Impact of the 2024 Coordinated Benchmark Revision on GDP and Main Aggregates: An Analysis for the EU, EA and the Four Largest EU Economies Germany, Spain, France and Italy

Revisions to Gross Domestic Product (GDP) ensure the accuracy and relevance of national accounts data. The European Union (EU)'s Harmonized European Revision Policy (HERP) distinguishes between routine revisions for recent periods and periodic benchmark revisions that incorporate significant updates like new data sources and methods (Eurostat). In 2024, 26 EU Member States participated in a coordinated benchmark revision of national accounts.

This article examines the impact of the 2024 coordinated benchmark revision on GDP for the EU, the euro area (EA) and four large EU countries. By exploring these changes, the paper highlights the critical role of benchmark revisions in ensuring the robustness and harmonization of economic statistics in Europe.

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Introduction

Revisions to Gross Domestic Product (GDP) and other key macroeconomic indicators are fundamental to maintaining the accuracy and reliability of national accounts.

The EU has established the Harmonized European Revision Policy (HERP) to provide a structured framework for managing such revisions. HERP distinguishes between routine revisions and benchmark revisions. Routine revisions generally address the most recent periods as part of the regular production process. Conversely, benchmark revisions are conducted periodically to incorporate significant updates. They allow for systematic updates in response to new data sources, refined methodologies and changing economic conditions. They ensure that major source or methodological updates are introduced over the entire time series to avoid disruptions to time series.

In 2024, 26 EU Member States participated in a coordinated benchmark revision of national accounts. This had some effect on countries' estimates of gross domestic product (GDP) and its main components, which in turn affected estimates for the EU and the EA[1].

Although the benchmark revisions affect the whole time series, the analysis in this article focuses on revisions for the year 2019, as more recent years are also influenced by routine revisions. On the other hand, using a significantly older reference year may not fully capture the improvements introduced by new data sources or methodologies, as such enhancements may not apply to earlier periods when the necessary data sources did not exist.

This article investigates the revisions of GDP for the EU, the EA and the four

1 Only Luxembourg postponed its revision for national accounts but not for balance of payments. Iceland, Norway and Switzerland have also postponed their revision to 2025, but Albania and Serbia participated. For further information see (Eurostat).

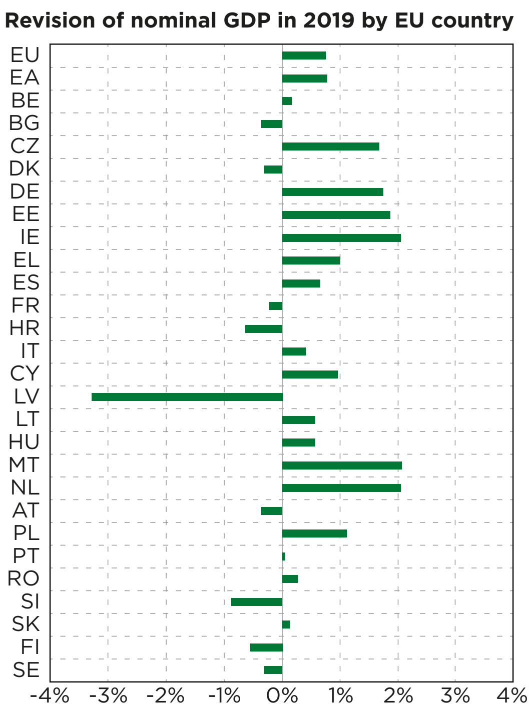
largest EU countries from the perspectives of the production, expenditure and income approaches and provides some information on main changes driving these revisions.

Impact of the benchmark revision on the level of GDP

The revisions of GDP levels in current prices for 2019 reveal varying trends across EU Member States, with some countries experiencing significant upward adjustments while others reported minor changes or reductions.

Overall, the EU GDP level was revised upwards by 0.7% and the EA GDP by 0.8%, indicating a modest overall increase for both zones (cf. Figure 1). The revisions to the four largest EU economies Germany (+1.7%), Spain (+0.7%), France (-0.2%) and Italy (+0.4%) played a significant role in shaping the revisions for the EU and EA. Germany's substantial upward adjustment alone contributed heavily to the overall upward revision, while France's modest downward revision slightly offset these gains.

FIGURE 1. PERCENTAGE CHANGE IN NOMINAL GDP FOR THE EU, EA AND MEMBER STATES FROM THE 2024 BENCHMARK REVISION



Source: Eurostat (nama_10_gdp).

The overall revisions suggest that most EU countries revised their GDP levels upwards or had minimal adjustments. A clear pattern of higher revisions in specific countries reflects methodological updates, new data sources, or improved estimation techniques. However, the variation in revisions highlights differences in national statistical practices and data quality enhancements.

Several countries reported significant upward revisions:

- **Malta, Ireland and the Netherlands (all +2.1%)** had the largest upward revision followed by **Estonia (+1.9%)**.
- **Germany (+1.7%)**, the EU's largest economy, saw a notable increase, likely driving the overall EU and EA revisions.
- Other countries with revisions exceeding 1% include **Czechia (+1.7%)**, **Poland (+1.1%)** and **Greece (+1.0%)**.

Some countries revised their GDP levels downwards:

- **Latvia (-3.3%)** reported the largest downward revision.
- Other notable downward revisions include **Slovenia (-0.9%)**, **Croatia (-0.6%)** and **Finland (-0.6%)**.

Latvia stands out with the highest downward revision, contrasting sharply with the overall upward trend in most countries. More information can be found in the relevant Statistics Explained article (Eurostat, 2024).

Revision of GDP from the expenditure, production and income approaches

GDP can be calculated using 3 main approaches: the production approach, the expenditure approach and the income approach. The production approach measures GDP by calculating the total value added generated by the various industries, as well as taxes less subsidies on products. The expenditure approach sums total spending on final goods and services in the economy, including consumption, investment, government spending and net exports, while the income approach totals all incomes earned by factors of production, including wages, profits, and taxes, minus subsidies, on production. Each approach provides a different perspective on economic activity but should be reconciled to ultimately yield the same GDP figure.

In the following, we consider each of the three approaches. For each approach, we identify which components contributed positively and which components contributed negatively to the revision of GDP. For this exercise, we focus on the EU, the EA and the four largest economies of the EU: Germany, Spain, France and Italy. All analysis is based on the official documents released by each of the four member states: (Statistisches Bundesamt, 2024), (Instituto Nacional de Estadística, 2024), (Institut National de la Statistique et des Études Économiques, 2024) and (Istituto Nazionale di Statistica, 2024).

In general, a combination of different factors contributed to the revisions observed in the EU, EA and its four largest economies. The underlying causes of these revisions affect different parts of the time series to varying degrees, with some changes impacting the entire time series, while others influence only specific years or isolated periods.

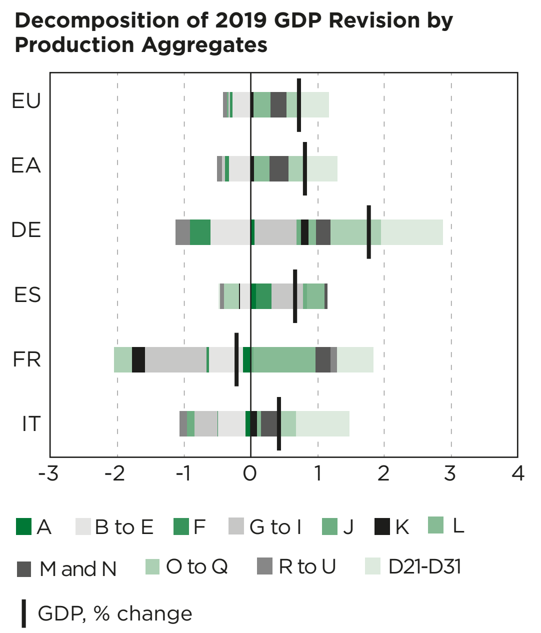
Revision of GDP from the production approach

The revisions to 2019 GDP broken down by industry reveal varied impacts across countries (cf. Figure 2). These differences stem from a range of factors affecting estimates from the production approach of GDP for Germany, Spain, France and Italy.

Key sources of these revisions include the alignment of reported levels with more accurate business statistics, adjustments following the incorporation of updated housing census data and the reclassification of certain entities or activities. For example, industrial activities saw downward revisions due to the alignment of reported levels with more accurate business statistics, leading to a more precise representation of output within the industrial sector, while changes in transport services in Germany reflected the reclassification of public transportation companies as non-market producers. Revisions to real estate activities were driven by updated housing census and other source data, affecting both actual and imputed rentals notably in France and Spain.

Additionally, major revisions related to government finance statistic guidance that impacted the classification of taxes and subsidies on products. This included the reclassification of certain subsidies, as well as the integration of additional funds into the general government scope.

FIGURE 2. STACKED BARS DISPLAY THE CONTRIBUTION OF INDUSTRIES TO THE REVISION OF 2019 NOMINAL GDP (IN PERCENTAGE POINTS) FOR THE EU, THE EA AND THE FOUR LARGEST ECONOMIES OF THE EU: GERMANY, SPAIN, FRANCE AND ITALY. THE TOTAL GDP REVISION, EXPRESSED AS A PERCENTAGE CHANGE, IS INDICATED BY AN ORANGE VERTICAL MARKER



Source: Eurostat (nama_10_gdp).

Agriculture (A[2]) showed small adjustments, with France experiencing the largest negative revision (-0.12 pp) and Spain and Germany posting slight increases (+0.07 pp and +0.06 pp). Since this activity only attributes around 1.6% of GDP in the European Union, this is in line with our expectation.

Industry (B to E) saw consistent downward revisions, most notably in Germany (-0.61 pp) and France (-0.51 pp). Italy (-0.41 pp), along with the EU (-0.27 pp) and EA (-0.32 pp), also experienced declines.

Construction (F) varied, with Spain contributing positively (+0.24 pp) while Germany saw a decline (-0.30 pp).

Trade, transport and accommodation services (G to I) had contrasting trends: Germany (+0.63 pp) and Spain (+0.48 pp) increased, while France saw a significant decrease (-0.92 pp).

Real estate (L) was a positive driver, particularly in France (+0.93 pp) and Spain (+0.28 pp).

Professional services (M and N) showed positive contributions across all four countries, with Italy leading (+0.29 pp).

Public services (O to Q) varied, with Germany (+0.76 pp) and Italy (+0.24 pp) seeing increases, while France (0.27 pp) and Spain (-0.23 pp) recorded declines.

Arts and other services (R to U) had minimal impact, with small decreases in Germany (-0.21 pp), Italy (-0.11 pp) and Spain (-0.06 pp) and a slight increase in France (+0.10 pp).

Taxes less subsidies on products (D21-D31), where Germany (+0.92 pp), Italy (+0.81 pp) and France (+0.54 pp) saw substantial upward adjustments.

Summary of Key Drivers:

- **European Union (EU):**
  Positive: Taxes less subsidies (D21X31, +0.44 pp), Real estate (L, +0.26 pp).
  Negative: Industry (BTE, -0.27 pp), Arts and other services (RTU, -0.05 pp).
- **Euro Area (EA):**
  Positive: Taxes less subsidies (D21X31, +0.52 pp), Professional services (M_N, +0.29 pp).
  Negative: Industry (BTE, -0.32 pp), Construction (F, -0.07 pp).
- **Germany:**
  Positive: Taxes less subsidies on products (D21X31, +0.92 pp), Public services (OTQ, +0.76 pp).
  Negative: Industry (BTE, -0.61 pp), Construction (F, -0.30 pp).
- **Spain:**
  Positive: Trade and transport services (GTI, +0.48 pp), Real estate (L, +0.28 pp).
  Negative: Public services (OTQ, -0.23 pp), Industry (BTE, -0.17 pp).
- **France:**
  Positive: Real estate (L, +0.93 pp), Taxes less subsidies (D21X31, +0.54 pp).
  Negative: Trade and transport services (GTI, -0.92 pp), Industry (BTE, -0.51 pp).
- **Italy:**
  Positive: Taxes less subsidies (D21X31, +0.81 pp), Professional services (M_N, +0.29 pp).
  Negative: Industry (BTE, -0.41 pp), Trade and transport services (GTI, -0.34 pp).

Revision of GDP from the expenditure approach

The revisions to 2019 GDP broken down by expenditure components reveal varied impacts across countries (cf. Figure 3). These differences stem from a range of factors affecting the expenditure approach of GDP for Germany, Spain, France and Italy.

Notably, household final consumption estimates were revised upwards in all countries, reflecting updates to demographic data from the 2021 Population and Housing Census, which influenced the Household Budget Survey. Revisions to individual and collective government final consumption expenditure reflect the reclassification of certain entities, such as public transport and broadcasting companies, into the general government sector. Additionally, reclassifications of private daycare centres and adjustments in the treatment of tax credits for domestic workers

2 The letters correspond to the relevant codes of the NACE Rev. 2 classification of economic activities (Eurostat, 2008).

and professional training expenditures contributed to changes in individual consumption by general government.

Substantial revisions to gross fixed capital formation (GFCF) in France are linked to improved business survey data, which offered more detailed insights into investment trends and refined estimates for GFCF for own final use. Upward revisions reflect enhanced measurement of investment activities, while downward revisions primarily stem from reduced investment by non-financial corporations. Further adjustments resulted from the reclassification of software expenditures, the treatment of research and development activities and changes related to certain public entities such as transport and broadcasting companies.

Revisions to exports and imports were driven by efforts to align the balance of payments and national accounts with improved data. Key changes include updates in service flows, such as financial and transport services and the inclusion of new categories like construction services. Enhanced estimates for goods, particularly transportation equipment and aerospace, also contributed to the revisions. Additionally, substantial adjustments were made in the treatment of transactions by foreign entities with national VAT numbers by Germany.

Household and NPISH final consumption expenditure

For the EU (+0.73 pp) and EA (+0.72 pp), household consumption was a significant positive contributor (cf. Figure 3). Among the four countries, Germany (+1.74 pp) showed the largest increase, followed by Spain (+0.44 pp), France (+0.38 pp) and Italy (+0.17 pp).

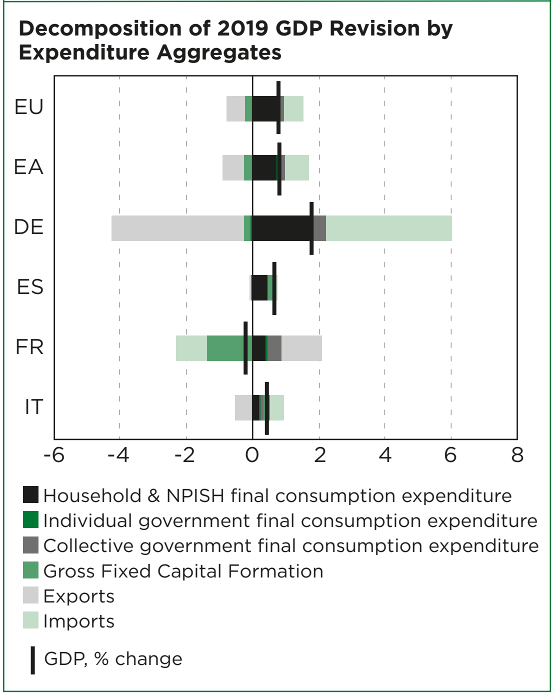
Individual and collective government final consumption expenditure

Government expenditure saw small upward revisions overall, with the EU (+0.04 pp for individual consumption and +0.19 pp for collective consumption) and EA (+0.03 pp individual, +0.24 pp collective) showing modest increases. The trends for individual countries varied: Germany (+0.47 pp) and France (+0.42 pp) drove collective government consumption upward, while individual consumption remained mostly unchanged for all countries.

Gross fixed capital formation (GFCF)

Revisions to GFCF were downward for the EU (-0.25 pp) and EA (-0.27 pp). Among the countries, Spain (+0.22 pp) and Italy (+0.20 pp) saw slight increases. Germany (-0.20 pp) and France (-1.39 pp) experienced declines.

FIGURE 3. STACKED BARS DISPLAY THE CONTRIBUTION OF EXPENDITURE COMPONENTS TO THE REVISION OF 2019 NOMINAL GDP (IN PERCENTAGE POINTS) FOR THE EU, THE EA AND THE FOUR LARGEST ECONOMIES OF THE EU: GERMANY, SPAIN, FRANCE AND ITALY. THE TOTAL GDP REVISION, EXPRESSED AS A PERCENTAGE CHANGE, IS INDICATED BY AN ORANGE VERTICAL MARKER



Source: Eurostat (nama_10_gdp).

Exports and imports

Exports were revised downward for both the EU (-0.54 pp) and EA (-0.63 pp). From the individual countries, Germany (-4.00 pp) faced the largest decline. France (+1.22 pp) posted a notable increase. Imports also declined and therefore contributed positively to revision of GDP in the EU (+0.56 pp) and EA (+0.69 pp), with Germany (+3.80 pp) seeing the sharpest increase. However, since the upward contribution from imports largely offset the downward contribution from exports, the net impact on Germany's overall GDP revision was minimal.

- **Spain:**
  Positive: Household consumption (+0.44 pp), GFCF (+0.22 pp).
  Negative: Collective and individual government expenditure (-0.04 pp and -0.03 pp).
- **France:**
  Positive: Exports (+1.22 pp), Collective government expenditure (+0.42 pp).
  Negative: GFCF (-1.39 pp), Imports (-0.92 pp).
- **Italy:**
  Positive: Imports (+0.42 pp), GFCF (+0.20 pp).
  Negative: Exports (-0.52 pp).

Summary of Key Drivers:

- **European Union (EU):**
  Positive: Household consumption (+0.73 pp), Imports (+0.56 pp).
  Negative: Exports (-0.54 pp), GFCF (-0.25 pp).
- **Euro Area (EA):**
  Positive: Household consumption (+0.72 pp), Imports (+0.69 pp).
  Negative: Exports (-0.63 pp), GFCF (-0.27 pp).
- **Germany:**
  Positive: Imports (+3.80 pp), Household consumption (+1.74 pp).
  Negative: Exports (-4.00 pp), GFCF (-0.20 pp).

Revision of GDP from the income approach

The revisions to 2019 GDP broken down by income components reveal varied impacts across countries (cf. Figure 4). These differences stem from a range of factors affecting the income approach of GDP for Germany, Spain, France and Italy.

Key sources of these revisions include changes to demographic data from the Population and Housing Census, which impacted the Labour Force Survey and its employment variables, thereby affecting the estimates for compensation of employees. Revisions to gross operating surplus and mixed income reflect the adoption of improved methodologies and data sources for business income, particularly for multinational enterprises, providing better coverage of globalization-related phenomena. Negative revisions are primarily driven by adjustments to gross value added, along with changes in the timing of recording certain tax credits, notably those related to their abolition in specific years.

Compensation of employees

For the EU (+0.45 pp) and EA (+0.50 pp), compensation of employees was a significant contributor to the upward revision of GDP (cf. Figure 4). Among the countries, Germany (+1.31 pp) saw the largest increase, followed by Spain (+0.45 pp). In contrast, France (+0.01 pp) and Italy (-0.14 pp) experienced minimal or negative revisions.

Gross operating surplus and mixed income

This component had a modest impact at the aggregate level, with the EU (+0.03 pp) showing a slight increase and the EA (-0.01 pp) a small decline. For individual countries the changes varied: Italy (+0.45 pp) showed the strongest contribution to revision. Germany (+0.32 pp) also posted upwards revisions, while France (-1.39 pp) saw a significant drop.

Taxes less subsidies on production and imports

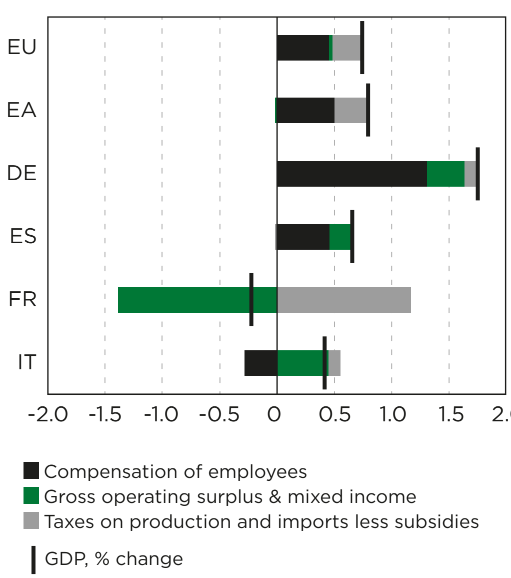
Taxes less subsidies contributed positively to GDP revisions across the EU (+0.26 pp) and EA (+0.31 pp). France (+1.16 pp) led the way with the largest contribution, while Germany (+0.12 pp) and Italy (+0.11 pp) saw smaller gains. Spain (-0.01 pp) experienced a slight decrease.

Summary of Key Drivers:

- **European Union (EU):**
  Positive: Compensation of employees (+0.45 pp).
- **Euro Area (EA):**
  Positive: Compensation of employees (+0.50 pp).
- **Germany:**
  Positive: Compensation of employees (+1.31 pp).
- **Spain:**
  Positive: Compensation of employees (+0.45 pp).
- **France:**
  Positive: Taxes on production and imports less subsidies (+1.16 pp).
  Negative: Gross operating surplus and mixed income (-1.39 pp).
- **Italy:**
  Positive: Gross operating surplus and mixed income (+0.45 pp).
  Negative: Compensation of employees (-0.14 pp).

FIGURE 4. STACKED BARS DISPLAY THE CONTRIBUTION OF INCOME COMPONENTS TO THE REVISION OF 2019 NOMINAL GDP (IN PERCENTAGE POINTS) FOR THE EU, THE EA AND THE FOUR LARGEST ECONOMIES OF THE EU: GERMANY, SPAIN, FRANCE AND ITALY. THE TOTAL GDP REVISION, EXPRESSED AS A PERCENTAGE CHANGE, IS INDICATED BY AN ORANGE VERTICAL MARKER

Decomposition of 2019 GDP Revision by Income Aggregates



Source: Eurostat (nama_10_gdp).

Conclusion

The 2024 coordinated benchmark revision of national accounts has led to important updates of GDP and its main components. These revisions were driven by methodological improvements as well as new data sources, with the aim to increase the accuracy of estimates. To better understand the changes, we also investigated the main drivers of the revisions for the four largest economies of the EU.

Keeping methodologies and data sources up to date will be key to maintaining public trust in GDP figures and ensuring accurate economic assessments. A more significant update of methodology and transmission requirements for national accounts and balance of payments is therefore planned for the next EU coordinated benchmark revision in 2029. ●

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