

Update of the SNA 1993 and revision of ESA95

Statistics Explained

For the latest information on the European system of national and regional accounts (ESA 2010), please see [here](#).

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The [national accounts](#) are a complete system of macroeconomic accounts and are a key input into economic analysis and policymaking. International comparability is extremely important for these statistics and therefore the development of related methodological standards, and their implementation, must proceed in a coordinated fashion. This is particularly relevant in the [European Union \(EU\)](#), where national accounts figures are also used for administrative purposes.

As one of the five international organisations in charge of the world-level System of national accounts (SNA 1993), [Eurostat](#) is actively participating in its update process.

At the same time, Eurostat has started the process of revising the [European system of national and regional accounts \(ESA95\)](#), which is the European version of the SNA 1993.

Update of SNA 1993

Background and process of review

In 2003, the [United Nations \(UN\)](#) Statistical Commission called for an update of the SNA 1993 to bring the accounts into line with the new economic environment, advances in methodological research, and user needs. The Commission stipulated that the update not recommend fundamental or comprehensive changes to the SNA 1993, and identified consistency with related manuals such as the Balance of Payments Manual as an important consideration.

The Inter-secretariat Working Group on National Accounts (ISWGNA) — comprising Eurostat, the [International Monetary Fund \(IMF\)](#), the [Organisation for Economic Co-operation and Development \(OECD\)](#), the United Nations, and the [World Bank](#) — was mandated to coordinate and manage the update project.

The Statistical Commission emphasised the need for transparency in the update project and the broadest possible involvement of the global statistical community. In line with this emphasis, an Advisory Expert Group (AEG), including 20 country experts from all regions of the world, was established in 2003 to take a key role in the update. Proposals for change, for the most part, have come from standing and short-term expert groups. The single most important tool to promote transparency and wide involvement in the update is the [project website](#), maintained by the United Nations Statistics Division.

Reaching agreement on recommendations

The ISWGNA, with the help of the AEG, identified a list of 44 substantive issues to be considered, endorsed by the Statistical Commission and posted on the project website. By its fourth meeting (January-February 2006), the AEG had agreed on recommendations on almost all points of the issues before it.

The ISWGNA then engaged in an in-depth review of country comments on these recommendations. This review provided input into the preparation of the full set of consolidated recommendations agreed by the UN Statistical Commission in early 2007.

Two volumes

The new SNA will be provided in two volumes. Volume 1, to be published in 2008, is the full set of chapters that represent the SNA framework in terms of accounting conventions, the accounts, and the integration of the accounts. Volume 2 will comprise mainly the interpretation of the accounts and various extensions such as satellite accounts, and will be published in March 2009.

Outcome of the UN Statistical Commission discussion on the SNA update (26-28 February 2008)

The Statistical Commission accepted the proposal in the ISWGNA report to the Commission that Volume 1 of the updated SNA be approved in principle, but with an extra two months being allowed for countries to comment on the revised draft chapters. As a result, the evaluation period for Volume 1 has been extended until 30 April.

The UNSC mandated the ISWGNA to proceed with the finalisation and publication of volume 1, after advising the Bureau of the Commission, in pre-edit electronic and paper versions, taking into account the substantive observations made during the two months review period.

The UNSC requested that the ISWGNA takes appropriate measures to ensure that volume 2 of the updated 1993 SNA is duly completed and presented for adoption to UNSC in 2009.

The UNSC also requested the ISWGNA to present a strategy for the implementation of the updated 1993 SNA, reflecting the need for regional and sub-regional coordination given the different levels of statistical development, and elaborate on the advocacy strategy to engage users, especially those engaged in policy formulation and analysis.

Preparation of Volume 2 of the updated 1993 SNA

Key points in the timetable for this year (2008) are:

- until July, drafts of the chapters of Volume 2 will progressively be posted for countries' comments;
- mid-September will be the deadline for comments on the last draft chapter(s);
- the revision of Volume 2 chapters will be finalised at the end of October;
- in mid-December, the revised Volume 2 will be ready for submission to the UNSC meeting (24-27 February 2009).

Implementation of the SNA

From available information it is clear that most countries worldwide will implement the updated SNA 1993 between 2009 and 2014. In Europe (as described below) the revised ESA, based on the updated SNA 1993, will be implemented in 2014. Major countries outside Europe will generally implement the updated SNA 1993 a little earlier than this; in 2009, the US, Canada and Australia will be the first countries to implement the updated system.

Main recommendations

Changes in the structure and functioning of economies since the SNA 1993 was completed have led to the need to review certain important issues. It was also felt necessary to better harmonise the SNA 1993 with other macroeconomic manuals, and to deal with some questions left open when the SNA 1993 was finalised.

The update recommendations involved all parts of the SNA, in particular the treatment of non-financial assets, financial instruments, stocks and flows characteristics of economic globalisation, government and the public sector.

Major changes in the updated SNA 1993 are the following:

Pension schemes

Defined benefit schemes

Under the SNA 1993, the actual social contributions represent the amount actually paid into a pension fund. If the contribution is pre-defined, but not the pension payment (defined contribution scheme), this treatment is correct.

But if the contribution is not pre-defined, and the pension payment is pre-defined by a formula (defined benefit scheme), the amounts set aside by the employer in the scheme may not match the liability to the employees.

The revised SNA will take into account these particularities of defined benefit schemes, on the basis of actuarial calculations.

Unfunded government employer schemes

The case of unfunded government employer schemes was much debated, because countries have different institutional arrangements.

In 2005, the Advisory Expert Group supported the recommendation of the IMF Task Force on pensions to include the liabilities of unfunded pension schemes in the core accounts of the revised SNA, while recording the liabilities of social security pension schemes in supplementary tables outside the core accounts. This treatment would, in particular, entail a sharp increase in many countries' government liabilities.

There have been some divergences of opinion between countries worldwide on the recommendation to include liabilities of all unfunded employer schemes in the "core" national accounts. In particular, the position of European countries was that the diversity of administrative arrangements means that it is difficult and not particularly meaningful to separate unfunded government employers' pension schemes from social security schemes.

The international statistical organisations have formulated a compromise which involves introducing some flexibility as to which kind of pension liabilities are recorded in the core national accounts, whilst requesting all countries to complete a new supplementary table with full details of all pension schemes.

The updated SNA 1993 will recommend filling in a standard supplementary table, which has been defined by a Eurostat/ ECB Task Force, which will show the pension entitlements of households for all pension schemes. Internationally agreed criteria will be developed to indicate whether the pension entitlements corresponding to unfunded government employer schemes have to be included or not in the core accounts.

Impacts on the accounts

The recording as liabilities of defined benefit pension schemes in the core accounts will generally lead to increased recorded assets of households and increased liabilities for the pension schemes (which are recorded as corporations, either separate financial corporation units or with the employer as non-financial corporations or non-profit institutions serving households), with employers' imputed social contributions (as part of employee compensation) increasing. For government data, the impact will depend on which defined benefit pension schemes' liabilities are recorded in the core national accounts, but if some schemes are so classified the liabilities of government would increase and, generally, government compensation of employees and (by convention) government output would increase.

The standard supplementary table, to be implemented by all countries, is expected to provide a useful source for economic analysis of pensions and will provide the basis for deriving comparable data across countries, irrespective of the application in different countries of the flexibility of recording government pension schemes.

Cost of capital services

Capital services for assets used in market production are implicitly included in the SNA 1993 but are not separately identified. Given the importance of identifying them for productivity measurement and other analysis, a new chapter will be added to the SNA 1993 Rev 1 explaining the role and appearance of capital services in the system and stressing the desirability of calculating capital services, capital stock and consumption of fixed capital in an integrated and consistent manner. No changes will be made to standard entries in the accounts to show capital services but an explanation will be provided of how supplementary items or tables could be derived and presented.

The AEG had recommended also including in the value of government output a return to capital on non-financial assets used in non-market production. The non-market output being valued at the sum of costs, this would have increased GDP. However, this recommendation was not approved by many countries, particularly in Europe. Given the difference between non-market and market production, this recommendation will not be included in the updated SNA 1993.

Impacts on the accounts

As it was considered inappropriate to price capital used by government in its production of goods and services by including the rate of return to capital in addition to depreciation, the core accounts will not be affected.

Research and development

The SNA 1993 does not recognise research and experimental development as capital formation, despite the fact that it is thought to make a major contribution to future economic growth. The result is that GDP is underestimated.

According to the AEG recommendation, the SNA 1993 should be changed to recognise the outputs of R&D as assets and the acquisition, disposal and depreciation of R&D fixed assets should be treated in the same way as other fixed assets. The recommendation, as reformulated by the ISGWNA, is the following: R&D should be treated as capital formation and its value should be determined in terms of the economic benefits it provides. In principle, R&D that does not provide an economic benefit to its owner does not constitute a fixed asset and should be treated as intermediate consumption. Because it is difficult to quantify the benefits of R&D, by convention, it may be valued at the sum of costs.

The AEG agreed to use the definition of R&D provided by the Frascati Manual (OECD Manual on Proposed Standard Practice for Surveys on Research and Experimental Development), with the clarifying explanation that this does not imply that human capital is treated as an asset in the SNA.

Some research is still needed in this context. In practice, research and development expenditure should be recognised as part of capital formation. However, recognising the difficulties to be overcome before this objective can be reached, satellite accounts will provide a useful way of working towards solutions that give the appropriate level of confidence in the resulting measures, and their international comparability.

The SNA 1993 Rev.1 will describe the objective and recognise that for many countries implementation in the core accounts will take time.

Impacts on the accounts

The capitalisation of research and development in the core accounts will be a major change from the point of view of quantitative impact on GDP: as this expenditure will no longer be treated as intermediate consumption, it will no longer be deducted in the calculation of the value added of the corresponding sectors. The impact on GDP can be roughly estimated as between 1.5 and 2%.

Military expenditures

The present SNA distinguishes military acquisitions of offensive weapons and their means of delivery (treated as intermediate consumption regardless of their life length) from other military acquisitions (treated as capital formation). This treatment does not correspond to the economic reality if weapons are used and even exported after several years.

Considering that destructive weapons have investment characteristics, the AEG recommendation is to treat as capital formation all expenditure by the military which meets the definition of being used in production over a period in excess of one year, regardless of the nature of the expenditure or the purpose intended for it. All equipment will be treated as fixed capital formation except for consumables, which will be treated as inventories. Separate items will identify weapons systems within fixed capital formation and military inventories apart from other inventories.

The required figures for national accounts purposes would be aggregate and not at a level of detail that would create problems for military secrecy.

Impacts on the accounts

Since government output is measured, by convention, as the sum of costs (including consumption of fixed capital), government value added will increase by an amount equal to this consumption of fixed capital. The impact of the

capitalisation of destructive military weapons on GDP (equal to the consumption of fixed capital¹ of these weapons) will differ greatly among countries; an average increase of around 0.5% of GDP is a first rough estimate.

Goods for processing

The SNA 1993 and the fifth edition of the Balance of Payments Manual treat goods that are sent abroad for processing and then returned to the country from which they were dispatched as exports for their full value when they leave the first country and in imports when they return to it.

The fundamental question addressed by the review was whether recording of imports and exports should follow a change of ownership recording or that of physical movement. The recommendation is for the former; that is, for recording on a change-of-ownership basis. This is a change from the SNA 1993. This recommendation recognises that many goods move from one country to another without entailing a consequential payment from the recipient country to the sending country. In the revised SNA, net figures of processing services will be substituted to gross figures of export of goods for processing and subsequent re-import or vice-versa.

The consequences affect the recording of transactions both in the national economy and in international transactions. The decision to record on a pure change of ownership basis implies that no transactions will be recorded for intra-enterprise (inter-establishment) deliveries when goods are passed from one establishment to another for processing and then returned. Therefore, input-output tables will reflect what each unit contributes to the production process rather than the physical technology, as was previously the case.

Also, the physical movements of goods, captured in merchandise trade statistics, have to be reconciled with the international flows to be recorded in the balance of payments and the national accounts.

Impacts on the accounts

In the light of globalisation, goods for processing will no longer inflate both imports and exports figures, which is important for international trade analysis.

Some examples of other important recommendations

- Employee stock options: guidance is provided to permit further harmonisation with international business accounting standards;
- non-life insurance: the calculation of output is reconsidered to avoid its volatility;
- contracts, leases and licences: the updated SNA sets out the principles of appropriate treatment corresponding to the different possible arrangements;
- borderline between withdrawal of owner's equity and dividends; concept of "super dividends";
- exceptional payments between government and public corporations and quasi-corporations: treatment has been redefined.

Revision of ESA95

Eurostat has started to revise the European system of national and regional accounts (ESA95), the European manual of national accounting based on the SNA 1993. The new ESA should continue to be the appropriate methodological reference for producing the high-quality national accounts data required to support economic policymaking and the implementation of major EU policies. Revision will also provide an opportunity to further improve the standards of ESA 95 and target them more better to the various uses in the EU. A more integrated system will be developed, to the largest possible extent.

Specificities of ESA95 and needs for change

The purpose of ESA95 as defined in Article 1 of [Regulation 2223/96](#) of 25 June 1996 on the European system of national and regional accounts in the Community is to provide:

a) a methodology on common standards, definitions, classifications and accounting rules intended to be used for

¹This is the national accounts term for a concept similar to depreciation in business accounting.

compiling accounts and tables on a comparable basis for the purposes of the Community;

b) a programme for transmitting, for Community purposes and on precise dates, the accounts and tables according to ESA95.

ESA95 is an essential tool at European level, used for major administrative purposes (e.g. own resources, the excessive deficit procedure, structural funds) and for analysis of the coordination and convergence of Member States' economic policies.

To achieve the objectives set by the Treaty on the European Union, in particular economic and monetary union, ESA provides EU institutions, governments and economic and social operators with a set of harmonised and reliable statistics on which to base their decisions.

ESA95 is broadly consistent with the current international System of national accounts (SNA 1993) as regards definitions, accounting rules and classifications. There are nevertheless some differences, particularly in its presentation, which is more in line with its use with the European Union. This specific use in fact requires greater accuracy in definitions, classifications and accounting rules.

Unlike the SNA, the ESA is based on a Regulation laying down binding rules to ensure comparability at EU level and a compulsory data transmission programme. Where the SNA is flexible and offers several options, ESA generally chooses one particular option to achieve more consistency at EU level.

ESA 95 constitutes a version of the SNA adapted to the structures of the Member States' economies and must follow the layout of the SNA to the greatest possible extent so that the European Union's data are comparable with those compiled by its main international partners.

Scope of revision

The revision of ESA95 will decide the national accounts standards and the ways in which key economic aggregates are calculated in the EU for many years.

The starting point will be the consolidated text, i.e. the text of [Regulation 2223/96](#) of 25 June 1996 as amended by several regulations concerning:

- the allocation of FISIM
- the definition of general government expenditure and revenue
- taxes and social contributions unlikely to be collected
- the reclassification of settlements under swaps and forward rate arrangements
- the revised classification of expenditure according to purpose
- the use of ESA95 in the determination of Member States' payments to the VAT based own resources
- transmission of data.

The revision will also cover all the recommendations and clarifications agreed at international level and included in the updated SNA 1993.

The project will affect many statistical areas linked to national accounts, both at Eurostat and in each National Statistical Institute: research and development, environmental, agricultural and tourism accounts, population, labour and social protection statistics, balance of payments, etc.

Presentation of ESA95

The current presentation and clarifications of ESA will be kept:

a) In ESA, there are separate chapters on transactions in products, distributive transactions and financial transactions. By contrast, in the SNA these transactions are explained in several chapters arranged by account.

b) ESA describes a concept by providing a definition and a listing of what is included and what is excluded. The SNA describes concepts in more general terms and endeavours also to explain the rationale behind the

conventions.

c) ESA adds specific clarifications (e.g. 50 % rule for the market/non-market split; method of allocating FISIM; thresholds for the GFCF/intermediate consumption split, etc.).

Two important issues

Research and Development

There is a consensus among EU countries that work should be continued by means of a Task Force and in close cooperation with the OECD. The objective of introducing compulsory supplementary tables on R&D in the new ESA Regulation is strongly supported; this will make it possible to address the difficulties and to create the necessary basis to achieve the long-term objective of including research and development in the core national accounts.

Pension schemes

The recommendations of the ECB/Eurostat Task Force on pensions will be implemented in such a way that comparability of Member States' national accounts is ensured, including guidelines for the distinction between unfunded government pension schemes that should be recorded in the core accounts and those that should not.

Changes in existing chapters and new chapters

For most existing chapters, the structure of ESA95 will be kept (or only slightly amended), as it will continue to follow the classification of sectors (Chapter 2), flows (Chapters 3 to 6), assets (Chapter 7), and accounts (Chapter 8), and to present the different types of leases, licences, contracts, insurance and pensions (Chapters 15, 16 and 17) or population concepts (Chapter 11). Chapter 14 on FISIM will present the details of the method of allocation.

Three existing chapters will be more detailed in the new ESA.

- The input/output framework (Chapter 9), whilst maintaining a structure similar to the current one, will be more detailed and cover the supply table, the use table, valuation, imports, the supply and use tables as an integral part of national accounts, symmetric input/output tables and the price issue.
- The chapter on quarterly economic accounts (Chapter 12) will focus on the scope and coverage of quarterly economic accounts, compilation and sources, consistency with annual accounts (including revisions), volume measures in quarterly economic accounts, [seasonal adjustment](#) and calendar effect correction.
- The chapter on regional accounts (Chapter 13) will cover the scope and coverage of regional accounts and will explore specific regional issues like the treatment of FISIM, the methodology for the transition from GVA to GDP, the methodology for calculating real growth rates of regional GDP, clearer prioritisation of methods for regionalisation, and more details on specific industries and ancillary units.

The provisional structure for the new chapters is as follows.

- The chapter on fundamental principles of national accounts will be an introduction to the system with a general objective of presenting the different basic concepts and structures of national accounts. This presentation will help users to understand how national accounts can give them a clear picture of what is happening in the economy.
- The chapter on links between business accounts and national accounts: the chapter will first present the main general principles of business accounts and of the transition between business accounts and national accounts, and then will explain how these principles can be applied in specific cases.
- The chapter on European accounts will introduce the objective and scope of European accounts and the particularities of their compilation including EU institutions, the treatment of the rest of the world, the [aggregation](#) and balancing issue, and consistency with sources and with other European macroeconomic statistics.
- The chapter on the rest of the world accounts will present the concept of residence, the general accounting rules, the external accounts of goods and services and of primary incomes and current transfers, external accumulation accounts and the relationship with balance of payments accounts.
- The chapter on government accounts will present the basic principles concerning the delimitation of the general government sector, the relations between the government and public corporations, accounting issues related to government and corporations, and government net lending/borrowing and its relationship with government debt.

- The chapter on satellite accounts will present a common framework for functionally oriented satellite accounts, with a particular focus on satellite accounts to be included in the core accounts in the medium or long term (research and development). Satellite accounts for which a fairly complete, agreed and operational methodological framework has already been developed will also be presented briefly, with a reference to the specialist manuals: [Economic accounts for agriculture](#) , Economic environmental accounts (SEEA 2003), and Social protection ([ESSPROS](#)).

Review process

To ensure the success of such a project, an evaluation report on the implementation of ESA95 in the EU is needed. The evaluation report would identify weaknesses and the improvements required to implement ESA95. This is a way to analyse what has to be done to ensure optimal implementation.

An impact assessment of the introduction of the new ESA will be carried out with respect to both resources and the impact on main aggregates, notably GDP, [GNI](#) and other key indicators such as government deficit and debt. The results of the impact assessment will help, at EU and at national level, to identify the human and financial resources needed to successfully complete the project.

National financial accountants from European countries (both from statistical institutes and central banks) will naturally be closely involved in the revision process. A publicly accessible website is being set up to provide a forum for comments from statisticians and also users of the accounts as the drafting process proceeds in 2008.

The current timetable for the revised ESA is that it will be completed and proposed (as a legal instrument) in 2009, with adoption of the final text expected in 2011. European countries are committed to implementing the revised ESA by 2014, when complete datasets including historical series will be available to users.

Other articles

- [Balance of payments and international investment position manual \(BPM6\)](#)
- [Government finance statistics](#)
- [National accounts and GDP](#)