

# REVISION OF GROSS DOMESTIC PRODUCT IN 2022

On 17 August 2022, Statistics Estonia published revised national accounts figures. As part of the revision, the time series for the period 2018–2021 was updated. This was a regular revision based on the latest data sources.

In the revision, the following were taken into account:

- supply and use tables compiled for 2018;
- enterprises' complex calendar year report (EKOMAR) of 2020;
- changes and specifications made in other sources (balance of payments, balance sheets, etc.).

Overall, the revision had a positive impact on gross domestic product (GDP). The use of EKOMAR data for 2020 had the biggest impact. As a result, the GDP for 2020 at current prices increased by 2.4%. The impact of the supply and use tables was modest overall, leading to a 0.4% increase in the GDP for 2018.

In the revised time series, the change in GDP at current prices ranged from +0.1 to +2.6% (Table 1).

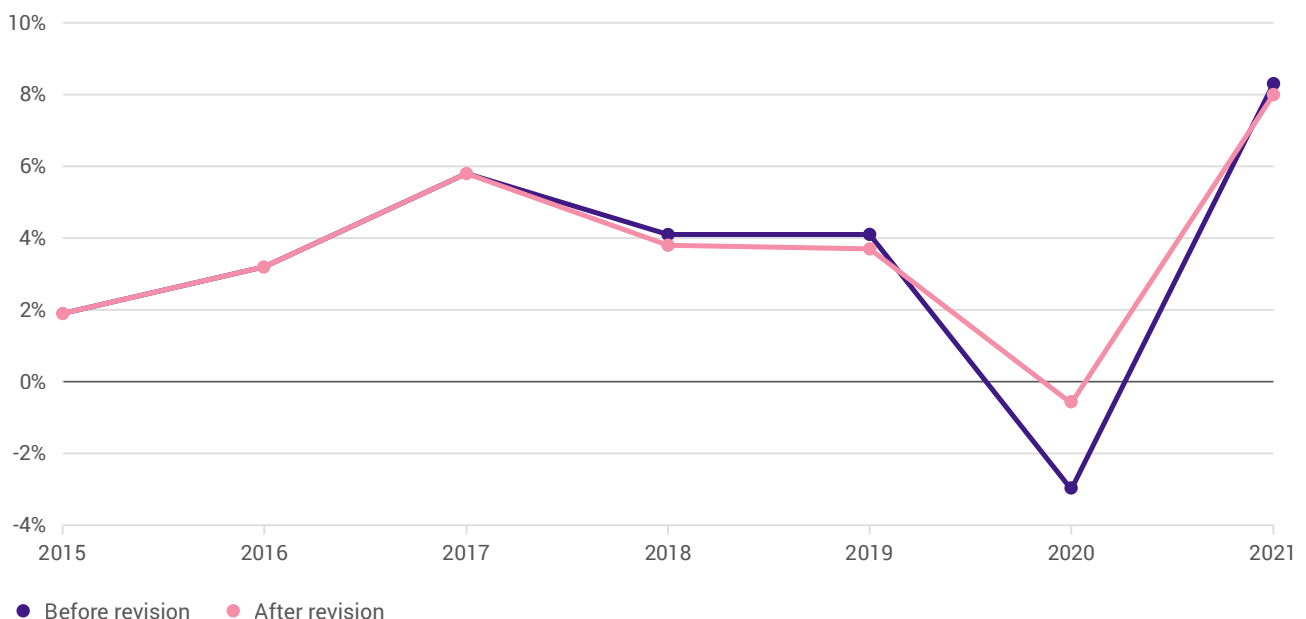
**Table 1. GDP at current prices before and after revision, 2018–2021**

	Before revision, million euros	After revision, million euros	Difference, %
2018	25 817.7	25 932.2	0.4
2019	27 732.3	27 764.7	0.1
2020	26 834.5	27 465.0	2.3
2021	30 662.7	31 444.9	2.6

The revision of the GDP for 2020 is clearly reflected in GDP real growth. As a result of the revision, the economic decline in 2020 was reduced from –3.0% to just –0.4%. Some of it was also due to the fact that the real growth for previous years was adjusted downward slightly. After adjustments, GDP real growth changed by 0.4 to 2.4 percentage points in the revised period (Figure 1).

**Figure 1. GDP real growth compared with same period of previous year, before and after revision, 2015–2021**

Source: Statistics Estonia



Quarterly GDP growth data indicate that estimates changed primarily for the second half of 2020. The growth rates for the third and fourth quarter increased by 3.3 and 3.2 percentage points (pp), respectively. For the other revised periods, the difference in GDP real growth after revision was –1.3 to +1.5 percentage points (Table 2). Considering the period before 2020, the biggest change occurred in the third quarter of 2019 where GDP growth was reduced by 0.9 percentage points.

**Table 2. Revised GDP real growth (compared with same quarter of previous year) and difference from previously published growth rate, 1st quarter 2018 – 4th quarter 2021**

	2018		2019		2020		2021	
	Growth, %	Difference, pp	Growth, %	Difference, pp	Growth, %	Difference, pp	Growth, %	Difference, pp
1st quarter	3.6	–0.5	4.1	0.2	1.3	1.5	2.5	–1.3
2nd quarter	2.8	–0.2	2.4	–0.3	–5.7	1.5	13.9	1.2
3rd quarter	4.6	0.0	4.9	–0.9	0.4	3.3	8.4	0.1
4th quarter	4.1	–0.7	3.6	–0.4	1.7	3.2	7.4	–1.3
Annual	3.8	–0.3	3.7	–0.4	–0.6	2.4	8.0	–0.3

## Regular revision

### 2018 figures

Supply and use tables are a framework of tables in which supply and use are balanced. As a result of the compilation of these tables, the value added of the total economy increased by 0.5% in 2018 compared with what was previously published (Table 3).

GDP was most affected by the 2.5% increase in the value added of real estate activities and by the 3.9% increase in the value added of information and communication. There was also a considerable increase in the value added of construction (2.6%) and human health and social work activities (3.1%). The biggest decrease occurred in the value added of agriculture, forestry and fishing (–5.5%), and transportation and storage (–1.6%).

Domestic demand increased by 1.5%. This was due to investments which increased by 654.3 million euros. On the other hand, this rise was balanced by changes in inventories which decreased by 334.2 million euros.

**Table 3. Impact of balancing of supply and use tables on GDP components, 2018**

Sector	Impact on component, million euros	Impact on component, %
Non-financial corporations	124.0	0.8
Financial corporations	–3.6	–1.4
General government	3.3	0.1
Households	–0.8	0.0
NPISH <sup>1</sup>	0.1	0.1
Value added, total	113.1	0.5
Net indirect taxes	1.4	0.0
GDP	114.5	0.4
Household final consumption expenditure	46.1	0.4

<sup>1</sup> NPISH – non-profit institutions serving households

Sector	Impact on component, million euros	Impact on component, %
General government final consumption expenditure	3.5	0.1
NPISH final consumption expenditure	0.5	0.1
Gross fixed capital formation and valuables	654.3	10.3
Changes in inventories	-334.2	-58.4
Domestic demand	370.3	1.5
Exports of goods and services	47.6	0.2
Imports of goods and services	11.0	0.1
Statistical discrepancy	-292.4	..

## 2019 figures

The calculations for 2019 were also revised, as the calculations for 2018 serve as a basis for 2019 indicators. As a result of the revision, the value added of the total economy increased by 32.4 million euros (0.1%) and domestic demand by 113.1 million euros (0.4%) (Table 4). Value added increased the most in real estate activities (2.1%), information and communication (2.7%), and professional, scientific and technical activities (2.9%). Value added decreased the most in transportation and storage (-3.1%), agriculture, forestry and fishing (-5.2%), and arts, entertainment and recreation (-6.9%).

**Table 4. Impact of regular revision on GDP components, 2019**

Sector	Impact on component, million euros	Impact on component, %
Non-financial corporations	7.0	0.0
Financial corporations	16.4	1.5
General government	4.3	0.1
Households	4.3	0.2
NPISH	0.4	0.1
Value added, total	32.4	0.1
Net indirect taxes	0.0	0.0
GDP	32.4	0.1
Household final consumption expenditure	111.3	0.8
General government final consumption expenditure	5.6	0.1
NPISH final consumption expenditure	-4.4	-0.9
Gross fixed capital formation and valuables	1.9	0.0
Changes in inventories	-1.3	-0.7
Domestic demand	113.1	0.4
Exports of goods and services	-20.9	-0.1
Imports of goods and services	16.9	0.1
Statistical discrepancy	-42.8	..

## 2020 figures

For 2020, the dataset of quarterly data sources used so far was replaced with information from annual questionnaires.

The main sources added were:

- EKOMAR;
- economic indicators of agricultural, forestry and fishing enterprises;
- research and development (in enterprises);
- research and development;
- financial intermediation and auxiliary financial intermediation activities;
- insurance;
- energy;
- industrial products;
- non-profit organisations.

These sources were supplemented with information from the annual reports of enterprises in the commercial register, and datasets from the Estonian Tax and Customs Board.

Based on revised data, GDP increased by 2.3%. This was mainly due to the rise in the value added of real estate activities (7.6%), professional, scientific and technical activities (12.4%), construction (4.7%) and manufacturing (2.1%). The biggest fall occurred in the value added of transportation and storage (-2.1%) and mining and quarrying (-11.4%).

After the revision, domestic demand increased by 776.5 million euros. This was mostly caused by the 4.0% increase in investments and 2.2% increase in private consumption. Changes in inventories decreased by 157.8 million euros (Table 5).

**Table 5. Impact of regular revision on GDP components, 2020**

Sector	Impact on component, million euros	Impact on component, %
Non-financial corporations	558.4	3.4
Financial corporations	18.1	1.5
General government	2.6	0.1
Households	53.5	3.2
NPISH	0.0	0.0
Value added, total	632.6	2.7
Net indirect taxes	-2.1	-0.1
GDP	630.5	2.3
Household final consumption expenditure	285.3	2.2
General government final consumption expenditure	-3.9	-0.1
NPISH final consumption expenditure	7.0	1.5
Gross fixed capital formation and valuables	330.3	4.0
Changes in inventories	157.8	-134.0
Domestic demand	776.5	2.9
Exports of goods and services	-73.6	-0.4
Imports of goods and services	33.4	0.2
Statistical discrepancy	-39.0	..

## 2021 figures

The introduction of annual data sources in 2020 calculations also affected the basis for 2021 calculations. As a result, the GDP for 2021 increased by 2.6%. Changes in value added were due to revisions made to the previous year's data and were in a similar range, more or less. The exception was the value added of administrative and support service activities which increased by 1.2%. The value added of this economic activity had decreased by 1.0% in 2020.

Domestic demand increased by 1.6%. The change was mainly due to the upward adjustment of investments (by 321.8 million euros). This was offset by the downward adjustment of changes in inventories (by 137.0 million euros). Private consumption increased by 290.6 million euros. In external demand, exports decreased by 66.1 million euros and imports increased by 96.6 million euros.

**Table 6. Impact of regular revision on GDP components, 2021**

Sector	Impact on component, million euros	Impact on component, %
Non-financial corporations	739.7	3.9
Financial corporations	31.8	2.6
General government	6.5	0.1
Households	9.1	0.5
NPISH	0.1	0.0
Value added, total	787.1	2.9
Net indirect taxes	-5.0	-0.1
GDP	782.2	2.6
Household final consumption expenditure	290.6	2.0
General government final consumption expenditure	2.7	0.0
NPISH final consumption expenditure	5.6	1.1
Gross fixed capital formation and valuables	321.8	3.7
Changes in inventories	-137.0	-22.7
Domestic demand	483.7	1.6
Exports of goods and services	-66.1	-0.3
Imports of goods and services	96.6	0.4
Statistical discrepancy	461.2	..

In conclusion, the introduction of the 2018 supply and use tables increased the GDP for both 2018 and 2019. More significant revisions resulted from the new data sources used for the year 2020. The GDP level for some years was substantially revised, but this did not significantly change previous trend assessments. The main change was that the impact of the coronavirus crisis was adjusted downward from initial assessments (Figure 2).

**Figure 2. GDP real growth compared with same period of previous year, before and after revision, 1st quarter 2018 – 4th quarter 2021**

Source: Statistics Estonia



Robert Mürsepp  
 Leading Analyst  
 Economic and Environmental Statistics Department  
 Statistics Estonia  
 Tel +372 625 9138  
 robert.myrsepp@stat.ee  
 17 August 2022