



Conversion of the index of weekly economic activity (WEA) for pre-crisis comparison

13 April 2021

The index of weekly economic activity (WEA) measures real economic activity in Switzerland in a given calendar week compared with the activity in the corresponding calendar week one year before. Economic activity in Switzerland suffered a severe and rapid slump in spring 2020. This results in a marked, positive base effect (Figure 1) in the WEA index from mid-March 2021. In the coming weeks, this effect will increase further, as the low point of the weeks of last year used for comparison was reached in April 2020. In order to ensure that the WEA index can still be interpreted easily, it is to be provided with a new basis for comparison. For this purpose, the WEA index is to be converted to a level-based series and published in comparison with the pre-crisis level each time, in addition to the current index with year-on-year comparison.

The variables for estimating the WEA are to be incorporated into the model in the form of year-on-year rates of change.¹ This is necessary to be able to identify an economic signal based on the weekly data, which fluctuates significantly in some cases. Accordingly, this results in an index series for the WEA compared with the previous year too. The level of the resulting series is not known straight away and has to be established afterwards. In the first stage, the quarterly real, seasonally adjusted GDP, which has also been adjusted for sports events, is interpolated to a weekly frequency using the Chow-Lin method.² Next, a base year to which the original WEA index is to be attached is determined. The year 2019 has been selected for this purpose because the development of the WEA was very similar to the GDP trend in this year and the input variables for 2019 are complete. Finally, a comparative period is chosen, which remains fixed until further notice for all weekly values in 2020 and 2021. In the same way as the quarterly GDP series, the fourth quarter of 2019 is to be defined as the pre-crisis level and will therefore serve as the basis for comparison for later weeks. To this end, the individual weeks of the interpolated GDP series for the fourth quarter of 2019 are averaged.

Legend: In calendar week 13 of 2021, the WEA value is 3.9. Economic activity is therefore still 1 % below the pre-crisis level, i.e. below the average of the weeks of the fourth quarter of 2019 (Figure 2). The average for the WEA in the first quarter of 2021 implies quarterly GDP growth of -0.5%.³ GDP would then still come in at around 2.2% below the pre-crisis level of the fourth quarter of 2019.

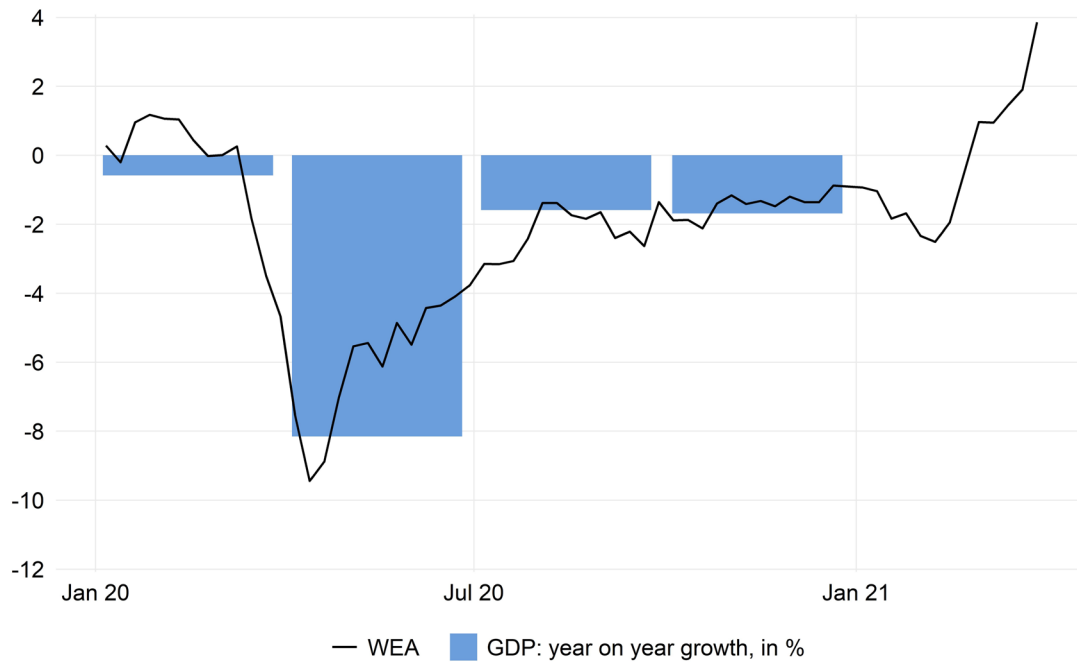
¹ https://www.seco.admin.ch/dam/seco/en/dokumente/Publikationen_Dienstleistungen/Publikationen_Formulare/Wirtschaftslage/Konjunkturtendenzen/Spezialthema/kt_2020_4_exkurs_wwa.pdf.download.pdf/KT_2020_4_Exkurs_WWA_en.pdf

² See <https://journal.r-project.org/archive/2013-2/sax-steiner.pdf>

³ The average WEA in the first quarter of 2021 is a forecast for GDP growth compared with the previous year's quarter. The GDP level can be extended with this forecast, enabling growth in the previous quarter to be determined.

Figure 1: Weekly economic activity

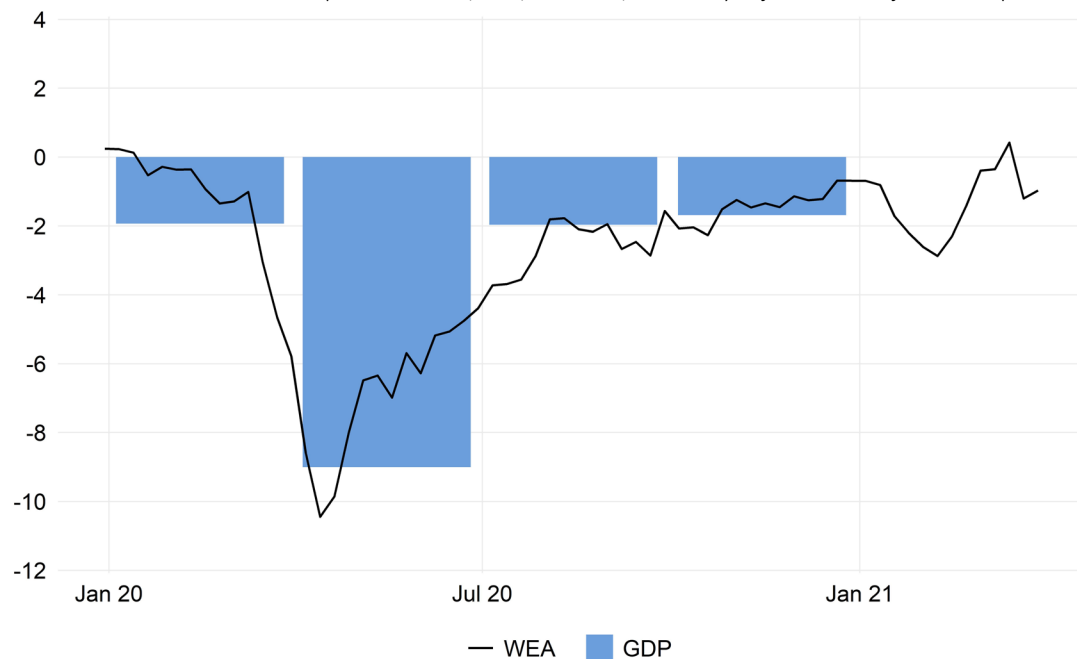
WEA: scaled, GDP: real, seasonally adjusted and adjusted for sports events, growth compared with previous year's quarter



Source: SECO

Figure 2: Economic activity relative to the pre-crisis level

Difference from the level in the fourth quarter of 2019, in %, GDP: real, seasonally adjusted and adjusted for sports events



Source: SECO

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