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Chapter 12
Consolidation methods

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Summary

This chapter aims to illustrate consolidated financial reporting (CFR) under IPSAS. Public sector combinations according to IPSAS are introduced. The process of CFR is explained by illustrating full consolidation comprising the four consolidation procedures. The relevant steps are illustrated by short case examples. The application of the equity method is also presented and exemplified. This IPSAS-focused chapter informs about when consolidated financial statements (CFS) must be prepared, which entities must be included and by which methods, how to set up the accounting records for consolidation, and what consolidation procedures must be applied.

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Chapter 12 complements Chapter 11 in a special regulated (IPSAS) setting.

Keywords

Consolidation, consolidated financial reporting, consolidation methods, full consolidation, equity method, public sector combinations, goodwill

1. Introduction

The preceding Chapter 11 introduced important notions and terms with respect to consolidated financial statements (CFS). It also highlighted conceptual problems related to the public sector. The consolidation methods and accompanying procedures were shortly introduced and explained, but without a focus on any specific set of accounting standards.

This chapter, conversely, is devoted to consolidation under International Public Sector Accounting Standards (IPSASs). Thereby, the terms explained in Chapter 11 serve as a basis. The steps in the consolidation process are illustrated by short case examples drawn from the municipality of Eucity, which has already been the subject of the case study presented in Chapter 10, which focused on single entity financial statements. Whereas the financial statements (FS) presented in Chapter 10 made reference to the municipality of Eucity *per se*, this chapter focuses on the CFS for Eucity's economic entity[1], i.e., the municipality and its controlled entities, joint ven-

[1] The term 'economic entity' might be somewhat misleading in the public sector context since these entities do not strive for profits and have other purposes than private sector entities. In this regard, the term 'service providing entity' would be more suitable. To stay within the commonly used accounting terminology, however 'economic entity' is used throughout the chapter.

tures, and associates. The complexity of the consolidation process prevents the presentation of a full case study. Therefore, the chapter includes only selected examples.

After this IPSAS-focused chapter, readers will know when IPSAS CFS must be prepared, which entities must be included and by which methods, how to set up the accounting records for consolidation and what consolidation procedures must be applied.

The chapter is structured as follows. Section 2 provides further definitions and background information about consolidated financial reporting according to IPSAS. In particular, public sector combinations (PSC) are introduced. Section 3 gives an overview about the IPSASs that are relevant for consolidated financial reporting. The process of consolidated financial reporting is the subject of Section 4, which presents the IPSAS' control concept, the principles of uniformity, and the steps for initial and subsequent consolidation. In Section 5, full consolidation and its relevant consolidation procedures are explained through examples. Section 6 introduces the application of the equity method. Section 7 concludes the chapter.

2. Definitions and background

Public sector entities prepare and present their own single-entity FS. For a public sector entity which prepares its accounts in accordance with the accrual-based IPSASs and holds investments in one or more controlled entities, (significantly influenced) associates, or (jointly controlled) joint ventures, these single-entity FS are called **separate financial statements** (SFS) (IPSAS 34.8). In the entity's SFS, such investments are accounted for at cost, as financial instruments according to IPSAS 29/41, or using the equity method as described in IPSAS 36 (IPSAS 34.12).

If the public sector entity controls one or more entities, moreover, it must also prepare and present CFS for the economic entity (i.e., group) as a whole (IPSAS 35.5)[2]. CFS are FS of an economic entity in which the assets, liabilities, net assets/equity, revenues, expenses, and cash flows of the controlling and the controlled entities are presented as those of a single economic unit (single entity fiction; IPSAS 35.14).

Similar to FS,[3] **a complete set of IPSAS CFS consists of:**

a) A statement of financial position;
b) A statement of financial performance;
c) A statement of changes in net assets/equity;
d) A cash flow statement;
e) A comparison of budget and actual amounts (either as a separate FS or as a budget column in the FS), if the underlying/combined entities make their approved budgets publicly available;
f) Notes, and
g) Comparative information.

In general, **an economic entity is formed through a public sector combination (PSC)**.[4] A PSC is the bringing together of separate operations into one – possibly fictitious – public entity (IPSAS 40.5), where such separate operations may or may not retain their legal form. An operation is an "integrated group of activities and assets and/or liabilities that is capable of being managed or

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[2] For entities that prepare CFS, in fact, the preparation of SFS is not required by IPSAS, but it may be mandatory under local regulations (IPSAS 34.2).

[3] See Chapter 8.

[4] However, mostly in the public sector, the group will already exist before initial consolidation.

conducted for the purpose of achieving an entity's objectives, by providing goods and/or services" (IPSAS 40.5).[5]

PSC may occur either by mutual agreement or by compulsion (e.g., through legislation). IPSAS 40 contains no provisions or restrictions regarding the legal structure of PSC or the abandonment of the legal capacity of the entities to be combined (IPSAS 40 AG1). The public entity that is formed through a PSC can be either a new single reporting entity or an economic reporting entity consisting of several reporting entities retaining their legal form (IPSAS 40 AG2). Depending on which type of entity results from the PSC, the combination will be accounted for at the level of FS or CFS.

Two forms of PSC need to be distinguished: amalgamations and acquisitions (IPSAS 40.5). This distinction also affects how consolidation is performed.

An **amalgamation** is a PSC (IPSAS 40.5) in which:

a) no party to the combination gains control of one or more operations; or
b) one party to the combination gains control over one or more operations, and the economic substance of the combination is that of an amalgamation.

As a special case, a combination under common control is also considered as an amalgamation. This case occurs if all entities or operations involved in the combination are controlled by the same entity before and after the combination (IPSAS 40.5).

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[5] In this respect, there is a terminological difference to IFRS 3, as the term business is used in IFRS 3 instead of operation. Also, in contrast to IFRS 3.2c, also combinations under common control are within the scope of IPSAS 40.4/13c.

An **acquisition** occurs when a party to the combination obtains control of one or more operations and there is evidence that the combination is not an amalgamation (IPSAS 40.5).

The classification of a PSC as an amalgamation or an acquisition, therefore, is performed in two steps (Figure 12.1). The first step is to assess whether control over the operations is gained by one of the parties involved. For the definition of control, reference is made to IPSAS 35 (see Subsection 4.1). If no party gains control, the PSC is an amalgamation. Otherwise, a second step is required to analyse the economic substance of the combination. This analysis is based on two criteria relating respectively to the consideration paid and to the decision-making process which led to the PSC (IPSAS 40.12 and .13).

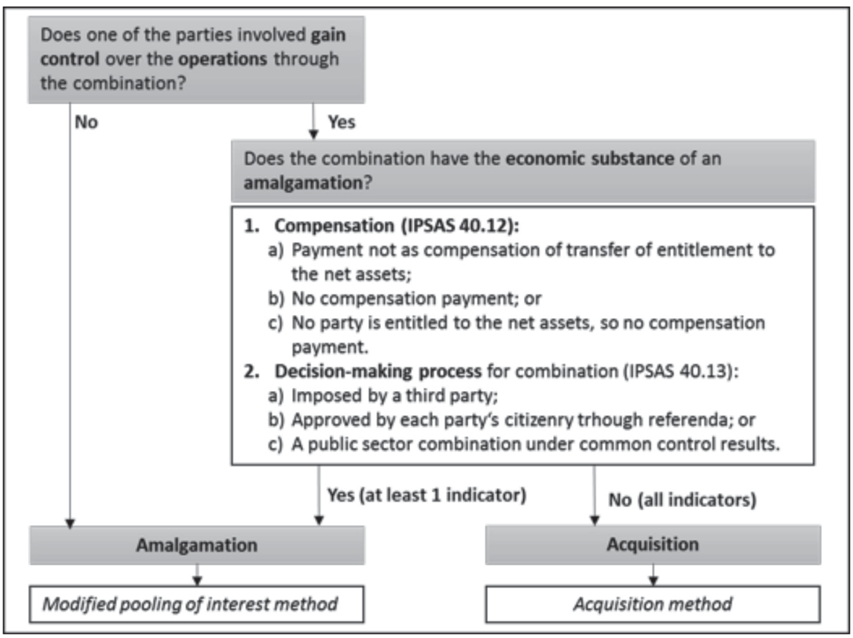

Figure 12.1: Indicators to distinguish between amalgamations and acquisitions (IPSAS 40)

Each criterion is operationalized by three indicators to be fulfilled either individually or jointly (IPSAS 40.9). If at least one indicator is true (1.a to 1.c or 2.a to 2.c), evidence exists that the PSC is an amalgamation. This is the case, for example, when a PSC is enforced by third parties without the involvement of the combined entities (IPSAS 40 AG32). Conversely, if the entities involved participate voluntarily in the decision (IPSAS 40 AG32) in order to exert a certain influence on the conditions for the combination (IPSAS 40 AG33), the classification of the PSC as an amalgamation is less straightforward. Importantly, there can be PSC in which no consideration is paid (Indicator 1.b), but which have the economic substance of an acquisition ('non-exchange acquisitions'), as in the case of forced nationalizations, donations, bequests, or bailouts (IPSAS 40.93, IPSAS 40 AG 29-30).

An **amalgamation** is accounted for by applying the **modified pooling of interest method** (IPSAS 40.15) when presenting the FS of the new reporting entity. Conversely, for an **acquisition**, the use of the **acquisition method** is prescribed (IPSAS 40.58). The difference between these two methods lies primarily in the remeasurement of assets and liabilities, as already addressed in Chapter 11. This Chapter 12 refers specifically to those PSC that (i) qualify as acquisitions and (ii) bring together into one public economic entity separate operations that retain their legal capacity, consequently requiring the preparation of CFR. Subsection 5.1 illustrates the application of the acquisition method.

3. Overview about relevant IPSASs

Table 12.1 provides an overview of the IPSASs that are relevant for consolidated financial reporting.

IPSAS	Scope	Excluded from the scope	Corresponding IAS /IFRS
35. Consolidated financial statements	Preparation and presentation of **CFS for the economic entity** (*inter alia* by reference to IPSAS 40)	Accounting requirements for PSCs Postemployment benefit plans (IPSAS 39) Controlling entities that are investment entities	IFRS 10
36. Investments in associates and joint ventures	Accounting for investments in **associates** and **joint ventures** which are based on quantifiable ownership interests	Investments which are not based on a quantifiable ownership interest	IAS 28
37. Joint arrangements	Determining the type of joint arrangement in which the entity is involved and accounting for the rights and obligations of a **joint operation**	None	IFRS 11
38. Disclosure of interests in other entities	Disclosing information about **interests in controlled** consolidated and unconsolidated entities, **joint arrangements**, **associates** as well as **unconsolidated structured entities**	Postemployment benefit plans (IPSAS 39) Separate financial statements (with exceptions) Interest in another entity that is accounted for in accordance with IPSAS 41	IFRS 12
40. Public sector combinations	Accounting for PSC, i.e., the **bringing together of separate operations into one public sector entity,** which can be a single entity or a (fictitious) economic entity. Classification of PSC as **amalgamations** or **acquisitions** and corresponding accounting treatments	Accounting for the formation of a joint arrangement in the FS of the joint arrangement Acquisition or receipt of an asset /group of assets or assumption of a liability / group of liabilities that do not constitute an operation Acquisition of investment entities	IFRS 3

Table 12.1: Overview of IPSASs relating to consolidation

The most relevant rules for consolidation can be found in IPSASs 35, 36, and 37. Each of these standards was issued in

2015 and has been effective since reporting periods beginning from 1st Jan 2017. These three standards, however, do not specify how to perform net assets/equity consolidation, that is, offsetting the carrying amount of the controlling entity's investment in each controlled entity against the controlling entity's portion of net assets/ equity of such controlled entity. These prescriptions are contained in **IPSAS 40**, which became effective on 1st Jan 2019 and requires the use of the "acquisition method of accounting" (IPSAS 40.58). Of course, the IPSAS conceptual framework serves as a guideline for the definition, recognition, and measurement of FS items, although its use is not mandatory.[6]

4. Process of consolidated financial reporting

From a legal and organizational perspective, the process of consolidated financial reporting for a public sector entity that presents IPSAS CFS comprises the following **steps for initial consolidation**:

1. **Verify that the entity is required by IPSAS to prepare and present CFS** (i.e., check for the existence of at least one controlled entity);
2. **Define the consolidation area**[7] (i.e., determine which entities are to be included in the CFS and by which consolidation methods);
3. **Develop a consolidated accounts manual** to achieve and maintain uniformity by stating the group's reporting date and detailing its recognition, measurement, and disclosure policies (esp. when IPSASs provide explicit options);

[6] See Chapters 1 and 8.

[7] Also referred to as scope of consolidation.

4. **Assign responsibilities**, e.g.: at the individual entity's level, harmonisation of the entity's FS with the group's reporting date and accounting policies (FS II); at the group's level, currency conversion of FS (FS II), remeasurement of assets and liabilities at fair value with the identification of hidden reserves and burdens (FS III), and consolidation procedures;
5. **Perform initial consolidation** by applying the consolidated accounts manual (Step 3) and completing the required consolidation procedures (according to the distribution of responsibilities decided in Step 4).

In the **subsequent reporting periods**, the controlling entity:

6. May **review** and **update** the consolidation area (Step 2), the consolidated accounts manual (Step 3), and the allocation of responsibilities (Step 4);
7. **Complies with the need for continuity in CFS** over successive periods. Similar to FS, the CFS for any given period are conceptually the result of the consolidated balance sheet for the previous period and the transactions of the current period. In the absence of a consolidated accounting processing system which ensures the continuity of consolidated accounting data,[8] however, the preparation of CFS for any given period must be based on the FS I for the current period, which do not incorporate the harmonisations and remeasurements performed in the previous periods to produce FS II, FS III and, on that basis, CFS. Therefore, the need for continuity in CFS requires the **repetition of all consolidation steps performed in the previous reporting periods** (i.e., initial consolidation as well as subsequent consolidation for the previous reporting

[8] This will be the usual case for public sector groups.

periods in net assets/equity) in order to achieve the status quo as at the end of the previous reporting period;

8. **Implements the subsequent consolidation** for the current reporting period.

This section addresses Steps 1 to 4. More specifically, the requirement to prepare and present CFS (i.e., Step 1) is explained in Subsection 4.1; the scope of consolidation (i.e., Step 2) is addressed in Subsection 4.2; and the principles of uniformity (as a key component of the consolidated accounts manual and as enforced through the allocation of responsibilities, i.e., Steps 3 and 4) are covered in Subsection 4.3. In addition, Subsection 4.4 provides an overview of the consolidation procedures under full consolidation (Steps 5 to 8, see Figure 12.2). Such procedures are then presented in more detail in Section 5.

4.1. Requirement to prepare and present CFS

A controlling public sector entity is required to present CFS (IPSAS 35.5). Therefore, a public sector entity needs to verify whether it controls at least one other entity (IPSAS 35.18). According to IPSAS 35.20, three conditions must be jointly fulfilled for **control** to exist. Specifically, the entity must have:

- **a)** **Power** over another entity;
- **b)** **Exposure**, or **rights**, to **variable benefits** from its involvement with the other entity; and
- **c)** The **ability** to **use** its **power to affect** the nature or amount of the **benefits**.

Power is defined as arising from existing rights that give the controlling entity the current ability to **direct the relevant financial**

and operating activities of the controlled entity (IPSAS 35.24), that is, the activities that significantly affect the nature or amount of the benefits that the controlling entity can derive from its involvement with the controlled entity. The rights can lie in voting rights, e.g. granted by equity instruments, but they can also result from binding agreements. Power may exist even if the rights to direct are not exercised in the reporting period (IPSAS 35.27). However, IPSAS 35.26 explicitly states that rights stemming from regulatory control or economic dependence[9], *per se*, do not give rise to power. In other words, budget dependence, by itself, is not a sufficient condition for inclusion in the area of consolidation.

Benefits are variable when they may vary as a result of the controlled entity's performance. The **variable benefits can be positive or negative, financial or non-financial** (IPSAS 35.30). Examples of **financial benefits** are the typical returns on investment such as dividends or similar distributions (IPSAS 35.32). Also, the possibility that a payment may not be made is considered a variable benefit. **Non-financial benefits** can lie, for example, in specialized knowledge, improved outcomes or more efficient delivery of outcomes, or higher levels of service quality (IPSAS 35.33).

The third and final criterion is the **link between power and benefits.** This means that the controlling entity must have the ability to use its power to affect the nature or amount of the benefits from its involvement with the controlled entity (IPSAS 35.35). In this respect, the mere existence of congruent objectives is insufficient. For control to exist, the controlling entity must have the ability to direct the controlled entity to further the controlling entity's objectives (IPSAS 35.36).

[9] "Economic dependence may occur when: (a) An entity has a single major client and the loss of that client could affect the existence of the entity's operations; or (b) An entity's activities are predominantly funded by grants and donations and it receives the majority of its funding from a single entity" (IPSAS 35 AG41).

A controlling entity must present CFS, but it is **exempted from this obligation** if it jointly meets all of the following conditions (IPSAS 35.5):

a) It is itself a controlled entity – provided that the information needs of users are met by its controlling entity's CFS and that none of its other owners (if they exist) objects;
b) Its debt or equity instruments are not traded in a public market;
c) It did not file, nor is it in the process of filing, its FS with a securities commission in order to issue any class of instruments in a public market; and
d) It has an ultimate or any intermediate controlling entity that produces publicly available FS that comply with IPSAS.

4.2. Scope of consolidation

To present CFS, a controlling entity must define its **consolidation area in a narrow and a broad sense**, as well as choose the appropriate **consolidation methods**[10]. The relevant IPSAS prescriptions are summarized in Table 12.2.

Type of influence	Type of entity	IPSAS	Method of consolidation
Controlling influence	Controlled entity	35	Full consolidation
Joint controlling influence	Joint venture (as defined in IPSAS 37)	36	Equity method
Significant influence	Associate entity		

Table 12.2: Overview of IPSAS prescriptions concerning consolidation area and methods

[10] See Chapter 11.

Controlled entities must be consolidated in full regardless of whether control is direct or indirect and regardless of the presence of non-controlling interests (NCI). The definition of control was presented in Subsection 4.1 and full consolidation according to IPSAS 35 is explained in Section 5.

Joint control is defined by IPSAS 37.12 as "the **sharing of control of an arrangement**, which exists only when decisions about the relevant activities require the **unanimous consent** of the parties sharing control." A prerequisite is a binding arrangement (IPSAS 37.10) between at least one entity inside and another outside the area of consolidation. This binding arrangement can be in the form of a contract or documented discussions between the parties, but it can also result from statutory mechanisms such as legislative or executive authority (IPSAS 37.8). A **joint arrangement** gives at least two parties joint control of the arrangement (IPSAS 37.10) and it can qualify as either a joint operation or a joint venture (IPSAS 37.11). In a **joint operation**, the jointly controlling parties have rights to the assets, and obligations for the liabilities, relating to the arrangement (IPSAS 35.7). In contrast, for a **joint venture**, the parties have **rights to the net assets** of the arrangement (IPSAS 35.7). A joint arrangement that is not structured through a separate vehicle is always classified as a joint operation (IPSAS 37 AG16). A joint arrangement that is structured through a separate vehicle is classified as either a joint operation or a joint venture depending on the legal form of the separate vehicle, the terms of the binding arrangement and, when relevant, any other facts and circumstances (IPSAS 37 AG19-21). In the presence of joint operations, each joint operator will proportionally recognize its share of the operation's assets, liabilities, revenues, and expenses in its own FS (IPSAS 37.23). Conversely, **investments in joint ventures will be recognized in the joint venturer's CFS using the equity method** in accordance with IPSAS 36 (IPSAS 37.27 and IPSAS 36.22).

Significant influence “is the power to participate in the financial and operating policy decisions of another entity, but is not control or joint control of those policies”. An entity over which another entity exercises significant influence is said to be the latter entity’s **associate** (IPSAS 36.8). Significant influence is assessed based on judgement on the nature of the relationship between the investor and the investee. Its presence is **presumed** if the investor **holds**, directly or indirectly, **at least 20% of the voting power** of the investee. Conversely, if it holds less, a rebuttable presumption must be considered: significant influence is presumed not to exist, unless the opposite can be clearly demonstrated (IPSAS 36.11). Besides voting power, **other indicators of significant influence** are e.g. representation on the investee’s board of directors, participation in policy-making processes, or interchange of managerial personnel (IPSAS 36.12). IPSAS 36 only applies to “those associates in which an entity holds a quantifiable ownership interest either in the form of a shareholding or other formal equity structure or in another form in which the entity’s interest can be measured reliably” (IPSAS 36.10). Under these circumstances, **the investment in an associate is recognized by applying the equity method** (IPSAS 36.16), with exemptions similar to IPSAS 35.5 (IPSAS 36.23).

Finally, **investments** providing no controlling influence, joint control, or significant influence are recognized in the CFS as financial instruments according to IPSAS 29/41, which is not further addressed in this chapter.

From the date on which the controlling entity obtains control, joint control, or significant influence over another entity, this latter entity must be included in the CFS. The obligation to present CFS starts when the reporting entity becomes a controlling entity and ceases when the entity is no longer a controlling entity (IPSAS 35.39), regardless of whether it continues to hold investments in joint ventures or associates.

4.3. Principles of uniformity

CFS present the group as a fictitious single entity and must consequently comply with uniformity principles. As described in Chapter 11[11], the consolidated accounts manual prepared by the controlling entity can support this requirement. The principles of uniformity usually encompass:

1. Uniform reporting dates;
2. Uniform accounting policies (recognition, measurement, and disclosure); and
3. Uniform reporting currency.

The **(1) reporting dates** of the controlling entity's FS, the controlled entities' FS, and the CFS should be the same. If the reporting date of a controlled entity differs, either (i) additional FS for that controlled entity are prepared, solely for the purpose of consolidation, as of the same date as the CFS, or (ii) the controlled entity's most recent FS are used, despite the different date, but only after adjusting them for the effects of significant transactions and events that occurred between the dates of the controlled entity's FS and of the CFS (IPSAS 35.46). Should an associate or a joint venture have a different reporting date, the most recent available FS are to be used, but again only after (i) obtaining additional information as of the same date as the CFS or (ii) adjusting for the effects of significant transactions or events that occurred between the two dates (IPSAS 36.36).

When preparing CFS, the controlling entity is required to use **(2) uniform accounting policies** "for like transactions and other events in similar circumstances" (IPSAS 35.38, IPSAS 36.37). Thereby, the consolidated entities must either (i) adopt these **uniform recognition, measurement, and disclosure policies** in the preparation

[11] See Chapter 11.6.

of their (original) FS (i.e., FS I), to the extent that this is possible under existing (national/local) regulations, or they need to (ii) make appropriate adjustments to their FS in preparation for consolidation (FS II).[12] Although IPSAS 35.38/36.37 require the use of uniform accounting policies, there are no clear prescriptions that this also includes uniform presentation, such as the use of common classifications and denominations in the FS as well as a common definition of what falls into each FS item. Under the fiction of the single entity (IPSAS 35.14), however, an explicit regulation is unnecessary and uniform presentation is understood to be mandatory. In this respect, IPSAS 1 applies, with its guidelines on the general features, structure, and content of FS, including that the presentation and classification of items must be maintained consistently over all reporting periods (IPSAS 1.42 f.). The uniformity principle for recognition, measurement, and disclosure applies equally to explicit and factual options, where the latter result from regulatory gaps, the interpretation of indefinite IPSAS terms, and the use of estimates or other discretionary decisions.

Finally, whenever a consolidated entity's reporting currency differs from the CFS's reporting currency, a **(3) currency conversion** is required. Basically, IPSAS 4 applies.

After the uniformity of the FS has been ensured by preparing **FS II** for each entity to be consolidated, Steps 1-4 as described in the introduction of this Section 4 are completed and the proper consolidation process can start.

4.4. Overview about the process of full consolidation

Before presenting full consolidation in Section 5 and the equity method in Section 6, Figure 12.2 provides an overview of full consolidation over

[12] See Chapter 11 for further explanations about the different levels of FS.

two consecutive reporting periods, with a focus on the balance sheet (BS). The figure assumes that the reporting period coincides with the calendar year and that the controlled entity is acquired on Jan 1, 20X1. On such date, the controlled entity's BS (BS I) must be adjusted to comply with the principles of uniformity, which yields BS II. Subsequently, the acquisition method of capital consolidation (according to IPSAS 40) requires that the assets and liabilities of the controlled entity be remeasured at fair value, which results in BS III of the controlled (not the controlling) entity. On this basis, the BS items of all consolidated entities are added up line by line, resulting in an 'aggregated' or 'combined' BS. From this, the procedures of full consolidation are implemented to produce the consolidated BS as at Jan 1, 20X1. As described in Step 7 of the consolidation process, these procedures need to be repeated at the end of every reporting period to then proceed with that period's subsequent consolidation. This is also depicted in Figure 12.2, which additionally shows that the controlled entity is usually responsible only for the preparation of its own BS I and II.

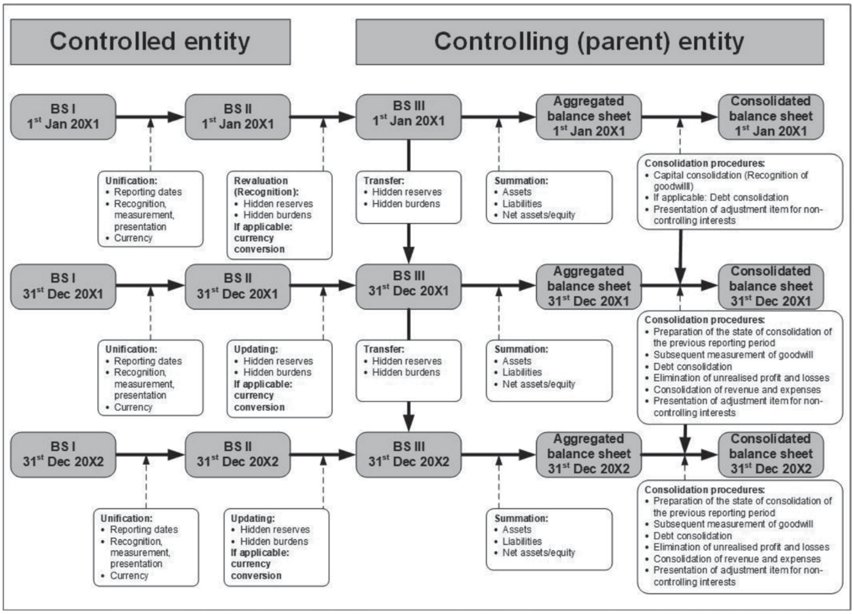

Figure 12.2: Process of full consolidation
(Source: Lorson, Poller and Haustein, 2019)

5. Full consolidation (initial and subsequent consolidations)

IPSAS 35.40 outlines the consolidation procedures for controlled entities. Full consolidation is required. To this end, the first step is that all like items of assets, liabilities, net assets/equity, revenues, expenses, and cash flows of the controlling entity's FS II are summed line by line with those of the controlled entities' FS III (IPSAS 35.40a). As shown in Figure 12.2, this results in an 'aggregated' or 'combined' FS. The next step is net assets/equity consolidation (also called 'capital consolidation') (IPSAS 35.40b), which is explained in Subsection 5.1. Finally, all intra-economic entity assets, liabilities, net assets/equity, revenues, expenses, and cash flows (i.e., those relating to transactions within the group) must be eliminated (IPSAS 35.40c), as described in Subsections 5.2 to 5.4. Each of these consolidation procedures was already introduced in Chapter 11. In this chapter, the focus is on providing further details and short examples.

5.1. Capital consolidation

As explained in Section 2, for PSC that are categorized as acquisitions, the **acquisition method of accounting** must be used for initial recognition (IPSAS 40.58). This method includes four steps (IPSAS 40.59):

a) Identification of the acquirer;
b) Determination of the acquisition date;
c) Recognition and measurement of the identifiable assets acquired, of the liabilities assumed, and of any NCI in the acquired operation;
d) Recognition and measurement of goodwill.

The **acquirer** is the party that obtains control of the acquired operations (IPSAS 40.60).

The **acquisition date** is the date on which control of the acquired operations is obtained (IPSAS 40.62). This is generally the "closing date", that is, the date on which the acquirer legally transfers the relevant consideration and/or acquires the transferred assets and liabilities (IPSAS 40.63).

All the **identifiable assets acquired** and the **liabilities assumed** – including assets and liabilities that were not recognized in the acquired entity's balance sheet (e.g. intangible assets such as patents that were developed internally with the related costs being charged to expense (IPSAS 40.67)) – must be recognized and **measured at their fair values at the date of acquisition** (IPSAS 40.72), separately from any goodwill (IPSAS 40.64). Specific rules exist for:

- The recognition of contingent liabilities (IPSAS 40.76-77);
- The recognition and measurement of (i) taxation items waived as part of the terms of the acquisition (IPSAS 40.78-79), (ii) liabilities and assets from employee benefit arrangements (IPSAS 40.80), (iii) indemnification assets (IPSAS 40.81-82), and (iv) leases in which the acquiree is the lessee (IPSAS 40.82A-82B); and
- The measurement of (i) reacquired rights (IPSAS 40.83) and (ii) share-based payment transactions (IPSAS 40.84).

As for **NCI**, a choice is offered between the **partial goodwill method** and the **full goodwill method** (IPSAS 40.73). The partial goodwill method measures NCI according to their "share in the recognized amounts of the acquired operation's identifiable net assets", as remeasured at their acquisition-date fair values. The full goodwill method measures NCI according to their fair value at the acquisition date, which can be determined on the basis of a quoted price on an active market or, if not available, using other valuation techniques (IPSAS 40 AG91). In this last respect, an extrapolation based on the purchase price paid by the acquirer or the fair value of the acquirer's interest may be inappropriate as these amounts may include a control premium (IPSAS 40 AG92). Importantly, the underlying difference between the partial and the full goodwill methods is that the latter recognizes goodwill in full (including the portion pertaining to NCI), while the former recognizes it only to the extent that it pertains to the controlling entity.

Concerning **goodwill**, finally, its amount is determined on the basis of the previous steps by using the following computation:

+ Controlling entity's interest in the acquired entity (consideration paid)		**A**
– Controlling entity's share of acquired entity's remeasured net assets		**B** = b1 ± b2
	+ Controlling entity's share of acquired entity's net assets, at book value	b1
	± Controlling entity's share of acquired entity's hidden reserves/burdens	b2
= Goodwill pertaining to controlling entity (Partial Goodwill)		**C = A – B**
+ Goodwill pertaining to NCI		**D** = d1 – d2
	+ Fair value of NCI at acquisition	d1
	– NCI's share of acquired entity's remeasured net assets	d2
= Full Goodwill		**E = C + D**

More precisely, goodwill (regardless of whether it is calculated according to the partial or the full method) is recognized as such only (i) if the computation yields a positive amount (IPSAS 40.85) and (ii) to the extent that the acquisition is estimated to produce future favourable changes to the acquirer's net cash flows (IPSAS 40.86). Goodwill related to service potential rather than cash flows cannot be recognized (IPSAS 40 AG93). In subsequent periods, goodwill is not amortized, but it must be tested for impairment in accordance with IPSAS 26 "Impairment of Cash-Generating Assets" (IPSAS 26.76-97).

If the computation yields a positive amount, but to the extent that the acquisition is not estimated to produce future favourable changes to the acquirer's net cash flows, the amount is recognized as a loss in surplus or deficit (IPSAS 40.86).

Finally, should the computation yield a negative amount, a review must be performed to ensure that all the assets and liabilities involved in the acquisition were identified and measured correctly (IPSAS 40.90). If the amount is confirmed to be negative, the acquisition is recorded according to the '**bargain purchase'** fiction and the amount is recognized as a gain in surplus or deficit (IPSAS 40.88).

In the public sector, acquisitions may occur without the transfer of consideration. Examples include forced nationalizations, donations and bequests, and bailouts. In these cases, no goodwill is recognized. Rather, a gain (or a loss, e.g., if the liabilities of a bailed-out operation exceed its assets) is recognized in surplus or deficit (IPSAS 40.94). Acquisition-related costs (e.g., professional and consulting fees as well as general administrative costs) are recognized as expenses when incurred (IPSAS 40.111).

In the remainder of this subsection, examples are presented of initial and subsequent consolidation under 100% ownership and thus no NCI (Examples 1 and 2) as well as under 80% ownership (Examples 3 and 4). The examples apply the full goodwill method. Only the balance sheets are shown; therefore, no consolidation entries are presented for the statements of financial performance[13]. Moreover, all the examples assume the absence of intra-economic

[13] Those entries will be necessary if no group IT booking system exists. Under such circumstances, the different FS such as balance sheet and statement of financial performance are not linked through the underlying bookkeeping system and the accounts. All transactions that affect accounts both at the balance sheet level and the statement of financial performance level, therefore, are to be recorded twice, as one would do if the balance sheet and statement of financial performance were on paper and had to be modified. Two sets of entries become necessary, using surplus/deficit as a sort of transfer position.

entity receivables and payables, revenues and expenses, and unrealized gains and losses, so that the consolidation procedures other than capital/equity consolidation (i.e., debt consolidation, consolidation of revenues and expenses, and elimination of unrealized gains and losses) are not necessary and capital/equity consolidation is sufficient to produce the consolidated BS.

Example 1: Net assets/equity initial consolidation without NCI

On 1st Jan 20X1, municipality Eucity acquires 100% of company CE (controlled entity) for 100 kEUR. Eucity thus gains control of CE. The PSC is an acquisition according to IPSAS 40.5. The simplified balance sheets for the two entities, which comply with the consolidated accounts manual (BS II), are shown in Table 12.3. The surpluses shown in Examples 1 and 3 are to be understood as accumulated surpluses.

Eucity (BS II) 1st Jan 20X1 in kEUR			
Assets		**Net assets & liabilities**	
PPE	800	Reserves	300
Investment	100	Surplus	100
Inventories	50	Liabilities	550
Total	950	Total	950

CE (BS II) 1st Jan 20X1 in kEUR			
Assets		**Net assets & liabilities**	
PPE	250	Reserves	40
Inventories	100	Surplus	10
Cash	50	Liabilities	350
Total	400	Total	400

Table 12.3: Balance sheets II for Eucity and CE at initial consolidation date

At 1st Jan 20X1, a scan of CE's accounted-for assets and liabilities unveiled the following measurement issues:

- The fair value of property, plant, and equipment (PPE) is 300 kEUR, with a remaining useful life of 5 years and straight-line depreciation.
- The fair value of inventories is 110 kEUR.
- Liabilities are understated. An additional 20 kEUR will be needed to settle them.

This information provides the basis for the net assets/capital consolidation as part of initial consolidation.

At initial consolidation, according to the acquisition method, the acquirer (Eucity) and the acquisition date (1st Jan 20X1) have been determined. Next, the controlled entity's identifiable assets and liabilities must be remeasured at fair value. There are hidden reserves of 50 kEUR in PPE (300 kEUR fair value – 250 kEUR book value) and 10 kEUR in inventories (110 kEUR fair value – 100 kEUR book value) as well as 20 kEUR of hidden burdens in the liabilities. The effects of these remeasurements are cumulated in a dedicated reserve within equity.[14] The consolidation entry is as follows:

Debit		**to**	**Credit**	
PPE	50 kEUR	to	Liabilities	20 kEUR
Inventories	10 kEUR		Reserves	40 kEUR

The remeasured assets and liabilities of CE are shown in its level III balance sheet (BS III) in Table 12.4. Eucity's (the controlling entity) BS II and CE's (the controlled entity) BS III are then added up line by line to produce the aggregated BS (last column to the right).

[14] For this and the following examples, deferred tax is neglected because it depends on national tax systems and because public entities will probably not be subject to tax.

Item in kEUR	Eucity BS II	CE BS II	Remeasurement		CE BS III	Aggregated BS
			Debit	Credit		
PPE	800	250	50		300	1,100
Investment in CE	100	0			0	100
Inventories	50	100	10		110	160
Cash	0	50			50	50
Total assets	**950**	**400**	**60**		**460**	**1,410**
Reserves	300	40		40	80	380
Surplus	100	10			10	110
Liabilities	550	350		20	370	920
Total net assets & liabilities	**950**	**400**		**60**	**460**	**1,410**

Table 12.4: Example 1: Determination of the aggregated balance sheet as at 1st Jan 20X1

However, the aggregated BS cannot serve as the consolidated BS because of double counting: the aggregated BS includes both (i) CE's remeasured assets and liabilities and (ii) Eucity's equity investment in CE, which already incorporates the value of CE's assets and liabilities. Net assets/equity consolidation is thus performed by offsetting Eucity's equity investment in CE against CE's remeasured equity. The remeasured equity of CE is already shown in CE's BS III (Reserves kEUR 80 + Surplus kEUR 10 = kEUR 90), but for verification it can be recalculated as follows:

Reserves	40 kEUR
+ Surplus	+ 10 kEUR
= Net assets of CE, at book value	= 50 kEUR
+/ – Hidden reserves/burdens (+60 kEUR / - 20 kEUR)	+ 40 kEUR
= Remeasured net assets of CE	**= 90 kEUR**

Offsetting the carrying amount of Eucity's investment in CE against the remeasured net assets of CE yields a positive difference of 10, which is to be capitalized as goodwill based on the expectation of positive future net cash flows. Notice that, in the absence of NCI, the distinction between partial and full goodwill becomes moot.

Eucity's investment in CE (consideration transferred)	100 kEUR
– Remeasured net assets of CE	- 90 kEUR
= Goodwill	**= 10 kEUR**

Net assets/equity consolidation is completed by the following consolidation entries:

Debit		**to**	**Credit**	
Reserves	80 kEUR	to	Investment in CE	100 kEUR
Surplus	10 kEUR			
Goodwill	10 kEUR			

In the consolidated BS (Table 12.5), Eucity's investment in CE is no longer presented, the consolidated net assets coincide – in acquisitions without any NCI – with Eucity's net assets, and goodwill appears as an additional asset item.

Item in kEUR	**Aggregated BS**	**Consolidation entries**		**Consolidated BS**
		Debit	Credit	
PPE	1,100			1,100
Goodwill	0	10		10
Investment in CE	100		100	0
Inventories	160			160
Cash	50			50
Total assets	**1,410**	**10**	**100**	**1,320**
Reserves	380	80		300
Surplus	110	10		100
Liabilities	920			920
Total net assets & Liabilities	**1,410**	**90**	**0**	**1,320**

Table 12.5: Example 1: Consolidation table as at 1st Jan 20X1

Example 2: Net assets/equity subsequent consolidation without NCI

After one year, on 31st Dec 20X1, the subsequent consolidation is to be performed. The BS II of the two entities are the following, whereby the surplus was earned in period 20X1, while the accumulated surplus from previous years is included in the reserves:

Eucity (BS II) 31st Dec 20X1 in kEUR			
Assets		**Net assets & liabilities**	
PPE	800	Reserves	300
Investment	100	Surplus	100
Inventories	50	Liabilities	550
Total	950	Total	950

CE (BS II) 31st Dec 20X1 in kEUR			
Assets		**Net assets & liabilities**	
PPE	250	Reserves	50
Inventories	100	Surplus	40
Cash	50	Liabilities	310
Total	400	Total	400

Table 12.6: Balance sheets II for Eucity and CE at subsequent consolidation date

Preliminarily, the initial consolidation must be repeated by rolling forward the relevant remeasurements and consolidation entries. To some extent, the remeasurements may also need to be reversed.

To repeat the remeasurements, the entries to be rolled forward are as follows, considering that the accumulated surplus as at the initial consolidation date is now part of the reserves:

Debit		to	Credit	
PPE	50 kEUR	to	Liabilities	20 kEUR
Inventories	10 kEUR		Reserves	40 kEUR

These entries must then be reviewed and possibly reversed. In this respect, at the end of the reporting period (i.e., 31st Dec 20X1), assume the following: (i) the hidden reserves in CE's inventories (10 kEUR) have been realized and included in CE's surplus; (ii) the higher value of CE's PPE (50 kEUR) needs to be depreciated[15] on a straight-line basis as per the group's policies over a remaining useful life of five years; and (iii) the 20 kEUR hidden burdens in CE's liabilities have remained unchanged. Hence, another set of entries is required to record the relevant reversals and charge their effects to surplus or deficit in CE's BS III:

Debit		to	Credit	
Surplus	20 kEUR	to	PPE	10 kEUR
			Inventories	10 kEUR

These two sets of entries (i.e., the remeasurements rolled forward and the relevant reversals) yield the BS III for CE, which is then used to produce the aggregated BS as at 31st Dec 20X1, as shown in Table 12.7:

Item in kEUR	Eucity BS II	CE BS II	Remeasurements rolled forward and reversals		CE BS III	Aggregated BS
			Debit	Credit		
PPE	800	250	50	10	290	1,090
Investment in CE	100	0			0	100
Inventories	50	100	10	10	100	150

15 See Chapters 9 and 10 for explanations about depreciation.

Cash	0	50			50	50
Total assets	**950**	**400**	**60**	**20**	**440**	**1,390**
Reserves	300	50		40	90	390
Surplus	100	40	20		20	120
Liabilities	550	310		20	330	880
Total net assets & liabilities	**950**	**400**	**20**	**60**	**440**	**1,390**

Table 12.7: Example 2: Determination of the aggregated balance sheet as at 31^{st} Dec 20X1

On this basis, the initial net assets/equity consolidation must also be repeated, taking into account that, for CE, the initially consolidated accumulated surplus is now part of the reserves. Therefore, the consolidation entry to be rolled forward is slightly different from the one presented in Example 1:

Debit		**to**	**Credit**	
Reserves	90 kEUR	to	Investment in CE	100 kEUR
Goodwill	10 kEUR			

With respect to goodwill, an annual impairment test must be performed for the cash-generating unit to which goodwill has been allocated (IPSAS 26.90 f.). Assuming that no impairment loss has occurred, the consolidation table is shown in Table 12.8.

Item in kEUR	**Aggregated BS**	**Consolidation entries**		**Consolidated BS**
		Debit	Credit	
PPE	1,090			1,090
Goodwill	0	10		10
Investment in CE	100		100	0
Inventories	150			150
Cash	50			50
Total assets	**1,390**	**10**	**100**	**1,300**

Reserves	390	90		300
Surplus	120			120
Liabilities	880			880
Total net assets & liabilities	**1,390**	**90**	**0**	**1,300**

Table 12.8: Example 2: Consolidation table as at 31st Dec 20X1

Examples 1 and 2 have assumed that the controlling entity holds 100% of the ownership rights of the controlled entity. The following Examples 3 and 4 use the same data, but they assume 80% ownership in order to show the accounting treatment of NCI under the full consolidation method.

Example 3: Net assets/equity initial consolidation with NCI

On 1st Jan 20X1, municipality Eucity acquires 80% of company CE (controlled entity) for 100 kEUR. All other information provided in Example 1 applies, with the BS II shown in Table 12.3. The fair value of the NCI on 1st Jan 20X1 is assumed to be 25 kEUR.

As in Example 1, as a first step in the initial consolidation, CE's assets and liabilities must be remeasured at their acquisition-date fair values, producing CE's BS III.

Debit		**to**	**Credit**	
PPE	50 kEUR	to	Liabilities	20 kEUR
Inventories	10 kEUR		Reserves	40 kEUR

Once again, moreover, the aggregated BS must be compiled from Eucity's BS II and CE's BS III. It is important to highlight that, although Eucity only acquired 80% of CE, all asset and liability items are still added in full to produce the aggregated BS, as shown in

Table 12.4. This is because 80% ownership allows Eucity to control CE's assets and liabilities in their entirety.

To offset the carrying amount of Eucity's investment in CE against the remeasured net assets of CE, however, Eucity's ownership share needs to be taken into consideration. This step consequently differs from Example 1. The total remeasured equity of CE is already shown in CE's BS III (Reserves 80 kEUR + Surplus 10 kEUR = 90 kEUR, see Table 12.4). Eucity's share is 80%, hence 72 kEUR. For verification, these amounts can be recalculated as follows:

Reserves	40 kEUR
+ Surplus	+ 10 kEUR
= Net assets of CE, at book value	= 50 kEUR
+/ – Hidden reserves/burdens (+60 kEUR / - 20 kEUR)	+ 40 kEUR
= Remeasured net assets of CE	**= 90 kEUR**
of which Eucity group's share (80%)	72 kEUR
of which NCI (20%)	18 kEUR

The difference between the carrying amount of Eucity's investment in CE (100 kEUR) and Eucity's share in CE's net assets (kEUR 72) is positive and is capitalized as goodwill based on the expectation of positive future net cash flows. This goodwill is labelled as 'partial' as it is only associated with Eucity's group:

Eucity's investment in CE (consideration transferred)	100 kEUR
– Eucity's share in remeasured net assets of CE	- 72 kEUR
= Partial Goodwill pertaining to Eucity	**= 28 kEUR**

The resulting consolidation entry is as follows:

<table>
<tr><th colspan="2">Debit</th><th>to</th><th colspan="2">Credit</th></tr>
<tr><td>Reserves</td><td>64 kEUR
(80 * 80%)</td><td rowspan="3">to</td><td rowspan="3">Investment in CE</td><td rowspan="3">100 kEUR</td></tr>
<tr><td>Surplus</td><td>8 kEUR
(10 * 80%</td></tr>
<tr><td>Goodwill</td><td>28 kEUR</td></tr>
</table>

As for NCI, they account for 20% of CE's remeasured net assets and they must be presented separately in the consolidated BS. Hence the need for the following consolidation entry:

<table>
<tr><th colspan="2">Debit</th><th>to</th><th colspan="2">Credit</th></tr>
<tr><td>Reserves</td><td>16 kEUR
(80 * 20%)</td><td rowspan="2">to</td><td rowspan="2">Non-controlling interests</td><td rowspan="2">18 kEUR</td></tr>
<tr><td>Surplus</td><td>2 kEUR
(10 * 20%)</td></tr>
</table>

As mentioned in Section 5.1, NCI can either be measured at fair value (full goodwill method) or "at the present ownership instruments' proportionate share in the recognized amounts of the acquired operation's identifiable net assets" (partial goodwill method). In the latter case, no further consolidation entries are needed. If the full goodwill method is applied, the NCI must be adjusted to their fair value which, according to the case description, is 25 kEUR. A difference of 7 kEUR (= 25 kEUR fair value – 18 kEUR proportionate share of CE's remeasured net assets) results, which is recognized as goodwill. Thus, an additional consolidation entry is needed. The consolidation Table 12.9 shows the results for the initial net assets/equity consolidation in the case of 80% ownership under the full goodwill method.

<table>
<tr><th colspan="2">Debit</th><th>to</th><th colspan="2">Credit</th></tr>
<tr><td>Goodwill</td><td>7 kEUR</td><td>to</td><td>Non-controlling interests</td><td>7 kEUR</td></tr>
</table>

Item in kEUR	Aggregated BS	Consolidation entries		Consolidated BS
		Debit	Credit	
PPE	1,100			1,100
Goodwill	0	28 7		35
Investment in CE	100		100	0
Inventories	160			160
Cash	50			50
Total assets	**1,410**	**35**	**100**	**1,345**
Reserves	380	64 16		300
Surplus	110	8 2		100
Non-controlling interests	0		18 7	25
Liabilities	920			920
Total net assets & liabilities	**1,410**	**90**	**25**	**1,345**

Table 12.9: Example 3: Consolidation table as at 1st Jan 20X1

In the consolidated BS (Table 12.9), the consolidated net assets (425) exceed Eucity's net assets (400) because of the additional net asset portion related to NCI (25).

Example 4: Net assets/equity subsequent consolidation with NCI

Similar to Example 2, after one year, on 31st Dec 20X1, the subsequent consolidation must be performed. Unlike Example 2, Eucity's ownership share is now 80%. The same information provided in Example 2 applies, with the BS II shown in Table 12.6. The fair value of the NCI on 31st Dec 20X1 is assumed to have increased to 30 kEUR.

As in Example 2, it is preliminarily necessary to repeat the initial consolidation by rolling forward the relevant remeasurements (reversing them where appropriate) and consolidation entries.

To repeat and reverse the remeasurements, the entries are the same as those presented in Example 2:

Debit		to	Credit	
PPE	50 kEUR	to	Liabilities	20 kEUR
Inventories	10 kEUR		Reserves	40 kEUR

Debit		to	Credit	
Surplus	20 kEUR	to	PPE	10 kEUR
			Inventories	10 kEUR

So far, therefore, there are no differences in CE's BS III between cases with and without NCI. Consequently, the aggregated BS is the same shown in Table 12.7.

Next, the initial net assets/equity consolidation must also be repeated, keeping in mind that CE's initially consolidated accumulated surplus is now part of the reserves. Under the full goodwill method, the goodwill pertaining to the NCI continues to reflect the fair value of the NCI at the acquisition date (25 kEUR) and is not updated to the fair value at the reporting date. The consolidation entries to be rolled forward are as follows:

Debit		to	Credit	
Reserves	72 kEUR	to	Investment in CE	100 kEUR
Goodwill	28 kEUR			

Debit		to	Credit	
Reserves	18 kEUR	to	Non-controlling interests	18 kEUR

Debit		to	Credit	
Goodwill	7 kEUR	to	Non-controlling interests	7 kEUR

As for subsequent consolidation, it is important to notice that CE's BS III surplus for 20X1 is 20 kEUR. Of this, 20% pertains to NCI and must be classified accordingly. This is achieved with the consolidation entry shown below. The consolidation table is presented in Table 12.10.

Debit		**to**	**Credit**	
Surplus	4 kEUR	to	Non-controlling interests	4 kEUR

Item in kEUR	**Aggregated BS**	**Consolidation entries**		**Consolidated BS**
		Debit	Credit	
PPE	1,090			1,090
Goodwill	0	28 7		35
Investment in CE	100		100	0
Inventories	150			150
Cash	50			50
Total assets	**1,390**	**35**	**100**	**1,325**
Reserves	390	72 18		300
Surplus	120	4		116
Non-controlling interests	0		18 7 4	29
Liabilities	880			880
Total net assets & liabilities	**1,390**	**94**	**29**	**1,325**

Table 12.10: Example 4: Consolidation table as at 31st Dec 20X1

5.2. Debt consolidation

According to the single entity fiction, the mutual liabilities and receivables between the group's entities do not count as group liabilities and receivables and must consequently be eliminated by means of debt consolidation. Thus, debt consolidation only affects the BS. Debt consolidation is carried out during initial consolidation to the extent that intra-economic entity liabilities and receivables already exist at the date of acquisition. It is also performed during subsequent consolidation to eliminate the mutual liabilities and receivables that are recognized in the controlling entity's BS II and the controlled entities' BS III at the relevant reporting date. Usually, intra-economic entity liabilities and receivables will balance, but offsetting differences may occur.[16] Two examples are introduced in the remainder of this subsection. In both examples, Eucity is assumed to have acquired 100% of CE on 1st Jan 20X1 and the reporting period coincides with the calendar year. The same assumptions apply to the examples presented in the next subsections.

Example 5: Debt consolidation without offsetting differences

On 15th Nov 20X1, Eucity ordered goods from CE and made a 50 kEUR advance payment (at no interest) for delivery in two months. From an accounting viewpoint, Eucity recognized advances to suppliers as a current receivable and CE recognized unearned revenues as a current liability, each in the amount of 50 kEUR.

Debt consolidation is carried out as at 31st Dec 20X1. The mutual receivables and liabilities have the same amount. Therefore, there are no offsetting differences. The elimination is carried out with the following consolidation entry:

Debit		**to**	**Credit**	
Current liabilities	50 kEUR	to	Current receivables	50 kEUR

[16] Explained in Chapter 11.

Example 6: Debt consolidation with offsetting differences

On 20th May 20X1, Eucity lent CE 100 kEUR to be repaid after three years. For simplicity, assume that the loan carried no interest[17]. From an accounting viewpoint, Eucity recognized a non-current receivable and CE recognized a non-current payable, each in the amount of 100 kEUR. However, due to pessimistic expectations at the end of 20X1, Eucity wrote down the receivable in its FS by recognizing an impairment loss for 8 kEUR in surplus or deficit.

Debt consolidation is conducted as at 31st Dec 20X1. Due to the write-down, the mutual receivables and payables do not balance. To reconcile the resulting real offsetting difference[18], Eucity's write-down entry is reversed as if it had not taken place. The relevant consolidation entry is as follows:

<table>
<tr><th colspan="2">Debit</th><th>to</th><th colspan="2">Credit</th></tr>
<tr><td rowspan="2">Non-current liability</td><td rowspan="2">100 kEUR</td><td rowspan="2">to</td><td>Non-current receivable</td><td>92 kEUR</td></tr>
<tr><td>Surplus
(Impairment loss)</td><td>8 kEUR</td></tr>
</table>

In the course of the **subsequent debt consolidation** for the next period, a similar entry will be needed. However, the impairment loss will not be reversed against surplus, but rather against the reserves, as it did not affect the surplus of the current period 20X2, but that of the prior period 20X1.

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[17] Should the loan carry interest, the relevant revenues and expenses would be eliminated during the 'Consolidation of revenues and expenses' (see subsection 5.3).

[18] See the explanation of real and unreal offsetting differences in Chapter 11.5.

5.3 Consolidation of revenues and expenses

As the group can only realize revenues and expenses with outside parties, all economic transactions that produced intra-economic entity revenues and expenses must be eliminated. The consolidation of revenues and expenses is not relevant for initial consolidation, but it must be carried out during subsequent consolidation periods.

Example 7: Consolidation of revenues and expenses

Eucity rented one of CE's buildings. Rent for the current accounting period totalled 3 kEUR, which Eucity paid in full before 31st Dec 20X1.

Consolidation is carried out as at 31st Dec 20X1. Because rent was paid in full, there are no mutual receivables and payables to be eliminated in the course of debt consolidation (at the balance sheet level). However, at the level of the consolidated statement of financial performance, CE's rent revenues must be offset against Eucity's rent expenses by means of the following consolidation entry:

Debit		**to**	**Credit**	
Rent revenues	3 kEUR	to	Rent expenses	3 kEUR

5.4 Elimination of unrealized gains or losses

As explained in Chapter 11, after purchasing goods and services from another consolidated entity, a consolidated entity may capitalize them as inventories, fixed assets, or intangible assets. From the group's perspective, this may result in the overstatement (or understatement) of assets and the corresponding recognition of unrealized gains (or losses). During consolidation, these unrealized gains or losses must be eliminated and the affected assets must be remeasured at group acquisition or production cost.

Example 8: Elimination of unrealized gains for inventories

In 20X1, CE purchased merchandise from third parties for 38 kEUR and sold it to Eucity for 45 kEUR. Eucity paid for the merchandise, but did not sell it to third parties, so that such merchandise is presented as inventory in Eucity's BS as at 31st Dec 20X1 at Eucity's acquisition cost.

Consolidation is carried out as at 31st Dec 20X1. Because the purchase was paid in full, there are no mutual receivables and payables to be eliminated in the course of debt consolidation. However, by purchasing at 38 kEUR and selling for 45 kEUR, CE recorded a gain of 7 kEUR. From the group's perspective, this gain is still unrealized because the merchandise has not yet been sold to third parties. Correspondingly, the carrying value of Eucity's inventory is 45 kEUR, but the group (through CE) purchased it for 38 kEUR. The following consolidation entries are needed to eliminate the revenues and expenses from the intra-economic entity sale of merchandise, the unrealized gain, and the overstatement of Eucity's inventories:[19]

Debit		**to**	**Credit**	
Consolidated balance sheet				
Surplus	7 kEUR	to	Inventories	7 kEUR
Consolidated statement of financial performance				
Sales revenues	45 kEUR	to	Cost of goods sold	38 kEUR
			Surplus	7 kEUR

[19] Separate accounting records for the balance sheet and the statement of financial performance are illustrated here, because it is assumed that there is no group accounting system and the FS have to be booked separately (see Footnote 13 for a more detailed explanation).

If Eucity's ownership were less than 100%, a portion of the adjustment to CE's surplus would relate to NCI and would need to be classified accordingly. The relevant consolidation entry would be similar to the one presented at the end of Example 4.

Example 9: Elimination of unrealized gains for depreciable PPE

At the beginning of 20X1, CE produced equipment and sold it to Eucity for 45 kEUR. CE's production cost (measured in compliance with the group's accounting policies) was 38 kEUR. Eucity paid for the equipment and began using it. Useful life is five years and the group's accounting policies require straight-line depreciation.

Consolidation is carried out as at 31st Dec 20X1. This example is similar to Example 8 in that: (i) there are no mutual receivables and payables since the purchase was paid in full; (ii) by producing equipment at a cost of 38 kEUR and selling it to Eucity for 45 kEUR, CE recorded an unrealized gain of 7 kEUR; (iii) the gross carrying value of Eucity's PPE is 45 kEUR even if the group's production cost was 38 kEUR. In addition, in 20X1 Eucity depreciated the equipment by 9 kEUR (45 kEUR / 5 years) whereas, from the group's perspective, depreciation is only 7.6 kEUR (38 kEUR / 5 years). The following consolidation entries are needed to eliminate the revenues and expenses from the intra-economic entity sale of PPE, the unrealized gain, and the overstatement of Eucity's gross value of PPE, as well as to adjust the amount of depreciation expenses:[20]

[20] The reasons for separate accounting records for the balance sheet and the statement of financial performance are explained in Footnote 13.

Debit		to	Credit	
Consolidated balance sheet				
Surplus	7 kEUR	to	Equipment	7 kEUR
Consolidated statement of financial performance				
Sales Revenues	45 kEUR	to	Cost of goods sold/ Own work capitalised	38 kEUR
			Surplus	7 kEUR
Consolidated balance sheet				
Equipment (Accumulated depreciation)	1.4 kEUR	to	Surplus (BS)	1.4 kEUR
Consolidated statement of financial performance				
Surplus	1.4 kEUR	to	Depreciation expenses	1.4 kEUR

As in Example 8, the presence of NCI would require a further consolidation entry to allocate the adjustments to CE's surplus.

In the course of the **subsequent consolidation** for the next period 20X2, these consolidation entries will need to be repeated to re-establish the status quo at the beginning of 20X2. However, reserves will be debited and credited instead of surplus, as these entries affect the surplus for 20X1, which in 20X2 has become part of accumulated surplus within the reserves. Conversely, the new entry needed to adjust the depreciation expense for 20X2 will be recorded in surplus.

6. Equity method (initial and subsequent consolidations)

The equity method is similar to capital consolidation. It is a 'one-line' consolidation method to be used for the subsequent measurement of the book value of investments in **associates** (IPSAS 36.16) and **joint ventures** (IPSAS 37.28). Similar to full consolidation, its application requires the existence of uniform accounting policies (IPSAS 36.37). In the CFS, an investment in an associate or a joint venture accounted for using the equity method is classified among non-current financial assets (IPSAS 36.21).

Initially, the investment is measured at cost. However, in an auxiliary calculation, the difference between the cost of the investment and the pro-rata book net assets of the associate / joint venture is calculated and explained in terms of (i) the remeasurement of the associate's / joint venture's assets and liabilities at their acquisition-date fair values, with the resulting identification of hidden reserves and burdens, as well as (ii) a residual amount which, if positive, is qualified as goodwill in the auxiliary calculation, but not disclosed separately from the investment in the associate/joint venture on the consolidated balance sheet. Should the residual amount be negative, it must be accounted for as revenue in surplus or deficit in the period when the investment is acquired, without the need of reassessing the calculation (IPSAS 36.35b). The purpose of this auxiliary calculation is to provide the basis for the adjustments to be carried out in the subsequent reporting periods.

In subsequent reporting periods, the carrying value of the investment is increased or decreased to reflect the investor's share of the investee's surplus or deficit after the date of acquisition; such increase or decrease is recognized in the investor's surplus or deficit as a financial gain or loss from investments in associates or joint ventures. Dividends and similar distributions received from an investee reduce the investee's equity and thus the carrying amount of the investment. Adjustments to the carrying amount of the investment may also be necessary to reflect other changes in the investee's equity that are not recognized in the investee's surplus or deficit (e.g., those arising from the revaluation of PPE); the investor's share of those changes is recognized in the investor's net assets/ equity (IPSAS 36.16). Finally, further adjustments may be needed to capture the effects of the initial difference between the cost of the investment and the pro-rata book net assets of the associate or joint venture; these adjustments (e.g., the depreciation of hidden reserves such as those arising from remeasured PPE) are similar to the reversals of remeasurements performed under full consolidation to achieve subsequent net assets / equity consolidation.

A general structure for the subsequent adjustments to the carrying value of the investment according to the equity method is presented in Table 12.11. In the structure, a distinction is drawn according to whether the adjustments must be recognized in the investor's surplus or deficit.

When using the equity method and in contrast to full or proportionate consolidation, therefore, the investment in associates or joint ventures is not replaced line-by-line by the underlying assets and liabilities in the consolidated BS. The assets and liabilities presented in the consolidated BS, in other words, do not include the associate's or joint venture's assets and liabilities. Instead, **only one line is affected**. In particular, the carrying value of the investment, as initially recognized in the consolidated BS for an amount corresponding to the consideration paid by the investor, is subsequently adjusted to reflect the changes in the associate's or joint venture's remeasured net assets, so that over time it approximates the investment's fair value. **Similarly, the consolidated statement of financial performance does not include line-by-line the revenues and expenses of the associate or joint venture. Rather, it only includes an item reflecting the investor's (adjusted) share of the associate's or joint venture's surplus or deficit.** Notably, according to IPSAS 1.102(c), this "share of the surplus or deficit of associates and joint ventures accounted for using the equity method" must be presented as a separate line item on the face of the statement of financial performance.

Starting point	**Book value of investment in associates or joint ventures** at acquisition cost or at the beginning of the current reporting period
Adjustments through surplus or deficit	+ Pro-rata surplus of the associate or joint venture
	- Pro-rata deficit of the associate or joint venture
	- Pro-rata dividend paid[21]
	- Depreciation and other adjustments to initially recognized reserves
	- Adjustment of hidden burdens
	+ / - Alignment of the associate's / joint venture's balance sheet items to the group's accounting policies affecting net income
	+ / - Deferred taxes on depreciation and adjustments (if applicable)
Adjustments through net assets (i.e., not through surplus and deficit)	+ / - Revaluations and adjustments to PPE that are not recognized by the associate or joint venture through surplus or deficit (e.g., due to use of revaluation method)
	+ / - Changes in the participation quota that result from any under- or over proportionate increase or decrease in net assets
	+ / - Capital contributions by the investor /paid to the investor
	= Book value of investment in associates or joint ventures at end of reporting period

Table 12.11: Adjustment of the investment's book value according to the equity method[22]

Due to the procedure described above, the equity method is often perceived as a valuation or measurement method rather than a true consolidation method.[23] Notably, such procedure only ensures net assets/equity consolidation. Transactions with associates and joint ventures may also require the elimination of unrealized gains and losses (IPSAS 36.29 ff.), which is not explained here due to technical complexity.[24] Differences may lie, for example, in the consolidation of gains and losses between downstream and upstream transactions (see IPSAS 36.31).

[21] Assuming that dividends are recognized as revenue and only later deducted from the carrying value of the investment (see Example 10).

[22] See e.g. Krimpmann (2015), pp. 427.

[23] Stolowy and Lebas (2006), p. 468.

[24] See for detailed explanations e.g. Krimpmann (2015), pp. 450 ff.

Example 10: Application of the equity method

On 1^{st} Jan 20X1, Eucity acquired 25% of the shares in company AE (associated entity). The acquisition cost was 50 kEUR. The book value of AE's equity at the time of acquisition was 120 kEUR. At the time of acquisition, AE had hidden reserves worth 32 kEUR in PPE with a remaining useful life of 5 years. In 20X1, AE reported a deficit of 8 kEUR and distributed dividends of 4 kEUR.

Initial recognition is at cost:

Debit		**to**	**Credit**	
Investments in Associates	50 kEUR	to	Bank	50 kEUR

The auxiliary calculations are as follows:

Acquisition cost	**50 kEUR**
- Pro rata net assets acquired, at book value (25% of 120 kEUR)	30 kEUR
= Difference	20 kEUR
- Pro-rata hidden reserves (25 % of 32 kEUR)	8 kEUR
= Goodwill	**12 kEUR**

The pro-rata hidden reserves and the goodwill are not recognized separately in the consolidated BS, but they will cumulatively affect subsequent measurement.

For the subsequent measurement as at 31^{st} Dec 20X1, the relevant parts of Table 12.11 are shown below:

Acquisition cost **= Investment's carrying value at 1^{st} Jan 20X1**	**50 kEUR**
- AE's pro rata deficit (25% of 8 kEUR)	2 kEUR
- Pro rata dividend paid by AE (25% of 4 kEUR)	1 kEUR

- Pro rata depreciation of AE's hidden reserves (25% of 32 kEUR/5 years)	1.6 kEUR
= Investment's carrying value at 31st Dec 20X1	**45.4 kEUR**

The carrying value of the investment must be adjusted accordingly. In addition, the investor must verify whether the investment is impaired, in which case an impairment loss would need to be recognized (IPSAS 36.43).

The accounting entries for the reduction in the carrying value of the investment and the dividend received are shown below. The net result from the investment in the associate is a loss of 3.6 kEUR.

Debit		**to**	**Credit**	
Deficit of associates accounted for using the equity method	4.6 kEUR	to	Investments in associates	4.6 kEUR
Bank	1 kEUR	to	Surplus of associates accounted for using the equity method	1 kEUR

7. Conclusion

The aim of this chapter was to present consolidated financial reporting according to IPSAS, with a specific focus on consolidation methods and procedures. It was shown that controlled entities must be fully consolidated, whereas investments in associates and joint ventures are consolidated using the equity method, which is also different from measurement as financial assets (IPSAS 29/41). Proportionate consolidation was not addressed since it is not allowed by current IPSASs.

To explain the consolidation methods, this chapter used short examples. Given the introductory character of this chapter, such examples were rather simplified. Still, upon completion of this chapter, readers should be familiar with the basic techniques and challenges of consolidation.

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Discussion topics

- Relevance of accounting for goodwill in the public sector and its interpretation
- Relevance of the full goodwill method in public sector accounting
- Typical examples of public sector specific revenues and expenses and unrealised gains and losses
- Consolidation issues in financial statements, other than financial position and financial performance

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