAS 19), and
4) Optionally, borrowing costs of qualified assets (IPSAS 5).

[6] According to IPSAS 12.20 ff, about Inventories.

As highlighted in 4), borrowing costs, i.e. interest or other expenses related to the borrowing of funds, can be optionally added to the initial value only, if the asset acquired meets the definition of a qualified asset. A qualified asset necessarily takes a substantial time to be ready for their intended use or sale (IPSAS 5.5), such as administrative buildings, hospitals and infrastructure assets.

In addition, also during the use of the item, a replacement of significant components can lead to additional costs. However, it is prohibited to capitalize general cost such as administration and other general overhead cost, cost of opening a new facility, introducing a new product, etc. (IPSAS 17.33). Particularly relevant are also costs that are expected to occur at the end of the useful life of the asset. For expected costs for dismantling and restoring, a provision needs to be recognized (IPSAS 19.22).[7] The provision is to be measured at the best estimate of the cost expected (IPSAS 19.44). If there is a large number of items of the asset type acquired, the expected value is determined by "weighting all possible outcomes by their associated probabilities" (IPSAS 19.47). If there is a continuous range of possible outcomes, the midpoint of the range is used, if each point in that range is as likely as any other (IPSAS 19.47). In order to assess the best estimate for a single obligation, the individual most likely outcome is used according to IPSAS 19.48. The present value of the initially estimated costs is then capitalized.

(1b) For an **acquisition through a non-exchange transaction**, i.e. an item acquired at no cost or at nominal cost[8] (IPSAS 17.29), the item is initially measured at fair value as at the date of acquisition (IPSAS 17.27). As such, according to IPSAS 23.44, an increase in assets (e.g. PPE) is recognized and, at the same time, a revenue (except to the extent a liability

[7] "A provision shall be recognized when: (a) An entity has a present obligation (legal or constructive) as a result of a past event; (b) It is probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation; and (c) A reliable estimate can be made of the amount of the obligation" (IPSAS 19.22).

[8] Nominal cost should not be mixed up with terms from economics. Nominal cost for such transaction means insignificant or symbolic cost.

may be recognized at the same time). This will be explained in more detail in section 4 of this chapter.

(2) If control for the asset is gained by **self-construction**, according to IPSAS 17.36 the cost has to be measured based on IPSAS 12.20 ff., which is the standard for inventories. The "construction cost" contains the sum of:

1) Costs directly related to the item (e.g. direct labour) include a systematic allocation of fixed and variable production overheads;
2) Costs directly attributable to bring the item into service;
3) Costs of obligations for dismantling and removing the item and restoring the site at the end of the useful life, if recognized as provision (IPSAS 19); and
4) Optionally, borrowing costs of qualified assets (IPSAS 5). [9]

According to IPSAS 12.26 and IPSAS 17.36, it is prohibited to capitalize some cost as, e.g., abnormal production costs, storage costs, and general administrative overheads.

3.4. Subsequent measurement of PPE

After an asset has been initially recognized, its subsequent measurement is to be determined at the end of each following reporting period. According to IPSAS 17.42, public entities have the option to choose between (1) the cost model, and (2) the revaluation model, whereas the latter can only be applied if the asset's fair value can be measured reliably. However, often, in the public sector the fair value is hardly measurable. The selected approach is to be applied to the entire class of PPE (IPSAS 17.51). Using the cost model, the asset is carried at its cost, less any accumulated depreciation and less any accumulated impairment losses (IPSAS 17.43). When the revaluation model is applied, the asset is carried at its revalued amount, i.e. its fair value

[9] The cost components 3) and 4) have already been explained for the acquisition cost.

at the date of the revaluation, less any accumulated depreciation and less any accumulated impairment losses (IPSAS 17.44).

As such, for both methods for assets with a definite useful life, depreciation needs to be deducted. This is particularly relevant for the application of the widely used **(1) cost model**. Depreciation is an accounting technique of systematically allocating the expected depreciable amount of an asset, over its useful life (IPSAS 17.13), in order to reflect the reduction of the PPEs' future economic benefits or service potential due to wear, aging or other similar factors. Depreciation is even recognized, if the fair value is higher than the carrying amount of the asset, if the latter is not lower than the residual value (IPSAS 17.68). Consequently, the depreciable amount is the difference between the initial cost of an asset and its residual value. The useful life is the expected period of use or number of production units, i.e. the period of time of consumption of a specified portion of the asset's future economic benefits or service potential. Useful life can be shorter that the economic life of the asset, e.g. if the disposal of the asset is planned earlier. It is to be judged building on experiences with similar assets. The depreciation charge is an expenditure which is to be recognized in surplus or deficit (IPSAS 17.64).

For determining the depreciation, when applicable, the asset is to be broken down into its components, i.e. the initially recognized cost of the item is to be allocated to its significant parts and thereby an individual depreciation of those parts over the parts' useful lives takes place (IPSAS 17.59). This is also known as **component approach**. The significant parts or costs are to be assessed in relation to the total costs of the item. Therefore, the useful lives may differ between the components, so that e.g. of a road system, parts such as pavements, formation, curbs, channels, footpaths and bridges, and lighting are depreciated separately (IPSAS 17.60). A further example are the components of airplanes. Still, land and buildings are independent of the components approach as these are accounted for separately (as land has an unlimited useful life) (IPSAS 17.74).

In addition, the depreciation method needs to be determined. For each asset, the public entity has to select a method that best reflects the consumption of the future economic benefits or service potential (IPSAS

17.76). The method selected has to be applied consistently, given that the pattern of consumption remains as planned. IPSAS 17.78 proposes three depreciation methods, even though also other methods could be used:

a) Straight-line method: an easy to use method with a constant charge over the useful life. The depreciation charge is calculated by dividing the depreciable amount by the useful life.
b) Diminishing balance method: the depreciation charge decreased over the useful life, as it is accounted for by multiplying a previous reporting date's carrying amount with a constant percentage-based depreciation rate.
c) Units of production method: the depreciation charge is based on the expected use or output of the asset by dividing the depreciable amount by the total units of production, multiplied by the production in the respective reporting period.

When the **(2) revaluation model** is applied for subsequent measurement of assets, the fair value at the date of the revaluation (= revalued amount) is to be determined (IPSAS 17.44 ff.). Thereby, the revalued amount of the item may even exceed the initial carrying amount. This fact is a remarkable difference to some other national accounting system, e.g. the German one. The fair value is usually derived from a market value, e.g., by an actuary in terms of quoted prices in an active and liquid market. If no active market is prevalent, which will often be the case in the public sector, for items of property (such as land) the price of items with similar characteristics can be used. In case of an item of plant and equipment, relying on IPSAS 21 for non-cash generating assets, there is a choice to use the depreciated replacement cost, restoration cost, or service unit approaches for measuring the fair value (IPSAS 17.47).

The general principles of using the revaluation model are outlined in IPSAS 17.44 ff. These refer, e.g., to the frequency of revaluation, items with a definite useful life, and classes of assets. Revaluation has to be undertaken with sufficient regularity, building on the question how often significant changes in fair value occur. If significant annual changes are expected, then

a revaluation is to be done annually. If insignificant annual changes occur, then a revaluation every 3-5 years is sufficient. Even if using the revaluation model, items with a definite useful life still need to be depreciated. Also, it needs to be stressed that the revaluation model applies to the entire class of PPE to which the revalued asset belongs (IPSAS 17.51, with the exception of impairments under IPSAS 21 and 26). Thus, a simultaneous revaluation of all assets in that class of PPE has to be undertaken. Also, the adjustment of the accumulated depreciation after revaluation is to be done for the entire class of assets (IPSAS 17.50).

The accounting treatment of the revaluation method can be a sophisticated matter. An example is shown in Figure 10.2 with the reporting periods depicted on the abscissa and the carrying amount on the ordinate axis.

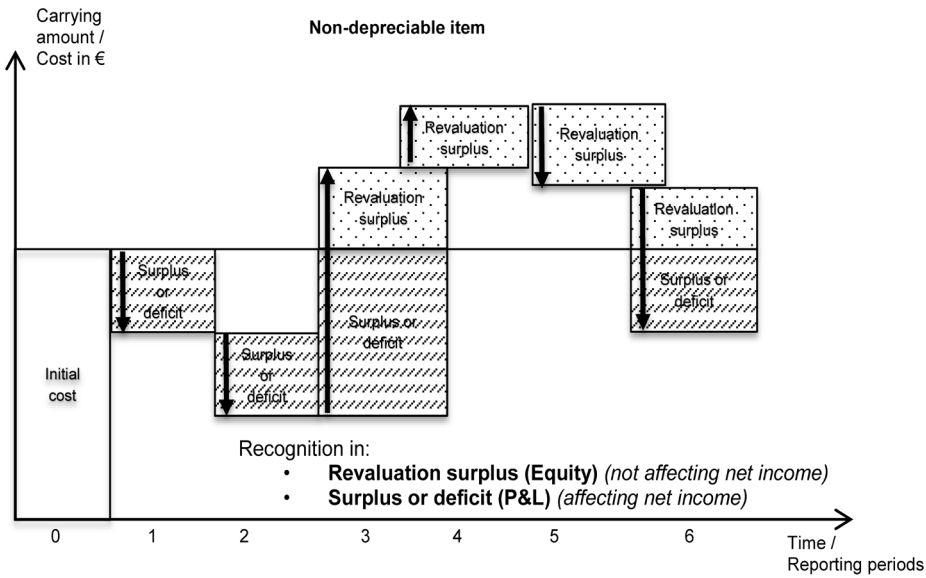

Figure 10.2: Revaluation model: Accounting treatment of revaluation surpluses / deficits

For reasons of simplicity, an example of a non-depreciable item is drawn, which might be, e.g., a piece of land, as land has an unlimited useful life. The graph shows revaluation amounts that have to be accounted for directly in equity without changing net income in the dotted areas ("Revaluation

surplus"). The diagonally striped areas depict revaluation amounts that are accounted for through "surplus or deficit" (i.e. profit and loss), and thus will change net income. In this example, after initial recognition in the first two reporting reports, the revalued amount lies below the initial cost of the item, i.e. there is an impairment loss. In this case, the revaluation decrease shall be recognized in the surplus or deficit, leading to a reduction in the net income of the public entity in these years. In years 3 and 4, the value of the item increases, so that the revalued amount even lies above the initial cost. In this case the revaluation surplus has to be split. First, to the extent that the revaluation reverses a revaluation decrease (i.e. impairment loss) previously recognised in surplus or deficit, it has to be recognized in surplus or deficit. The remaining amount, i.e. the difference, that exceeds the initial cost is to be recognized directly in net assets. Here, the reverse of revaluation even does not only refer to one specific asset, but to the entire class of assets (IPSAS 17.54). If in year 5 the revalued amount goes down below the initial cost again, first the revaluation surplus is to be reversed, and second the remaining amount is to be recognized in surplus or deficit.

To summarize subsequent measurement so far, for both assets with a definite useful life and those with an indefinite useful life, there is the option to choose between the cost model or the revaluation model. Regardless of the approach for subsequent measurement selected, for assets with a definite useful life, a scheduled depreciation has to be accounted for. When using the revaluation method, for both assets with a definite useful life and those with an indefinite useful life, a revaluation depending in the determined frequency has to take place.

In addition, to each of these variants regardless of the useful life of an asset, it has to be tested for impairment, i.e. whether there is a loss in the future economic benefits or service potential of an asset, over and above the systematic recognition of the loss of the assets depreciation. With respect to impairment. IPSAS 17.79 distinguishes between cash generating and non-cash generating assets and this differentiation is a public sector specific one, because IFRSs do not regard such situations. Cash generating assets are held by the public entity with the intention to generate cash inflows independent of other assets (IPSAS 21.16). Therefore, the asset is presented like by a

profit-oriented company, such as rented buildings or managed forests. For impairment of these assets IPSAS 26 has to be applied. Non-cash generating assets are all assets other than cash generating assets (IPSAS 21.14), as these are acquired with the intention to deliver services to the public (IPSAS 21.18): e.g., streets, public buildings, and fire trucks. Specifically, for the impairment of non-cash generating assets, IPSAS 21 has been developed by the IPSASB, as there was no comparable IFRS to be referenced to.

The general procedure of testing for impairment is basically the same under IPSAS 21 and 26. In a first step, at the reporting date, a check for an indication of impairment has to be done. Accordingly, external and internal sources of information are listed in IPSAS 21.27 and 26.25[10]. The check for such indications is not to be conducted for intangible assets with indefinite useful lives or intangible assets not yet available for use or goodwill, as for these assets there is an obligation for an impairment test once a year. Secondly, if there is any indication of impairment, the impairment test is initiated by measuring the recoverable service amount (IPSAS 21) or the recoverable amount (IPSAS 26), respectively. Thirdly, the recoverable (service) amount is compared with the carrying amount of the asset: if the recoverable (service) amount lies below the carrying amount, an impairment is to be recognized.

For non-cash generating assets under IPSAS 21, the recoverable service amount is the highest of the fair value less costs to sell and the value in use. If one of the amounts exceeds the asset's carrying amount, the other does not need to be calculated (IPSAS 21.36). For the fair value less costs to sell, the best evidence would be the asset's price in a binding sale agreement in an arm's length transaction, or current bid price at an active market. As this will hardly be measurable for typical public sector assets, an alternative is a disposal amount, e.g. recent transactions for similar assets not within a forced sale. The value in use, i.e. the present value of an asset's service potential, can, according to IPSAS 21 be determined by using one of three methods:

[10] Including the respective Implementation Guidance (IG).

1) **Depreciated replacement cost approach:** Cost to replace the asset's gross service potential, which is determined as the lower of the reproduction or replacement cost (less accumulated depreciation) (IPSAS 21.45 ff.);
2) **Restoration cost approach:** Cost of restoring the service potential to its pre-impaired level, which is determined by subtracting the estimated restoration cost of the asset from the current cost of replacing the remaining service potential of the asset before impairment (IPSAS 21.48);
3) **Service units approach**: Value of the reduced number of service units from the asset in its impaired state, determined by reducing the current cost of the remaining service potential of the asset before the impairment to conform with the reduced number of service units expected from the asset in its impaired state (IPSAS 21.49).

For cash generating assets under IPSAS 26, the recoverable amount is the highest of the fair value less costs to sell (comparable to the IPSAS 21 definition) and the value in use. The value in use is determined by an estimation of the future cash in- and outflows expected to be derived from the use of the asset and its ultimate disposal. Here the appropriate discount rate to those future cash flows has to be applied, which is a sophisticated issue (IPSAS 26.AG3).

If the (accumulated) impairment loss of the previous period has decreased in the next period, a reversal of impairment is to be recognized (IPSAS 21.67/26.102). However, the maximum of reversal is the amount as if no impairment loss existed (IPSAS 21.68, IPSAS 26.106). A reversal of impairment is to be recognized in surplus or deficit (IPSAS 21.68, 26.108). Also the depreciation charge needs to be adjusted afterwards.

Examples of how to handle the accounting treatment for PPE under IPSAS 17, 21 and 26 are provided in chapter 11.

4. Accounting for revenue from non-exchange transactions

IPSAS 23 addresses accounting for revenue from non-exchange transactions, which is a specific public sector matter. Whereas in the private sector, the majority of transactions has an exchange character, the public sector mainly finances its activities by means of taxes or transfers,[11] i.e. by non-exchange transactions. Due to this reason, there is no IFRS that deals with this type of transactions and therefore the IPSASB developed an own standard as the accounting treatment of revenue from non-exchange transactions is not trivial. Also, recently, IPSAS 42 'Social benefits', i.e. a specific form of expenses from non-exchange transactions, has been published. In addition, an IPSASB project on further expenses from non-exchange transactions (collective and individual services and emergency relief) is currently ongoing. Furthermore, as Müller-Marques Berger and Wirtz (2018) highlight, concessionary loans and public guarantees are partially addressed in IPSAS 28, 29 and 41.

4.1. Definition of non-exchange transactions

The scope of IPSAS 23 and the corresponding definitions are provided in IPSAS 23.5-23.7. Here, non-exchange transactions are defined as transactions in which a public entity receives/pays resources and provides/receives no or nominal consideration (IPSAS 23.9). Nominal costs are either insignificant or symbolic. The scope of IPSAS 23 covers (1) taxes and (2) transfers. **(1) Taxes** are economic benefits or service potential compulsorily paid or payable to the public entity other than fines or other penalties (IPSAS 23.7). Taxes represent revenues to the public sector entities. **(2) Transfers** are inflows from non-exchange transactions, other than taxes, such as cash or non-cash assets, debt forgiveness, bequests, donations, goods and services in-kind (IPSAS 23.7).

[11] IPSASB (2018) Preface to the IPSASs, 10.(b).

4.2. Recognition of elements to be recorded in non-exchange transactions

In order to account for revenue from non-exchange transactions, the following flowchart can be applied as shown in Figure 10.3[12].

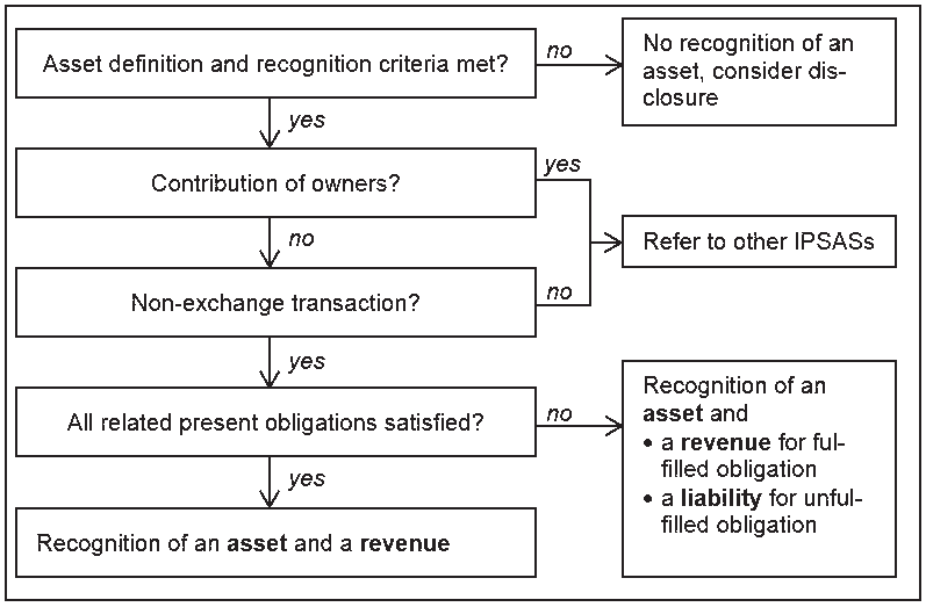

Figure 10.3: Flowchart of accounting for non-exchange transactions (IPSAS 23)

First, an assessment is needed, whether for the item acquired the asset definition (IPSAS 1.7) and recognition criteria (IPSAS 23.31) are met. If this is not the case, an asset is not recognized, but maybe a disclosure is to be done. If an asset was acquired, it needs to be verified whether it was a contribution of owners (IPSAS 23.37) as defined in IPSAS 1.7. If so, other IPSASs are referred to. In the other case, it is to be checked whether it was a non-exchange transaction as otherwise other IPSASs apply. If the transaction meets the definition of a non-exchange transaction (IPSAS 23.9-10), the next question is whether all related obligations to the transaction

[12] See also IPSAS 23.29 and Müller-Marques Berger and Wirtz (2018) in Adam (2018), p. 398.

have been fulfilled, i.e. if there are not any conditions on the transferred asset (IPSAS 23.17). If there are no conditions, i.e. no present obligations, an asset and a revenue in the surplus or deficit is to be recognized (IPSAS 23.44). Otherwise, an asset and a revenue for the fulfilled obligation and a liability for unfulfilled obligations are to be recorded. In fact, a liability is a deferred revenue, i.e. a revenue with conditions. It becomes revenue in the surplus or deficit as the obligations are accomplished.

A specific question with respect to recognition is the point of time in which to recognize particular taxes. According to IPSAS 23.34, taxes are to be recognized at the taxable event, i.e. the event that the public entity has determined to be subject to taxation (IPSAS 23.7). This is, e.g., the event of earning of assessable income during taxation period for income tax, undertaking of a taxable activity during a taxation period for the value added tax, the movement of dutiable goods across customs boundary for customs duty, or passing of the date on or for which the tax is levied for property tax. As the taxable event and the payment of taxes often take place at different points in time, in the statement of financial position, also advance receipts – revenue deferrals (for prepayments) and tax receivables – revenue accruals (for subsequent payments) need to be considered (IPSAS 23.27-28).

4.3. Measurement of the elements to be recorded in non-exchange transactions

The asset is to be initially measured when the public entity gains control over the asset (substance over form), at fair value. For subsequent measurement, other IPSASs, e.g., IPSAS 17 (PPE) or 16 (Investment property) apply. The revenue is to be measured at the amount of the increase in net assets (also fair value). The liability is recognized if its definition and recognition criteria are fulfilled; it is measured at the amount to settle the obligation as of the reporting date.

5. Accounting for service concession arrangements: Grantor

IPSAS 32 is a further standard developed for the specific use by public sector entities that act as the grantor in such constellations.[13]

5.1. Definition of service concession arrangements and assets

A service concession arrangement is defined as a binding agreement between a grantor and an operator, whereby the operator uses an asset to provide a public service on behalf of the grantor for a specified period of time, and the operator is compensated over the service concession period (IPSAS 32.8). Thereby, the so called service concession asset can alternatively either be a) provided by the operator, who constructs, develops or acquires the asset for the grantor or an existing asset of the operator, or b) provided by the grantor as an existing asset of the grantor or an upgrade to such an asset (IPSAS 32.8).

Table 10.1 provides an overview of examples of service concession agreements and assets based on IPSAS 32.

Agreements	Assets
Provision of toll roads	Roads, bridges, tunnels, etc.
Hospital operation	Hospitals (land & buildings, etc.)
Facility management, e.g. cleaning services	Machines as cleaning facilities, etc.
Transportation services	Busses, trains, etc.
Utilities, e.g. water supply, telecommunication services	Water pipe lines, telecommunication networks

Table 10.1: Examples for service concession arrangements (IPSAS 32 IE)

[13] Still, it mirrors IFRIC 12 for the private sector and the operators.

5.2. Recognition of elements to be recorded in service concession arrangements

The service concession arrangement has to be recognized by the grantor if the following conditions are cumulatively fulfilled (IPSAS 32.9). The grantor controls or regulates which services are provided, to whom these are provided, and what is the price of delivery. In addition, the grantor must control any significant residual interest in the asset, at the end of the term of the arrangement. In addition, a liability is recognized together with a new service concession asset, except for cases in which the service concession is an existing asset of the grantor, therefore only needing reclassification (IPSAS 32.14).

5.3. Measurement of elements to be recorded in service concession arrangements

Initial measurement of the service concession asset is at fair value at the time of recognition (IPSAS 32.11), except for cases in which an existing asset of the grantor is only reclassified (IPSAS 32.12). For its subsequent measurement, the IPSAS relevant for the specific asset are to be applied, namely IPSAS 17 for PPE or IPSAS 31 for intangible assets.

The liability is initially measured at the same amount as the asset. For subsequent measurement, depending on the type of compensation is obligation of the grantor to pay, two alternative models have to be distinguished: (1) the financial liability model, and (2) the grant of a right to the operator model. In the following, the models[14] are explained and two examples are drawn to highlight the differences in accounting treatment for the grantor, i.e. a public entity.

(1) The **financial liability model** is prevalent if the grantor has an unconditional obligation to pay for the construction, development,

[14] Also, a mixed model by dividing the agreement is possible (IPSAS 32.27). However, this is not explained in this chapter.

acquisition or upgrade of the asset (IPSAS 32.18). As such, the operator is compensated for the asset by a payment of the grantor, and not by the parties who receive the service delivered with the asset. The subsequent measurement is recorded as follows: when the financial liability model is applied, the payment of the grantor is distinguished between an asset component, which also leads to a reduction of the liability, a finance charge, i.e. the cost of capital and a service component, which covers the charge for delivering the service (IPSAS 23.21). Finance charge and service component are accounted for as expenses (IPSAS 23.22). If the service charge and the finance charge are not separately identifiable, the payment is to be allocated relative to the fair values of the asset and the revenues (IPSAS 23.23). Applying this model approximates the recognition of a financial leasing contract.

An example

A private operator provides transportation services on behalf of a public entity, using busses controlled by the public entity. The operator receives fixed payments from the public entity, which prescribes the services and prices. As such the financial liability model is prevalent and the asset and a liability have to be recognized. The initial measurement of the asset, i.e. the busses, takes place at fair value of the busses, whereas for subsequent measurement, according to IPSAS 17, there is the option to choose between the cost or the revaluation model. The busses are assets with a definite useful life, so these are to be depreciated and regularly assessed for indications of impairment. Correspondingly to the asset, also the liability is to be initially measured at the fair value of the busses. In each reporting period, the payment to the operator is divided into an asset component and a service component (plus interest), whereas the asset component annually reduces the liability.

(2) For the **grant of a right to the operator model**, there is no unconditional obligation to pay by the grantor to the operator. Instead, the operator is given the right to earn revenue from third-party users or another asset (IPSAS 32.24). Thereby the transaction, a revenue is earnt by the operator. Together with the asset and a liability (which is a deferred revenue) at the initial recognition, a revenue is afterwards also

recorded by the grantor in combination with a reduction of the liability (IPSAS 32.25).

An example

A private operator provides ferry services on behalf of a public entity using a cable ferry which is controlled by the grantor. For the service delivery, the operator is granted the right to charge the ferry users. Thus, the grant of a right to the operator is to be applied and the asset and a liability (deferred revenue) have to be recognized. Also the grantor recognizes a revenue in each reporting period during the term of the contract. However, a question remains whether the initial values of the asset and the liability are the fair value of the asset received (i.e. the concession asset) or of the revenues foregone by the public entity. Thus, the revenue recorded by the grantor does not necessarily equal the revenue of the operator. The sophisticated question of measuring the fair value of the asset and the revenue of the grantor has also been addressed in a Question and Answer document of the IPSASB:

> "generally, it will be appropriate to determine the fair value of the asset received (the service concession asset). This is because the right to earn revenue from third-party users (which is the asset given up under the grant of a right to the operator model) will not have been previously recognized in the grantor`s statement of financial position. Consequently, the fair value of the asset received (the service concession asset) will be more clearly evident than the fair value of the asset given up (…)."[15]

Thus, the initial measurement of the asset, i.e. the cable ferry, is at its fair value. Subsequent measurement is done according to IPSAS 17, as done for the busses. The liability is to be initially measured at the fair value of the cable ferry. In the following reporting periods, for determining the reduction in the liability and the recording of a revenue, the liability is allocated over the term of the agreement, e.g., on a straight-line basis. Other

[15] IPSASB, Q&A, February 2016, Q1, p.2.

allocation methods can be used if these better reflect the earned portion of the liability.[16]

Further examples of both models are explained in the case study in Chapter 11. However, also mixed models of the financial liability model and grant of a right to the operator model can occur in practice.[17] In such cases, the parts of the contract need to be accounted for separately (IPSAS 32.27).

6. Conclusion

For almost each line item in the financial statement, there is at least one specific IPSAS to be applied. In addition, there are reporting specific IPSASs. This chapter focused on the accounting treatment of PPE, non-exchange transactions and service concession arrangements, thus particularly addressing IPSASs 17, 21, 23, 26, and 32.

Summarizing, not only for PPE, many long-term assets can be measured at cost or revalued amounts / fair values. For potential non-exchange transactions, a specific procedure has to be undergone to verify whether the definition of a non-exchange transaction is fulfilled and thus whether an asset has to be recognized. Non-exchange transactions that are not bound to an unfulfilled obligation are to be recorded as revenues, either in the surplus of deficit or directly in the equity.

For service concession contracts, the substance of the transaction needs to be considered in order to select the appropriate model for recognizing the liability; it may imply a deferred revenue if a right is granted to the operator.

The next chapter introduces a case study in which the IPSASs introduced in this chapter will be used and the accounting records are shown.

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[16] IPSASB, Q&A, February 2016, Q2, p.3.

[17] See Aggestam-Pontoppidan and Andernack (2016), p. 181, for an example.

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Discussion topics

- Heritage assets in the public sector – Challenges for accounting and differences between IPSAS and local accounting norms
- Revaluation model in the public sector – PROs and CONs from the perspectives of preparers and users
- Options in PSA – PROs and CONs from the perspectives of preparers and users