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## **EPSAS Working Group meeting**

To be held by videoconference  
on 28-29 April 2021, starting at 10:00

### **Item 5 of the Agenda**

## **Draft EPSAS Screening Report IPSAS 12 – Inventories**

*Paper by PwC in cooperation with Eurostat  
- for discussion -*

*This document was commissioned by Eurostat. It analyses the consistency of the named IPSAS standard with the draft EPSAS framework, with a view to informing future EPSAS standard setting. This version was prepared taking into account comments received from the participants of the Cell on Principles related to EPSAS Standards.*

# EPSAS screening report

IPSAS 12 - Inventories

January 2021

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# Background

## Objectives

Reference is made to the general introduction to the EPSAS screening reports that covers the following elements:

- Key objectives of EPSAS.
- Standard setting process in the public sector.
- Purpose and scope of the screening reports.
- Approach of the screening reports.
- European public good.
- Common elements considered when preparing the reports.

## General introduction to IPSAS 12

IPSAS 12 is drawn primarily from International Accounting Standard (IAS) 2 'Inventories', issued by International Accounting Standards Board (IASB). In developing IPSAS 12, the International Public Sector Accounting Standards Board (IPSASB) applied its 'Process for Reviewing and Modifying IASB Documents' that identifies public sector modifications where appropriate. This approach enables the IPSASB to build on best practices in private sector financial reporting, while ensuring that the unique features of the public sector are addressed.

The objective of this standard is to prescribe the accounting treatment for inventories.

In many public sector entities, inventories relate to the provision of services rather than goods purchased and held for resale or goods manufactured for sale. In the case of a service provider, inventories include the costs of the service, for which the entity has not yet recognised the related revenue (IPSAS 12 para 11).

## Scope of the report

The International Public Sector Accounting Standards Board (IPSASB®) issued IPSAS 12 'Inventories' in July 2001. The present screening report analyses the measurement and disclosure requirements of inventories.

## Reference to EFRAG assessment

No specific individual technical assessment of IAS 2 'Inventories', the IFRS equivalent of IPSAS 12, was carried out by the EFRAG, and therefore no specific individual endorsement report was produced.

The EFRAG however provided on 19 June 2002 a positive assessment of all IAS standards existing at 1 March 2002, including IAS 2, as part of the overall introduction of IAS within the EU.

## Reference to EPSAS issue papers<sup>1</sup>

The PwC study of 2014<sup>2</sup> analysed the suitability of the IPSAS standards as a basis for developing EPSAS. Member States have been asked to provide their comments on the application of IPSAS in an open way. This included the analysis of IPSAS 12 that was classified as a standard assessed to be acceptable for use by EU Member States without adaptation or with only minor adaptations.

In the course of developing the technical proposal on EPSAS, Eurostat commissioned a series of twenty technical issues papers (IPs), which analyse key public sector specific accounting issues. The papers were discussed at the EPSAS Working Group meetings during 2016-2018. The papers are all publicly available on Eurostat's website.

Each of the IPs seek to identify conclusions and key issues for further discussion. Taking into consideration the analyses provided in the IPs and the initial views exchanged with Member States' public sector accounting experts during the Working Group meetings, Eurostat drew tentative conclusions that may serve, together with the IPs themselves, as considerations for future standard setting.

No IP was produced that specifically deals with inventories.

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<sup>1</sup> EPSAS Issues papers are available on <https://ec.europa.eu/eurostat/web/epsas/key-documents/technical-developments>

<sup>2</sup> Collection of information related to the potential impact, including costs, of implementing accrual accounting in the public sector and technical analysis of the suitability of individual IPSAS standards (Ref. 2013/S 107-182395)

# Screening of IPSAS 12 'Inventories' against criteria set in the draft EPSAS framework

## Introduction

The EPSAS criteria listed in the draft EPSAS framework have been used to perform an assessment of IPSAS 12 'Inventories', published in 2001 by the IPSASB, with minor amendments made from that date.

In order to develop recommendations, one should first consider whether IPSAS 12 would meet the qualitative characteristics of the draft EPSAS CF, i.e. whether it would provide relevant, reliable, complete, prudent, neutral, verifiable, economically substantive, understandable, timely and comparable information and would not be contrary to the true and fair view principle.

This report considers measurement and disclosure requirements applicable to inventories for each of the qualitative characteristics of the draft EPSAS CF.

Further, this paper includes a high-level comparison between the requirements of IPSAS 12 and other international accounting and financial reporting frameworks applied by the public sector entities in various jurisdictions, such as IFRS, ESA 2010 and EU Accounting Rules, bearing in mind the objective of alignment, reduction of cost of implementation and compliance cost.

Finally, the paper assesses whether IPSAS 12 would be conducive to the European public good.

The findings are presented below, and the conclusion is included in the next section of this report.

## Conformity with Qualitative Characteristics

### Relevance

Financial and non-financial information is relevant if it is capable of making a difference in achieving the objectives of GPFs. Financial and non-financial information is capable of making a difference when it has confirmatory value, predictive value, or both.

The objective of IPSAS 12 is to prescribe the accounting treatment for inventories, it provides guidance on the determination of cost and its subsequent recognition as an expense, including any write-down to net realisable value and on the cost formulas that are used to assign costs to inventories (IPSAS 12 para 1).

Inventories are assets:

- (a) In the form of materials or supplies to be consumed in the production process;
- (b) In the form of materials or supplies to be consumed or distributed in the rendering of services;
- (c) Held for sale or distribution in the ordinary course of operations; or
- (d) In the process of production for sale or distribution (IPSAS 12 para 9).

Inventories encompass goods purchased or land and other property held for sale. Inventories also encompass finished goods produced, or work-in-progress being produced, by the entity (IPSAS 12 para 11).

The recognition principles of inventories are consistent with the definition of an asset in the draft EPSAS CF. As a reminder, an asset is a resource presently controlled by the entity as a result of past events or transactions. A resource is an item with service potential or the ability to generate economic benefits. Service potential is the capacity to provide services that contribute to achieving the entity's objectives. Economic benefits are cash inflows or a reduction in cash outflows.

The cost of inventories comprises all costs of purchase, costs of conversion, and other costs incurred in bringing the inventories to their present location and condition (IPSAS 12 para 18). The information about inventories as required by IPSAS 12 is relevant because it helps the users estimate the future economic benefits or service potential of assets that are owned or used for the short term by a public sector entity. In addition, it has a confirmatory value because it shows the level of investment made into these assets. Looking at the components of the cost of an item of inventory, the purchase price and the direct costs attributable to the acquisition have a confirmatory value about the service potential of an asset.

Inventories should be measured at the lower of cost and net realisable value (i.e. that is the estimated selling price in the ordinary course of operations, less the estimated costs of completion and the estimated costs necessary to make the sale, exchange, or distribution) (IPSAS 12 para 15).

Inventories should be measured at the lower of cost and current replacement cost where they are held for distribution at no charge or for a nominal charge or consumption in the production process of goods to be distributed at no charge or for a nominal charge (IPSAS 12 para 17). A public sector entity may hold inventories whose future economic benefits or service potential are not directly related to their ability to generate net cash inflows. These types of inventories may arise when a government has determined to distribute certain goods at no charge or for a nominal amount. In these cases, the future economic benefits or service potential of the inventory for financial reporting purposes is reflected by the amount the entity would need to pay to acquire the economic benefits or service potential if this was necessary to achieve the objectives of the entity. Where the economic benefits or service potential cannot be acquired in the market, an estimate of replacement cost needs to be made (IPSAS 12 para 43). According to that standard's definitions

current replacement cost is the cost the entity would incur to acquire the asset on the reporting date (IPSAS 12 para 9). Both net realisable value and replacement cost have predictive value as those are reflecting the current value of inventory instead of historical carrying value as a result of a past transaction, therefore this measurement method ensures that the inventory's carrying amount is reviewed on regular basis to avoid overstatement of assets presented on the balance sheet.

Inventories may be transferred to the entity by means of a non-exchange transaction. For example, an international aid agency may donate medical supplies to a public hospital in the aftermath of a natural disaster. Under such circumstances, the cost of inventory is its fair value as at the date it is acquired (IPSAS 12 para 31). When an asset is acquired as a result of an event that is not a transaction on market terms, fair value of the asset provides relevant information to the users.

The cost of inventories may not be recoverable if those inventories are damaged, if they have become wholly or partially obsolete, or if their selling prices have declined. The cost of inventories may also not be recoverable if the estimated costs of completion or the estimated costs to be incurred to make the sale, exchange, or distribution have increased. The practice of writing inventories down below cost to net realisable value is consistent with the view that assets are not to be carried in excess of the future economic benefits or service potential expected to be realised from their sale, exchange, distribution, or use (IPSAS 12 para 38). The measurement principle of IPSAS 12 provides up-to-date and forward-looking information on the carrying value of inventory that strengthens the QC 'Relevance' of the draft EPSAS CF.

Based on the above, IPSAS 12 provides users of financial statements with relevant information on inventories. An entity reporting under IPSAS must also disclose specific information as defined in the standard:

- (a) The accounting policies adopted in measuring inventories, including the cost formula used;
- (b) The total carrying amount of inventories and the carrying amount in classifications appropriate to the entity;
- (c) The carrying amount of inventories carried at fair value less costs to sell;
- (d) The amount of inventories recognized as an expense during the period;
- (e) The amount of any write-down of inventories recognized as an expense in the period;
- (f) The amount of any reversal of any write-down that is recognized in the statement of financial performance in the period;
- (g) The circumstances or events that led to the reversal of a write-down of inventories; and
- (h) The carrying amount of inventories pledged as security for liabilities.



## **Faithful representation / Reliability**

To be reliable, financial and non-financial information must provide a faithful representation of the substance of economic and other phenomena that it purports to represent. The notion of faithful representation and reliability in the draft EPSAS CF is linked to the qualitative characteristics of completeness, prudence, neutrality, verifiability, substance over form and being free from material error. These characteristics are separately discussed below.

The cost of inventories comprises all costs of purchase, costs of conversion, and other costs incurred in bringing the inventories to their present location and condition (IPSAS 12 para 18). The allocation of fixed production overheads to the costs of conversion is based on the normal capacity of the production facilities. The amount of fixed overheads allocated to each unit of production is not increased as a consequence of low production or idle plant. Unallocated overheads are recognised as an expense in the period in which they are incurred. In periods of abnormally high production, the amount of fixed overheads allocated to each unit of production is decreased, so that inventories are not measured above cost (IPSAS 12 para 21). This is to avoid any potential overstatement of assets on the balance sheet.

Techniques for the measurement of the cost of inventories take into account normal levels of materials and supplies, labour, efficiency, and capacity utilisation and they are regularly reviewed and, if necessary, revised in the light of current conditions (IPSAS 12 para 30). The regular reassessment increases faithful representation of financial information by following up any changes in the underlying circumstances.

Net realisable value refers to the net amount that an entity expects to realise from the sale of inventory in the ordinary course of operations. Fair value reflects the amount for which the same inventory could be exchanged between knowledgeable and willing buyers and sellers in the marketplace. The former is an entity-specific value, the latter is not. Net realisable value considers all entity specific circumstances and knowledge to properly adjust the value of inventories, if necessary.

Materials and other supplies held for use in the production of inventories are not written down below cost if the finished products in which they will be incorporated are expected to be sold, exchanged, or distributed at or above cost. However, when a decline in the price of materials indicates that the cost of the finished products exceeds net realisable value, the materials are written down to net realisable value. In such circumstances, the replacement cost of the materials may be the best available measure of their net realisable value (IPSAS 12 para 41). These rules contribute to a faithful presentation of these assets.

When, in rare cases, fair value should be applied to measure items of inventories, IPSAS 12 requires that this fair value be determined by reference to an active market, which increases the reliability of the measurement.

The principles of IPSAS 12 enhance a faithful representation of the economic phenomena and fulfil the QC 'Reliability' of the draft EPSAS CF.

## Completeness

The information which fulfils the recognition criteria should be complete within the bounds of materiality and cost-benefit considerations.

An entity that prepares and presents financial statements under the accrual basis of accounting should apply IPSAS 12 in accounting for all inventories except:

- (a) Work-in-progress arising under construction contracts, including directly related service contracts (see IPSAS 11 'Construction Contracts');
- (b) Financial instruments (see IPSAS 28 'Financial Instruments: Presentation' and IPSAS 41 'Financial Instruments');
- (c) Biological assets related to agricultural activity and agricultural produce at the point of harvest (see IPSAS 27 'Agriculture'); and
- (d) Work-in-progress of services to be provided for no or nominal consideration directly in return from the recipients (IPSAS 12 para 2).

IPSAS 12 does not apply to the measurement of inventories held by:

- (a) Producers of agricultural and forest products, agricultural produce after harvest, and minerals and mineral products, to the extent that they are measured at net realisable value in accordance with well-established practices in those industries. When such inventories are measured at net realisable value, changes in that value are recognised in surplus or deficit in the period of the change; and
- (b) Commodity broker-traders who measure their inventories at fair value less costs to sell. When such inventories are measured at fair value less costs to sell, changes in fair value less costs to sell are recognised in surplus or deficit in the period of the change (IPSAS 12 para 3).

Based on scope exclusions, IPSAS 12 does not raise any significant issues concerning completeness.

The requirement to include in the cost of inventories all costs of purchase, costs of conversion, and other costs incurred in bringing the inventories to their present location and condition also satisfy the QC of 'Completeness'.

The financial statements should disclose:

- (a) The accounting policies adopted in measuring inventories, including the cost formula used.
- (b) The total carrying amount of inventories and the carrying amount in classifications appropriate to the entity.
- (c) The carrying amount of inventories carried at fair value less costs to sell.
- (d) The amount of inventories recognised as an expense during the period.
- (e) The amount of any write-down of inventories recognised as an expense in the period.

- (f) The amount of any reversal of any write-down that is recognised in the statement of financial performance in the period.
- (g) The circumstances or events that led to the reversal of a write-down of inventories.
- (h) The carrying amount of inventories pledged as security for liabilities (IPSAS 12 para 47).

The amount of inventories recognised as an expense during the period consists of (a) those costs previously included in the measurement of inventory that has now been sold, exchanged, or distributed, and (b) unallocated production overheads and abnormal amounts of production costs of inventories. The circumstances of the entity may also warrant the inclusion of other costs, such as distribution costs (IPSAS 12 para 49).

The disclosure requirements of IPSAS 12 provides users with a complete overview of the transactions relating to inventories and of the changes in the carrying amount of the assets at each reporting date including those presentation of items that are not recognised as assets but expensed.

To summarise, IPSAS 12 satisfies the completeness QC of the draft EPSAS CF.

## **Prudence**

Prudence is the inclusion of a degree of caution in the exercise of the judgments needed in making the estimates required under conditions of uncertainty, such that assets or revenue are not overstated while liabilities or expenses are not understated.

Measuring items of inventories at cost is a reliable and prudent method. As the cost does not mirror changes in the price level since the initial acquisition date, IPSAS 12 ensures that any negative changes in value are properly reflected the measurement, by applying current value (i.e. net realisable value or replacement cost) that can provide relevant and faithful information about the economic value or service potential of items of inventory, also consistent with the prudence QC.

Inventories are usually written down to net realisable value on an item by item basis. In some circumstances, however, it may be appropriate to group similar or related items. This may be the case with items of inventory that have similar purposes or end uses and cannot practicably be evaluated separately from other items in that product line (IPSAS 12 para 39). The grouping exercise might require some (limited) level of judgement by the entity.

IPSAS 12 requires an entity to disclose details about significant judgements and assumptions made in determining the applicability of write-down of inventories and any potential reversals.

The cost of inventories that are ordinarily interchangeable should be assigned by using the first-in, first-out (FIFO) or weighted average cost (WAC) formulas (IPSAS 12 para 35). The FIFO formula assumes that the items of inventory that were purchased first are sold first, and consequently the items remaining in inventory at

the end of the period are those most recently purchased or produced. Under the weighted average cost formula, the cost of each item is determined from the weighted average of the cost of similar items at the beginning of a period, and the cost of similar items purchased or produced during the period. The average may be calculated on a periodic basis, or as each additional shipment is received, depending upon the circumstances of the entity (IPSAS 12 para 37). The available selection of cost formulas do not affect the QC 'Prudence' as neither the FIFO nor the WAC methods result in overstatement of assets at the end of the reporting period.

In certain situations, a production process may result in more than one product being produced simultaneously. Most by-products, by their nature, are immaterial. When this is the case, they are often measured at net realisable value, and this value is deducted from the cost of the main product. As a result, the carrying amount of the main product is not materially different from its cost (IPSAS 12 para 23). Application of this rule may require a certain level of judgment but is not likely to occur frequently for governments.

IPSAS 12 requires the lower of cost or net realisable value to be applied and does not allow to increase the value of inventories based on changes in the price level, therefore taking a prudent approach to inventory valuation.

To conclude, IPSAS 12 satisfies the QC 'Prudence' of the draft EPSAS CF.

## **Neutrality**

Information is neutral if it is free from bias. GPFs are not neutral if the information they contain has been selected or presented in a manner designed to influence the making of a decision or judgment in order to achieve a predetermined result or outcome.

The principles included in IPSAS 12 have been tested for many years in the private sector, delivering neutral information free from bias to the users of the IFRS financial statements. The adaptation of IPSAS 12 compared to IAS 2 to require measurement at the lower of cost and current replacement cost (instead of net realisable value) in circumstances specific to the public sector (i.e. distribution of items of inventory at no charge or for a nominal charge; or consumption in the production process of goods to be distributed at no charge or for a nominal charge) does not impact the assessment of the neutrality QC. The requirements to apply accounting policies consistently year on year and to disclose such policies in the notes to the accounts also reinforce the neutrality QC.

The cost of inventories of items that are not ordinarily interchangeable, and goods or services produced and segregated for specific projects, should be assigned by using specific identification of their individual costs (IPSAS 12 para 32). Specific identification of costs means that specific costs are attributed to identified items of inventory. However, specific identification of costs is inappropriate when there are large numbers of items of inventory that are ordinarily interchangeable. Selecting those items that remain in inventories could be used to obtain predetermined effects

on the surplus or deficit for the period (IPSAS 12 para 33) and would be inappropriate. This requirement enhances the QC 'Neutrality' of the draft EPSAS CF.

In a principles-based control model, the use of judgement is an inherent factor, and the disadvantage of applying principles instead of rules, is that there might be divergence in practice. The screening of the standard has not identified areas where significant judgment would need to be exercised that could impair the QC 'Neutrality' of the draft EPSAS CF.

## **Verifiability**

'Verifiability' QC is achieved when the quality of information helps assure users that GPFs is based on supporting evidence in a way that it faithfully represents the substance of economic and other phenomena that it purports to represent.

The nature of inventories makes it possible to visually inspect and easily trace the items back to the supporting evidence of ownership and control. The cost of inventories comprises all costs of purchase, costs of conversion, and other costs incurred in bringing the inventories to their present location and condition. Cost information relating to separately acquired inventories is easily verifiable with supporting documents.

According to IPSAS 12, there are several cases when systematic allocation is required, as follows:

- The costs of conversion of inventories include costs directly related to the units of production, such as direct labour. They also include a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods (IPSAS 12 para 20).
- A production process may result in more than one product being produced simultaneously. When the costs of conversion of each product are not separately identifiable, they are allocated between the products on a rational and consistent basis. The allocation may be based, for example, on the relative sales value of each product either at the stage in the production process when the products become separately identifiable, or at the completion of production (IPSAS 12 para 23).
- Other costs are included in the cost of inventories only to the extent that they are incurred in bringing the inventories to their present location and condition. For example, it may be appropriate to include non-production overheads or the costs of designing products for specific customers in the cost of inventories (IPSAS 12 para 24).

Producing inventories is a less frequent and less material activity in a government context than in a private sector context. When it happens, application of the cost allocation methods should be supported by robust administrative processes that allow such allocations to be made.

Fair value information is less verifiable compared to cost, and it involves certain assumptions that are not always observable on the market. Although it would have an impact on the assessment of verifiability, it can improve relevance of the

information provided in view of the accountability and decision-making objectives of financial statements. Measurement of inventories at fair value is expected to happen in rare circumstances only (i.e. inventories acquired for free).

Estimates of net realisable value also take into consideration the purpose for which the inventory is held. For example, the net realisable value of the quantity of inventory held to satisfy firm sales or service contracts is based on the contract price. In other cases, reference to the replacement cost to determine the net realisable value is also based on market data. Based on this example, in practice, the verifiability of net realisable value can be easily fulfilled as no specific valuation techniques shall be used to determine the current value of inventory.

A new assessment is made of net realisable value in each subsequent period. When the circumstances that previously caused inventories to be written down below cost no longer exist, or when there is clear evidence of an increase in net realisable value because of changed economic circumstances, the amount of the write-down is reversed (i.e., the reversal is limited to the amount of the original write-down) so that the new carrying amount is the lower of the cost and the revised net realisable value. The requirement for supporting evidence of the net realisable value enhances the QC 'Verifiability' of IPSAS 12.

The provisions of IPSAS 12 are in line with verifiability principles of the draft EPSAS CF.

### **Substance over form**

The 'Substance over form' QC requires that the underlying transactions, other events, activities or circumstances are accounted for and presented in accordance with their substance and economic reality, and not merely their legal form.

The overall requirement to measure inventories at the lower of cost or net realisable value adequately reflects the substance of assets that are held for sale or consumption in the ordinary course of business.

More specifically, when an entity purchases inventories on deferred settlement terms and the arrangement effectively contains a financing element, that element (e.g. a difference between the purchase price for normal credit terms and the amount paid) is recognised as interest expense over the period of the financing (IPSAS 12 para 27). This requirement properly reflects the real substance of the purchase transaction that is a financing arrangement and requires to account for it accordingly.

Based on the facts summarised in this section of the screening report, IPSAS 12 fulfils the requirements of the QC 'Substance over form' of the draft EPSAS CF.

### **Understandability**

Understandability is the quality of presenting information in a manner that facilitates expert and non-expert users to comprehend its meaning. Understandability is enhanced when information is classified, characterised and presented clearly and concisely.

The notion of understandability requires that the financial information provided should be readily understandable by users with a reasonable knowledge of business and economic activity and accounting and the willingness to study the information with reasonable diligence. Although there are a number of aspects to the notion of 'understandability', most of the aspects are covered by the discussion above about relevance, reliability and comparability.

Information about the carrying amounts held in different classifications of inventories and the extent of the changes in these assets is useful to financial statement users. Classifications of inventories in categories (e.g. raw materials, consumables, work-in-progress, goods for resale and finished goods) enhances the understandability of the financial information provided in accordance with IPSAS 12.

Application of the cost model normally results in asset carrying amounts and amounts of income and expenses that are more understandable than those generated by current market selling prices. The strict requirements imposed when estimating an asset's fair values also give users sufficient information for an independent assessment of the level of prudence in applying the accounting policies.

In summary, the principles of IPSAS 12 are straightforward, do not raise any significant concerns nor introduce any complexities that may impair understandability. The accounting treatment of inventories under IPSAS 12 provides understandable information to the users of financial statements.

### **Comparability**

Comparability is the quality of information that enables users to identify similarities in, and differences between, two sets of phenomena in different reporting entities or in one reporting entity at different points in time. A key objective of EPSAS is to achieve the necessary level of financial transparency and comparability of financial reporting, between and within EU Member States.

An entity should use the same cost formula for all inventories having similar nature and use to the entity. For inventories with different nature or use, different cost formulas may be justified (IPSAS 12 para 34). The consistent application of cost formulas supports the comparability of financial information over time.

Cost-based measurements are simpler and often less expensive to implement than current measurements. Application of the net realisable value or current replacement cost provides information on inventory measurement that is current at the reporting date, therefore more comparable.

The use of judgment and estimates (e.g. when estimating cost of inventory and/or net realisable, replacement cost or fair value) may to some minor extent impair the comparability of financial statements.

Application of the requirements of IPSAS 12 combined with appropriate disclosures in the notes about accounting estimates are likely to result in comparable application of the standard across the EU and by entities over time. The guidance in IPSAS 12 should help with consistent interpretation and application of the accounting

requirements. There are no areas identified where a lack of guidance could lead to divergence in practice and inconsistencies in the financial information provided. The provisions of IPSAS 12 should promote consistency and coherence of the requirements thereby comparability of financial reporting.

## Alignment with other frameworks

### ESA 2010

Changes in inventories (code P.52) are measured by the value of the entries into inventories less the value of withdrawals and the value of any recurrent losses of goods held in inventories. Changes in inventories is among the main components of the Gross Domestic Product (GDP) and therefore an important measure in national accounts. It is a net measure, i.e. representing the net of inflows and outflows of inventories.

Inventories consist of the following categories:

- (a) Materials and supplies: all products held in stock with the intention of using them as intermediate inputs in production; this includes products held in stock by the government. Items such as gold, diamonds, etc. are included when intended for industrial use or other production.
- (b) Work-in-progress: output produced that is not yet finished. It is recorded in the inventories of its producer. Work-in-progress shall be recorded for any production process that is not finished at the end of the given period. This is significant in quarterly accounts, an example being agricultural crops not completing growth within a quarter of a year. Reductions in work-in-progress take place when the production process is completed. At that point, all work-in-progress is transformed into a finished product.
- (c) Finished goods: consist of outputs that their producer does not intend to process further before supplying them to other institutional units.
- (d) Goods for resale: goods acquired for the purpose of reselling them unchanged from their present state (ESA 2010 3.148).

The time of recording and the valuation of changes in inventories is consistent with those of other transactions in products. This applies in particular to intermediate consumption (e.g. for materials and supplies), output (e.g. work-in-progress and output from storage of agricultural products) and gross fixed capital formation (e.g. work in progress). If goods are processed abroad with a change of economic ownership, the goods are to be included in exports (and later in imports). The export is reflected in a concomitant reduction in inventories, and the corresponding later import is recorded as an increase in inventories, provided it is not sold or used at once (ESA 2010 3.149).



In measuring changes in inventories, goods entering inventories are valued at the time of entry, and goods being withdrawn are valued at the time of withdrawal (ESA 2010 3.150).

As for the reporting on the balance sheet, inventories (code AN.12) should be valued at prices prevailing on the date to which the balance sheet relates, and not at the prices at which the products were valued when they entered inventory (ESA 2010, 7.46).

Inventories of materials and supplies are valued at purchasers' prices, and inventories of finished goods and work-in-progress are valued at basic prices. Inventories of goods intended for resale without further processing by distributors are valued at the prices prevailing on the date to which the balance sheet relates, excluding any transportation costs incurred by the wholesalers or retailers. For inventories of work-in-progress, the value of the closing balance sheet is estimated by applying the fraction of the total production cost incurred by the end of the period to the basic price of a similar finished product on the date to which the balance sheet relates. If the basic price of the finished products is unavailable, it is estimated by the value of the production cost with a mark-up for expected net operating surplus or estimated net mixed income (ESA 2010 7.47).

### **IFRS<sup>3</sup>**

IPSAS 12, Inventories is drawn primarily from IAS 2 'Inventories'. The main differences between IPSAS 12 and IAS 2 are as follows:

- IPSAS 12 uses a different definition from IAS 2; the difference recognises that in the public sector some inventories are distributed at no charge or for a nominal charge.
- IPSAS 12 clarifies that work-in-progress of services that are to be distributed for no or nominal consideration directly in return from the recipients are excluded from the scope of the Standard.
- A definition of current replacement cost, which is additional to the definitions in IAS 2, has been included in IPSAS 12.
- IPSAS 12 requires that where inventories are acquired through a nonexchange transaction, their cost is their fair value as at the date of acquisition.
- IPSAS 12 requires that where inventories are provided at no charge or for a nominal charge, they are to be valued at the lower of cost and current replacement cost.
- IPSAS 12 uses different terminology, in certain instances, from IAS 2.
- IPSAS 12 does not use the term "income," which in IAS 2 has a broader meaning than the term "revenue."

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<sup>3</sup> Refer to the IPSAS-IFRS Alignment Dashboard regularly updated by the IPSASB available on [https://www.ifac.org/system/files/uploads/IPSASB/Agenda%20Item%201.5%20IPSAS%20IFRS%20Alignment%20Dashboard\\_June%202019.pdf](https://www.ifac.org/system/files/uploads/IPSASB/Agenda%20Item%201.5%20IPSAS%20IFRS%20Alignment%20Dashboard_June%202019.pdf)

## EU accounting rules

European Union Accounting Rules (EAR) constitute the accounting framework of the European Union Institutions, including the European Commission (EC) and its agencies.

The objective of EU Accounting Rule 9 'Inventories' is to prescribe the accounting treatment of inventories. EAR 9 is based on IPSAS 12.

EAR 9 applies to accounting for all inventories in the financial statements of the European Union and its consolidated entities, except:

- Work in progress arising under construction contracts.
- Financial instruments.
- Inventories from agricultural production.
- Work in progress of services to be provided for no or nominal consideration directly in return from the recipients.

Inventories in EU entities may include:

- (a) Consumable stores.
- (b) Maintenance materials.
- (c) Spare parts for plant and equipment other than those dealt with in accounting rule 7.
- (d) Strategic stockpiles (for example, energy reserves, vaccination).
- (g) Work in progress, including (i) Educational/training course materials; and (ii) Client services (for example, auditing services) where those services are sold at arm's length prices.

Inventories are measured at the lower of cost and net realisable value, except where inventories are acquired through a non-exchange transaction. In such case their cost is measured at their fair value as at the date of acquisition. The cost of inventories comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

Techniques for the measurement of the cost of inventories, such as the standard cost method or the retail method, may be used for convenience if the results approximate cost. The cost of ordinarily interchangeable inventories should be assigned by using the first-in, first-out (FIFO) or weighted average cost formulas. An entity should use the same cost formula for all inventories having a similar nature and use to the entity. For inventories with a different nature or use, different cost formulas may be justified.

An EU entity shall disclose:

- (a) The accounting policies adopted in measuring inventories, including the cost formula used.

- (b) The total carrying amount of inventory.
- (c) The carrying amount of inventories carried at fair value less costs to sell.
- (d) The amount of any material write-down of inventories recognised as an expense in the period.
- (e) The amount of any reversal of any material write-down that is recognised in the statement of financial performance in the period.
- (f) The circumstances or events that led to the reversal of a write-down of inventories.

## European Public Good

### **Assessing whether IPSAS 12 is conducive to the European public good**

The assessment of whether IPSAS 12 would be conducive to the European public good addresses the following items:

- a) Whether the standard will improve financial reporting;
- b) The costs and benefits associated with the standard; and
- c) Whether the standard could have an adverse effect to the European economy, including financial stability and economic growth.

These assessments will allow the EU authorities to draw a conclusion as to whether the standard is likely to be conducive to the European public good.

The analysis revealed no reasons why IPSAS 12 would not be conducive to the European public good:

- Measurement and disclosure requirements of IPSAS 12 will provide useful information to the users of the GPFs and will improve the overall quality of financial reporting in the public sector.
- Implementation of the standard may result in a moderate one-off cost and should be relatively cost-neutral on an ongoing basis for preparers when appropriate processes are implemented, taking into account the materiality principle.
- Considering its conceptual merits, the standard will bring improved financial reporting when compared to heterogeneous reporting requirements currently applied in the EU. As such, its endorsement is conducive to the European public good in that improved financial reporting improves transparency and assists in the assessment of management stewardship. The analysis has not identified any adverse effect of the standard to the European economy, including financial stability and economic growth, or any other factors that would mean the standard is not conducive to the European public good.

# Conclusion

## **Assessing IPSAS 12 against the criteria formulated in the draft EPSAS framework**

The analysis has not revealed major conceptual issues with IPSAS 12 'Inventories' and has not identified any inconsistency between IPSAS 12 and the draft EPSAS framework.

Following the screening analysis summarised in the present report, the future standard setter could consider the following conclusions. The information resulting from the application of IPSAS 12:

- would provide relevant, reliable, complete, prudent, neutral, verifiable, economically substantive, understandable, timely and comparable information needed for making economic decisions and achieving the necessary level of financial transparency and comparability of financial reporting in the European Union;
- would not be contrary to the true and fair view principle; and
- would be conducive to European public good.

However, in order to achieve consistent application of the new standard within the EU context and therefore better address the comparability objective of EPSAS financial statements, additional guidance and improvements in certain areas might be desirable.

- *Judgment and comparability.* The use of judgment and estimates is inherent in the preparation of financial statements and may to some extent affect the comparability of financial statements.

The analysis has not identified any adverse effect of the standard to the European economy, including financial stability and economic growth, or any other factors that would mean the standard is not conducive to the European public good.

The future standard setter could consider the conclusions of this assessment and the likely benefit of using the requirements of IPSAS 12 as a starting point in developing an equivalent EPSAS standard or recommendation.