NATIONAL ACCOUNTS BENCHMARK REVISION 2024

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Introduction

In Eurostat's report entitled: '2019 benchmark revisions of national accounts – Impact on sector accounts', it is recommended that EU Member States carry out benchmark revisions, which are revisions of data sources or methods used to estimate national accounts indicators, at least once every five years. The main aims for a coordinated approach to benchmark revisions at EU level are twofold:

1. To achieve consistency within national accounts;
2. To achieve consistency across EU Member States and between statistical domains.

Although the benchmark revision is not carried out contemporarily across the EU, most Member States agreed to carry out the benchmark revision in the year 2024. In Malta, the benchmark revision in National Accounts data, was carried out in August 2024 by the NSO. The entire time series, dating back to the year 1995, was updated bringing about several enhancements to continue to improve the accuracy and richness of national accounts data.

This article aims to provide a comprehensive analysis of the benchmark revision, shedding light on the main improvements made, the sources used in the revision process, and the overall impact on GDP and its components.

The main sources of the revision

This Benchmark Revision served as a good opportunity to also address reservations and action points, which resulted from the ESA 2010 verification cycle.

One of the main revisions carried out emanated from the gambling and betting activities (Reservation 12), which sector includes online gaming companies. In the benchmark revision of 2024 annual data for the output approach from 2017 till 2019 was compiled using financial statements and data for the reference years 2020 and 2021 was derived from the Structural Business Statistics (SBS) dataset. The SBS 2022 was also partially integrated.

Revisions to GVA range between -2.1% in 2022 with a downward revision of €332 million and 3.6% in 2020 with an upward revision of €432 million (see Table 1). Since there was no need to revise the figures of taxes and subsidies on products, the absolute changes recorded in GVA, were identical to the revisions in GDP.

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Table 1
IMPACT OF THE REVISION IN GAMING AND BETTING ON GDP
EUR millions

		2017	2018	2019	2020	2021	2022
	PRODUCTION APPROACH						
1	Output of goods and services (at basic prices)	216	244	-422	236	-1,831	-2,967
2	Intermediate consumption (at purchasers' prices)	-72	-127	-393	-196	-1,948	-2,635
3	GVA (at basic prices)	289	371	-29	432	116	-332
4	Taxes on products						
5	Subsidies on products						
	EXPENDITURE APPROACH						
6	Total final consumption expenditure						
7	Household final consumption expenditure						
8	NPISH final consumption expenditure						
9	General government final consumption expenditure						
10	Gross capital formation						
11	GFCF						
12	Changes in inventories						
13	Acquisitions less disposals of valuables						
14	Exports of goods and services	216	244	-422	236	-1,831	-2,967
15	Imports of goods and services	-72	-127	-393	-196	-1,948	-2,635
	INCOME APPROACH						
16	Compensation of employees	-84	-97	-99	-43	-30	-26
17	Gross operating surplus and mixed income	373	468	71	475	147	-306
18	Taxes on production and imports	0	0	0	0	0	0
19	Subsidies						
20	GDP (ESA2010)	289	371	-29	432	116	-332

Source: NSO.

Moreover, another four reservations have been addressed with this Benchmark Revision, together with five action points. These are:

- Reservation 3: Cross-border flows of dividends – A revision ensuring that issues of bonus shares, which represent the capitalisation of own funds in the form of reserves and undistributed profits and give rise to new shares to shareholders in proportion for their holdings, are not included.

- Reservation 4: Issues relating to the exhaustiveness of National Accounts – A review of the current estimate for prostitution has been done to address the requirements of GNIC/230 on illegal activities in national accounts.

- Reservation II: Margins on trading financial assets – An adjustment was implemented to ensure that trading gain/(loss) on foreign exchange dealings is included in output in case of banking institutions, for the period 2010-2016.

- Reservation V: Recording of daily allowances – National Accounts estimates for daily allowances were aligned to the technical guidance on per diems established by Eurostat. Daily allowances may include basic costs that would otherwise be bought by the employee on their own account (e.g., for food) as well as some extra remuneration for working later or on an otherwise free day. These may also include hotel costs or even flight costs, which as the employee would otherwise not incur them on their own account. Member States had heterogeneous recording practice for per diems: being recorded fully as compensation of employees or intermediate consumption or being split across the two categories. The new guidelines categorised these costs to ensure a consistent disclosure across Member States.

- Action point A2: NPISH – NPISH figures have been updated, based primarily on the Non-Governmental Organisations (NGO) survey of 2017, and administrative data thereon.

- Action point A7: Imputed rents for owner-occupied dwellings – Based on the Census of Population and Housing 2021 and in line with the requirements of Commission implementing regulation (EU) 2021/1949, Malta shifted from the user-cost method to the stratification method.[2]

- Action point A8: Rent (D.45) – An adjustment has been introduced to exclude rent on land from intermediate consumption using the information available in SBS 2018 at NACE division level.

- Action point A9: Reclassifications in the subsidies received from the institutions of the European Union – A review of European Agricultural Fund for Rural development (EAFRD) and European Agriculture Guarantee Fund (EAFG) led to the reclassification from subsidies on production (D.39) to investment grants (D.92).

- Action point A10: Wages and salaries in kind – Data extracted from the Labour Cost Survey (LCS) 2020, which is a survey conducted once every four years, have been used to update data for 2017-2020.

There were also other important refinements carried out, entailing the adoption of new methodologies or improved sources. These include:

- This benchmark revision includes the results of the *Supply and Use Tables (SUT) of 2019*, which provides a detailed picture of the supply of goods and services by domestic production and imports and the use of goods and services for intermediate consumption and final use (consumption, gross capital formation, exports). This involves 216 products and 95 industries.

- Output and intermediate consumption, exports and imports of Special Purpose Entities (SPEs) have been revised such that only the costs incurred by these entities in Malta will be included in the sum of costs method, thus eliminating the costs incurred by the non-resident parents as declared in the financial statements of the SPEs residents in Malta. This is in line with the advice provided by Eurostat.

- Pension funds, which started operations in 2012, are now included in the National Accounts series. There are both occupational and non-occupation schemes. Data for 2012 to 2021 has been derived from annual accounts and financial statements. As from 2024, the NSO may shift to administrative data provided by the Central Bank of Malta.

[2] Commission implementing regulation (EU) 2021/1949 of 10 November 2021 on the principles for estimating dwelling services for the purposes of Regulation (EU) 2019/516 of the European Parliament and of the Council on the harmonisation of gross national income (GNI) at market prices (GNI Regulation) and repealing Commission Decision 95/309/EC, Euratom and Commission Regulation (EC) No. 1722/2005

- In line with the recommendations relating to exhaustiveness, there were two main revisions implemented, namely:

    - The reference income method, which basically boils down to deriving per capita ratios from a reference group that could be representative for the scope of non-observed economy, has been adopted. The underlying hypothesis is that the owners of the enterprise should earn at least as much as their employee. The industries whose gross operating surplus per full-time equivalent (FTE) self-employed operating in the household sector was less than the compensation of employees per FTE salaried employees employed in the same industries were identified and adjusted since 1995. The exhaustivity adjustment was performed on output, to target GVA and thus gross operating surplus. This had an impact of €9 million in 1995, rising to €178 million in 2023.

    - Two different sources were considered in the compilation of figures relating to the non-financial corporations (S.11) and Households (S.14) using the employment method. The sources used were administrative data on the number of law infringements and Jobsplus registrations. This had an impact of €1.4 million in 1995, rising to €10 million in 2023.

- Consumption of fixed capital has been reviewed to implement the recommendations presented by Eurostat in the final report published in May 2023 of the Task force on fixed assets and estimation of consumption of fixed capital under ESA 2010.[3] Consumption of fixed capital has also been updated due to routine updates in GFCF based on SBS and the integration of the Census of Population and Housing 2021 in case of dwellings.

- Some refinements in the compilation of employers' actual social contributions (D.121) and employers' imputed social contributions (D.122) have been implemented across the whole time series.

- Enhancements with respect to the compilation of Balance of Payments statistics were also integrated in the National Accounts. However, since the Balance of Payments dataset is only available from 2017 onwards, a consistent time series covering the period 1995 to 2016, is only available through the national accounts domain. The main improvements include:

    a. Two administrative sources have been linked at micro-level to derive an exhaustive measure of cross-border flows for interest, dividends and re-invested earnings. One administrative source provides primary income flows and identifies some cross-border flows. The other source provides the ownership structure of corporations, thus allowing the derivation of dividends and re-invested earnings paid abroad. These data are then complemented with survey data.
    b. Data obtained from Bank of International Settlements (BIS) since 2014 has been used to derive interest received by households in Malta and paid to household abroad. Data compiled by the Central Bank of Malta from resident investment service providers was used to derive primary income flows received by household from investment activity abroad.
    c. Data on insurance undertakings and insurance agents have been updated since 2017. This had an impact on services, primary and secondary income flows.

[3] Directors of Macroeconomic Statistics Task Force on fixed assets and estimation of consumption of fixed capital under European System of Accounts 2010.

d. Administrative data has been used to cross-check interest paid and received by each sector as disclosed in the interest matrix. This matrix is a whom-to-whom matrix which shows transactions between sectors in the economy. This exercise was necessary to derive an estimate for intra-company flows which did not feature before in the interest matrix.
e. On a yearly basis the National Accounts unit compiles a dividend matrix and, in the process, derives an independent estimate of the Rest of the World sector (S.2).

- While this did not lead to any revision in household final consumption expenditure, the GDP at constant prices is now based on COICOP 2018.

As a result of all the changes mentioned above, GNI increased by 1.6 per cent on average between 2010 and 2022, with the average going up to 3.4 per cent in the period 2017-2022. (see Table 2). In the last six years under review, the revisions attributable to the GNI reservations caused an upward revision in GNI of 2.2 per cent annually on average. The revisions in GNI brought about by changes in sources and methods, stood at -1.8 per cent annually on average. The largest upward revisions in GNI for the years 2020, 2021 and 2022, were caused by routine revisions, at 3.5 per cent, 6.7 per cent and 6.5 per cent, respectively.

Table 2
REVISIONS TO GNI (ESA95 BASED) OF MALTA FOR 2010-2013 AND GNI (ESA2010 BASED) OF MALTA FOR 2014-2022 (AS A PERCENTAGE OF GNI FROM THE 2024 QUESTIONNAIRE)
Per cent

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total revision to GNI	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.5**	**4.8**	**1.6**	**6.2**	**6.2**	**1.2**
of which:													
Total revision caused by GNI reservations	0	0	0	0	0	0	0	0.5	2.4	3.1	4.7	1.8	0.5
Total revision caused by changes in methods and sources (excl. ESA2010 implementation)								0	2.3	-1.5	-2.0	-2.2	-5.8
Total revision caused by routine (current) revisions								0	0	0	3.5	6.7	6.5

Source: NSO.

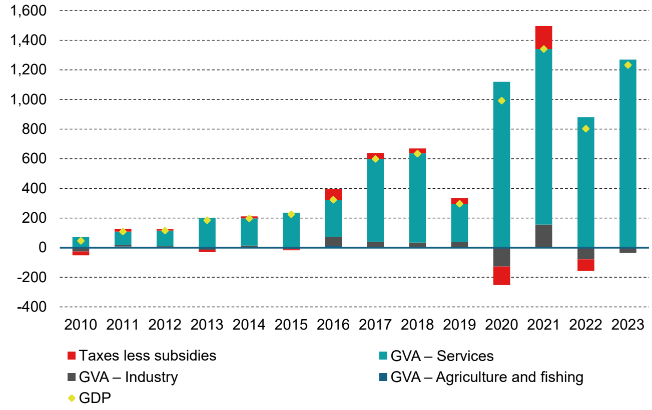
Chart 1 shows the changes in GVA, taxes less subsidies and GDP when comparing the latest published figures with the previous vintage, taking a production/output perspective. Major increases are observed in the four-year period between 2020 and 2023, mainly due to the fact that certain sectors in the services category performed more buoyantly than estimated originally during and after the COVID-19 breakout. On average, the upward revision in services over the past four years was €1.1 billion annually. The average stood at €0.3 billion annually between 2010 and 2019.

In the last four years, NACEs J, M and N (Information and communication; Professional, scientific and technical activities; Administrative and support service activities), which have clear interlinkages with NACE R (Arts, entertainment and recreation), accounted for the lion's share of the entire increase on average. Another main contributor to the upward revision was NACE L (Real estate activities), which accounted for around one-fourth of the increase during the same period.

Most of the revision in the period 2010 – 2019 stemmed from the same sectors highlighted above with higher shares for NACEs L (Real estate activities) and R (Arts, entertainment and recreation).

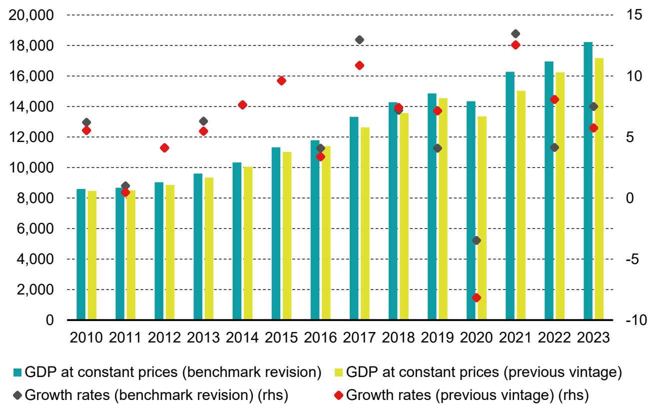
Chart 2 zooms into the differences between the GDP at constant (2020) prices following the benchmark revision and the figures of the previous vintage. The chart shows that in the year 2020 when COVID-19 was declared a pandemic – the slowdown in GDP at constant prices was less pronounced than originally estimated. The growth rate during 2020 increased by 4.7 percentage points, the highest increase, reaching -3.5 per cent.

Chart 1
NOMINAL GDP – OUTPUT APPROACH – GVA AND GDP
(EUR millions)



Source: NSO.

Chart 2
GDP AT CONSTANT PRICES – COMPARING LEVELS AND GROWTH RATES
(EUR millions; per cent)



Source: NSO.

Furthermore, the differences between the growth rates recorded before and after the benchmark revision, are greater after 2016 – with the exception of the year 2018 – mainly due to upward revisions in services highlighted above. The biggest downward revision in growth rates was recorded in the year 2022, with a drop of 3.9 percentage points.

Conclusion

The NSO is committed to continuously refine and enhance the accuracy of economic data, responding to changes in the economy and advances in statistical methodologies. The benchmark revision is a step in that direction, resulting in significant improvements in data accuracy and alignment with international standards.

Going forward, these revisions underscore the importance of regularly updating National Accounts data ensuring that the data remain relevant and reflective of the evolving economic landscape. After all, economic statistics remain a crucial tool for policymakers, economists, and stakeholders and a cornerstone of evidence-based decision-making.