

Implementation of the 2010 European System of Accounts (ESA 2010) in Spanish National Accounts

Methodological note. Preview of provisional estimate of effects

1. Introduction

Base changes in national accounts have the objective, on the one hand, to update statistical sources and procedures used in the measurement of the economic activity and on the other hand, apply the modifications registered in the reference accounting methodologies. The main purpose of the current base change of Spanish National Accounts is the implementation of the new European System of National and Regional Accounts (ESA 2010), replacing ESA 1995 which was applied up to now in the countries of the European Union.

Spanish National Accounts will soon start publishing its results in accordance with a new methodological standard approved in the European Union, the European System of National and Regional Accounts 2010 (ESA 2010), replacing the current standard, ESA 1995. This new methodology has been adopted by means of the European Parliament and Commission Regulation (EU) 549/2013, of 21 May 2013 regarding the European System of National and Regional Accounts of the European Union and therefore mandatory for all Member States of the European Union. In accordance with this Regulation, the first data of Spanish National Accounts, base 2010 (SNA 2010) shall be notified in the month of September 2014. The countries shall transmit the data in ESA 1995 until said date.

ESA-2010 Regulation will enter into force on 1 September 2014. However, the INE publishes this note today, which includes the main methodological and statistical changes in the national accounts as well as an updated estimate of the provisional impact on the level of the main aggregate, the Gross Domestic Product (GDP).

This note, not only follows Eurostat recommendations regarding the Dissemination policy of the new ESA implementation, but also accounts for the transparency principle. This principle understands the need to disseminate and make available to the users the information that was already provided to Eurostat¹ at the beginning of June, regarding the estimated provisional effect of the new base in the GDP level of base year 2010. This transmission attended to the requirement made to all European Union countries, for their monitoring among other scopes, in the Eurostat conference "The Accounts of Society – National Accounts at the Service of Economic and Monetary Policy Making" which is taking place today 12 and tomorrow 13 of June in Luxembourg, in the European Commission Financial Accounts working group. This working group will meet on days 16 to 18 of June, and in the European Commission working groups and committees that analyse the evolution of the economic policy of the EU. This information updates estimates for Spain disseminated by Eurostat the past month of January.

It is worth noting that the base change has passed all the mandatory procedures established for its implementation.

¹ Eurostat created the following website on the implementation of ESA 2010:
[http://epp.eurostat.ec.europa.eu\)/entrance/page/entrance/_2010/introduction](http://epp.eurostat.ec.europa.eu)/entrance/page/entrance/_2010/introduction)

In the first place, included in the National Statistical Plan 2013-2016¹ and in the Annual Program 2013² and 2014³, are the following operations: "Spanish National Accounts Base 2010", "Spanish Quarterly National Accounts. Base 2010", Quarterly Non-financial Accounts for the Institutional Sectors. Base 2010" and "Spanish Regional Accounts. Base 2010. In particular, The Annual Program 2014 details the tasks to be carried out in these operations during said year, one being the publication of base 2010 series.

In the second place, project "Spanish National Accounts. Base 2010" was presented to the Permanent Commission of the High Council on Statistics on 28 February 2014 and it was unanimously ruled favourably in their meeting on 20 May 2014. Ministerial representatives and the following social agents attended said session: Confederación Sindical de Comisiones Obreras (CC.OO.-Trade Union Confederation of Workers' Commission), Confederación Española de Organizaciones Empresariales (CEOE- Spanish Confederation of Employers' Organizations), Consejo Superior de Cámaras de Comercio, Industria y Navegación de España (High Council of Chambers of Commerce, Industry and Navigation of Spain), Consejo de Consumidores y Usuarios (Council of Consumers and Users), Consejo General de Economistas de España (General Council of Spanish Economists) and Federación de Asociaciones de Periodistas de España (Federation of Associations of Spanish Journalists).

Moreover, and in accordance with the impartiality principle and objective of the European Statistics Code of Practice, the INE makes available to all users the methodological project "Spanish National Accounts. Base 2010" in the "new projects"⁴ section.

This new methodological standard is a replica at European scale of the System of National Accounts 2008, adopted within the United Nations in February 2009 in substitution of the System of National Account 1993. The System of National Accounts has been recommended by the Statistics Commission of this organisation to compile the national accounts of all countries at worldwide level. It is currently implemented in non-European advanced economies such as the United States, Australia, Japan or Canada. The definitions, concepts and classifications of ESA 2010 are completely harmonised with those of the System of National Accounts 2008. Therefore, the estimates of the macroeconomic aggregates of the countries that use both systems are totally comparable.

Both manuals, System of National Accounts 2008 and European System of Accounts 2010, have been compiled as a consequence of group work, not only of groups of experts of countries at an individual scale, but also of international institutions such as The International Monetary Fund (IMF), World Bank, Organisation for Economic Co-operation and Economic Development (OECD), European Commission and European Central Bank (ECB). All of these institutions are interested in the fact that the compilation of national accounts is as harmonised as possible at worldwide level. Its compilation has involved the work of numerous national accounts technicians for almost a decade.

In this way, with the adoption of the new standard, Spanish National Accounts not only meet a mandatory European requirement, but also modernise its estimation methodology in order to make them comparable with all advanced economies of the world.

¹ Royal Decree 1658/2012, of 7 December, passing the 2013-2016 National Statistical Plan.

² Royal Decree 90/2013, of 8 February, passing the 2013 Annual Programme from the 2013-2016 National Statistical Plan.

³ Royal Decree 1017/2013, of 20 December, passing the 2014 Annual Programme from the 2013-2016 National Statistical Plan.

⁴http://www.ine.es/ss/Satellite?L=en_GB&c=Page&cid=1259942618832&p=1259942618832&pagename=MetodologiaYEstandares%2FINELayout

To this regard, among the countries that have already advanced the impact results on the GDP level of the new base, it is worth noting the case of Holland (which increases its GDP level 7.6%) and France (which increases 3.2%). On the other hand, The United Kingdom has advanced that the estimated impact on its GDP level is between 4.0% and 5.0%.

2. ESA 2010 and new base 2010

The first time the Spanish National Accounts and the national accounts of the rest of European Union Member States were compiled in accordance with a community Regulation was in 1999, when the European System of Accounts Regulation of 1995, (ESA 1995) entered into force. This led to the compilation of the Spanish National Accounts, base 95.

After that date and up to now, in order to update the estimates of Spanish National Accounts and make them more relevant and accurate, it has undergone two base changes. One in the year 2005, in which the national accounts moved to base 2000 and another one in the year 2011 with the presentation of the estimates of Spanish National Accounts base 2008, which still remains today.

These updating procedures are common for the national accounts of all countries. As a matter of fact, both ESA 1995 and its updated version ESA 2010, determine that these base change operations shall be carried out with a frequency of between five and ten years.

Base changes of Spanish and European National Accounts are characterised by the incorporation of different methodological modifications as well as by statistical changes. The former are usually due to cross modifications that affect all European Union countries and which are decided within the European Union in the form of Regulations, whereas the latter mainly depend on the statistical bases of the Member States in each moment and on the novelties introduced in those on a particular scale, in each one of the countries.

The change in the system of accounts, in other words, the replacement of ESA 1995 by ESA 2010, has been caused by the need to adapt the national accounts basically in terms of the new economic environment, to the advances in the methodological research and to the user's needs. In particular, the changes in economies that have taken place during the last few years, such as: the growing role of Information and communications technology in productive processes, the growing importance of immaterial fixed assets and the growing globalisation of national economic systems, have caused it to be necessary to change the way in which the macroeconomic statistics are compiled. Similarly, the availability of a greater amount of a statistical information that is more detailed, reliable and updated has been crucial in the estimate processes of national accounts. Hence, base changes aim to provide an economic photography of a territory, in a way that is as precise as possible, through the use of existing statistical information.

The current Spanish National Accounts, base 2008, give way to the new SNA 2010. In this operation, as in any operation regarding base change of national accounts, the user will find two types of modifications; on the one hand, those which come from the direct incorporation of the new ESA 2010 principles that were not included in ESA 1995 (methodological modifications); and on the other hand, the methodological change is used to incorporate updates in the estimation of each item of macroeconomic data, which have their base in the incorporation of new statistical sources, revision of those already existing or in the adaptation of the estimation methods and procedures of those (statistical modifications).

Among the changes, worth noting is the incorporation of information coming directly from the 2011 Population and Housing Census, as well as through surveys that provide base information for national accounts, such as the Economically Active Population Survey which was updated in April 2014, or the Household Budget Survey. Similarly, it is important to

highlight that in the new estimates of (SNA 2010), there will be incorporation of the information coming from the Balance of Payments of the Spanish economy. It is compiled by the Bank of Spain and incorporates the methodology of the sixth edition of the Balance of Payments Manual (BPM6), also adopted within the aforementioned international organisations and that is harmonised with ESA 2010 methodology.

It is important to note that ESA 2010 incorporates a chapter on the compilation of the Public Administrations Accounts, which did not occur in ESA 1995. In this way, the compilation methods and procedures of these accounts are harmonised at a regulatory scale, strengthening comparability among countries of the macroeconomic aggregates resulting from these accounts, particularly public deficit and public debt. Result of the group work of the three administrations, the accounts of the public administrations sector estimated in SNA 2010 by the INE are completely in line with those compiled by the Ministry of the Treasury (General State Administration Intervention) and The Bank of Spain in the framework of the Excessive Deficit Procedure.

Likewise, the ESA 2010 introduced new changes for the compilation of the financial accounts that are being introduced and that will be published in coordination with the estimates of the non-financial accounts. As a consequence of the work carried out by the INE and The Bank of Spain, both groups of financial and non-financial national accounts, are fully consistent in the case of Spain.

One of the most important uses of macroeconomic aggregates in the administrative framework of the European Union is that related to the implementation of the Decision on own resources of the Union. In this way, as a consequence of the application of said legal act since 1998, the Member States shall contribute to the community budget in accordance with the importance of their Gross National Income in the European total. This fact determines that the European Commission carries out periodic audit controls in order to ensure comparability and comprehensiveness of the data provided by the countries. As a consequence of these controls, the European Commission, based on a request from the European Court of Auditors, established that it was compulsory for all Member States to incorporate the flows coming from their illegal activities to the estimate of their Gross National Income. To do so, a period that ends in September 2014 was given.

These flows had already been estimated by a small group of Member States and incorporated to their national accounts in the past (it shall be noted that some activities considered illegal in some countries are not illegal in others.) Spain, along with the majority of countries that have not yet carried it out up to date, will complete it in the next month of September, taking advantage of this base change. This incorporation to the accounts does not come from a methodological change derived from the new ESA 2010, since the previous standard ESA 1995, already expected that the flows coming from illegal activities shall be part of the estimate of macroeconomic aggregates and it is not statistical type either. But, as a consequence of the legal debenture, all European Union countries will have the aggregate estimates of the new national accounts base 2010 incorporated. Given the difficulty when estimating illegal activities and based on the work carried out by the national accounts working groups over the last ten years, Eurostat has compiled a series of guides and directions so that the estimates compiled by the country experts are as harmonised as possible.

3. Provisional estimate of the effect of base change 2010 on the GDP level

The INE, as well as the rest of national statistics institutes of EU countries, tending to the Eurostat requirement and in order to comply with the established date at the end of May, has informed Eurostat of a provisional estimate of the effect of base change 2010 on the GDP level of the year 2010, which already incorporates the effect of ESA 2010.

This estimate transmitted by the INE is provisional, subject to revision, and therefore does not necessarily have to coincide with the information that will finally be communicated to Eurostat before the end of September, according to the established in aforementioned Regulation No. 549/2013 and that will published by the INE next 25 September.

The following table includes the intervals of the provisional impact estimates on the GDP level as a consequence of base change 2010. There is distinction among the different types of specified change categories with the same contents (structure and detail level) contents (structure and detail level) incorporated in the questionnaire required by Eurostat.

The provisional estimate of the effect of the base change could involve an increase of between 2.7% and 4.5% for the year 2010 nominal GDP. Of this quantity, the methodological changes could involve an increase of between 1.2% and 1.5%, mainly due to the capitalisation of R&D expenditure. Regarding statistical changes and other changes, the estimated effect for the base year will vary between an increase of 1.5% and 3.0%. This is due to the incorporation of new and/or better statistical information (for example censuses, Economically Active Population Survey, Household Budget Survey,...) and others changes (for example, illegal activities).

Provisional estimate of the effect of base change 2010 on the level of nominal GDP

| | Year 2010 (P) |
|--|---------------------------------------|
| Methodological changes of ESA 2010 (subtotal A) | Increase between 1.2% and 1.5% |
| - Capitalisation of the expenditure on Research and Development | Increase between 1.2% and 1.3% |
| - Capitalisation of the expenditure on military armament | Increase between 0.1% and 0.2% |
| - Other methodological changes | Variation between -0.1% and 0.1% |
| Statistical changes and others changes (subtotal B) | Increase between 1.2% and 1.5% |
| Incorporation of new and/or better statistical information (for example census, EAPS, HBS, ...) and others changes (for example, illegal activities) | |
| TOTAL (A)+(B) | Increase between 2.7% and 4.5% |

The impact estimated for base change 2010 is in line with those resulting from the base change carried out in the year 2005¹, that of ESA 95 with base 2000, published 19 May 2005. In this change, in which there was also a new census, therefore, it is nearest to the current one and may be compared with the current base change, the GDP in current terms increased between 3.2% for the year 2000 and 4.9% for the year 2004. Of this quantity, the methodological changes implied an order of 1.2% for the year 2000 and 0.7% for the year 2004, being exclusively explained for the allocation to user sectors and branches (in accordance with European Parliament and Council Regulation 1889/2002) of the Financial Intermediation Services Indirectly Measured (FISIM) on national accounts. On the other hand, the statistical change implied a nominal increase of the GDP from 2.0% for the year 2000 up to 4.2% for the year 2004, mainly due to the direct incorporation of census 2001

¹ See Press release on the Base change of Spanish National Accounts (19 May 2005). <http://www.ine.es/prensa/np373.pdf>

results, as well as indirectly via the new EAPS 2005 and the use for the first time of the data in the Annual Services Survey.

Comparison of the effect of base change 2010 on the nominal GDP (to be published in 2014) with the previous base change 2000 (published in 2005)

| | Base 2000 (published in 2005) | Base 2010 (to be published in 2014) |
|--|---|---|
| Methodological changes | Increase between 1.2% (year 2000) and 0.7% (year 2004) | (P) estimated increase for the year 2010 between 1.2% and 1.5% |
| Statistical changes and others changes | Increase between 2.0% (year 2000) and 4.2% (year 2004) | (P) estimated increase for the year 2010 between 1.5% and 3.0% |
| TOTAL CHANGES | Increase between 3.2% (year 2000) and 4.9% (year 2004) | (P) estimated increase for the year 2010 between 2.7% and 4.5% |

(P) Provisional estimate.

Base change from 2000 to base 2008, published 14 October 2011, is not strictly comparable to the current one, since it only involved a relevant change in the modification of the classifications of activities and products. Methodological changes hardly impacted numerically on said aggregate. The total impact on the GDP for Base Year 2008 was minimum (a reduction of 0.03%), and it was mainly due to the updating of statistical sources.

4. The main modifications derived from base change 2010

The new base 2010 of Spanish National Accounts (SNA-2010) will include a series of modifications regarding the current accounting base 2008.

4.1. Methodological changes of ESA 2010

The methodological changes that will be included in base 2010 of Spanish National Accounts are those derived from the adaptation of the Spanish National and Regional Accounts to the regulation of the new European System of Accounts (ESA 2010) passed by European Parliament and Council Regulation (EU) 549/2013 of 21 May 2013.

Of the numerous methodological changes within ESA 2010 regarding ESA 1995, the most significant ones in terms of their incidence on Gross Domestic Product (GDP) level are the acknowledgement as an investment (gross fixed capital formation) in the expenditure on research and development (R&D) as well as on armament systems.

In ESA 1995, R&D was not acknowledged as gross fixed capital formation despite the fact that the consolidated opinion in the scientific community was that this expenditure should be considered an investment due to its important contribution to the growth of the future economy. Instead of that, R&D expenditure was registered as intermediate consumption, as if its use in the production process had completely finished at the end of the period. In ESA 2010 the expenditure on R&D is treated as an investment on fixed assets and therefore, depreciation of these assets as consumption of fixed capital. This change will involve an increase of the GDP regarding the one calculated according to the methodology of the previous version of the system of accounts.

On the other hand, according to ESA 1995, there was only registration of the purchase of military structures and equipment that had an equivalent use for civil purposes (airfields, military

hospitals,...). In ESA 2010, the definition of fixed assets in the military scope is harmonised with their general definition for the rest of economic sectors. In this way, the definition of fixed assets of a military nature includes weapons and support systems used continuously for more than a year in the production of defence services. The effect of this change will cause an increase of the GDP as it influences on the fixed capital consumption of the Public Administrations.

There are also methodological changes derived from the application of ESA 2010, whose importance is not due to their impact on the GDP, but to its incidence on the delimitation or partitioning in sub-sectors of certain institutional sectors that have been object of special attention in European economic politics over the last years: Public Administrations and Financial Institutions.

In this way, it is necessary to note that in the new system there is a more extensive and exhaustive treatment of matters regarding the public sector. In this sense, ESA 2010 expands the guidelines on the delimitation of the institutional sector of Public Administrations².

On the other hand, ESA 2010 establishes a greater breakdown by sub-sectors of the Financial Institutions sector. Availability of greater detail in the information will allow an exhaustive analysis of the sector and will provide more consistency with financial statistical systems of the European Central Bank (ECB) and the International Monetary Fund (IMF).

Some guidelines collected in ESA 2010 also affect the register of goods and services flow with the Rest of the World. In particular, those regarding transactions of triangular trade of goods and goods sent abroad to be processed without there being a change of property. In both cases, the register proposed by ESA 2010 is the same as the one compiled in the recommendation of the 6th edition of the Balance of Payments Manual and International Investment Position (BPM6) of the IMF.

4.2. Statistical changes and others changes

As is usual, statistical changes in base change operations in the scope of national accounts, have their origin in the use of new statistical sources (or revisions in those existing) as well as in the update of estimation methods and procedures of accounting aggregates.

In relation to the first, it is worth noting that SNA-2010 will incorporate the information coming from the new Population and Housing Census 2011 and the changes derived from it in the household surveys as well as the revision of Balance of Payments statistics.

The integration of the information derived from the Population and Housing Census 2011 into the national accounts is a specially relevant statistical change that affects multiple operations of the national accounts directly and indirectly.

In a direct way, on those in which the Population and Housing Census is used as a primary source (production of dwelling rental services). Indirectly by means of its impact on surveys addressed to households that constitute the primary source of fundamental aggregate estimates of the system of national accounts. This is the case of the Economically Active Population Survey (EAPS) in relationship with the employment variable as well as the Household Budget Survey (HBS) in reference to the household final consumption expenditure.

² It is appropriate to highlight that the intervention of the Government Comptroller Office (IGAE) is the organism in charge of compiling the non-financial accounts of the Public Administrations Sector, according to what is explicitly included in the National Statistics Plan in force. IGAE, The Bank of Spain and the INE, work closely on the Technical Committee of National Accounts framework so as to guarantee the correct application of the ESA 2010 methodology to the accounts of this institutional sector.

On the other hand, as in any base change operation of national accounts, the estimation procedures will be updated in the new base 2010 in order to improve the quality of the data estimated in the economic accounts.

Besides the previously mentioned methodological and statistical changes, it is necessary to highlight an additional modification: illegal activities will be added to the list of activities included in the national accounts of the European Union countries. This way, there is compliance with the debentures established by the European Commission, based on a prior request from the European Court of Auditors. This debenture establishes that by September 2014 all Member States shall incorporate the flows coming from illegal activities such as prostitution, drug production and trafficking or contraband to the estimate of their Gross National Income.

The previous system, ESA 1995, already established that illegal activities shall be included within the production frontier of the national accounts. Nevertheless, it was agreed by Eurostat and the Member States of the European Union that the sources and methods to deal with these estimates needed to be analysed thoroughly in order to guarantee its correct inclusion in national accounts. In this sense, a working group was created with the support of the GNP Committee³, who presented their conclusions in 2002 and in the GNP Committee meetings between 2010 and 2012 this issue was repeatedly dealt with.

Given the inherent difficulties of the estimate of this type of activities due to their nature, Eurostat has compiled a series of methodological recommendations to be followed in order to estimate these activities so as to guarantee the total consistency of the system and comparability among countries. In turn, these recommendations have been directly incorporated by the GNI Committee.

5. Dissemination calendar

The new ESA 2010 Regulation not only incorporates an accounting rules methodology for the estimation of the national accounts, but also includes a transmission programme that determines the amount of information to be given to the Commission by the countries and when it shall be given (Transmission Programme).

Until September of this year, it will be necessary to combine the works addressed to the implementation of base 2010 in the operations of the National Statistical Plan that are part of the Spanish National Accounts (SNA): Spanish National accounts (annual), Spanish Quarterly National Accounts, Quarterly Non-financial Accounts for the Institutional Sectors and Spanish Regional Accounts, with the estimation tasks corresponding to the publications pending in the current base 2008.

In particular, the next publications that will still be carried out in base 2008 are the following: Quarterly Non-financial Accounts for the Institutional Sectors. First quarter of 2014 (publication date: 2 July); Preview estimate of quarterly GDP. Second quarter of 2014 (publication date: 30 July); and Quarterly Spanish National Accounts. Second quarter of 2014 (publication date: 28 August).

³ Currently, the Gross National Income Committee (GNI Committee), cooperation forum between the Member States and the European Commission for verification and improvements of the works performed on the GNI.

The first results in base 2010 will be presented the following month of September¹ and they will correspond to the complete series since 1995 up to 2013 of the Annual National Accounts.

From that moment onwards, all the disseminated information regarding National Accounts will have the new base 2010.

For further information see **INEbase-www.ine.es/en/** All press releases at: **www.ine.es/en/prensa/prensa_en.htm**

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¹ According to the dissemination calendar of statistical operations, available on the INE website.