



National Accounts (NA)

Revision analysis

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List of contents

1	<u>INTRODUCTION</u>	<u>3</u>
1.1	PURPOSE OF DOCUMENT	3
1.2	NA REVISION POLICY	3
2	<u>REVISION OF AUGUST 2023</u>	<u>3</u>
2.1	EXPLANATORY NOTES ON THE REVISION	3
2.2	IMPACT ON RESULTS	3
3	<u>REVISION OF AUGUST 2022</u>	<u>3</u>
3.1	EXPLANATORY NOTES ON THE REVISION	3
3.2	IMPACT ON RESULTS	4
4	<u>REVISION OF AUGUST 2021</u>	<u>5</u>
4.1	EXPLANATORY NOTES ON THE REVISION	5
4.2	IMPACT ON RESULTS	5
5	<u>BRIEF EXPLANATION OF PREVIOUS REVISIONS</u>	<u>5</u>
6	<u>IMPACT BY TYPE OF REVISION</u>	<u>6</u>

1 Introduction

1.1 Purpose of document

Revisions of the national accounts (NA) are continuously updated in the present document, thus providing an overview of developments. A new chapter (revision of <month, year> with two sub-chapters ("Explanatory notes on the revision" and "Impact on results") are added on each revision. Revisions are organised from most recent to oldest. This documentation was compiled as part of the FSO's new 2020 revision policy¹. Revisions carried out before 2021 have not always been documented in the same detail. However, they can be briefly explained in the last chapter.

1.2 NA revision policy

The national accounts revision policy² adheres to the international schedule, which provides for a **benchmark revision** every five years. At the same time as benchmark revisions, the data sources are also completely updated. A comprehensive overhaul takes place every ten to fifteen years, as conceptual changes are made. Additional **non-scheduled revisions** are carried out in particular when important data sources that affect the calculation of the national accounts are revised. Every year, a **routine revision** of the annual data takes place in August, updating the results of the last two years (t-3 and t-2) with the latest available data.

2 Revision of August 2023

2.1 Explanatory notes on the revision

In August 2023, a **routine revision** of the national accounts for the last two years (2020, 2021) was carried out.

2.2 Impact on results

While the 2020 results were only slightly revised, the revision of GDP in 2021 was exceptionally strong.

At previous year's prices (i.e., adjusted for the price effect), GDP growth rose from 4.2% to 5.4%. This +1.2 percentage point adjustment is mainly due to the inclusion of more complete data for

multinational enterprises (MNEs) active in the manufacturing industry.

For example, growth in the pharmaceutical industry has been adjusted upwards following new information concerning a limited number of MNEs. The corrections result from adjustments to their business models plus the volatility and increasing importance of revenue such as licence, patent and fixed assets. Another reason was the establishment of new foreign MNEs in Switzerland which were not included in the initial data.

The new data also reinforced the already exceptional results seen in the manufacture of computer, electronic and optical products (including watches).

In addition to the changes in the production approach of GDP, the expenditure approach experienced a particularly strong upward revision of the trade balance. These changes in the current account are due to transit trade.

MNEs are playing an increasingly important role in the Swiss economy. Their business model is often complex, fragmented across several countries, and changes regularly to adapt to international economic and fiscal realities. The Federal Statistical Office is currently working to take better account of these globalisation-related phenomena. To achieve this, it strives to intensify its collaboration with the major MNEs and review its processes to ensure the continued provision of relevant and high-quality statistics in the future. However, the changes linked to globalisation and digitalisation currently remain a major challenge for economic statistics.

3 Revision of August 2022

3.1 Explanatory notes on the revision

A **non-scheduled revision** of the national accounts for the entire time series was carried out in August 2022. This was due to a comprehensive revision of the balance of payments statistics³. As one of the main sources for the national accounts, the revision of these statistics has a considerable impact on its estimates.

¹ FSO (2020): *The Federal Statistical Office's revision policy*, FSO Neuchâtel: <https://www.bfs.admin.ch/bfs/de/home/grundlagen/revisionspolitik.assetdetail.23625152.html> (available in German and French only)

² FSO (2019): *National Accounts Revisions*, FSO Neuchâtel: <https://www.bfs.admin.ch/bfs/en/home/statistics/national-economy/national-accounts.assetdetail.9186424.html>

³ The balance of payments is published by the Swiss National Bank (SNB). More information on the balance of payments revisions: https://data.snb.ch/en/topics/aube/doc/changerev_aube

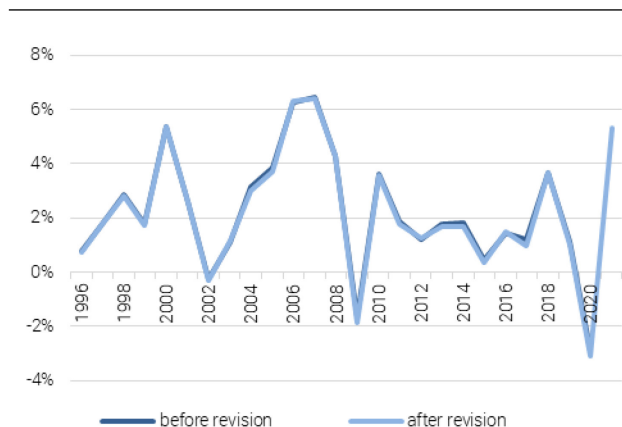
This revision is not included in the internationally harmonised revision schedule (planned benchmark revision in 2024) and is therefore regarded as non-scheduled.

3.2 Impact on results

The revision has a minor impact on the business cycle analysis, with no substantial difference to the annual change in gross domestic product (GDP see Figure 1).

Figure 1: Gross domestic product

At current prices, unadjusted, change on previous year in %

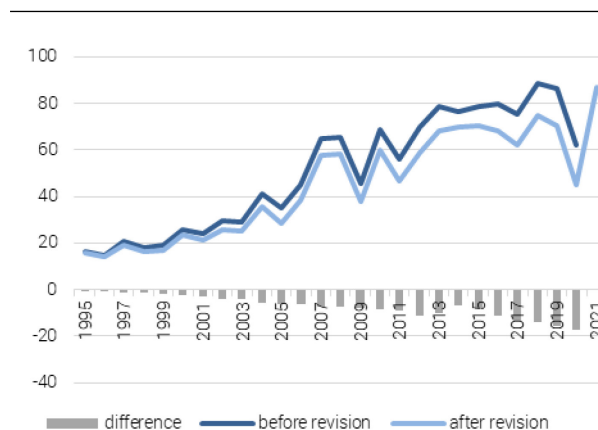


Source: FSO, National Accounts

The level of GDP, however, is lower over the entire period. In 2020, for example, GDP at current prices was CHF 12 billion (-1.6%) lower than before the revision. This is primarily due to the upward adjustment of the balance of payments in service imports. Higher imports have a negative impact on the **expenditure side of GDP**, as the trade balance falls. For example, from 1995-2020, the trade surplus was an average 13 percent lower than reported prior to the revision, with the strongest revision affecting the last five years (see Figure 2).

Figure 2: Trade balance

At current prices, unadjusted, in CHF billion

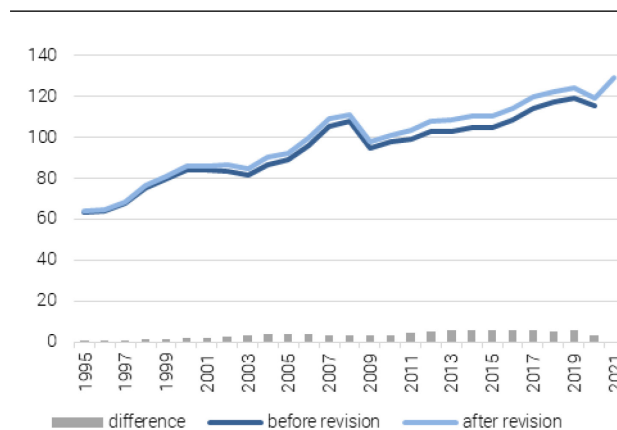


Source: FSO, National Accounts

The upward revision in service imports mainly concerns payments for foreign licences and research and development (R&D). Increased imports of R&D are directly reflected in increased acquisitions of fixed assets and software. Thus, the level of acquisitions of fixed assets and software is shown to be higher than before the revision, in 2020, for example, by CHF 5.4 billion (+4.6%). Since equipment investment has a positive impact on GDP, this neutralises the negative impact of increased R&D imports.

Figure 3: Acquisitions of fixed assets and software

At current prices, unadjusted, in CHF billion



Source: FSO, National Accounts

On the **production side of GDP**, the increased expenditure on foreign licences has a negative impact on the value added of certain economic activities because the revised intermediate consumption is higher. The chemical and pharmaceutical industry and wholesale trade are particularly affected by this.

4 Revision of August 2021

4.1 Explanatory notes on the revision

The national accounts were **routinely** revised. The most up-to-date sources available are used to revise the results for 2018 and 2019. One exception is gross national income, for which new results on capital income from the current account statistics have been integrated back to 2015.

4.2 Impact on results

The revision has only a very minor impact (less than 0.1%) on GDP. Gross national income, in contrast, was revised more heavily by up to –4.2% (CHF –30.8 billion). This is due to the downward revision to capital income from abroad (2015/2016) and sharply increased capital income paid to non-residents (2018/2019).

Table 1: Revision of important aggregates

At current prices, unadjusted

Percentage change compared with last publication

Aggregate	2015	2016	2017	2018	2019
Gross domestic product	0.00	0.00	0.00	0.05	0.04
Gross national income	-0.89	-0.91	0.44	-2.03	-4.21

Source: FSO, National Accounts

5 Brief explanation of previous revisions

Since 1997, the Swiss national accounts have been compiled according to the European System of Accounts (ESA) and are routinely revised every year. In addition, every few years⁴, within the framework of benchmark revisions, the national accounts undergo a fundamental adjustment. In 2020, for example, when new source data or revised data were used to ensure the coverage, structure and consistency between supply and use, thus defining a new base year. Two of the benchmark revisions were particularly comprehensive as the procedures were aligned with the latest version of the ESA. These conceptual adjustments took place in 2003 (introduction of ESA 1995) and 2014 (introduction of ESA 2010). Furthermore, non-scheduled revisions were carried out in 2005, 2012 and 2017 (see Table 2).

Table 2: Benchmark revisions and non-scheduled revisions before 2021

Year of publication	Type of revision	Concept	Main change
1997	benchmark	ESA 1978	Conceptual adjustments, introduction of the classification of economic activities NOGA 1995 ⁵
2003	benchmark	ESA 1995	Exclusion of revaluation gains, new estimate of financial services ⁶
2005	non-scheduled		Revision of the sequence of accounts without impact on GDP ⁷
2007	benchmark		Allocation of indirectly measured financial services by counterparty ⁸ ; from linear to geometric depreciation rates ⁹
2012	non-scheduled		Introduction of the Classification of Economic Activities (NOGA 2008) ¹⁰

⁴ Since the introduction of ESA2010, a 5-year interval is planned throughout Europe. The National Accounts for most European countries were revised in 2019. In Switzerland, this revision was postponed to 2020, however, in order to wait for the latest developments in a number of fundamental statistics.

⁵ FSO (1997): *National accounts, methods and concepts*, FSO Neuchâtel: <https://www.bfs.admin.ch/bfs/de/home/statistiken/kataloge-datenbanken/publikationen.assetdetail.341280.html> (available in German and French only)

⁶ FSO (2003): *Revision of the National Accounts, adaptation of the system of national accounts to the new economic realities (introduction of ESA 95)*, FSO Neuchâtel: <https://www.bfs.admin.ch/bfs/de/home/statistiken/kataloge-datenbanken/publikationen.assetdetail.337705.html> (available in German and French only)

FSO (2003): *National Accounts, An Introduction to Theory and Practice: ESA methods and concepts*, FSO Neuchâtel: <https://www.bfs.admin.ch/bfs/de/home/statistiken/kataloge-datenbanken/publikationen.assetdetail.337694.html> (available in German and French only)

⁷ FSO (2005): *National Accounts, results 1998 to 2003*, FSO Neuchâtel: <https://www.bfs.admin.ch/bfs/de/home/statistiken/kataloge-datenbanken/publikationen.assetdetail.342343.html> (available in German and French only)

FSO (2005): *Production account Switzerland, provisional results 2003 and definitive results 2002*, FSO Neuchâtel: <https://www.bfs.admin.ch/bfs/de/home/statistiken/kataloge-datenbanken/publikationen.assetdetail.342495.html> (available in German and French only)

⁸ FSO (2007): *Financial services, A new method for measuring financial services indirectly measured*, FSO Neuchâtel: <https://www.bfs.admin.ch/bfs/de/home/statistiken/kataloge-datenbanken/publikationen.assetdetail.343831.html> (available in German and French only)

⁹ FSO (2007): *Revision of the National Accounts, Main Changes*, FSO Neuchâtel: <https://www.bfs.admin.ch/bfs/de/home/statistiken/kataloge-datenbanken/publikationen.assetdetail.343835.html> (available in German and French only)

FSO (2008): *Revision of the production account, The main methodological and conceptual changes*, FSO Neuchâtel: <https://www.bfs.admin.ch/bfs/de/home/statistiken/kataloge-datenbanken/publikationen.assetdetail.344221.html> (available in German and French only)

¹⁰ FSO (2012): *2012 revision of the National Accounts. Main Changes. Methodology report*, FSO Neuchâtel: <https://www.bfs.admin.ch/bfs/de/home/statistiken/kataloge-datenbanken/publikationen.assetdetail.348739.html> (available in German and French only)

2014	benchmark	ESA 2010	Expenditure on research and development and military expenditure now considered as fixed capital formation (formerly intermediate consumption) ¹¹
2017	non-scheduled		Revised data on expenditure for research and development and for pension funds
2020	benchmark		Consistency between supply and use; Coverage of activities; Inclusion of micro-enterprises and illegal activities ¹²

6 Impact by type of revision

Depending on the type of revision, there are clear differences in the effects of revisions since 2012. In routine revisions, the level of GDP changed by a maximum of $\pm 1.6\%$. On average routine revisions led to a 0.09% change in GDP. With benchmark revisions, however, the GDP level rose by up to 6.1% . This was the case when the ESA 2010 was introduced in 2014, when the new

classification of research and development as fixed capital formation increased the expenditure side of GDP. In the benchmark revisions in 2014 and 2020, changes led to an increase in reported GDP. The average revision was 4.2% . Non-scheduled revisions had a lesser effect on GDP, with a maximum revision of -1.6% . Whereas the 2017 revision led to an average increase in GDP ($+0.3\%$), the 2022 revision resulted in a decrease (-0.7%).

¹¹ FSO (2014): *NA revision 2014: Main changes and effects*, FSO Neuchâtel: <https://www.bfs.admin.ch/bfs/de/home/statistiken/kataloge-daten-banken/publikationen.assetdetail.349612.html> (available in German and French only)

¹² FSO (2020): *2020 revision of the National Accounts: Main changes and structural and economic effects*, FSO Neuchâtel: <https://www.bfs.admin.ch/bfs/en/home/statistics/national-economy.assetdetail.14567108.html>