

## New base year 2021 for the index of services production

From 29 March 2024, with the publication of the provisional figures for January 2024, and in accordance with the European Business Statistics Regulation and its Implementing Regulation, the index of services production and the associated turnover indices are disseminated in reference and base 100 in 2021. Which means that the indices have an average of 100 over the year 2021 (instead of 2015 previously). Apart from the change of the reference year, the rebasing brings with it other changes, the main ones being detailed below.

### Update of the weights

For the index of services production (respectively the associated turnover indices) the weights are calculated on the basis of gross value added data (respectively production data) at base prices by industry from the annual National Accounts. The weights have been updated for the period 2018 to 2023 using now 2021 data from the annual National Accounts (instead of 2015 data before). As the effects of the health crisis have persisted after 2020, the activity breakdown of production in 2021 is significantly different from that in 2015 (Figure 1). Updating the weights with 2021 data thus leads to significant revisions in certain sectors.

Figure 1: Weights in overall trade (SPI) in base 2015 and in base 2021

Nace classification	Weight 2015	Weight 2021	Percent change
<b>Index of services production</b>	<b>10,000</b>	<b>10,000</b>	<b>0.0%</b>
<b>H Transportation and storage</b>	<b>1,504</b>	<b>1,506</b>	<b>0.1%</b>
49 Land transport...	715	596	-16.6%
50 Water transport	36	215	497.2%
51 Air transport	115	39	-66.1%
52 Warehousing and support for transportation	504	544	7.9%
53 Postal and courier activities	135	113	-16.3%
<b>I Accommodation and food service activities</b>	<b>870</b>	<b>609</b>	<b>-30.0%</b>
55 Accommodation	205	129	-37.1%
56 Food and beverage service activities	664	481	-27.6%
<b>J Information-communication</b>	<b>1,635</b>	<b>1,804</b>	<b>10.3%</b>
58 Publishing activities	208	244	17.3%
59 Motion picture, sound recording, music publishing	119	104	-12.6%
60 Programming and broadcasting activities	71	65	-8.5%
61 Telecommunications	415	376	-9.4%
62 Computer programming...	720	877	21.8%
63 Information services	102	137	34.3%
<b>L Real estate activities</b>	<b>964</b>	<b>915</b>	<b>-5.1%</b>
<b>M+N Business support</b>	<b>4,289</b>	<b>4,500</b>	<b>4.9%</b>
<b>M Professional, scientific and technical activities</b>	<b>2,540</b>	<b>2,677</b>	<b>5.4%</b>
69 Legal and accounting activities	502	549	9.4%
70 Activities of head offices and management consultancy	739	801	8.4%
71 Architecture and engineering activities	491	530	7.9%
72 Scientific research and development	559	559	0.0%
73 Advertising and market research	146	129	-11.6%
74 Other professional, scientific and technical activities	79	80	1.3%
75 Veterinary activities	26	27	3.8%
<b>N Administrative and support service activities</b>	<b>1,748</b>	<b>1,823</b>	<b>4.3%</b>
77 Rental and leasing activities	526	589	12.0%
78 Employment activities	502	543	8.2%
79 Travel agency, tour operator	35	13	-62.9%
80 Security and investigation	104	103	-1.0%
81 Services to building and landscape activities	245	262	6.9%
82 Other administrative and business support activities	336	313	-6.8%
<b>R+S Household services</b>	<b>738</b>	<b>667</b>	<b>-9.6%</b>
<b>R Arts, entertainment and recreation</b>	<b>460</b>	<b>439</b>	<b>-4.6%</b>
<b>S Other personal services</b>	<b>278</b>	<b>228</b>	<b>-18.0%</b>

For the previous rebasing in 2015, we innovated by not using constant weights over the entire index calculation period, but by using two different sets of weights for two sub-periods, the aim was to better reflect changes over time in the share of each sector within overall activity. With the current 2021 rebasing, there are 3 different sets of weights (2010, 2015 and 2021). 2010 weights are used for the aggregation of elementary indices between 2005 (respectively 1999 for turnover indices) and 2012, 2015 weights are used between 2013 and 2017, and 2021 weights are used from 2018. The calculation on the whole period is then achieved by chaining sub-series (computation of a chain-linking coefficient applied on the years 2013 and 2018).

**Update of the SA-WDA models**

The series are seasonally adjusted (SA) and working day adjusted (WDA). The corresponding seasonal and WD coefficients are estimated using the X13-Arima method of the JDemetra+ software at NACE rev. 2 class level. The SA-WDA indices of the higher-level positions are obtained by aggregating the SA-WDA indices of the classes that make them up. The models are updated every year. With the current 2021 rebasing, the main change concerns the estimation period for the models, which now begins in 2012 for all NAF rev. 2 classes, compared with 2005 previously for most of them.

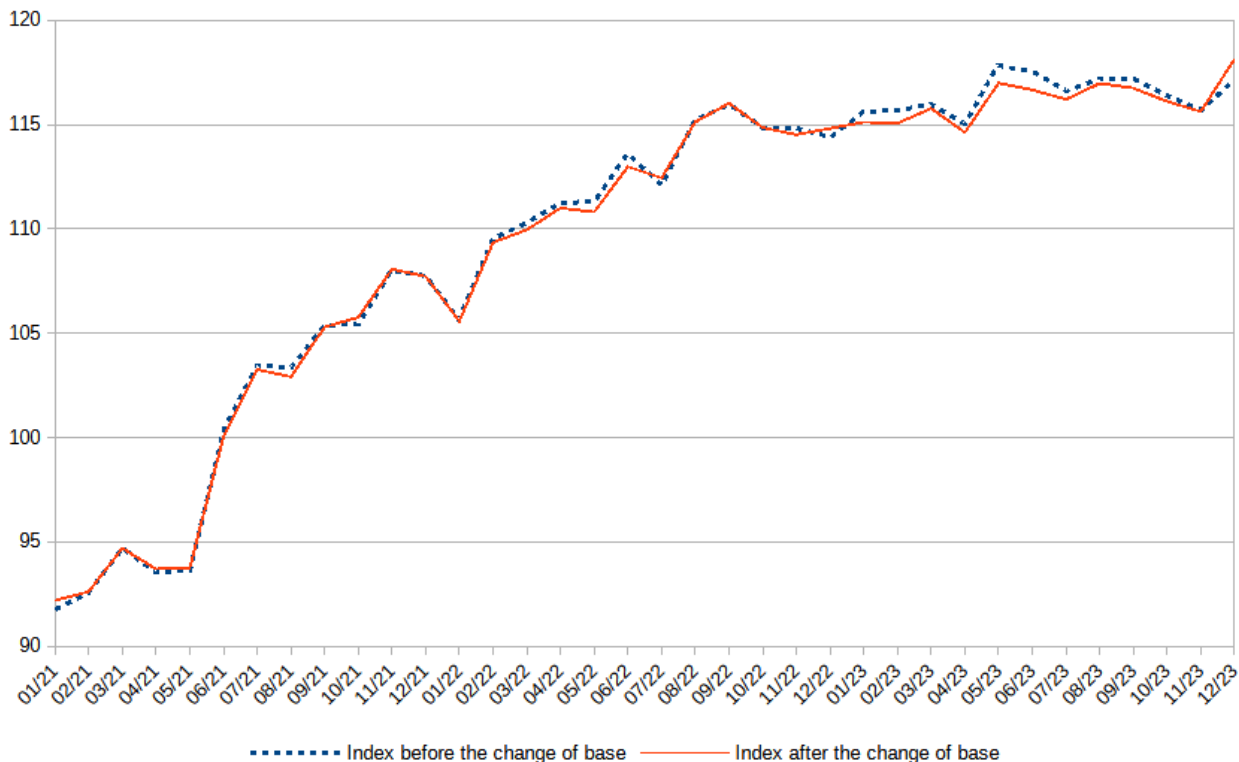
**Revisions**

The main factors that lead to revisions are:

- (i) the switch to year 2021 as pivot year for chain-linking;
- (ii) the update of the weights for the period 2020 to 2023;
- (iii) the update of the SA-WDA models.

For all services (PSI), revisions for the SA-WDA index lie between -0.8 and +1.0 index points over the 2021-2023 period (Figure 2). The revisions for monthly variations of the index lie between -0.8 et +1.0 percentage points over the 2021-2023 period.

Figure 2: Impact of the 2021 base change on the SA-WDA index of all services (PSI)

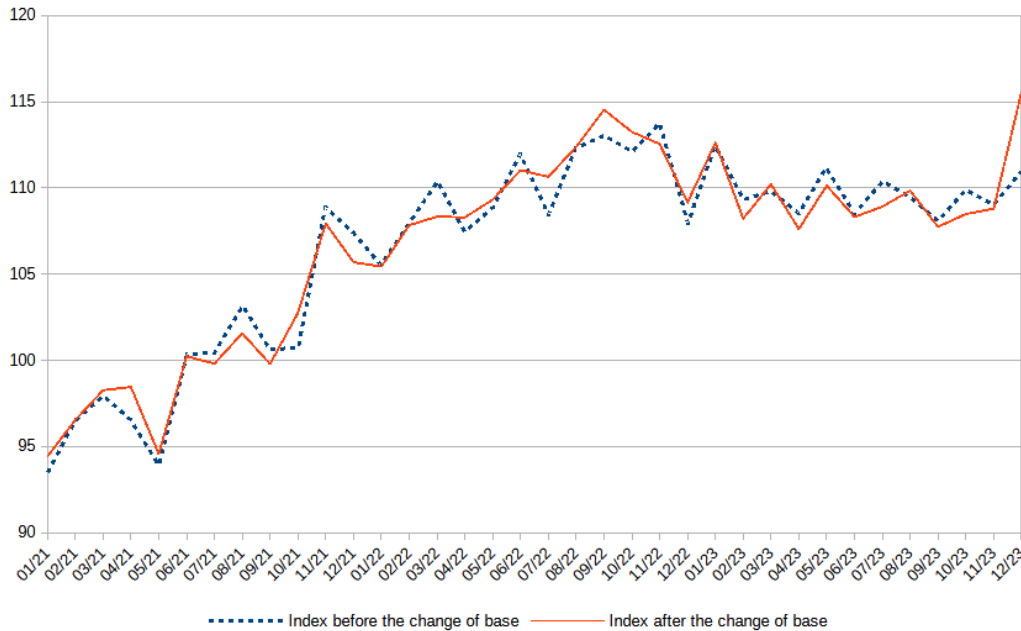


Note: the index before the change of base (in base 2015) has been divided by its average over the year 2021, to facilitate comparison by taking it back to the same base year as the 2021-based index.

Source: INSEE

For transportation and storage (H), revisions for the SA-WDA index lie between -2.1 and +4.6 index points over the 2021-2023 period (Figure 3). The revisions for monthly variations of the index lie between -3.1 et +4.5 percentage points over the 2021-2023 period.

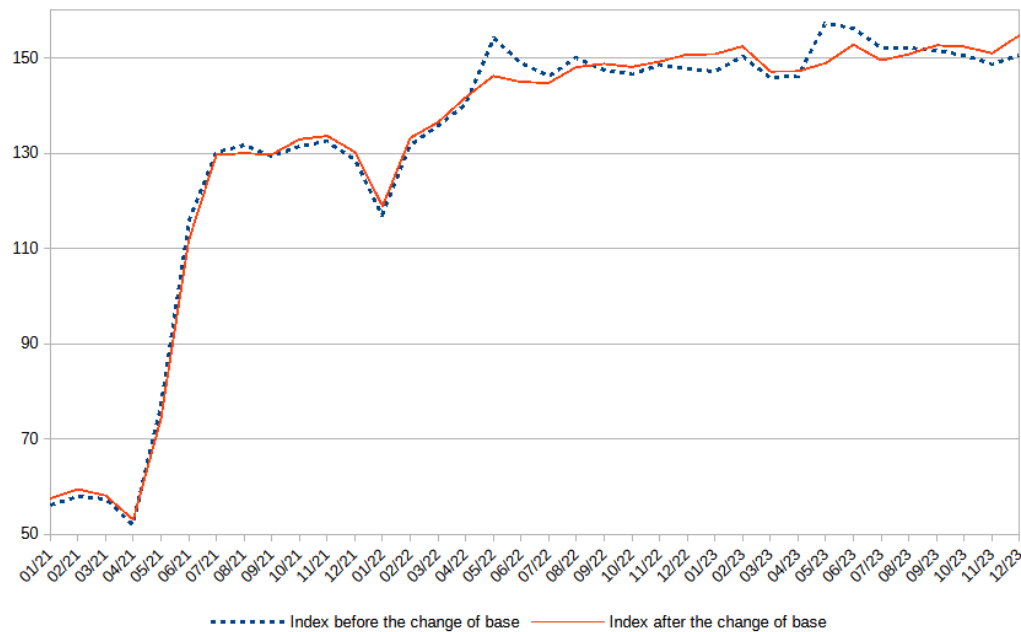
Figure 3: Impact of the 2021 base change on the SA-WDA index of transportation and storage (H)



Note: the index before the change of base (in base 2015) has been divided by its average over the year 2021, to facilitate comparison by taking it back to the same base year as the 2021-based index.  
Source: INSEE

For accommodation and food service activities (I), revisions for the SA-WDA index lie between -8.2 and +4.2 index points over the 2021-2023 period (Figure 4). The revisions for monthly variations of the index lie between -8.6 et +4.1 percentage points over the 2021-2023 period.

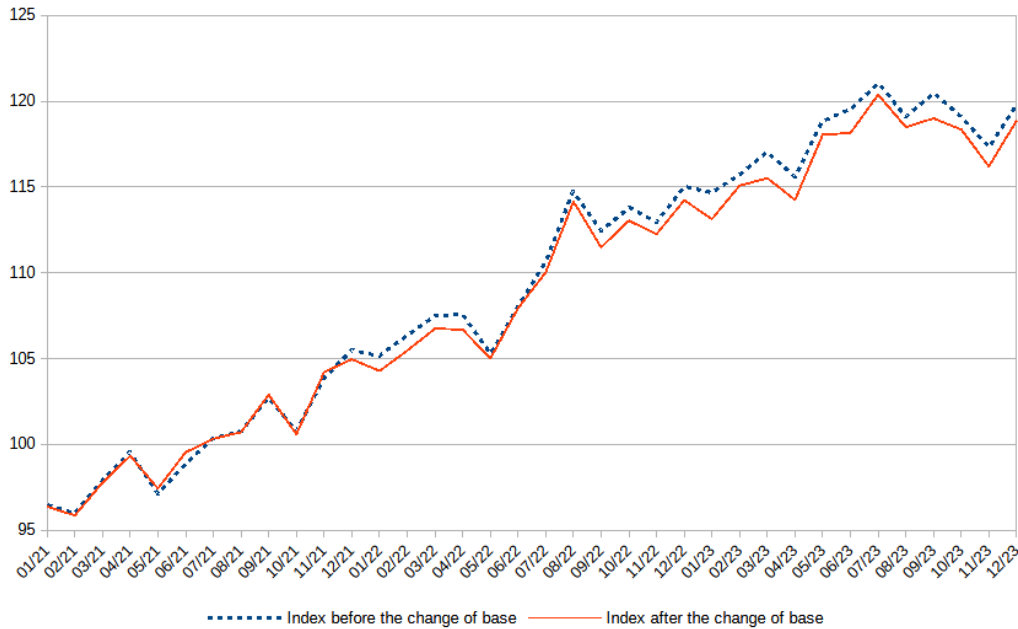
Figure 4: Impact of the 2021 base change on the SA-WDA index of accommodation and food service activities (I)



Note: the index before the change of base (in base 2015) has been divided by its average over the year 2021, to facilitate comparison by taking it back to the same base year as the 2021-based index.  
Source: INSEE

For information-communication (J), revisions for the SA-WDA index lie between -1.5 and +0.6 index points over the 2021-2023 period (Figure 5). The revisions for monthly variations of the index lie between -0.9 et +0.8 percentage points over the 2021-2023 period.

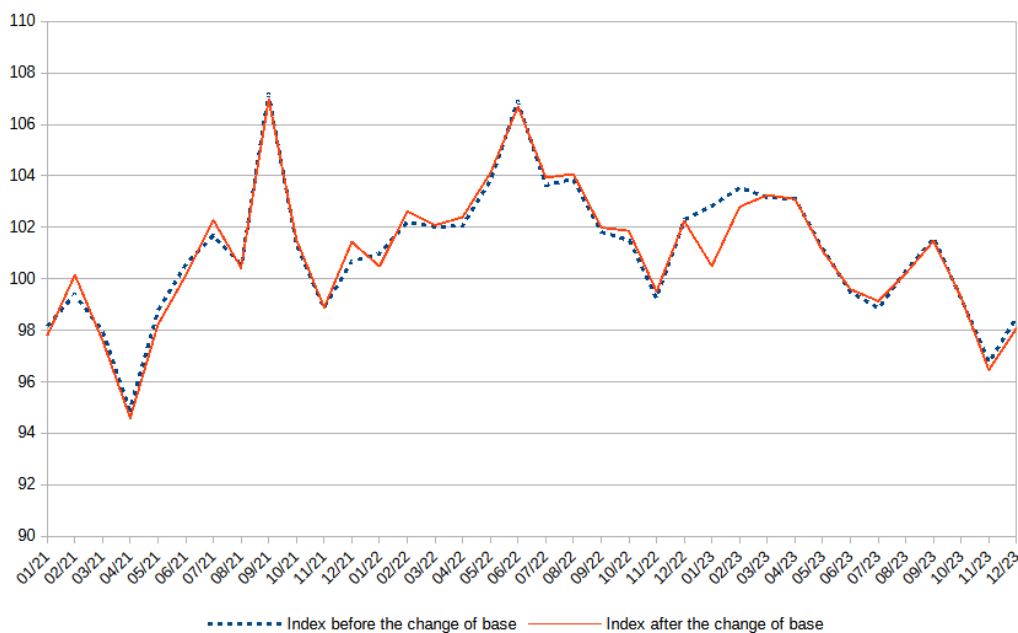
Figure 5: Impact of the 2021 base change on the SA-WDA index of information-communication (J)



Note: the index before the change of base (in base 2015) has been divided by its average over the year 2021, to facilitate comparison by taking it back to the same base year as the 2021-based index.  
Source: INSEE

For real estate activities (L), revisions for the SA-WDA index lie between -2.3 and +0.8 index points over the 2021-2023 period (Figure 6). The revisions for monthly variations of the index lie between -2.2 et +1.6 percentage points over the 2021-2023 period.

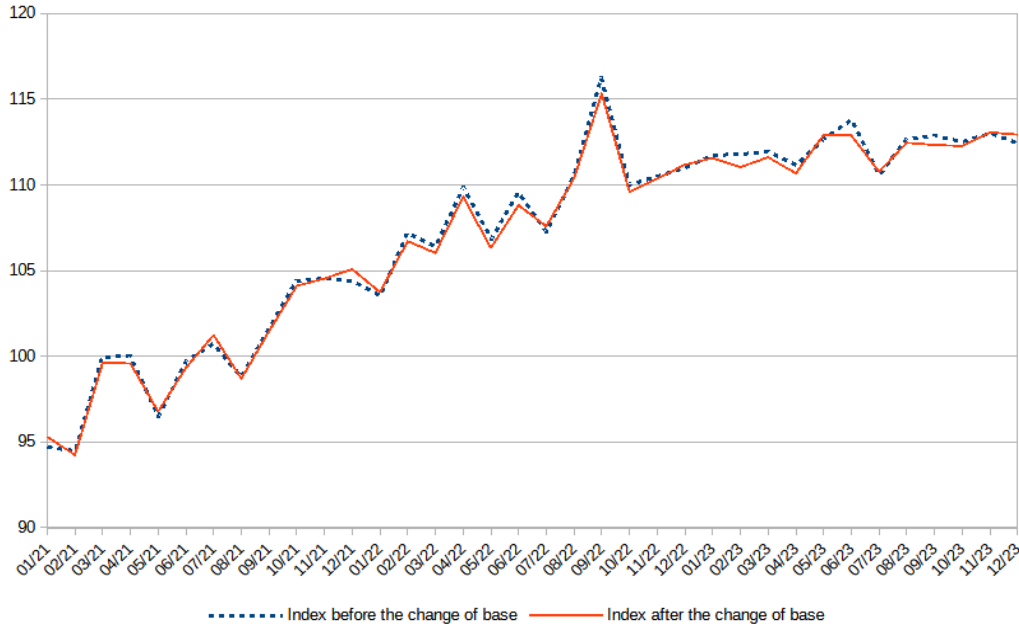
Figure 6: Impact of the 2021 base change on the SA-WDA index of real estate activities (L)



Note: the index before the change of base (in base 2015) has been divided by its average over the year 2021, to facilitate comparison by taking it back to the same base year as the 2021-based index.  
Source: INSEE

For professional, scientific and technical activities (M), revisions for the SA-WDA index lie between -0.9 and +0.7 index points over the 2021-2023 period (Figure 7). The revisions for monthly variations of the index lie between -1.0 et +1.1 percentage points over the 2021-2023 period.

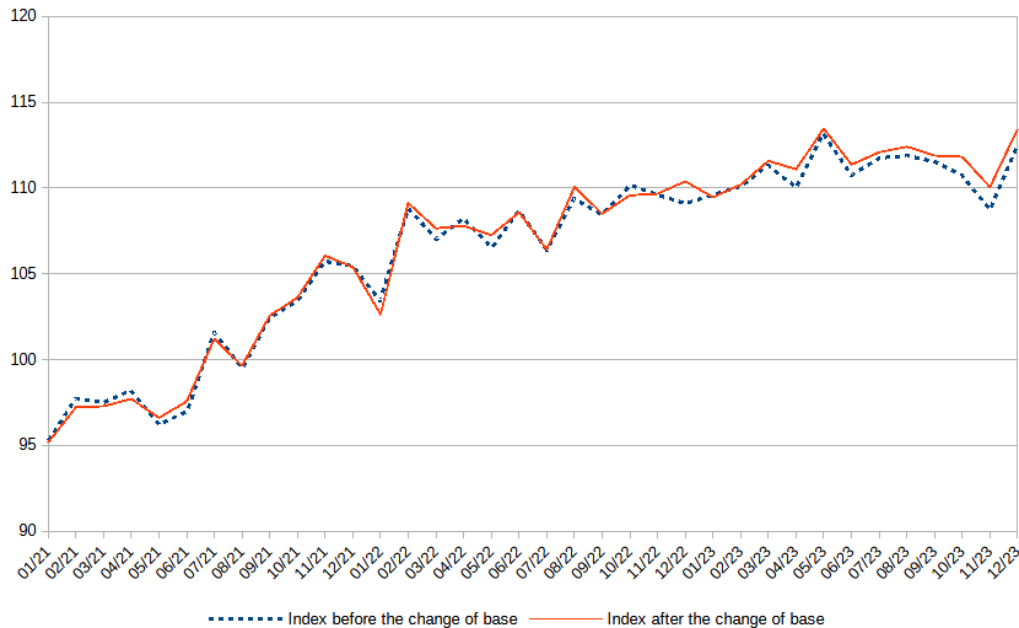
Figure 7: Impact of the 2021 base change on the SA-WDA index of professional, scientific and technical activities (M)



Note: the index before the change of base (in base 2015) has been divided by its average over the year 2021, to facilitate comparison by taking it back to the same base year as the 2021-based index.  
Source: INSEE

For administrative and support service activities (N), revisions for the SA-WDA index lie between -0.8 and +1.3 index points over the 2021-2023 period (Figure 8). The revisions for monthly variations of the index lie between -1.3 et +1.2 percentage points over the 2021-2023 period.

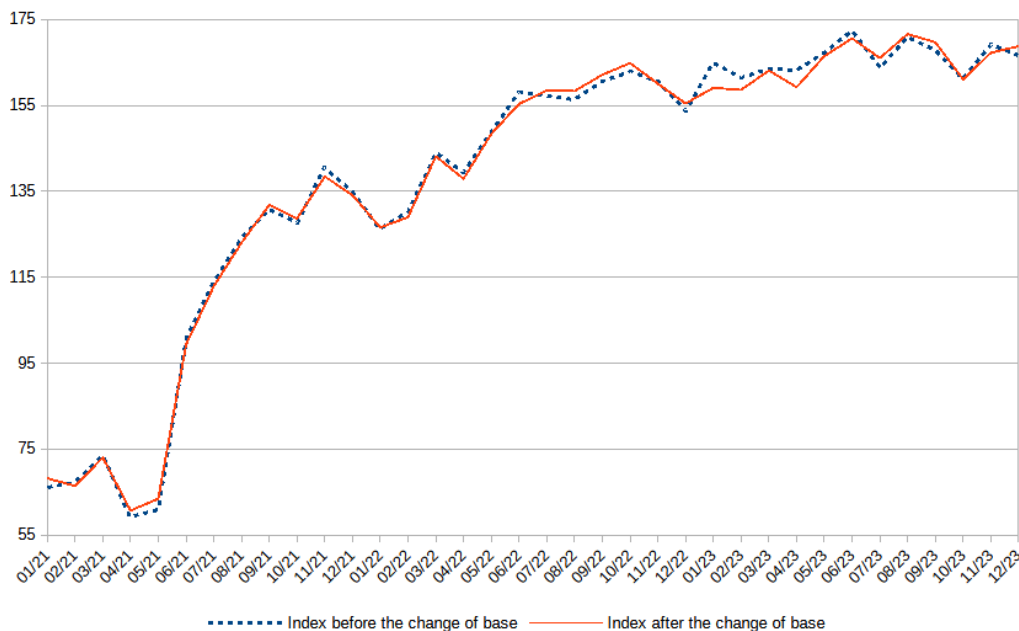
Figure 8: Impact of the 2021 base change on the SA-WDA index of administrative and support service activities (N)



Note: the index before the change of base (in base 2015) has been divided by its average over the year 2021, to facilitate comparison by taking it back to the same base year as the 2021-based index.  
Source: INSEE

For art, entertainment and recreation (R), revisions for the SA-WDA index lie between -5.8 and +2.6 index points over the 2021-2023 period (Figure 9). The revisions for monthly variations of the index lie between -9.5 et +2.6 percentage points over the 2021-2023 period.

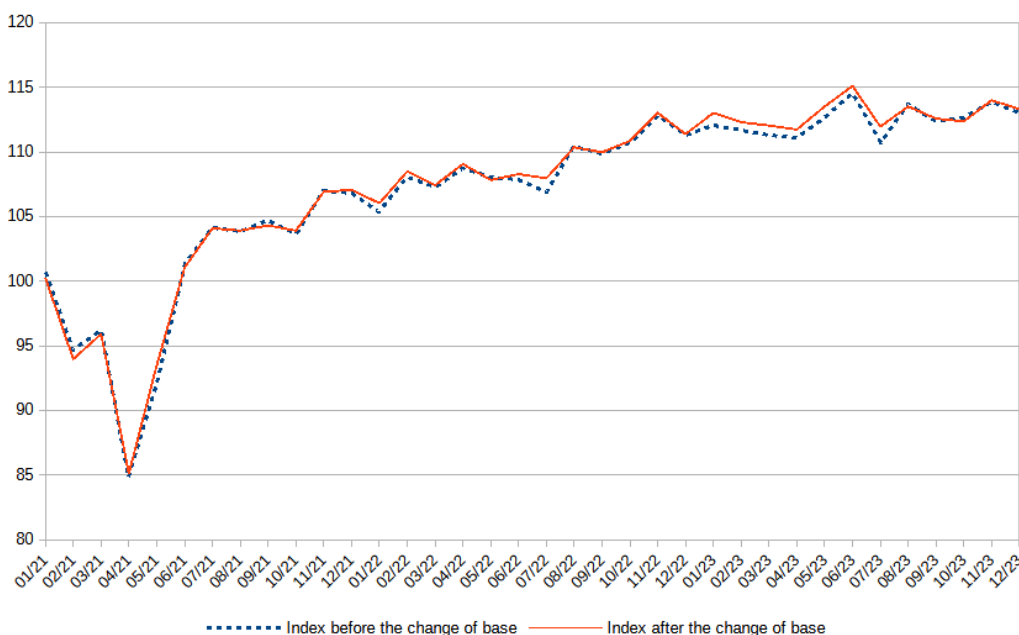
Figure 9: Impact of the 2021 base change on the SA-WDA index of art, entertainment and recreation (R)



Note: the index before the change of base (in base 2015) has been divided by its average over the year 2021, to facilitate comparison by taking it back to the same base year as the 2021-based index.  
Source: INSEE

For other personal services (S), revisions for the SA-WDA index lie between -0.7 and +1.2 index points over the 2021-2023 period (Figure 10). The revisions for monthly variations of the index lie between -2.0 et +1.3 percentage points over the 2021-2023 period.

Figure 10: Impact of the 2021 base change on the SA-WDA index of other personal services (S)



Note: the index before the change of base (in base 2015) has been divided by its average over the year 2021, to facilitate comparison by taking it back to the same base year as the 2021-based index.  
Source: INSEE