

## Revision of Gross Domestic Product in 2020

**On 30 September 2020, Central Statistical Bureau of Latvia released revised national accounts time series from 1995 onwards.**

Following revisions have been implemented:

- 1) benchmark revision - changes related to transaction-specific Gross National Income (GNI) reservations determined for Latvia within the GNI verification cycle 2016 – 2021;
- 2) annual routine revision.

Due to all these revisions, annual GDP at current prices changed from -0.2 % to +1.1 % in the period from 1995 – 2018 (see Table 1).

**Table 1.** GDP at current prices before and after revision in 1995 – 2018, in million EUR

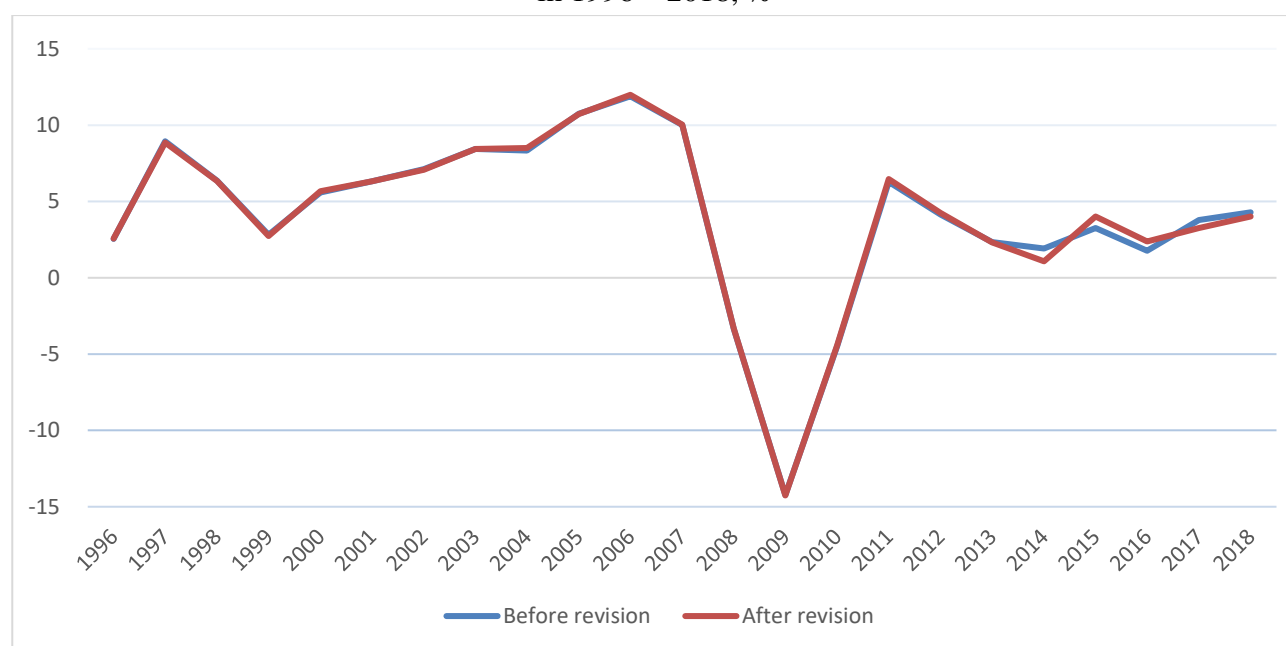
Year	Before revision	After revision	Difference	Difference, %
1995	4 046.3	4 057.0	+10.7	+0.3
1996	4 664.0	4 677.4	+13.4	+0.3
1997	5 379.9	5 390.8	+10.9	+0.2
1998	5 997.5	6 008.7	+11.2	+0.2
1999	6 259.5	6 265.7	+6.1	+0.1
2000	6 847.2	6 860.2	+13.0	+0.2
2001	7 446.3	7 461.2	+14.9	+0.2
2002	8 382.5	8 395.9	+13.4	+0.2
2003	9 539.0	9 553.5	+14.4	+0.2
2004	11 034.9	11 070.7	+35.8	+0.3
2005	13 586.7	13 626.8	+40.1	+0.3
2006	17 093.7	17 158.0	+64.3	+0.4
2007	22 589.5	22 667.7	+78.2	+0.3
2008	24 393.6	24 460.8	+67.2	+0.3
2009	18 884.9	18 932.7	+47.8	+0.3
2010	17 967.1	18 022.7	+55.6	+0.3
2011	20 319.3	20 411.5	+92.2	+0.5
2012	21 925.2	22 045.0	+119.8	+0.5
2013	22 803.0	22 923.7	+120.7	+0.5
2014	23 654.2	23 613.9	-40.3	-0.2
2015	24 426.0	24 560.9	+134.9	+0.5
2016	25 072.6	25 360.3	+287.7	+1.1
2017	26 797.8	26 962.3	+164.4	+0.6
2018	29 056.1	29 142.5	+86.5	+0.3

Preliminary estimates of 2018 from quarterly data sources was revised using estimates from annual

data sources. All changes described in the document were taken into account in compilation of GDP of 2018, but, as there are no estimates which are based on the previous methods, direct impact of changes in applied methodology and sources cannot be separately identified. Annual GDP aggregates at current prices were compiled in a framework of Supply and Use Tables.

The annual real GDP growth changed by -0.8 to +0.7 percentage points (see Chart 1 and Table 2).

**Chart 1.** GDP changes at constant prices, compared to the previous year, before and after revision in 1996 – 2018, %



**Table 2.** GDP changes at constant prices, compared to the previous year, before and after revision in 1996 – 2018

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004
Before revision, %	+2.5	+8.9	+6.4	+2.8	+5.6	+6.3	+7.1	+8.4	+8.3
After revision, %	+2.6	+8.9	+6.3	+2.7	+5.7	+6.3	+7.1	+8.4	+8.5
Difference, percentage points	+0.0	-0.1	-0.0	-0.1	+0.1	+0.0	-0.0	-0.0	+0.2
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
Before revision, %	+10.7	+11.9	+10.0	-3.3	-14.2	-4.5	+6.3	+4.1	+2.3
After revision, %	+10.7	+12.0	+10.0	-3.3	-14.3	-4.4	+6.5	+4.3	+2.3
Difference, percentage points	-0.0	+0.1	+0.0	+0.0	-0.0	+0.1	+0.2	+0.1	-0.0
Year	2014	2015	2016	2017	2018				
Before revision, %	+1.9	+3.3	+1.8	+3.8	+4.3				
After revision, %	+1.1	+4.0	+2.4	+3.3	+4.0				
Difference, percentage points	-0.8	+0.7	+0.6	-0.5	-0.3				

## Benchmark revision – results of country specific GNI reservations

### 1.1. Estimation of output of products of forestry (impact from 1995 onwards)

According to ESA 2010<sup>1</sup> § 3.54 output of forestry products must include annual growth of standing timber which in context of ESA 2010 is considered as inventories of work-in-progress during the production process. To estimate changes of standing timber, under the auspices of the Ministry of Agriculture, using financing of structural reform support programme, project “Improving sustainable forest management by assessing forest contribution to GDP Latvia” was elaborated.

Basing on the results of the project, the CSB carried out estimation of annual growth of standing timber for all GDP time series. Impact of changes on GDP at current prices by years is fluctuating **from 0.0 % to +0.2 %** (see Table 3).

**Table 3.** Impact of calculation method changes of standing timber annual growth to GDP at current prices in 1995 – 2017

Year	Impact to GDP, in million EUR	Impact to GDP, as %
1995	+7.5	+0.2
1996	+9.4	+0.2
1997	+5.8	+0.1
1998	+5.3	+0.1
1999	0.0	0.0
2000	+5.9	+0.1
2001	+7.7	+0.1
2002	+6.0	+0.1
2003	+5.9	+0.1
2004	+10.6	+0.1
2005	+10.2	+0.1
2006	+20.2	+0.1
2007	+25.9	+0.1
2008	+33.2	+0.1
2009	+16.4	+0.1
2010	+11.0	+0.1
2011	+13.7	+0.1
2012	+21.1	+0.1
2013	+24.9	+0.1
2014	+27.6	+0.1
2015	+35.6	+0.1
2016	+37.0	+0.1

<sup>1</sup> Annex A of the Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts

Year	Impact to GDP, in million EUR	Impact to GDP, as %
2017	+28.1	+0.1

## 1.2. Integration of Supply and Use Tables (SUT) in National Accounts (impact from 2014 to 2016)

To close this GNI reservation, Latvia included results of SUT into GDP time series. SUT is the final stage of GDP estimation process. Compilation of SUT gives opportunity to verify coherence and interconnection of national accounts aggregates and its components in one detailed framework and generate one common estimate of GDP from all three GDP calculation approaches (i.e., production, expenditure and income). In SUTs economy is balanced at level of products.

At the moment GDP time series of Latvia includes 2008 – 2010 and 2014 – 2016 SUT results. The reservation foresees that until 30 September 2021 Latvia has to include SUT results from 2011 – 2016 in GDP time series. As SUT integration concerns all main GDP aggregates and requires significant work resources, it was decided to divide SUTs integration into two stages. In revision of 2021 it is foreseen to include results of remaining years, i.e., SUT of 2011 – 2013. In the future SUT results will be integrated into GDP time series according to requirements of ESA 2010 data transmission programme, as well as impact of SUT integration on GDP will be small as annual GDP calculation is done SUT framework.

Impact of SUT integration on GDP at current prices by years is fluctuating **from -0.9 % to +0.5 %** (see Table 4).

**Table 4.** Impact of SUT integration into national accounts to GDP at current prices in 2014 – 2016

Year	Impact to GDP, in million EUR	Impact to GDP, as %
2014	-203.0	-0.9
2015	-41.2	-0.2
2016	+132.8	+0.5

## 1.3. Estimates on exports and imports of goods and services (from 2004 onwards)

Within the framework of this reservation, it was needed to include estimation of imports of second-hand vehicles by private persons from other European Union (EU) countries into imports of Latvia. Previously GDP imports included only vehicles imported by legal persons. As purchase of second-hand vehicles by natural persons usually takes place with the help of intermediary, GDP of production approach is increased by the calculated trade intermediary value. Calculated imports of second-hand vehicles by private persons and related value added generated by trade intermediary was included in GDP data starting with 2004 when Latvia entered the EU.

Impact of trade intermediary value added related to imports of second-hand vehicles by private persons to GDP at current prices by years is fluctuating **from +0.1 % to + 0.3 %** (see Table 5).

**Table 5.** Impact of methodology changes of trade intermediary value added related to imports of second-hand vehicles by private persons to GDP at current prices in 2004 – 2017

Year	Impact to GDP, in million EUR	Impact to GDP, as %
2004	+12.7	+0.1
2005	+20.9	+0.2
2006	+26.1	+0.2
2007	+34.0	+0.2
2008	+19.6	+0.1
2009	+26.4	+0.1
2010	+33.1	+0.2
2011	+46.7	+0.2
2012	+53.8	+0.2
2013	+51.7	+0.2
2014	+63.8	+0.3
2015	+64.6	+0.3
2016	+53.0	+0.2
2017	+69.8	+0.3

#### 1.4. Issues from Government Finance Statistics having potential impact on GNI (starting with 2003)

Within the framework of this reservation, impact that arises from reclassification of institutional units from other institutional sectors to General government sector (S.13) was included in GDP. As S.13 output calculation algorithm differs from calculation algorithm of other institutional sectors, reclassification of units from one institutional sector to another leaves impact on GDP.

Impact of reclassification of units on GDP at current prices by years is fluctuating **from -0.1 % to +0.1 %**.

**Table 6.** Impact of reclassification of institutional units on GDP at current prices in 2003 – 2017

Year	Impact to GDP, in million EUR	Impact to GDP, as %
2003	+0.2	+0.0
2004	+1.6	+0.0
2005	-6.2	-0.0
2006	-3.0	-0.0
2007	-7.7	-0.0
2008	-11.3	-0.0
2009	-14.9	-0.1
2010	-9.1	-0.1

Year	Impact to GDP, in million EUR	Impact to GDP, as %
2011	-6.6	-0.0
2012	+5.5	+0.0
2013	+3.5	+0.0
2014	+12.8	+0.1
2015	+4.5	+0.0
2016	+10.1	+0.0
2017	+8.0	+0.0

Another aspect related to work on this GNI condition is inclusion of decommissioning costs in GDP aggregates. In Latvia environmental pollution decommissioning costs, for example, remediation costs of Inčukalns acid tar ponds, were considered as costs of decommissioning. According to ESA 2010, these costs need to be considered as gross fixed capital formation, which are depreciated as consumption of fixed capital in the same year. Before the revision these costs were included in intermediate consumption of sector S.13.

**Table 7.** Impact of inclusion of decommissioning costs in GDP aggregates to GDP at current prices in 2011 – 2017

Year	Impact to GDP, in million EUR	Impact to GDP, as %
2011	+9.9	+0.0
2012	+6.1	+0.0
2013	+2.3	+0.0
2014	+9.0	+0.0
2015	+18.9	+0.1
2016	+2.9	+0.0
2017	+5.0	+0.0

Impact of revising reflection of these costs on GDP at current prices by years is fluctuating **from +0.0 % to +0.1 %**. Such costs were recognized starting with 2011.

### **1.5. Payments for licences for using natural resources to be excluded from intermediate consumption (starting with 1995)**

To close this GNI reservation, Latvia had to exclude costs of renting land from intermediate consumption, as these costs, according to ESA 2010, should not be treated as intermediate consumption.

**Table 8.** Impact of exclusion of renting land from intermediate consumption on GDP at current prices in 1995 – 2017

Year	Impact to GDP, in million EUR	Impact to GDP, as %
1995	+3.2	+0.1

Year	Impact to GDP, in million EUR	Impact to GDP, as %
1996	+4.0	+0.1
1997	+5.0	+0.1
1998	+5.9	+0.1
1999	+6.1	+0.1
2000	+7.0	+0.1
2001	+7.2	+0.1
2002	+7.4	+0.1
2003	+8.3	+0.1
2004	+10.8	+0.1
2005	+15.2	+0.1
2006	+21.0	+0.1
2007	+26.0	+0.1
2008	+25.6	+0.1
2009	+19.9	+0.1
2010	+20.6	+0.1
2011	+28.5	+0.1
2012	+33.4	+0.2
2013	+38.3	+0.2
2014	+49.5	+0.2
2015	+52.4	+0.2
2016	+51.8	+0.2
2017	-	-

Impact of changes on GDP at current prices by years is fluctuating **from +0.1 % to +0.2 %**. Adjustment is not needed for 2017 as costs for renting land are already excluded from intermediate consumption in calculation of GDP in the respective year, which is based on annual data sources.

## 2. Annual routine revision

Additionally, annual routine revisions were carried out. Preliminary estimates of 2018 from quarterly data sources was revised using estimates from annual data sources.

All changes related to GNI reservations described in this document were taken into account, also in estimates of 2018, but, as the estimates obtained using previous methods is not available, it is not possible to separate impact of reservations from the current revision.

Additional adjustment was also carried out for estimation of 2017 because, when preparing SUT of 2014 – 2016 it was found out that estimate of GDP lacks data on output produced by self-employed persons and intermediate consumption related to that output in separate activities (health care; sports activities, entertainment and recreation activities; other personal service activities).

Taking into account that new GDP estimate of 2018 was obtained from annual data sources, also GDP estimate of 2019, that was obtained using short-term (quarterly) data sources, was revised.