

## Equitable and sustainable well-being in Italy, an overview<sup>1</sup>

### 1. Introduction

The BES report, based on the system of indicators launched in 2010 by Istat in collaboration with CNEL to measure equitable and sustainable well-being, provides a complete picture of the well-being of our society in the 12 dimensions identified as relevant for its measurement. The system includes 152 indicators, some of which have been updated over time to adapt to changes, taking advantage of the introduction of new questions in the surveys carried out by Istat. Thanks to this design work, for example, from 2021 onwards, the questionnaire of the Aspects of Daily Life survey has been supplemented with new questions that allow to deepen the analyses presented in this report by monitoring new phenomena. These include the sense of democracy, analysed in the Politics and institutions chapter, and satisfaction with working from home, including an analysis of advantages and disadvantages perceived by workers, in the Work and life balance chapter. The richness of the analyses presented in this volume makes it possible to identify strengths or weaknesses on which to base policy interventions to ensure that levels of well-being are equitably distributed and do not deteriorate over time. In this way, comprehensive and structured information is made available to support the public debate, facilitating the monitoring of evolution of well-being conditions over time in terms of starting levels, widening or narrowing of gaps and disparities across regions, gender and age groups, also in comparison with Europe<sup>2</sup>.

In this edition of the BES report, in which about half of the indicators have been updated to 2022, the introductory chapter offers a synthetic picture of well-being in Italy, describing the recent trends of the indicators in the 12 domains compared to 2019. The analysis focuses in particular on those indicators for which the recovery from the effects of the pandemic is not yet complete, while highlighting the positive developments that are also due to the strategies adopted to deal with the crisis. The report also highlights key areas of concern where efforts to catch up and close persistent gaps remain insufficient. Finally, a special focus is given to an in-depth analysis of three perspectives of the BES indicators that allow us to monitor inequalities and trends in the distribution of well-being: territorial, gender and generational. Since its inception, the BES has provided indicators broken down by a number of characteristics that allow measuring the equity of well-being and monitor inequalities. These characteristics coincide with the three transversal axes of the National Recovery and Resilience Plan (NRRP), and for this reason the analyses presented in the following paragraphs of this chapter constitute a tool that also facilitates a useful reading of the data inherent in the priorities of the NRRP.

The 12 thematic chapters begin with a summary showing the evolution of the indicators up to 2019, which is taken as the reference year for the pre-pandemic situation. It then analyses the evolution of the indicators in the two years in which the impact of the pandemic was

<sup>1</sup> This chapter was edited by Lorenzo Di Biagio, Romina Fraboni, Maria Clelia Romano and Alessandra Tinto, with contributions from Carmen Federica Conte and Stefania Taralli.

<sup>2</sup> It should be borne in mind that the number of BES indicators available at European level is limited and does not reflect a representative selection of the wider set of indicators used to measure well-being in Italy.

most evident, 2020 and 2021<sup>3</sup>, and examines whether the recent evolution has allowed the pre-pandemic situation to be restored. The thematic chapters then analyse the differences in the evolution of the well-being indicators between different population groups (by gender, age group and level of education) and between territories, in order to identify inequalities and gaps.

## 2. The evolution of well-being during and after the pandemic

The evaluation of the evolution of the indicators between 2019, the year considered as a benchmark of the pre-pandemic situation, and the most recent available data, allows for an initial and immediate summary measure that reflects the most recent evolution in each domain.

Five profiles of evolution are considered in the analysis: indicators that have improved both between 2019 and 2021 and between 2021 and 2022 (highlighted in dark green in the graphs), indicators for which the latest update shows a better situation than in 2019, but after a discontinuous evolution between the two periods considered, or for which the 2022 update is not yet available (light green), indicators for which the most recent figure is stable compared to 2019 (grey)<sup>4</sup>, indicators with a discontinuous trend that do not recover the 2019 level at the end of the period (light red), indicators that steadily deteriorate over the two periods considered (2019-2021 and 2021-2022) (dark red).

More than half (58) of the well-being indicators for which data is available for comparison<sup>5</sup> show an improvement in the latest available year compared with 2019, a third are at a worse level than in 2019, while the remaining 13.8% remain stable at pre-pandemic levels (Figure 1).

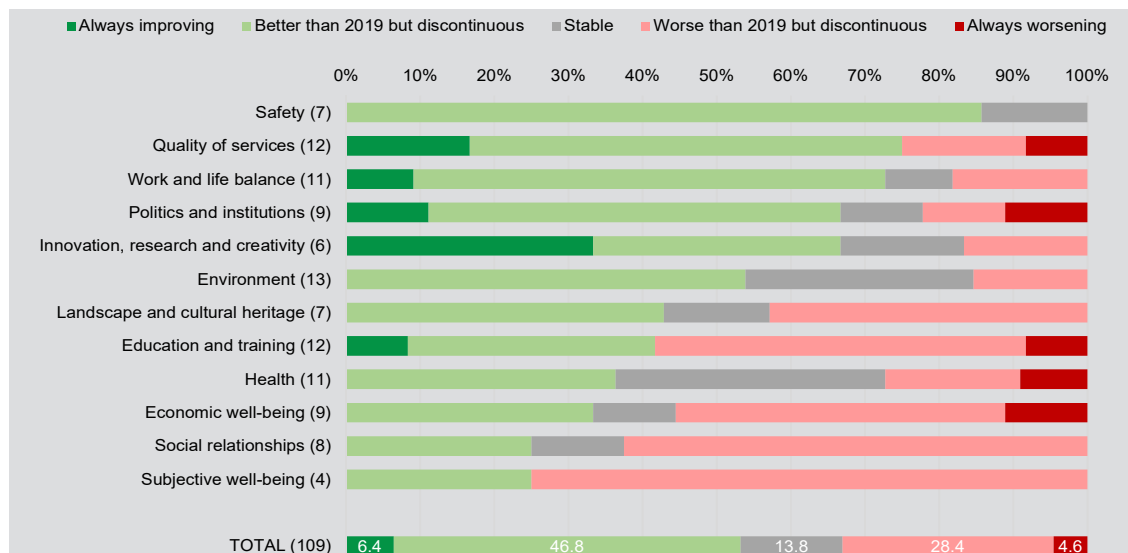
Progress is most widespread in the domains of Safety, Quality of services, and Work and life balance (more than 72% of indicators improve compared to 2019). This is followed by the domains Politics and institutions and Innovation, research and creativity, with two-thirds of the indicators improving. Among the domains showing a more critical trend overall over the last three years, with most indicators worsening, are Social relationships, Subjective well-being, Education and training, and Economic well-being. The Health and Environment domains are in an intermediate situation: in the former, around 36% of indicators have remained stable, a similar proportion of indicators have improved, but more than a quarter are at worse levels than in 2019; in the latter, the proportion of indicators that have remained stable remains considerable (around 31%), but more than half have improved compared to the pre-pandemic period. The Landscape and cultural heritage domain also shows mixed trends, with equal proportions of indicators improving and deteriorating (around 43%).

<sup>3</sup> We consider the pandemic period as a whole, without distinguishing the analysis for 2020 and 2021, in order to have a global view, as in some cases the impact of the pandemic on well-being was more evident in 2020, and in others in 2021.

<sup>4</sup> Between -1% and +1% the change is considered stable. The polarity of the indicator has been taken into account in the calculation of the change in order to consider the improvement or worsening in terms of well-being.

<sup>5</sup> 109 indicators out of the total of 152.

Figure 1. Evolution of Bes indicators between 2019 and 2022 by well-being domain. Percentage of total comparable indicators (a)



Source: Istat, Bes indicators

(a) For each domain, the number of comparable indicators between 2019 and 2022 (or 2021 if more recent data are not available) is given in brackets. Between -1% and +1% the change is considered stable. The polarity of the indicator has been taken into account in the calculation of the change in order to consider the improvement or worsening in terms of well-being.

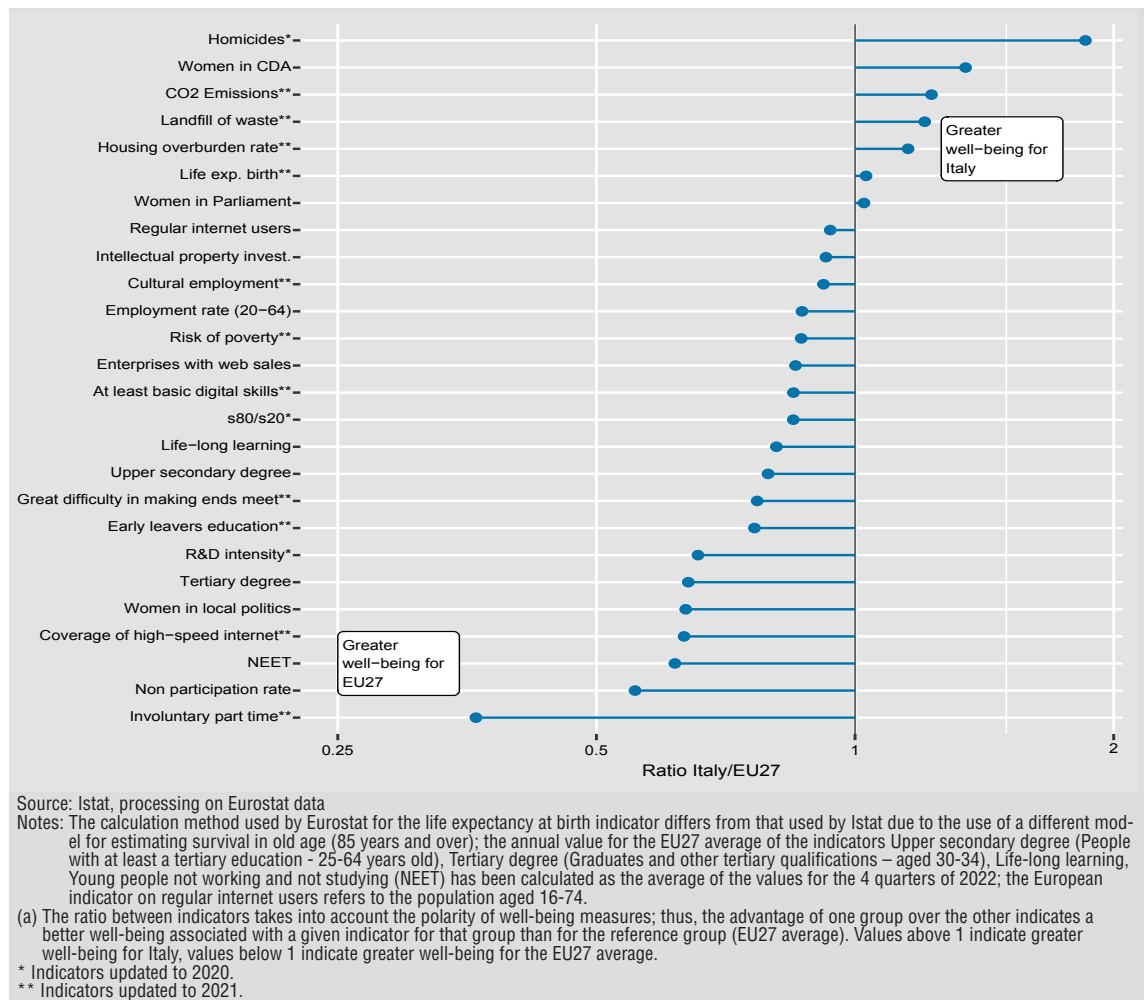
BES indicators are available for comparison with the EU27 average in a small number of cases, but it is also useful to consider this benchmark, which allows us to identify some other critical issues. Figure 2 shows, for comparable indicators, the ratio between Italy's value and that of the EU27 average in the most recent available year. The ratio, which takes into account the polarity of the indicators, is greater than one when the level of the indicator indicates an advantage for Italy in terms of well-being (right-hand side of the figure) and less than one when it indicates a disadvantage for Italy with respect to the EU27 average (left-hand side of the figure).

Most of the BES indicators available for comparison with the average of European countries (EU27) show a worse situation for Italy. This is particularly the case for some indicators in the areas of Education and training and Work and life balance. These include the share of 15-29-year-olds who are not in education, training or employment (NEET), which reaches 19.0% in Italy compared with 11.7% for the EU27 average, and the share of 30-34-year-olds who have completed tertiary education, which is 27.4% in Italy compared with 42.8% for the EU27 average. With regard to the labour force, the Italian employment rate in 2022 is around 10 percentage points lower than the European average (74.7%), with a particularly large gap for women (55.0% in Italy compared with 69.4% for the EU27 average).

Italy's disadvantage in the context of the EU27 is also noted in some indicators of Economic well-being updated to 2021, such as the risk of poverty and great difficulty in making ends meet, or to 2020, such as net income inequality (s80/s20).

One of the indicators where Italy performs better in terms of well-being when compared with the EU27 average is the homicide rate, which, at 0.5 per 100,000 inhabitants in 2020, is well below the EU27 average (0.9). In addition, Italy remains at the top of the ranking of countries in terms of survival, with life expectancy at birth equals to 82.5 years (80.1 the EU27 average in 2021).

Figure 2. Ratio between Italy and the EU27 for available Bes indicators (a). Year 2022 (logarithmic scale)



### 3. Territorial differences

The territorial analysis, in addition to showing the North-South and Island gaps, allows us to go deeper by assessing the level of regional disparities for the BES indicators in combination with the dynamics of regions moving closer or further apart over time, in particular analysing whether and how the dynamics of territorial convergence/divergence have changed as a result of the pandemic.

A summary regional classification<sup>6</sup> of the indicators into five levels of well-being reveals a clear North-South divide (Figure 3). For the North-east, 60.5% of the indicators are in the medium-high and high levels of well-being and only 10.1% in the low and medium-low levels of well-being; for the South and Islands, on the other hand, most of the indicators are

6 For each indicator, the regional distribution of values is sorted and the regions are divided into 5 groups that are as homogeneous as possible (although they may differ in size) in order to maximise the between groups variability and minimise the within groups variability, according to Jenks' method of natural breaks. For each region, the percentage of indicators found in the different groups is considered, from the worst group (with the lowest level of well-being) to the best group (with the highest level of well-being). The calculation takes into account the polarity of each indicator, i.e. whether its increase has a positive or negative effect on well-being. Some indicators are excluded from the analysis (see the Methodological Annex).

in the low or medium-low levels (62.0% for the South and 58.1% for the Islands) and only a minority (19.4% for both breakdowns) are in the two most virtuous levels.

Figure 3. Bes indicators by level of well-being, region and geographic area. Latest available year. Percentage values

| REGIONS AND GEOGRAPHIC AREAS | Level of well-being |            |        |             |      | Total available indicators |
|------------------------------|---------------------|------------|--------|-------------|------|----------------------------|
|                              | low                 | medium-low | medium | medium-high | high |                            |
| Piemonte                     | 3.8                 | 22.9       | 32.1   | 30.5        | 10.7 | 131                        |
| Valle d'Aosta/Vallée d'Aoste | 13.4                | 16.5       | 19.7   | 22.8        | 27.6 | 127                        |
| Liguria                      | 3.8                 | 25.8       | 34.8   | 28.0        | 7.6  | 132                        |
| Lombardia                    | 9.2                 | 12.2       | 28.2   | 30.5        | 19.8 | 131                        |
| Bolzano/Bozen                | 9.3                 | 10.9       | 16.3   | 16.3        | 47.3 | 129                        |
| Trento                       | 3.9                 | 8.5        | 11.6   | 31.8        | 44.2 | 129                        |
| Veneto                       | 6.1                 | 16.8       | 28.2   | 30.5        | 18.3 | 131                        |
| Friuli-Venezia Giulia        | 3.8                 | 15.2       | 26.5   | 29.5        | 25.0 | 132                        |
| Emilia-Romagna               | 5.3                 | 15.9       | 29.5   | 28.8        | 20.5 | 132                        |
| Toscana                      | 3.0                 | 17.4       | 37.9   | 31.1        | 10.6 | 132                        |
| Umbria                       | 7.6                 | 16.8       | 27.5   | 35.9        | 12.2 | 131                        |
| Marche                       | 7.6                 | 18.2       | 30.3   | 29.5        | 14.4 | 132                        |
| Lazio                        | 9.1                 | 17.4       | 35.6   | 21.2        | 16.7 | 132                        |
| Abruzzo                      | 9.1                 | 27.3       | 37.9   | 17.4        | 8.3  | 132                        |
| Molise                       | 17.6                | 30.5       | 22.1   | 16.0        | 13.7 | 131                        |
| Campania                     | 40.2                | 25.8       | 14.4   | 9.8         | 9.8  | 132                        |
| Puglia                       | 25.0                | 38.6       | 17.4   | 12.9        | 6.1  | 132                        |
| Basilicata                   | 31.1                | 24.2       | 18.9   | 14.4        | 11.4 | 132                        |
| Calabria                     | 36.6                | 22.1       | 19.1   | 13.7        | 8.4  | 131                        |
| Sicilia                      | 37.1                | 31.1       | 13.6   | 12.9        | 5.3  | 132                        |
| Sardegna                     | 13.0                | 32.8       | 26.7   | 15.3        | 12.2 | 131                        |
| North-west                   | 0.8                 | 19.4       | 31.0   | 32.6        | 16.3 | 129                        |
| North-east                   | 0.8                 | 9.3        | 29.5   | 37.2        | 23.3 | 129                        |
| Centre                       | 1.5                 | 15.9       | 31.8   | 40.9        | 9.8  | 132                        |
| South                        | 10.9                | 51.2       | 18.6   | 9.3         | 10.1 | 129                        |
| Islands                      | 16.3                | 41.9       | 22.5   | 14.0        | 5.4  | 129                        |

Source: Istat, Bes Indicators

### 3.1 Well-being trends by regions

A first aim of the analysis is to assess the level of regional inequality and to study the dynamics of regions converging or diverging over time in terms of well-being indicators. Inequality between regions can be measured by the coefficient of variation (CV), which quantifies the dispersion of a variable between regions in a given year. To assess the trend in this inequality index over time, the average of its annual variations can be used, with the sign changed to take account of the negative polarity of the CV (the smaller the CV, the lower the regional inequality). This gives the Annualised Rate of Convergence between regions (ARC), which, if positive, indicates a decrease in regional inequality and, if negative, an increase (see Methodological Annex for more details)<sup>7</sup>.

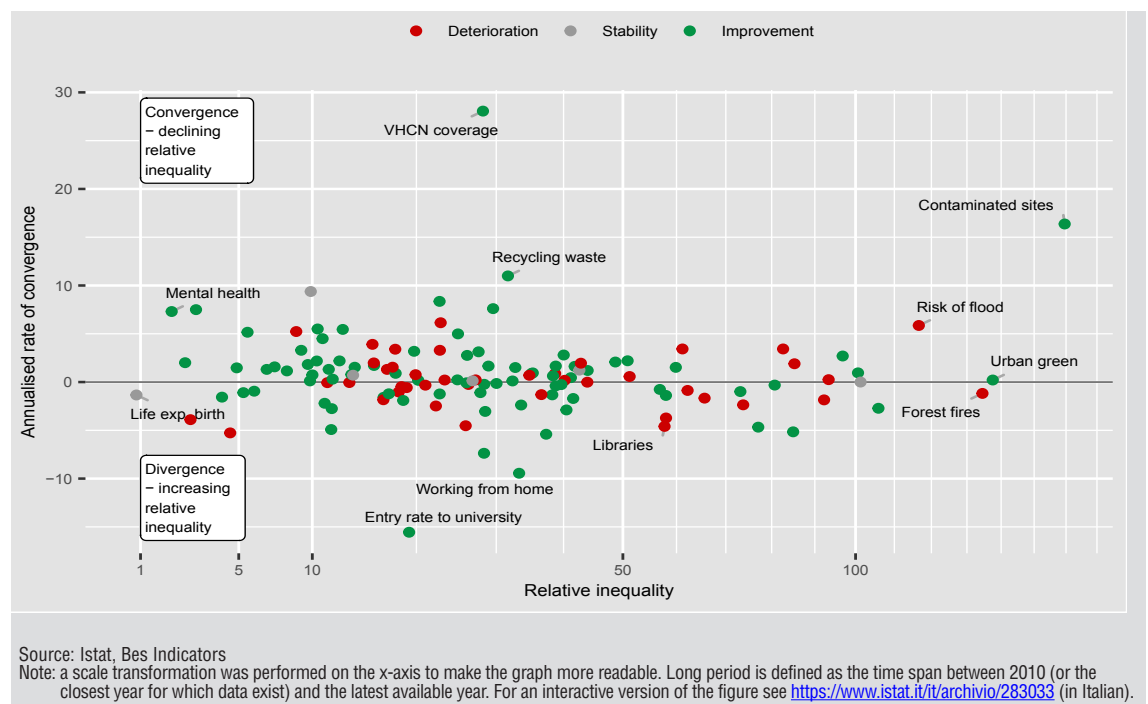
7 Cfr. Chelli, F. M., Ermini, B., Gallegati, M. & Gentili, A. (2022). Investigating Regional Disparities in Italy's Well-Being Since Unification (1871–2011). *Italian Economic Journal*, 1-26. Ferrara, A.R. & Nisticò R. (2013). Well-being indicators and convergence across Italian regions. *Applied Research in Quality of Life* 8: 15-44.

Figure 4 shows the well-being indicators, while Figure 5 shows the same indicators but broken down by domain, comparing, on the x-axis, inequality measured on the most recent available year with, on the y-axis, the annualised rate of regional convergence calculated over the long term. The figure also takes into account the trend of the indicators: the points representing them are in green, grey or red, depending on whether the indicator has improved, remained stable<sup>8</sup> or worsened over the period considered.

Out of the 131 Bes indicators that can be analysed at the regional level, 27 show a rather high relative regional inequality in the latest available year, indicating a greater distance between regions, particularly in the domains of Environment, Landscape and cultural heritage, Economic well-being and Safety. In contrast, the domains with more than half of the indicators with a lower relative inequality are Health, Education and training, Social relationships, Politics and Institutions, and Subjective well-being.

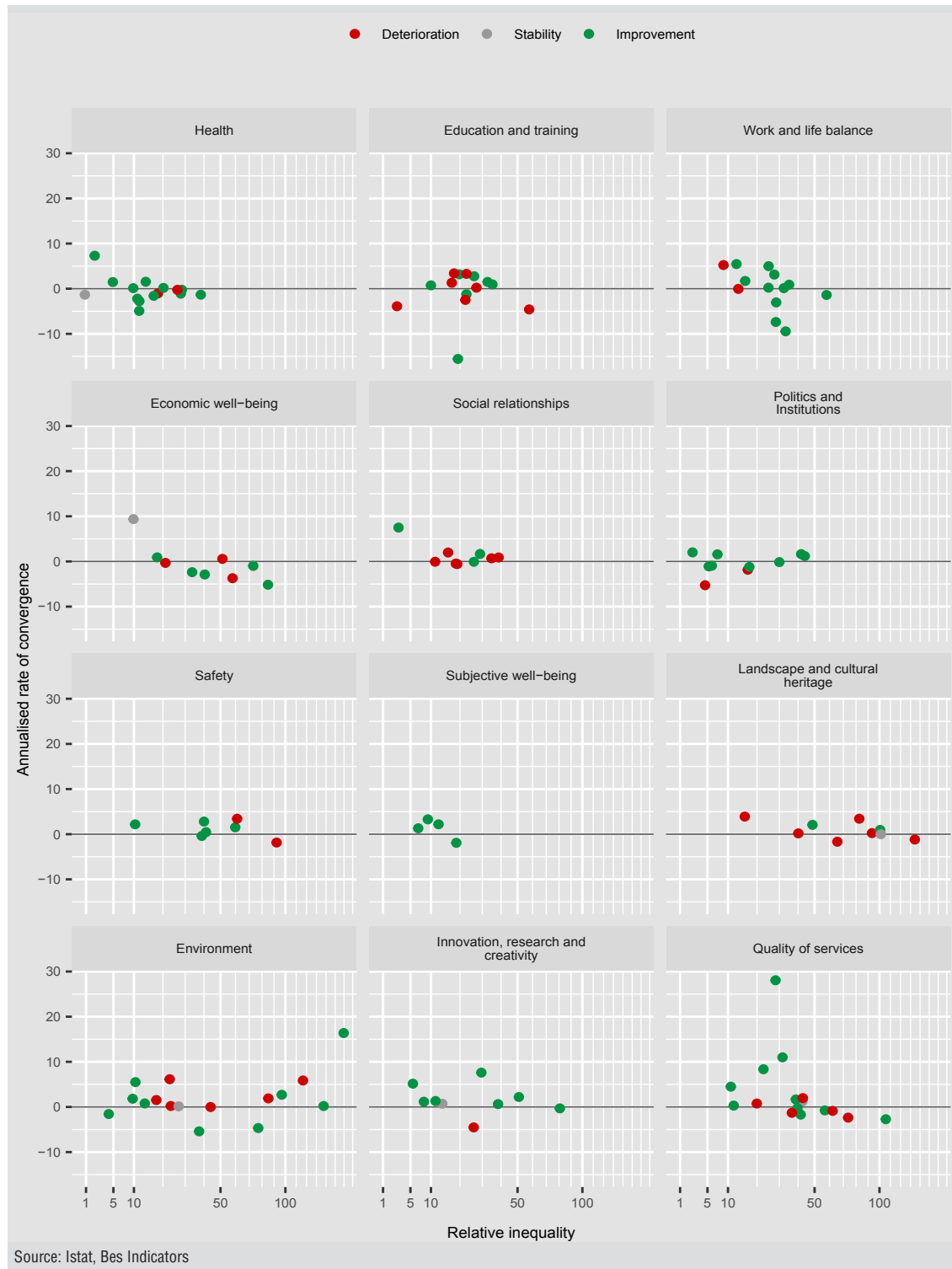
Analysis of the evolution of regional differences shows that, in the long period<sup>9</sup>, 51 indicators improve at the national level and at the same time regional inequality decreases, while 32 improve but regional inequality increases. Of the 42 indicators deteriorating at the national level, half converge (thus regions move closer together) the other half diverge. In the domains Subjective well-being, Innovation, research and creativity, Safety, and Work and life balance, more than half of the indicators fall into the preferred condition, with improvement at the national level accompanied by a reduction in territorial disparities. In contrast, one-third of the Social relationships indicators fall into the more severe situation of a simultaneous worsening of territorial values and distances.

**Figure 4. Bes indicators by relative regional inequality (latest available year), annualised rate of convergence and changes in the long period. Percentage values.**



- 8 In the range -1 and +1% the change is considered stable (grey). The polarity of the indicator was taken into account when calculating the changes to consider the improvement or worsening in terms of well-being.
- 9 Long period refers to the period from 2010 (or the closest year for which regional data are available) to the latest year for which regional data are available. The annualised rate is used to compare indicators defined in different time periods.

Figure 5. Bes indicators by relative regional inequality (latest available year), annualised rate of convergence and changes in the long period by domain. Percentage values.



### 3.2 The evolution of differences between regions before and after the pandemic

It is interesting to analyse whether and how the dynamics of territorial convergence/divergence have changed as a result of the pandemic. Figure 6 shows the well-being indicators classified by domain, comparing on the y-axis the difference between the annualised rate of convergence in the period 2019 - latest available year, thus taking into account the pandemic period, and the ARC for the period up to 2019<sup>10</sup>. The indicators for which the rate of convergence has increased at the turn of the year 2019 (the ARC for 2019-latest available year is greater than the ARC for the period up to 2019) fall on the upper half of the graph, while the indicators for which the rate of convergence has decreased (the ARC for 2019-latest available year is less than the ARC for the period up to 2019) fall on the lower half of the graph. In order to distinguish those indicators for which the behaviour in terms of convergence is similar or opposite in the two periods considered, those indicators for which the ARCs are concordant and positive (convergence in both periods) are marked with a circle, those for which the rates are concordant and negative (divergence in both periods) are marked with a square, and, finally, a triangle for those indicators where the ARCs in the two periods do not have the same sign (if the indicator is in the upper half, there is convergence in the period after 2019 and divergence in the period up to 2019; if the indicator is in the lower half, the opposite situation occurs). As in the previous graph, the dots are coloured green, grey or red, depending on whether the indicator has improved, remained stable or deteriorated in the long term.

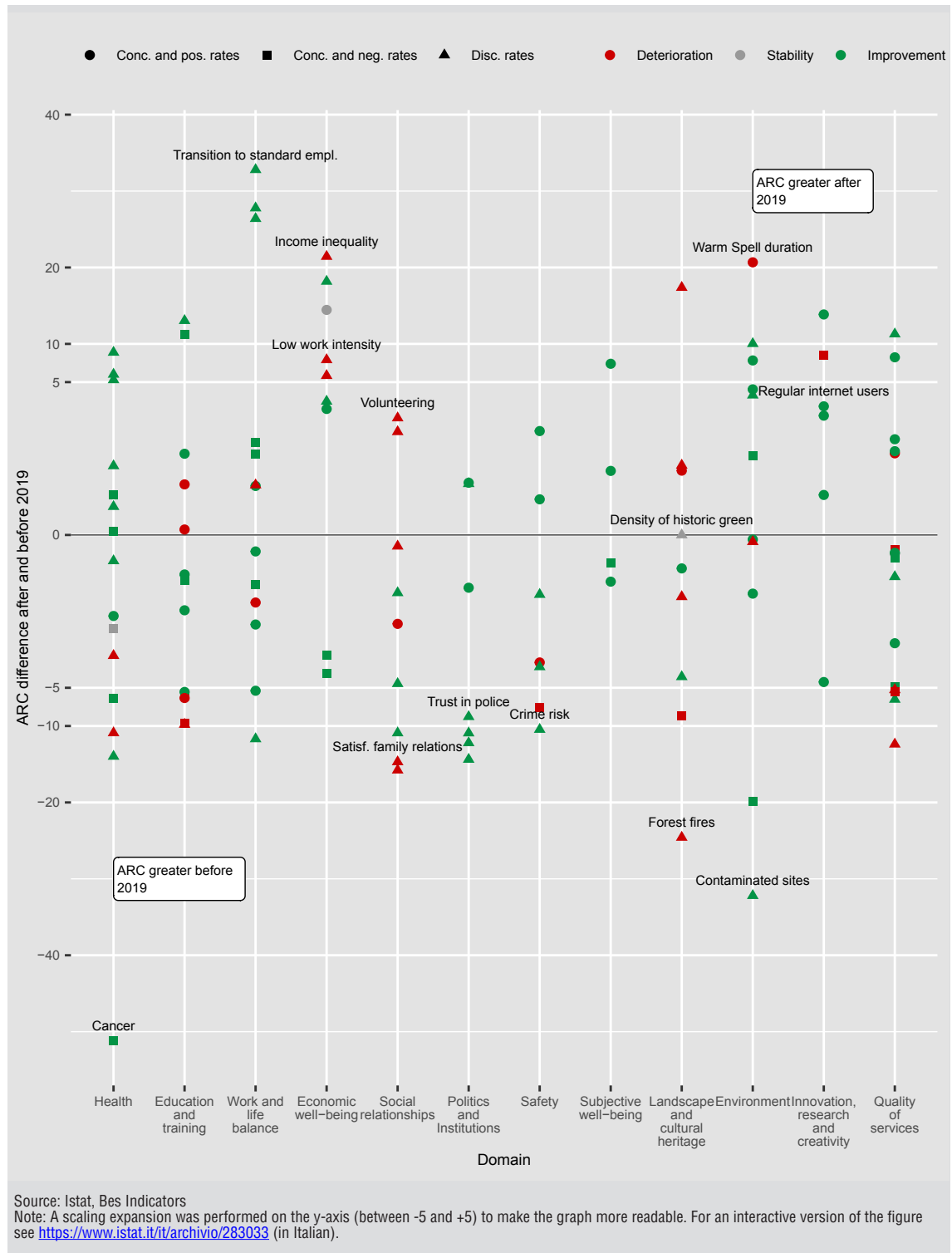
Comparison between the pre-COVID period (up to 2019) and the period from 2019 onward (possible for 119 indicators<sup>11</sup>) shows that for 43 indicators the trend towards territorial convergence characterises both periods; this is particularly the case for all indicators (except one) in the Subjective well-being and Innovation, research and creativity domains, resulting in a decrease in disparities. For 24 indicators, on the other hand, there is a continuing trend toward increasing inequality. The most common situation, however, is one in which the dynamics of regional distances vary in sign between the two periods (51 indicators), with 23 indicators converging in the most recent period and 28 converging in the pre-COVID period.

<sup>10</sup> The time interval is from 2010 (or the closest available year) to 2019. In some cases, the starting year is 2018.

<sup>11</sup> Of the 131 indicators analysed, it was necessary to exclude those for which there are no data more recent than 2019 (e.g. voter turnout, bathing beaches) and those for which there are no data for 2019 (e.g. women in parliament, innovation in the production system). In particular, 1 indicator was excluded from the domain of Education (library use), 3 indicators from the domain of Politics and institutions, 5 indicators from the domain of Environment and 3 indicators from the domain of Innovation, research and creativity.



Figure 6. Bes indicators classified by the difference of annualised rate of convergence (ARC) after and before 2019 and changes in the long period by domain. Percentage values.



## 4. Comparing women and men

### 4.1 Well-being trends by gender

For most of the well-being indicators (90) we dispose of data broken down by gender, the analysis of which provides interesting insights not only into the presence/persistence of gender gaps in our country, but also into their evolution over time<sup>12</sup>.

**Figure 7. Evolution of Bes indicators between 2019 and 2022 by well-being domain and gender. Percentage of total comparable indicators (a)**



Source: Istat, Bes Indicators

(a) For each domain, the number of comparable indicators between 2019 and 2022 (or 2021 if no more recent data is available) is reported in parentheses. In the range -1 and +1%, the variation is considered stable. In calculating the variations, the polarity of the indicator was taken into account to consider improvement or worsening in terms of well-being.

(b) In this representation, the Landscape and Cultural Heritage and Environment domains are presented jointly, due to the limited number of gender-disaggregated indicators.

<sup>12</sup> From the analysis in question are therefore excluded those indicators of the framework, of extreme relevance for the study of well-being, but specifically referring to the female condition (e.g. indicators of violence against women), for the analysis of which please refer to the thematic chapters per domain.

Similarly to what has been done for the analysis of the evolution of well-being during and after the pandemic (section 2 of this chapter), it is therefore possible to calculate, separately for men and women, the number of indicators for which there has been an improvement between 2019 and 2022 (or 2021, when 2022 is not yet available), those for which there has been a worsening and those for which the situation appears stable<sup>13</sup>.

Between 2019 and 2022, the majority of well-being measures (54.1%) showed an improvement for women compared to 39.2% for men, for whom there is a higher share of indicators that are stable or worse comparing to 2019 (Figure 7). The number of improved well-being measures is higher for women in all domains, except for the Safety domain, where there is substantial parity in terms of proportion of indicators showing improvement (four out of five for both men and women).

## 4.2 Gender imbalances

The classification and quantification of the indicators based on the evolution over the reference period is a useful starting point for contextualising and subsequently deepening the analysis of the levels of well-being from a gender perspective. In particular, in order to examine the differences between men and women on the various dimensions and to highlight the most critical areas (i.e. where such differences persist or increase), the parity index has been used, comparing the value of each indicator for the female population with the value for the male population<sup>14</sup> (Figure 8). In this way, it is possible to analyse the domains and individual indicators where there are imbalances, i.e. where the situation of women appears to be significantly better than that of men or, conversely, where it is men who enjoy better living conditions<sup>15</sup>.

For the majority of indicators, however, a gender gap continues to be observed, which penalises women in particular. In fact, out of 86 total indicators<sup>16</sup>, only 26 show gender parity. On the contrary, 34 show a disadvantage for females and 26 a disadvantage for males.

Health and Education and training are the domains for which the condition of women is generally better than that of men. In the domains of Safety and Innovation, research and creativity a more heterogeneous situation is observed, with some indicators showing a female advantage and others a male advantage. There are a number of domains in which a widespread gender imbalance in favour of men appears: Work and life balance, Politics and institutions, Social relations, Economic well-being and Subjective well-being.

## 4.3 Variation and imbalance of indicators by gender

The analysis of gender imbalances, integrated with the examination of the variations of indicators for women and men since 2019 shows that in most cases (59 indicators out of

13 The indicators for which it is possible to make a gender-disaggregated comparison in the 2019-2022 period are 72.

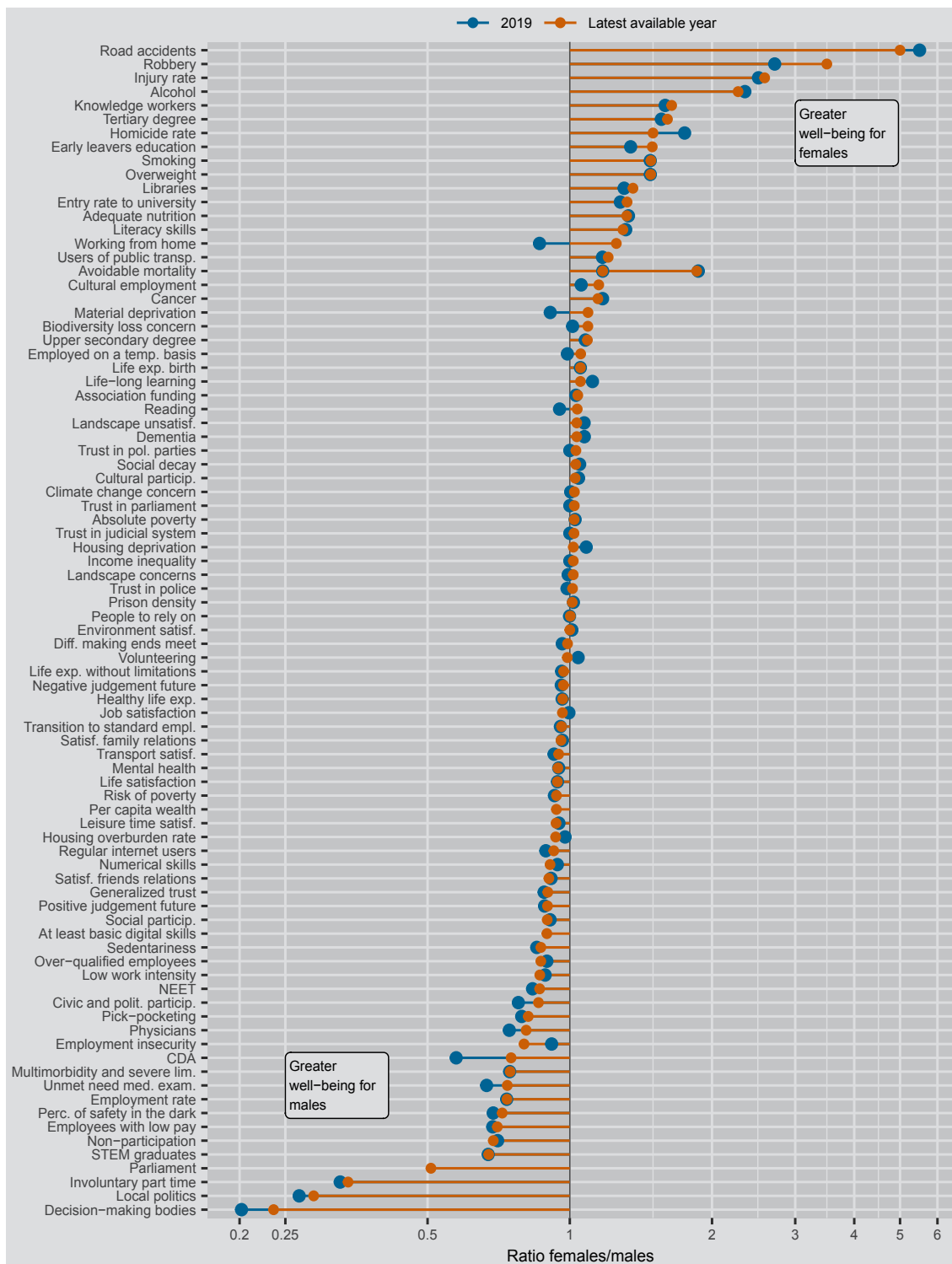
14 The F/M ratio-based indicator reaches the value 1 in conditions of perfect parity, values greater than 1 when the situation of women is better than that of men, and values less than 1 when the opposite is true, i.e. men have a better condition, taking into account the polarity of the indicators. In the presence of values between 0.95 and 1.05, it is assumed that there is a substantial gender balance.

15 This is an indicator also used by the OECD to measure gender differences. OECD (2020), *How's Life? 2020: Measuring Well-being*, OECD Publishing, Paris, <https://doi.org/10.1787/9870c393-en>.

16 For 21 of these indicators, since the 2022 data is not available, the comparison concerns 2021 (10 indicators), 2020 (10) or 2019 (1).

83 indicators available for this comparison) there are no significant differences in the trend between the two genders, with the majority of indicators showing a variation of the same sign (26 improving and 26 worsening) (Figure 9). Among the 24 indicators with a significantly

Figure 8. Ratio between females and males for Bes indicators (a). Year 2019 and last available year (logarithmic scale)

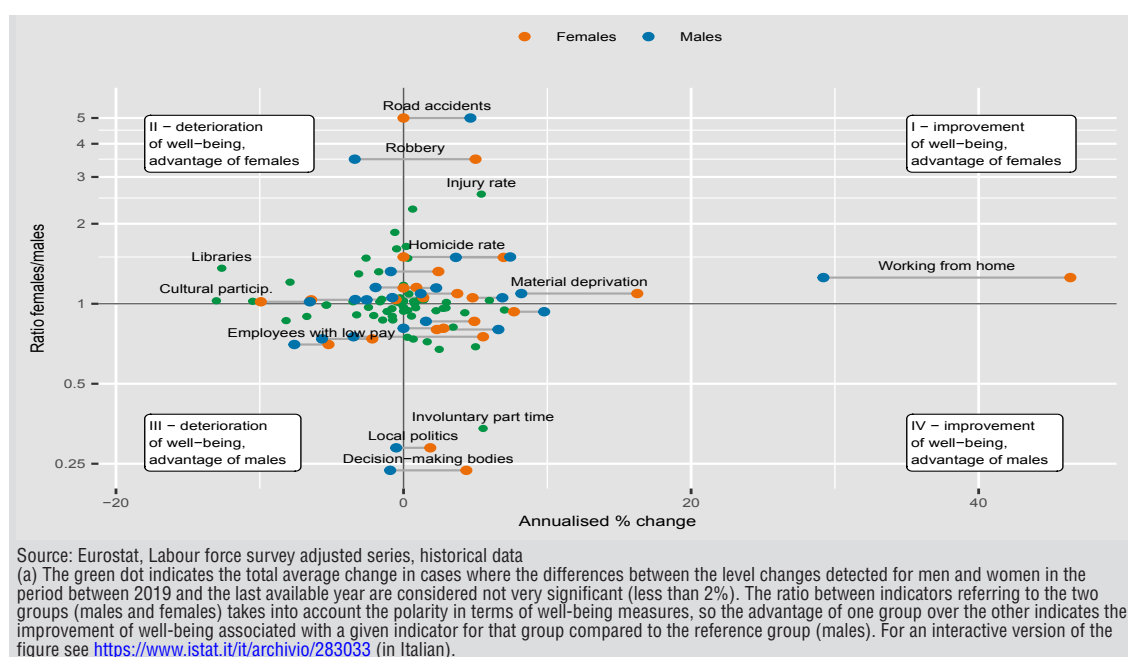


Source: Istat, Bes Indicators

(a) The ratio between the two groups (males and females) takes into account the polarity in terms of well-being measures, so the advantage of one group over the other indicates the improvement of well-being associated with a given indicator for that group compared to the reference group (males). For an interactive version of the figure see <https://www.istat.it/it/archivio/283033> (in Italian).

different trend between men and women, in 13 cases, despite having a trend of the same sign, the variation is more marked for men or women. This is the case, for example, for the indicator of severe material deprivation and the proportion of employed people working from home, which improved compared to 2019 for both men and women, but with a higher intensity for the latter, reversing the gender balances. In the remaining 11 cases, the variation compared to 2019 is statistically significant but of different sign between women and men, with an improving trend for women and a worsening trend for men in most cases. Nevertheless, these different trends do not always result in a reduction of imbalances.

Figure 9. Percentage variation in well-being indicators for males and females (x-axis) and ratio between females and males in the latest available year (y-axis). Percentage variations compared to 2019 (logarithmic scale) (a)



## 5. Comparing young people and adults

### 5.1 The evolution of well-being for youths and adults

Breaking down the indicators of the BES framework by age makes it possible to highlight the imbalances between different population groups and their evolution. To this aim, the population of adults and young people are examined and compared here, limiting the analysis to indicators relating to individual units for which the age dimension is available. The population of young people is further disaggregated into two groups in order to take account of their large heterogeneity, also in terms of the stage of the life cycle they have passed through: the youngest, under 24 years of age<sup>17</sup>, who are still partly involved in the educational

<sup>17</sup> The lower age limit of the youngest age group is defined according to the availability of the indicator: in most cases indicators are available from the age of 14, but in some cases indicators are available from the age of 15 (e.g. indicators in the domains of Work and life balance and Innovation, research and creativity, which are based on the Labour Force Survey); in other cases they are available from age 18 (Economic well-being and Security domains); finally, in other cases indicators are available from age 20 (e.g. employment rate indicator 20-64). In some cases the indicators on young people have not been disaggregated into the two subgroups, very young and young adults,

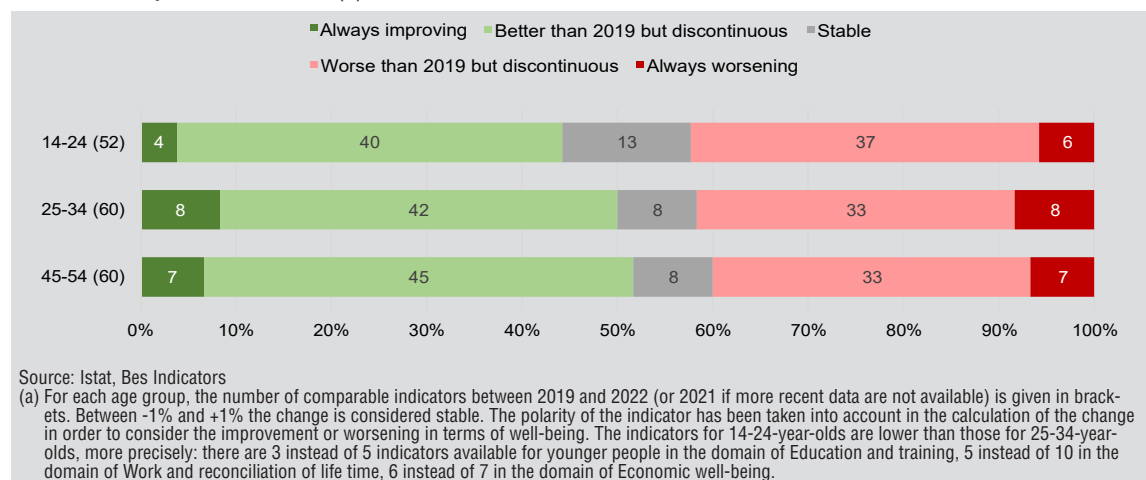
system and in the phase of training and entering into the labour market, mostly still living in the family of origin, and the young adults, in the 25-34 age group, who have largely completed their studies and are in a more advanced stage of the transition to adulthood.

Both age groups are compared with an adult generation, the 45-54 age group, which is in an active phase of the life cycle in the labour market, often with family and parental responsibilities<sup>18</sup>.

In order to compare young people with adults, only those indicators that are simultaneously available for the three groups are examined. Therefore, the indicators which are specific to the situation of young people (NEET, early school leavers, educational attainment, to name but a few) are not included. These will be analysed in the thematic chapters per domain.

A comparison between age groups shows that 52% of the well-being indicators for adults aged 45-54 improves in the most recent available year, exceeding pre-pandemic levels (year 2019), while 40% remains below (Figure 10). Even among young adults aged 25-34, half of the well-being indicators improves and 41% shows a deterioration. In contrast, post-pandemic recovery is more difficult for the 14-24-year-olds, for whom only 44% of indicators improves, while a similar proportion shows deterioration (43%) and 13% remains stable<sup>19</sup> (compared with 8% for the other two age groups).

**Figure 10. Evolution of Bes indicators for selected age groups. Years 2019, 2021 and 2022. Percentage of total comparable indicators (a)**



For the adults, improvement is most widespread (80% of the indicators) in the domains of Work and life balance, Safety, Landscape and Environment, followed by Innovation, research and creativity and Quality of services (67%) (Figure 11). At the opposite side of the ranking for the adults there are the Health and Social relationships domains, with less than 20% of the indicators improving. In the Work and life balance domain, most indicators also improve for young people.

and are therefore kept in aggregate form and considered under young adults (e.g. absolute poverty incidence for 18-34-year-olds and accident rates, perceived job insecurity and job satisfaction for 15-34-year-olds).

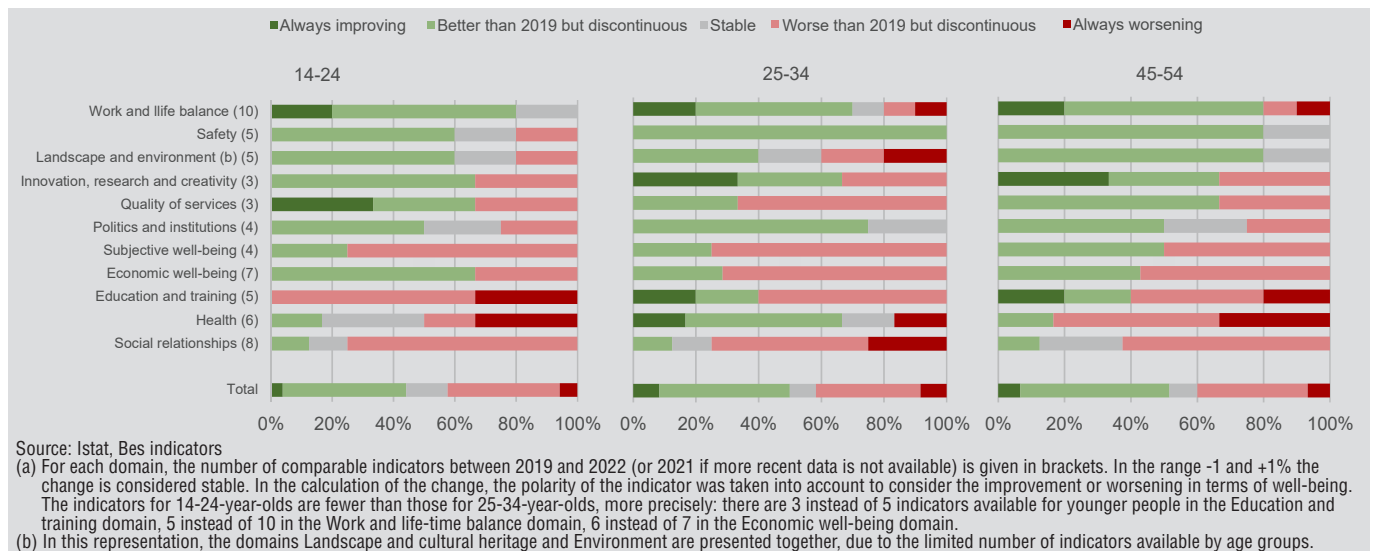
18 In the case of adults, some indicators are also available for a different age group than the one considered here (45-54 years): this is the case of the indicators of perceived security and job satisfaction (35-54 years), absolute poverty (35-64 years), the ratio of employment rates of women with children of pre-school age to women without children (45-49 years) and injury rates (50-64 years).

19 Indicators are considered stable if, in the most recent available year, the percentage change compared to 2019 is less than 1%.

Health is the domain with the worst performance for adults (five out of six indicators worsen) and is also an element of vulnerability for young people aged 14-24, with half of the indicators worsening. Moreover, for young people, the three available indicators in the area of education and training also worsen compared to 2019: use of libraries, participation in cultural activities outside the home and, above all, reading books and newspapers. This deterioration is also common to young adults and adults.

Among the youngest, the lowest share of improving indicators compared to adults is found on some indicators of Social Relations (trust in others and having people to rely on), which worsen compared to 2019 while it is stable among adults, and on the positive attitude towards future perspectives, which is decreasing among young people and increasing among adults.

Figure 11. Evolution of Bes indicators for selected age groups by domain of well-being. Years 2019, 2021 and 2022. Percentage of total comparable indicators (a)

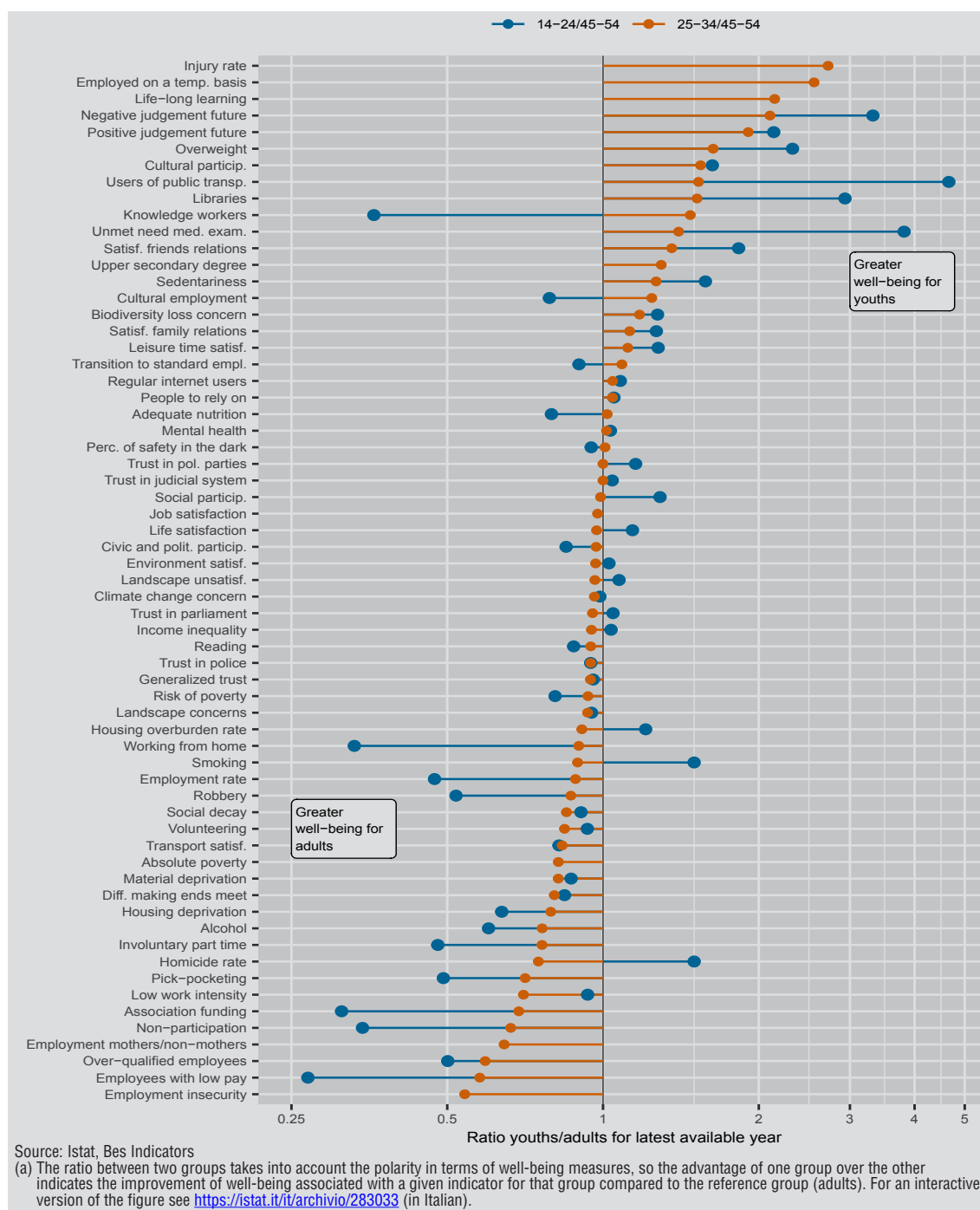


## 5.2 Imbalances between youths and adults

The analysis of the imbalances between the levels of the indicators in the different age groups highlights the distance from parity, and the comparison of these imbalances over time allows to highlight processes of convergence or divergence between young people and adults over the years considered. To measure intergenerational imbalances, the ratios of young people under 24 to adults aged 45-54 and of young adults aged 25-34 to the same category of adults are examined (Figure 12). Taking into account the polarity of the indicators, the ratios express the imbalance in well-being measures in favour of young people, when the imbalance is above 1, and in favour of adults, when the imbalance is below 1.

In the most recent available year the adult generation aged 45-54 is better off the two younger generations on almost half of the well-being indicators. At the opposite end of the spectrum, younger people have an advantage over adults for 36.4% of the indicators and are in balance for 16.4%, while young adults are better off compared to adults for 30.2% of the indicators, and are in balance with them for 23.8% of the cases.

Figure 12. Ratio between people aged 14-34 and 45-54 for Bes indicators by age group (a). Year 2022 (logarithmic scale)



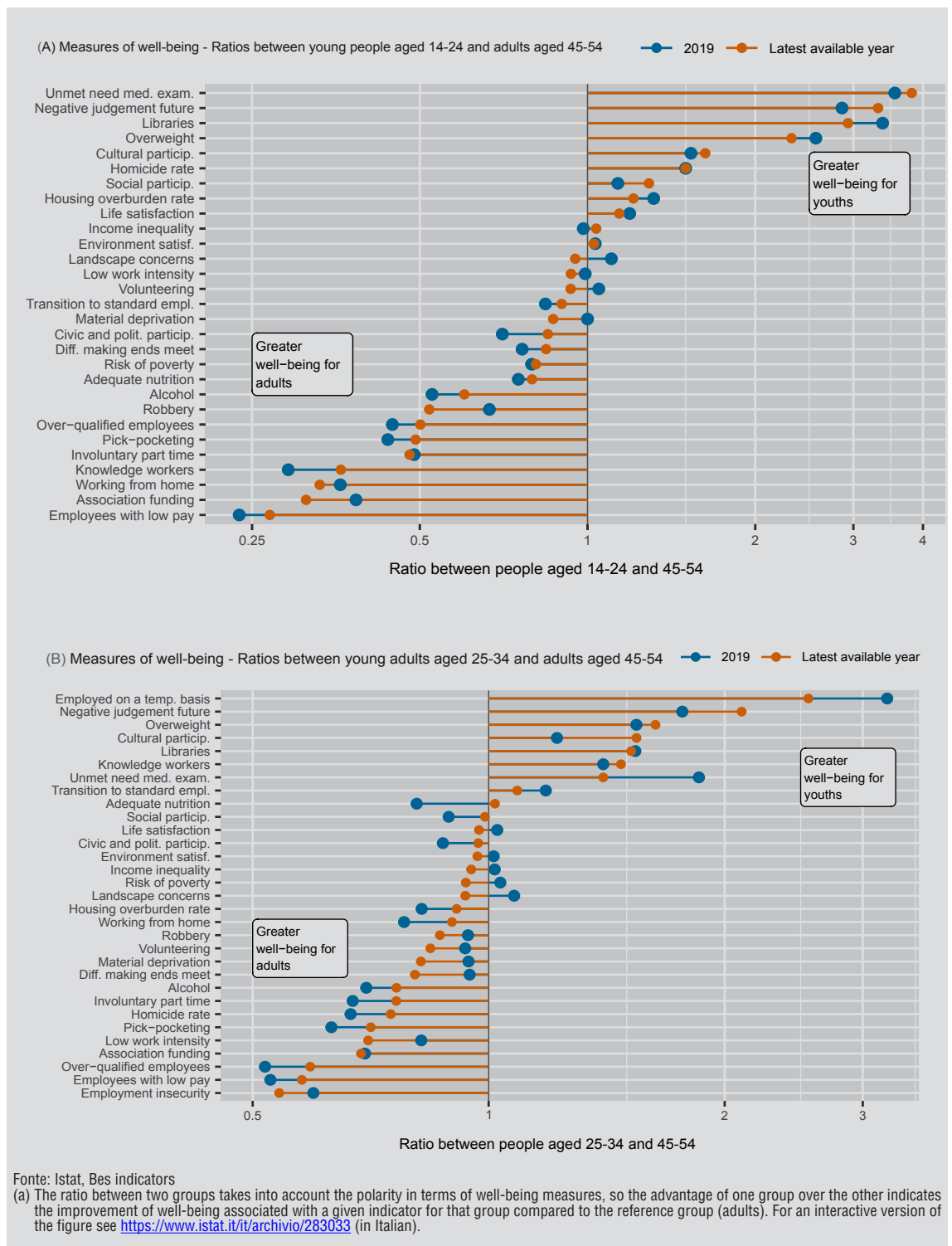
Compared to 2019, the advantage of adults over young adults is unchanged and prevalent; in contrast, the youngest lose the advantage they had over adults. However, most of the gaps between the young and adult age groups narrow, especially between those aged 25-34 and the adults (Figure 13).

The disadvantage of youths compared to adults, already found in 2019, is confirmed in the Work and life balance domain on all seven indicators for the 14-24 age group and two-thirds of the indicators for the 25-34 age group (eight out of 12). Indicators in the Economic well-being



domain also report a more marked advantage of adults, increasing from 2019, on both the youngest (from three to five out of the seven indicators) and young adults (from six to all of the eight indicators). In contrast, both groups of youths were and are better off comparing to adults in the domains of Subjective well-being, Quality of services, and Education and training.

Figure 13. Ratio between people aged 14-24 (A), 25-34 (B) and 45-54 for Bes indicators (a). Years 2019 and latest available year (logarithmic scale)



### 5.3 Variation and imbalance of indicators for youths and adults

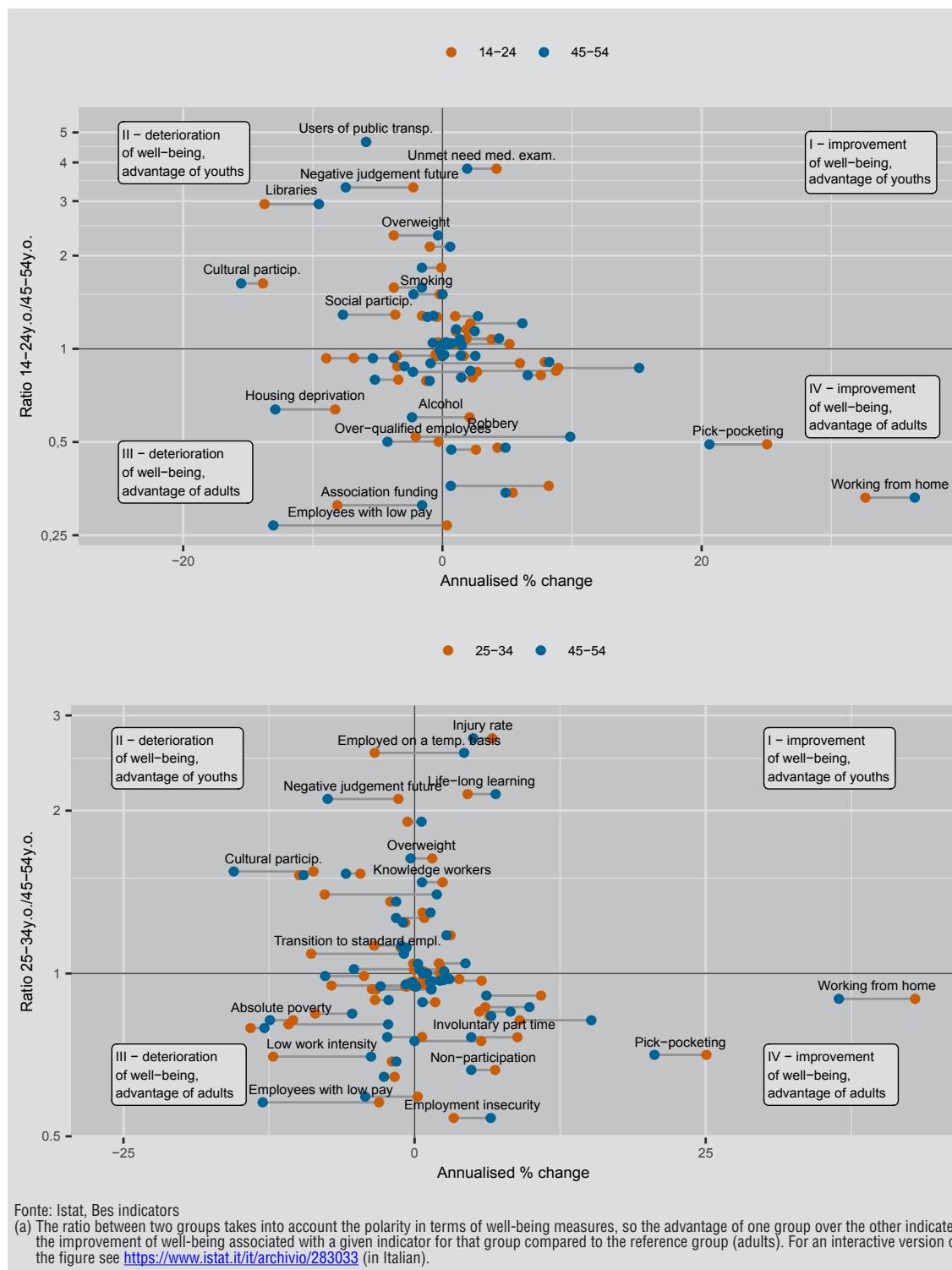
In this further analysis, the imbalance found in the latest available year between young people and adults is compared with the change in the indicators over time in order to identify which age groups have contributed the most to any process of convergence or divergence between the generations (Figure 14). The x-axis distinguishes the indicators on the basis of positive changes between 2019 and the latest available year, indicating an improvement in well-being (to the right of the origin), or negative changes, indicating a deterioration in well-being (to the left of the origin). On the other hand, the y-axis, which describes the ratio of young people to adults, distinguishes indicators that are unbalanced in favour of young people (top) or adults (bottom) in the most recent available year<sup>20</sup>.

Many labour market indicators show better conditions for adults and a strong intergenerational polarisation (lower part of Figure 14). Compared to 2019, employment rate, non-participation rate, employed from home, involuntary part time, perceived job insecurity, job satisfaction, and injury rate improved concordantly in all three age groups. There was in almost all cases a less strong improvement for adults, which were in a better position, leading to a convergence with the two groups of young people. The ratio of the employment rate of mothers with children under six to childless women worsens simultaneously, relative to 2019, for young adults and adults, but with greater intensity for the latter. Some indicators have discordant variation across ages, among them the term employed and the overeducated: the worsening is evident only among adults for the overeducated and among young adults for the term employed. It follows that even in these cases there is a convergence between the two generations.

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<sup>20</sup> The space is divided into four quadrants delimited by the value 0 on the x-axis (no change) and the value 1 on the y-axis (balance between the generations). Thus, the first quadrant on the top right includes indicators showing an advantage for young people in terms of well-being and an improvement in well-being; the second quadrant is characterised by a deterioration in well-being and an advantage for young people over adults; the third quadrant groups together indicators with worsening well-being and an advantage for adults; and finally, the fourth quadrant includes indicators with a positive change in well-being and an advantage for adults.

Figure 14. Percentage variation in well-being indicators for people aged 14-34 and 45-54 (x-axis) and ratio between people aged 14-34 and 45-54 in the latest available year (y-axis), by age group. Percentage variations compared to 2019 (logarithmic scale) (a)



## METHODOLOGICAL ANNEX

In the analysis of territorial differences, for the calculation of the 5 groups of well-being levels (Figure 3) and for the calculation of the relative regional inequality (Figures 4, 5 and 6), some conventions are applied:

- in the case of missing values for the autonomous provinces of Trento or Bolzano (e.g. road accidents mortality, illegal building rate), the data for the region of Trentino-Alto Adige (if available) are considered;
- in the case of missing values for some (but not all) regions (e.g. integrated home assistance service, coastal bathing waters) groups and relative inequality are computed using only regional available data.

In addition, some indicators are excluded from the calculation, namely:

- all indicators that do not have a regional breakdown (e.g. absolute poverty, women in decision-making bodies);
- indicators for which no updates are currently available after 2017 (e.g. physical violence on women, erosion of farmland from urban sprawl);
- indicators that measure a change (e.g. mobility of Italians with tertiary degree);
- indicators with absolute values that cannot be compared between regions because they depend on specific characteristics (demographic, climatic, etc.) of the region (e.g. domestic material consumption, consecutive dry days).

For each indicator available at regional level and for each year  $t$  of the time series, relative inequality between regions is measured by the coefficient of variation, which is calculated as the product of 100 and the ratio of the standard deviation to the absolute value of the arithmetic mean of regional values:

$$CV_t = 100 \cdot \frac{\sigma_t}{|\mu_t|} = 100 \cdot \frac{\sqrt{\frac{1}{\#Reg} \sum_{i \in Reg} (x_{i,t} - \mu_t)^2}}{|\mu_t|}$$

where  $x_{i,t}$  is the value of the indicator for region  $i$  at time  $t$ ,  $\mu_t$  is the mean value on  $i$  of  $x_{i,t}$  and  $\sigma_t = \sqrt{\frac{1}{\#Reg} \sum_{i \in Reg} (x_{i,t} - \mu_t)^2}$  is the standard deviation at time  $t$  of the  $x_{i,t}$ 's.

The percentage change in relative inequality is calculated through the annualised rate of convergence between regions (ARC).

The ARC between time  $t$  and time  $t_0$  is calculated as  $-\left(\left(\frac{CV_t}{CV_{t_0}}\right)^{\frac{1}{t-t_0}} - 1\right) \cdot 100$ .

Since higher values of the coefficient of variation indicate greater inequality, the ratio between the CVs is varied by sign in the formula for the annualised rate of convergence, so that positive values of the ARC indicate a desirable development (less inequality), while negative values of the ARC indicate a negative development (more inequality).

When analysing differences between men and women and between young people and adults, the ratios between the two categories of the same indicator (female/male, youths/adults) are calculated to measure imbalances. If the indicator has a negative polarity, the inverse ratio is calculated. In the graphs, these ratios are presented on a logarithmic scale, so that a ratio and its inverse are visually symmetrical with respect to the parity line (ratio=1) and so that different ratios can be compared correctly. For example, if for an indicator A with positive polarity the value for females is twice the value for males, while for an indicator B with positive polarity the value for males is twice the value for females, then the point representing the female/male ratio for indicator A will be to the right of the parity line, the point representing the female/male ratio for indicator B will be to the left of the parity line, but the distances from the parity line will be identical.

