

18 September 2023

Annual National Accounts of Spain: Main aggregates Years 2020–2022

Main results

- The Spanish Gross Domestic Product (GDP) increased in volume by 5.8% in 2022 compared to 2021, according to the flash estimates of the Annual National Accounts of Spain. This data shows an increase of three tenths with respect to that advanced by the Quarterly National Accounts¹ (QNAS) in March.
- As a result of the revision of the Annual National Accounts series, GDP volume growth in 2021 was revised upward by nine tenths, reaching 6.4%. And the variation for 2020 has been revised upward by one tenth, reaching -11.2%.
- The update of the national accounts series for the years 2020, 2021 and 2022 leads to an estimate of the annual GDP at current prices of 1,346,377 million euros in 2022, which is 1.5% higher than the level initially estimated by the QNAS.

GDP revisions for 2020, 2021 and 2022

According to the routine revision policy of the National Accounts of Spain, the revision of annual estimates published in September covers a three-year period: In this instance, 2020-2022.

This policy implies that the estimates of various operations and accounting aggregates undergo a revision and disaggregation process until they become final, reflecting the fact that the more cyclical and aggregated the base information is, the more provisional the nature of the national accounts estimation. In this way, for the same reference year, four accounting estimates are made until it becomes final.

The first annual estimates provided by the Quarterly National Accounts (QNAS)—published at the end of March— are characterised by their limited accounting framework and the use of sources and calculation procedures that give them a high degree of provisionality. Therefore, they need to be modified and disaggregated in the short/medium term.

This revision process involves several complementary tasks: replacing cyclical information with structural sources, changing provisional estimates to definitive ones in various statistical sources, and incorporating a broader, more consistent accounting framework.

On the other hand, the level of detail in the information provided in national accounts publications is higher in definitive data (2020, in this instance) than in provisional (2021) or advance (2022) data.

According to the regular revision policy, the dissemination of the final estimate is the only one that includes complete information about the source and destination tables. On this occasion, however, the INE, aware of the difficulty of statistically measuring economic activity in such exceptional circumstances as those caused by the COVID-19 crisis, has made an additional

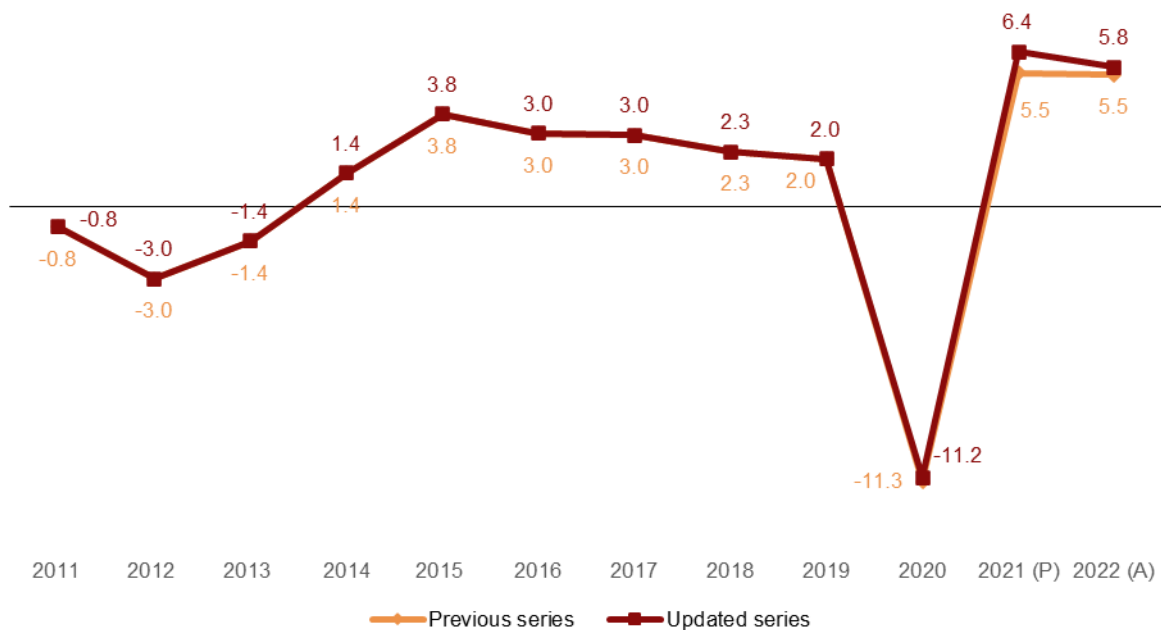
¹ *Quarterly National Accounts of Spain: main aggregates (QNAS).*

effort to estimate the two years that were most affected by the pandemic (2020 and 2021), through the accounting framework detailed by products and activity branches from the source-destination tables, therefore moving forward by one year the usual compilation of source-destination tables for the year 2021, which have been prepared provisionally.

With the implementation of this procedure for the year 2021, Spain joins other European countries—such as the United Kingdom and France— in moving forward the deadlines required by the Regulations of the European System of Accounts to prepare these tables by more than a year.

The following graph shows the comparison of the series of annual volume variation rates of GDP released today along with the one previously published².

Interannual variation in volume of GDP. Percentage



Year 2022

GDP increased in volume by 5.8% in 2022, according to the flash estimates of the Annual National Accounts of Spain. This data shows an increase of three tenths with respect to that advanced by the QNAS in March.

As for growth composition, there is now an estimated lower contribution from national demand (2.9%, compared to 3.1%) and a higher contribution from external demand (2.9%, compared to 2.4%).

This advance estimate incorporates data from the 2022 Household Budget Survey (HBS), data from the advance estimate from the Economic Accounts for Agriculture, updated data from foreign trade, Public Administration accounts and data from non-profit institutions serving households (NPISHs).

² Annual national accounts series published in September 2022 for reference years 2020 and 2021; publication of the quarterly national accounts for March 2023 for reference year 2022.

Furthermore, the revision of previous reference years conditions the estimation of the growth of aggregates that are based on cyclical information, as well as the increased disaggregation in which their compilation is based, and the achievement of supply-demand equilibrium at a higher level of detail.

Gross domestic product. Demand. Year 2022

Interannual rates of change in terms of volume. Percentage

	Updated series	Previous series
Final Consumption Expenditure	3.4	3.0
- of households and NPISHs	4.7	4.4
- of general government	-0.2	-0.7
Gross Fixed Capital Formation	1.4	3.5
National demand	2.9	3.1
Exports of goods and services	15.2	14.4
Imports of goods and services	7.0	7.9
GDP	5.8	5.5

As regards national demand, the year-on-year variation in the volume of final consumption expenditure was revised to 3.4%, compared to the 3.0% previously estimated. On the other hand, gross capital formation set its rate at 1.4%, compared to the previous 3.5%.

The final consumption expenditure of households and NPISHs increased by 4.7% (compared to the 4.4% previously reported in March). This revision is mainly due to the incorporation of the HBS results. Conversely, the variation rate in the final consumption expenditure by Public Administrations is now estimated at -0.2%, compared to the previous -0.7%, after incorporating the updated results of the Public Administration Accounts.

With regard to external demand, consistent with the revision of the balance of payments results, the increase in the volume of exports stood at 15.2%, compared to the 14.4% estimated in March. On the other hand, imports increased by 7.0%, compared to the previous 7.9%.

The implicit GDP deflator went from 4.3% in the previous estimate to 4.1%. Taking into account the combined effect of variations in volume and the deflator, year-on-year GDP variation at current prices stood at 10.2%, compared to the 10.0% previously estimated. This brings the value of GDP at current prices for 2022 to 1,346,377 million euros, which is 19,269 million more than initially estimated by the QNAS.

Most of this revision in terms of level (millions of euros) comes from the revision made to the GDP at current prices for 2021. This is because the compilation of the national accounts is done in levels for the definitive year (2020) and the provisional year (2021). However, the estimations for the advance year (2022) results from applying annual variation rates to the levels of the aggregates from the provisional year (2021), based on the available statistical sources. Therefore, a revision of the GDP level for the provisional year (2021) always affects the level for the advance year (2022).

Finally, taking into account all the above and the updated estimate of income flows from the rest of the world, the Gross National Income of Spain stood at 1,352,772 million euros in 2022, 1.7% above the previous estimate.

The employment variation rate in terms of full-time equivalent jobs stood at 3.7%, compared to the 3.8% estimated in March. On the other hand, worked hours increased by 3.9%, compared to the previous 4.1%, and the growth in employee compensation was 7.3%, compared to the 6.5% previously estimated.

The revision of employment and employee compensation estimates can be explained primarily by the use of a higher degree of disaggregation by activities, and also by the availability of additional sources of information, such as the Annual Labour Cost Survey.

The combined effect of GDP growth at current prices, employee compensation and net taxes on production and imports resulted in the variation rate for Gross Operating Surplus/Gross Mixed Income being 15.1%, two tenths lower than that estimated in the previous series.

2021

The volume growth of GDP in 2021 compared to 2020 was estimated at 6.4%, compared to the 5.5% published in September of last year.

The revisions for 2021—which goes from advance to provisional status—are primarily due to three factors.

Firstly, the inclusion of information from structural statistics that provide data on reported production and intermediate consumption from various market branches, which was not available a year ago (such as Structural Business Statistics³, the Construction Industry survey, etc.).

Secondly, due to the incorporation of revised data from statistical sources which previously had an advance or preliminary status (balance of payments, Public Administration accounts, Economic Accounts for Agriculture, etc.).

And, thirdly, due to estimates and a resource-employment balancing process at a much more detailed degree than in the advance estimate.

On this occasion, additionally, aware of the difficulties in statistical measurement of economic activity in exceptional circumstances, such as the second year of the COVID-19 crisis, for the first time in a provisional year, the characteristic elaboration process of a definitive year has been moved forward for the estimation of GDP and its components in the compilation of source-destination tables calculated from the product balance of supply (by activity branch) and demand based on estimates from both reported and unobserved economy⁴.

The result of this complex compilation process shows a revision of the aggregates for 2021 of a greater magnitude than usual for a provisional year. This fact is not unique to Spain, but has been observed in other countries in our region that have already published revised figures for 2021. For example, the Netherlands has revised its volume GDP growth for 2021 upward by 1.3 points, the United Kingdom by 1.1 points, and Germany by 0.6 points. Meanwhile, France has revised it downward by 0.4 points.

To conduct an analysis by aggregates, it is necessary to remember that the INE calculates GDP through source-destination tables using two approaches: the production approach and the expenditure approach.

³ Information not available until 27 June, except in the case of construction activity.

⁴ Methods on thoroughness adjustments validated by the European Commission.

In the production approach, GDP is equal to the sum of value added in all branches of activity plus the balance of net taxes on products. Value added is calculated as the difference between production and intermediate consumption.

Before structural information for 2021 became available, estimates of value added evolution used synthetic indicators as proxies, which were mainly based on cyclical production indices. The use of these indicators is based on models that try to replicate the movement of the aggregate value added by activity using the synthetic cyclical indicator. As a result, they rely on the assumption that the relationship between cyclical production data and structural value added at activity branch level remains stable in the series.

In reference year 2021, however, this assumption has not been confirmed by structural information (Structural Survey of Enterprises conducted by the INE and other statistical units of the Administration, which, in turn, incorporate detailed tax record information). Thus, value added in most activity branches has been revised upward in the transition from the advance estimate to the provisional estimate due to the incorporation of this new information which was not available in the previous publication of September 2022. Among the activity branches that stand out for their contribution to the revision of the GDP are construction and real estate and professional activities.

The revision of construction activity stands out due to its impact on both production and expenditure perspective estimates. From the production perspective, the rate of growth in terms of volume of the value added generated by this branch has been revised upward by two points, due to both the production revision and the intermediate consumption revision. The revision of production growth in this activity also impacts the gross fixed capital formation of real estate assets (housing and other construction). Thus, the variation rate of these assets in terms of volume has been revised upward by 4,07 points. The revisions in the estimates for this activity in 2021 are mainly due to the incorporation of information from the Construction Industry survey for the first time for that year.

On the other hand, the value added of the Industry sector has been revised downward due to the impact of the energy branches. In these branches, production and intermediate consumption rates have been revised upward at current prices, but the latter to a greater extent. And the application of the double deflation method to production and intermediate consumption, with deflators calculated at a higher level of disaggregation by product, has accentuated downward revision in terms of volume that was already occurring at current prices.

Gross domestic product at current prices. Supply. Year 2021

Interannual rates of change in terms of volume. Percentage

	Updated series	Previous series
Agriculture, forestry and fishing	4.2	2.1
Industry	5.4	6.6
Construction	-1.0	-3.0
Services activities	6.8	6.0
- Wholesale, repairing, transports and accommodation activities	15.5	15.6
- Information and communication	7.9	7.1
- Financial and insurance activities	-0.7	0.8
- Real estate activities	3.2	0.4
- Professional activities	11.1	7.2
- Public administration, health and education activities	1.2	1.1
- Arts, entertainment and other services	2.0	2.6
Taxes less subsidies on products	10.0	6.7
GDP	6.4	5.5

From the expenditure perspective, all components of national demand have been revised upward, both due to the revision of consumption (households, NPISHs and Public Administrations) and the revision on fixed asset investment and inventory variations. The growth of the balance of foreign trade in goods and services, however, has been revised downward.

These revisions can be explained by the first-time availability of the aforementioned structural sources and revised data from already available sources (such as the Balance of Payment for foreign trade estimates or Public Administration Accounts for their final consumption expenditure), as well as by the supply-demand balance by products from the source-destination tables.

As an example, even though the HBS for 2021 was already available in September 2022 – a basic structural source in estimating household final consumption expenditure – the incorporation of structural surveys that year and the balancing of the source-destination tables by products have led to a significant upward revision in the volume growth of household consumption by more than one point. In particular, there has been an upward revision in the consumption of accommodation and catering services, clothing and footwear, and goods and services related to leisure, entertainment and culture.

Gross domestic product. Demand. Year 2021

Interannual rates of change in terms of volume. Percentage

	Updated series	Previous series
Final Consumption Expenditure	6.0	5.1
- of households and NPISHs	7.1	6.0
- of general government	3.4	2.9
Gross Fixed Capital Formation	9.4	5.9
National demand	6.7	5.3
Exports of goods and services	13.5	14.4
Imports of goods and services	14.9	13.9
GDP	6.4	5.5

The upward revision in gross fixed capital formation and inventory variations is due to the incorporation of the aforementioned structural sources, as well as the supply-demand balance carried out based on source-destination tables.

On the other hand, the implicit GDP deflator in 2021 went from 2.3% in the previous estimate to 2.7% in the current one.

Taking into account the combined effect of the updates in variations in terms of volume and the deflator, annual nominal GDP growth was 9.2% compared to the previous 7.9%. Thus, GDP at current prices for 2021 has been revised upward by 15,448 million euros, reaching 1,222,290 million.

Taking into account all the above, and the updated estimate of income flows from the rest of the world, the Gross National Income of Spain stood at 1,231,787 million euros in 2021, 1.5% above the previous estimate.

The revision in employment estimates for 2021 are due to both the higher level of disaggregation by activity branch with which the update series are compiled, and the translation of employment estimates from the unobserved economy derived from the balance of source-destination tables.

Thus, the variation rate in hours worked remains at 7.2% from the advance estimate, while employment growth in terms of full-time equivalent jobs stands at 7.1%, compared to the previous 6.6%.

The growth in employee compensation stood at 6.9%, compared to the previously estimated 5.3%. This revision can be further explained by the updates in employment estimations, the incorporation of information from structural surveys regarding this aggregate, and the compilation work, which was carried out with a higher level of detail by activity branch.

The combined effect of the updates of GDP growth at current prices, employee compensation and net taxes on production and imports resulted in the variation rate for Gross Operating Surplus/Gross Mixed Income being revised upward by one point, reaching 8.8%.

2020

The variation rate in the volume of GDP was estimated at -11.2% for the year 2020. This estimation is now final and slightly revises the provisional -11.3%.

The revision of the accounting aggregates for 2020 are generally not very significant and are mainly due to the elaboration of the source-destination table and the process of balancing supply and demand, both at current prices as well as previous year prices, at a level of 94 activities and 140 products⁵.

More information

All the results from the Annual National Accounts of Spain published today are available on INEBase, specifically at this [link](#).

Upcoming publications

All national accounts results published from today onwards will be consistent with the main aggregates of the national economy published now, according to the established schedule.

- 22 September:
 - o *Quarterly National Accounts of Spain: main aggregates*, up to the second quarter of 2023.

⁵ Revisions from some statistical sources were also incorporated (Economic Accounts for Agriculture, information from the IGAE...).

- 29 September:

- *Quarterly National Accounts of Spain: aggregates by activity branch. 2020-2022 Series.*
- *Annual Non-Financial Accounts for the Institutional Sectors. 2020-2022 Series.*
- *Quarterly Non-Financial Accounts for the Institutional Sectors. Up to the second quarter of 2023.*
- Source and destination tables for 2020 (at current and previous year prices).

This dissemination schedule is in line with the deadlines stipulated in the Data Transmission Program to Eurostat established by the ESA 2010.

On the other hand, the source-destination tables at current prices for 2021 (provisional data) will be released on 17 October, moving the usual publication date forward one year.

2024 Statistical Revision of National Accounts

In order to guarantee high quality, coherence, and comparability of national accounts data, the European policy of coordinated extraordinary revisions gives countries the opportunity to introduce systematic improvements every five years.

Given that the last one was carried out in 2019, all European Union Member States will conduct a coordinated extraordinary revision of their national accounts series in 2024.

Therefore, the next Statistical Revision of the National Accounts of Spain in 2024 responds to this need to periodically update (at least every five years) the sources and estimation methods used in its compilation. All results of the operations that make up the national accounts disseminated by the INE from September 2024 will incorporate this revision.

Furthermore, the revision will be implemented in coordination with the Bank of Spain for financial accounts and balance of payment and investment position statistics, and with the Comptroller General of the State (IGAE) for the accounts of Public Administrations.

Methodological note

The *Annual National Accounts of Spain: main aggregates* is a synthesis statistic that provides the main aggregates for the national economy (*GDP, National Income and Employment*) resulting from the System of National Accounts, according to the conceptual and regulatory framework established by the *European System of National and Regional Accounts (ESA 2010)*, approved by *Regulation (EU) 549/2013, of the European Parliament and of the Council, of 21 May*.

In addition to measurement of the *GDP*, it also measures each of its components, prepared from the point of view of supply, demand, and income. Estimates of economic aggregates of supply and demand are presented both at current prices and in terms of volume. Employment estimates (in terms of *persons employed, hours worked, jobs and full-time equivalent jobs*) are also included, as well as the measurement of *gross national income (GNI)* and *gross national disposable income (GNDI)*, resulting from national economic activity and income flows with the rest of the world.

The National Accounts is constructed from estimates of economic flows and aggregates that are sourced from a wide variety of statistical operations, which in turn are subject to their own schedule of availability and review. This means that the estimates of the macroeconomic aggregates are subject to a review process and, also, to gradual disaggregation, until they become definitive.

This operation is thus disseminated in September of year *t*, and it offers an *advance estimate* for year *t-1*, a *provisional estimate* for year *t-2* and a *final estimate* for year *t-3*.

At least every five years, extraordinary reviews of the complete results series must be carried out to guarantee the updating of statistical sources and estimation methods, as well as their alignment with the recommendations released by the relevant international forums. The last of these revisions was published in September 2019, and the next one will take place in September 2024.

Type of operation: structural.

Geographical scope: national economic territory.

Reference period for the results: the year.

Collection method: summary statistics.

For more detailed information, consult the INE website (www.ine.es), and the standardised methodological report on the operation ([Standardised Methodological Report](#)).

INE statistics are produced in accordance with the Code of Good Practice for European Statistics, which is the basis for the institution's quality policy and strategy. For more information, see the section [Quality at INE and the Code of Best Practices](#) on the INE website.

For further information see **INEbase:** www.ine.es/en/ Twitter: [@es_ine](#)

All press releases at: www.ine.es/en/prensa/prensa_en.htm

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