

Sports participation and sports consumption spotlighted by the Covid 19 pandemic.

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Summary

Sports-related spending by private households and the nature and extent of the population's sports behaviour are of central importance for the economic factor of sports. Against the backdrop of the ongoing Covid 19 pandemic, the sports industry is also facing special challenges. This report presents the results of the representative population survey conducted as part of the Sports Satellite Account. They show what changes have occurred in sports behaviour in 2020, which was under the particular influence of the Covid 19 pandemic, and what impact this has had on private sports consumption. The report focuses on "adult" individuals aged 16 and older.

Looking at sports behaviour, 2020 shows reduced sports activity overall compared to the 2017 reference measure. This results from a lower regularity of sports participation overall and from many individual sports played by fewer people during the pandemic. Among others, swimming and bowling were particularly affected. The fact that many outdoor sports, such as running/jogging, hiking and cycling in particular, were practiced by significantly more people in 2020 leads to an expansion of the occasionally sport-active population, but overall, there is a decline in sporting activities - this can also be deduced from the research. In general, the contact restrictions, and especially the lockdowns in spring and fall/winter 2020, have significantly reduced sports activity.

Analogous to the reduced sports behaviour, the Covid 19 pandemic also reduced consumer spending associated with active sports in 2020, by a total of minus € 13.5 billion, or minus 22%. Across sports, less was spent on almost all sports-related expenditure categories, most frequently in percentage terms on the use of sports facilities and course/participation fees, and in absolute amounts on sports-related travel (to sports practice/training and sports holidays/day trips). The only exception is spending on sports equipment and gear, where - due in particular to the high demand for bicycles and e-bikes - there is also a high increase in sales in 2020. More was also spent on, for example, running/jogging shoes, cycle clothing or fitness equipment in 2020 than in 2017.

On a macroeconomic level (including in the form of sports-related gross domestic product (GDP), gross value added (GVA), production), meanwhile, no deductions can yet be made for the economic factor of sports in comparison to other economic sectors in the pandemic. Within the multifaceted sports economy with the multitude of players involved, there are pandemic-related shifts in demand, which in individual cases do not only have negative connotations (e. g. in the bicycle industry or the retail of fitness equipment for the home). Negative and positive effects on other economic sectors are also likely - in the short term and in a negative direction, for example, tourism could be mentioned, and in the long term and in a "positive" way, the health economy, if lower sporting activity by the population results in higher health costs. The significantly lower sports-related demand from the population will have a significant negative impact on the economic factor of sports as a whole, as the construction of sports facilities and spending on sponsorship, advertising and media rights will in all likelihood not be able to compensate for the decline.

Excursus: Methodological background. Sports Satellite Account Germany (SSA)

Scientific support is of central importance for fact-based advice to sports policy-makers and sports practitioners. With this in mind, the Federal Institute for Sport Science (BISp) and the Federal Ministry for Economic Affairs and Climate Action (BMWK) are pursuing the goal of providing decision-makers in sports policy and practice with valid data material, also with regard to the economic significance of sport.

Since 2008, all expenditures made in Germany for sports purposes have therefore been summarized in a satellite account of the national accounts. Satellite accounts are created when the economic performance is not provided by one sector but by many sectors on the basis of an overarching theme. Examples besides sports are health and tourism.

The satellite accounts on sport (SSA), which are now available for the national accounts of 2008, 2010, 2012, 2014, 2016 and 2018, show the high relevance of sport as an economic factor for German gross value added (Ahlert et al., 2021), which goes far beyond government investment in the field of sport.

As part of the compilation and updating of the SSA, data on the sports-related consumption of the German population, the expenditure of companies on sports-related advertising and sports sponsorship, and the money flowing into Germany for sports-related media rights are continuously determined. In addition, public and private sector investments in sports facilities as well as the construction and personnel operating costs of sports facilities and sports opportunities are surveyed. This provides a comprehensive database on the scope of sports-related activities and the associated expenditures and investments. The most recent publication on the SSA is "The Economic Importance of Sport in Germany - Sports Satellite Account (SSA) 2018" (Ahlert et al., 2021). A publication on the SSA 2020 is expected at the end of 2022.

Special publications on the SSA are also published annually in the series "Current Data on the Sports Economy." These special publications do not depict the entire sports satellite account, its economic relevance and interrelationships, but are special evaluations on various topics from regular primary surveys.

To date the following special publications have been published:

- 2013: Winter sports as an economic factor (English version available)
- 2014: Sports betting as an economic factor
- 2015: Soccer as an economic factor
- 2016: Older people as the engine of the sports economy?
- 2017: Outdoor sports as an economic factor
- 2019: Sport inside or outside the sports club: sports activity and sports consumption by type of organization
- 2020: The Contribution of Sport to Meeting the WHO Recommendations for Physical Activity
- 2021: Children`s and Youth Sports – The Economic Factor

All publications can be found on www.sportsatellitenkonto.de.

Background, research question and definitions

Background. The Covid 19 pandemic is changing the daily lives of people around the world. Even in the world of sports, the impact of the Covid 19 pandemic remains pervasive. Among other things, 2020 was marked by two lockdowns that included provisions on which contacts to minimize, with the goal of containing the spread of the virus. This resulted in far-reaching restrictions on sports participation, both self-organized and in sports clubs or commercial facilities. The restrictions on the practice of sport also affected competitive and elite sport, but in particular and above all the variety of sporting activities practiced by the general public, i.e. grassroots sport.

A wide variety of expenses can be associated with the practice of sports. These range from spending on sports shoes and club membership fees to spending on sports-related trips. These sports-related consumer expenditures shape the economic factor of sports more than any other influencing factor (such as investments in sports facilities or sports sponsorship expenditures by companies).

The effects of the pandemic on subsectors of sport have already been investigated in a number of studies to date: for example, data from the MoMo study (Schmidt et al. 2021) or from the Sports Satellite Account (SSA) (Repenning et al. 2021a) are available for the effects on the physical activity of children and young people. For organized sports, for example, the DOSB survey (DOSB 2021), various surveys by the state sports associations (including Bayerischer Landes-Sportverband 2020, Landessportbund Nordrhein-Westfalen 2020, Württembergischer Landessportbund 2020), a special publication on the Sports Development Report (Breuer, Feiler & Rossi 2021) or a special survey by the BMWi as part of the SSA (Repenning et al. 2021b) can already draw comparatively detailed conclusions about the development of membership in sports clubs in 2020. Mutz and Gehrke (2021), among others, have analyzed the effects of the pandemic on mass sports and measured time spent training or doing sports in leisure time (LTSEs). Froböse and Wallman-Sperlich also uncovered pandemic-related changes in the physical activity behavior of the adult population for 2020 as part of the DKV Report (Froböse & Wallmann-Sperlich 2021). Wilke et al. examined the extent of changes related to physical activity ("Physical Activity") (Wilke et al. 2021). Schöttl, Follert, and Daumann investigated, among other things, the extent to which the sports behavior of club athletes and self-organized athletes differed (Schöttl, Follert, & Daumann 2022). The key results of these studies are described in the excursus on pages 14 and 15.

In contrast, there was a lack of comprehensive, population-representative studies for Germany on sports behaviour and sports consumption that fit into the data structures of the SSA. The results presented in this report close this gap and allow Covid-19-related changes to be fitted into the macroeconomic data structures of the Sports Satellite Account and thus to be used adequately for a (also future) comparative presentation of the sports economy.

Questions. The first part of the report focuses on the sports behaviour of adults. Specifically, the following questions are addressed, among others:

- How does the sports behaviour of adults look like in 2020?
- Which population groups participated in sports to what extent?
- How has sports behaviour changed compared to the situation before the start of the Covid 19 pandemic?

- Which sports were practiced before and during the pandemic (in 2020), by how many individuals, and with what regularity, also taking lockdowns into account?

Accompanying effects of the active sports behaviour of the population are expenditures for the practice of sports, which primarily drive the economic factor of sports. The second part of the report focuses on the consumer spending associated with active sports:

- What was the total amount of sports-related consumer spending by the adult population in 2020, differentiated by various sports-related goods and services?
- What are the (pandemic-related) changes in consumer behaviour in 2020 compared to the situation before the start of the Covid 19 pandemic?

Delimitations. This report relates to grassroots sports in Germany. Because of the comparatively low incidence of sports behaviour and sports consumption among professional athletes in the population as a whole, it is not possible to determine and evaluate a sufficiently high number of cases in the context of the SSA surveys.

The measurement of sports behaviour is based on a broad understanding of sports. In the SSA, active sports are initially defined by the practice of the 71 sports (clusters) presented at the end of the report. Accordingly, active athletes are defined by the practice of at least one of the sports. This definition is supplemented by a temporal perspective: An active athlete is someone who has participated in at least one of the sports at least once in the respective reference year (previous year of the survey). Sporting activity is thus not initially linked to an intensity or regularity of sporting activity, which is also surveyed.

The data underlying this report refer to 2020, which can be described as a year marked by Covid-19, and, as a reference of the situation before the pandemic, to 2017. Thus, the comparison of 2017 and 2020 is used as an indicator of effects of the Covid-19 pandemic. An assumption for evaluating effects of the Covid 19 pandemic must be that sports behaviour and sports consumption of the population in 2018 and 2019, i.e., until the start of the Covid 19 pandemic in January 2020, will not be different, or at least not significantly different, from 2017. This is not necessarily universally true, as, for example, the bicycle retail or fitness industries have already shown significant increases in sales from 2017 to 2019. Where available, existing secondary data from 2019 or developments in previous years are also reported in individual cases.

Notes on the methodical approach:

Telephone survey for 2020

The primary statistical information in this thematic report is based predominantly on a representative household survey in 2021 of sports activity and sports-related consumer spending by people aged 16 to 84 ("adults"), with reference to the calendar year 2021.

- A total of 1,136 complete interviews were conducted, with an average length of 20 minutes. The mobile share ("mobile only") was 50% of the sample
- The telephone interviews were conducted in spring 2021 with reference to the calendar year 2020. All information collected refers to 2020.
- Individuals were asked about their own sports behavior and associated spending. Possible effects of so-called "social desirability" in surveys cannot be ruled out in this survey either.
- Only expenditures that the persons had made for their own sport were surveyed, no expenditures from or for family members, organisations, or other institutions.
- The data were weighted a posteriori according to households in Germany (design weighting and redressing). For weighting purposes, the following characteristics were taken into account in relation to the contact person: Age, gender, education, household size and restricted household size (16 years and older), and region (Nielsen areas). The effectiveness of the weighting was 60%. The data are thus representative of people aged 16 to 84 living in Germany.
- Data analysis was performed using the statistical and analysis software SPSS¹.

Other information presented, especially that on earlier survey years, is also based on comparable primary statistical surveys conducted as part of the SSA.

Sports behaviour of adults in 2020: Higher basic activity, but lower regularity than before the pandemic.

Top-Sports among adults. Table 1 shows the top 10 sports played by adults in 2020, both in simple ranking and according to the proportion of the population who played the sport at least once a year. Cycling was therefore still the sport practised by most people in 2020, i. e. as in the previous survey years. 42% of the adult population had been active on a bicycle at least once. Compared to 2017, there was even an increase of 6 percentage points in the cycling population. Running or jogging, hiking and fitness follow in second to fourth place, which were also generally practised by a larger proportion of the population in 2020. Running shows the highest increase in basically active persons with plus 10 percentage points, closely followed by hiking with 9 percentage points. In 2020, running and hiking also moved up 2 places in the absolute ranking from 4th and 5th place respectively.

¹ More detailed: IBM SPSS 25; SPSS = Statistical Package for the Social Sciences.

Tab. 1: Top 10 sports of the adult population (16-84 years) in time comparison.

		Sport			Actives				
		Ranking 2020 (2017) (2010)			in % of adult population				
		by actives in the adult population (16+ years)			(16+ years) 2020 (2017) (2010)				
1	➡	1	1	Cycling	42%	⬆	+6% -pt.	36%	34%
2	⬆	4	4	Running/Jogging	34%	⬆	+10% -pt.	24%	25%
3	⬆	5	3	Hiking	33%	⬆	+9% -pt.	24%	27%
4	⬇	3	5	Fitness	31%	⬆	+7% -pt.	24%	17%
5	⬇	2	2	Swimming	29%	⬇	-7% -pt.	36%	31%
6	⬆	9	9	Health Sports	14%	➡	+2% -pt.	12%	14%
7	⬆	8	11	Football	14%	➡	+1% -pt.	13%	11%
8	⬇	7	8	Gymnastics	13%	➡	-2% -pt.	15%	14%
9	⬆	12	23	Pilates, yoga etc.	13%	⬆	+4% -pt.	9%	5%
10	⬇	6	6	Bowling	10%	⬇	-9% -pt.	19%	16%

Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

Overall, it can also be seen from Table 1 that (rather) non-organised, i. e. less frequently practised in a club, outdoor sports² were practised by higher shares of the population in 2020. Fitness sports were also practised by more people in 2020 than in 2017 (plus seven percentage points), despite dropping one place in the ranking. Firstly, it should be noted that the comparison with 2017 makes it difficult to draw conclusions about the effects of the pandemic due to the fitness trend (increased shares of active people) in the past years before the start of the pandemic - data for 2019, i. e. directly from the start of the pandemic, are not available. Secondly, fitness is practised predominantly, but not only, indoors in classic fitness studios, but also outdoors or at home using digital formats. Whether or to what extent the rising fitness values could also be due to increased digital use or outdoor activities cannot be proven here.

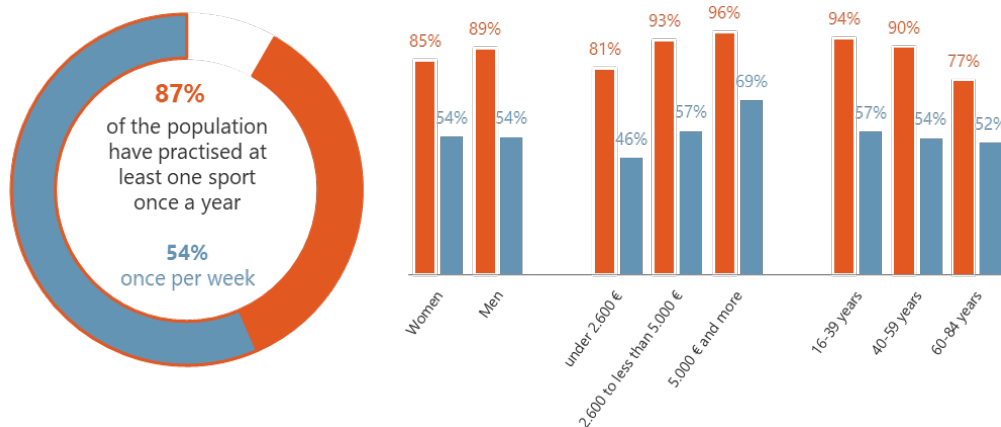
Within the top 10, swimming and bowling are the sports with the most significant declines. Swimming loses seven percentage points in exercise and drops from second to fifth place in the ranking. Bowling is down by almost half with nine percentage points and slips from 6th to 10th place. Overall, there are clear "winner sports" and "loser sports", whereby in the high-volume outdoor sports, in some cases considerably higher shares of the population were "activated" than in the previous survey years.

Basic and regular sports activity. Previously, the top 10 most frequently practised sports were presented. If all 71 sports (clusters) considered in the SSA are combined, the population's activity rates are also high for the year 2020: 87% of the adult population have practised at least one sport at least once, 54% at least once a week.³

² For more information on the sports cluster "outdoor sports", which was already very important economically before the pandemic, please refer to the 2017 report "Wirtschaftsfaktor Outdoorsport" (Repenning et al. 2017).

³ For the purposes of this report, regular sporting activity is defined as having taken part in at least one sport at least once a week during the reporting year.

Fig. 1: Basic and regular sports participation overall and by socio-demographic characteristics in 2020.



Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: ZHMforum. Reporting year: 2020.

Note: The demographic characteristics shown are not evenly distributed in the population. Distribution in the population (16-84 years): gender: women: 50%, men: 50%; net household income below € 2,600: 43%; €2,600 to under €5,000: 35%, 5,000 € and more: 22%; age groups: 16-39 years: 35%, 40-59 years: 35%, 60-84 years: 31%. This concerns all representations with corresponding comparisons.

Both the general ("at least one sport at least once a year") and the regular ("at least one sport at least once a week") sporting activity do not differ or differ only slightly between the sexes⁴, but they do differ according to monthly net household income and between different age groups. The differences in regular sporting activity between the income classes are particularly striking: while 46% of people in the lowest income class report weekly sporting activity, 69% of people in the highest income class do so (96% of this population group even do sport as a matter of principle). The higher income classes are also more successful in converting the basic sporting activity into regular sporting activity.

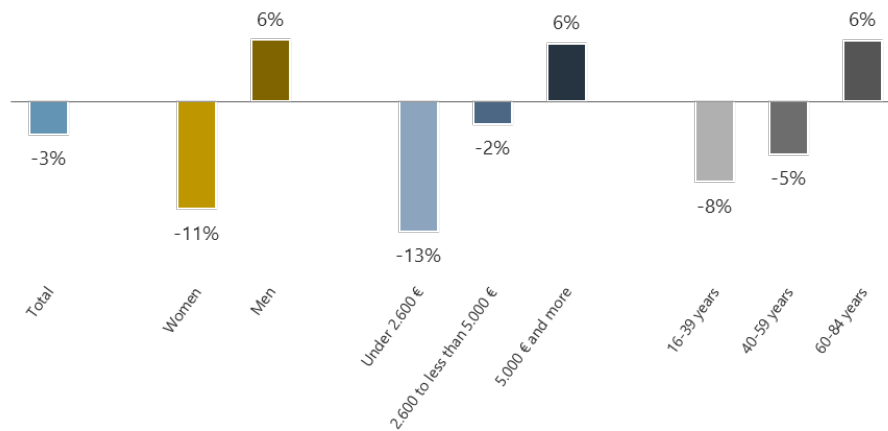
Differentiated by age, the general sporting activity decreases successively from 94% among the 16-39 year olds to 77% among the 60-85 year olds, while the regular sporting activity also decreases successively, but less strongly. If sport is practised at an older age, this tends to be on a regular basis, while in the younger age groups there are many occasional sportsmen and women.

Compared to 2017, the share of the regular, i. e. weekly sport-active population has decreased by a total of three percent, as can be seen in Figure 2. This decline does not affect all population groups equally. In particular, people with comparatively low incomes, women and younger people (aged 16-39) show a significant decline in the proportion of the population that is regularly active in sports. The decline amounts to 13% among people with lower incomes, 11% among women and 8% among younger people.

⁴ The gender "diverse" was also taken into account during the survey, but the resulting number of cases is too small for a separate evaluation.

Fig. 2: Development of regular sports participation in 2020, compared to 2017.

DIFFERENCES IN DIFFERENT POPULATION GROUPS, IN PERCENT

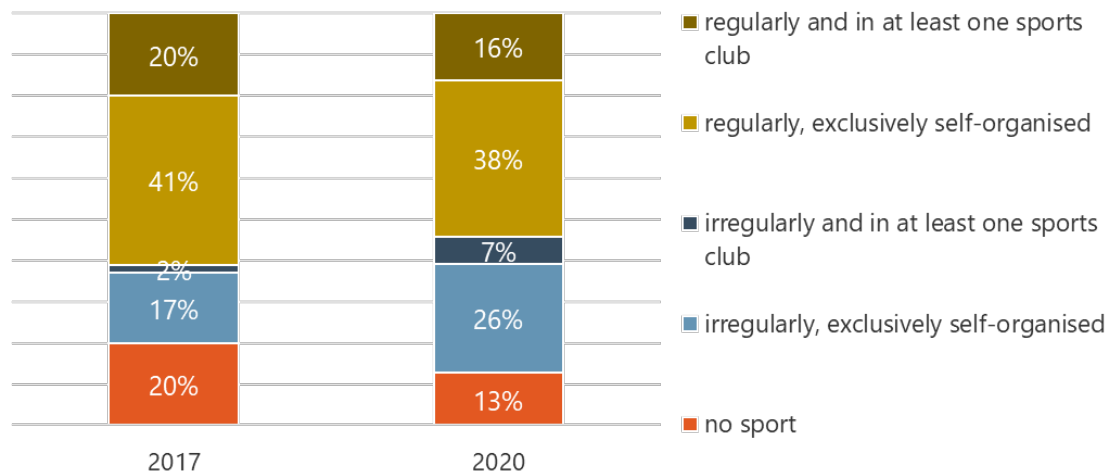


Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

In contrast, the proportion of men who are regularly active in sports increased by six per cent in 2020, as did people with high incomes and people of higher age, i. e. here between 60 and 84 years inclusive.

Regularity according to organisational form. In the following, the basic, i. e. irregular, and regular practice of sport are additionally differentiated according to whether the respective person practices sport in at least one sports club or is not active in any sports club, i. e. exclusively practices self-organised sport. Initially, however, the comparison of the survey years in Figure 3 shows which shares of the population have not practised any sport at all. At 13% in 2020, a significantly lower proportion of the population did no sport at all than in the last measurement in 2017, where the proportion of the population that was completely inactive in terms of sport was still 20%. This can be explained by the strong increase in sports participation in running/jogging, cycling and hiking.

Fig. 3: Sport participation by form of organisation and regularity in a time comparison.

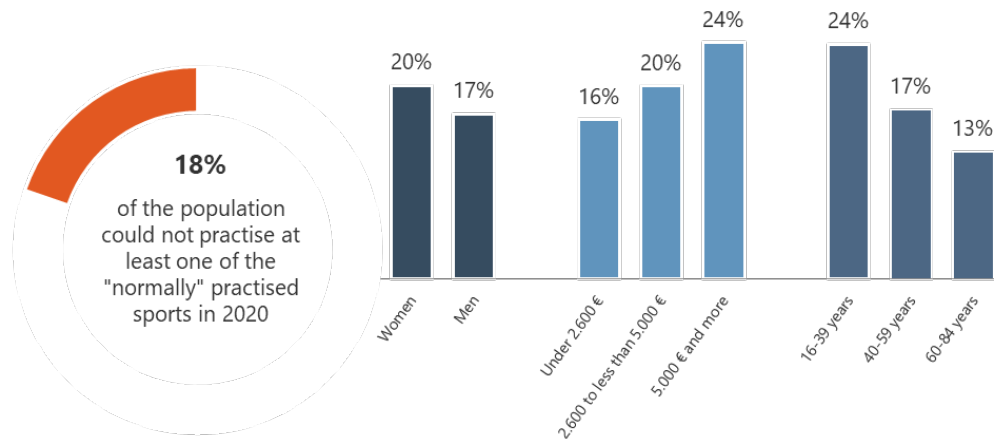


Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

Furthermore, there is an increase in sports activity in self-organised and irregular sports. In 2020, 64% of the population were exclusively involved in self-organised sport, if irregular (26%) and regular (38%) sporting activities are included. Of these, four out of ten engage in irregular self-organised sport, compared to "only" three out of ten in 2017. The proportion of the adult population in organised sport has not changed in the comparison period. However, the regularity of sporting activity has been reduced more than in self-organised sport: while in 2017 only 9% of club sportsmen and women were irregularly active in sport (2% of the total of 22% club sportsmen and women), in 2020 it was 30% of all club athletes (7% of a total of 23%).

Other Covid-19-related effects on sports activity. Asked directly, just under two in ten people (18%) were unable to take part in at least one of their normally practised sports in 2020 due to the pandemic, as can be seen in the figure below. This applies to a slightly greater extent to women and to a significantly greater extent to people with higher incomes and in lower age groups - here, almost every fourth respondent reports not having practised at least one of the sports due to the pandemic. When looking at the breakdown by income, it should be noted that people with higher incomes are more active in sports anyway (see Fig. 1), which may explain the higher proportion of non-participation in sports.

Fig. 4: Proportion of people who could not participate in at least one sport in 2020 (total and by demographic characteristics).

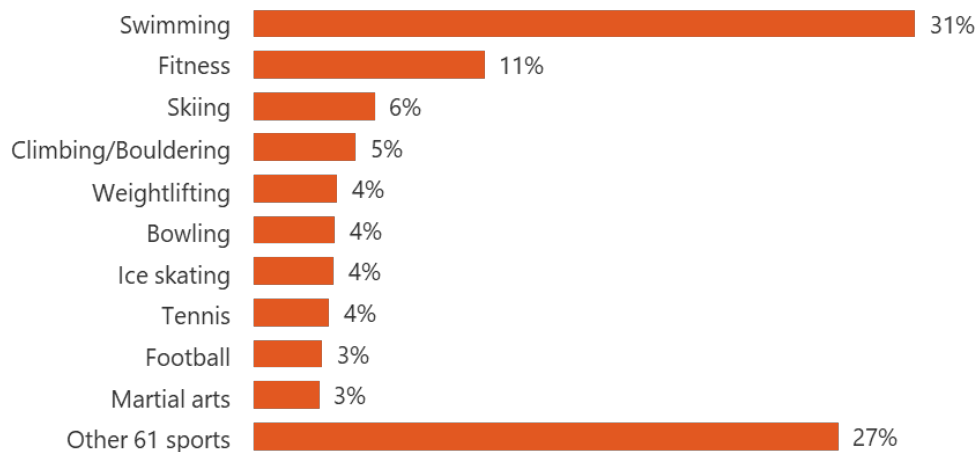


Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

The fact that younger people were unable to take part in at least one sport may be largely due to the fact that this age group does significantly more sport in sports associations or other institutions (including schools, universities, gyms), which were only able to offer their members a very limited range of sports in 2020 due to the pandemic.

If we look at the sports that could not be practised within the group of people who could not practise at least one sport, we see that swimming was by far the sport that could not be practised most often (Fig. 5).

Fig. 5: Non exercisable sports in 2020 (top 10 and others).



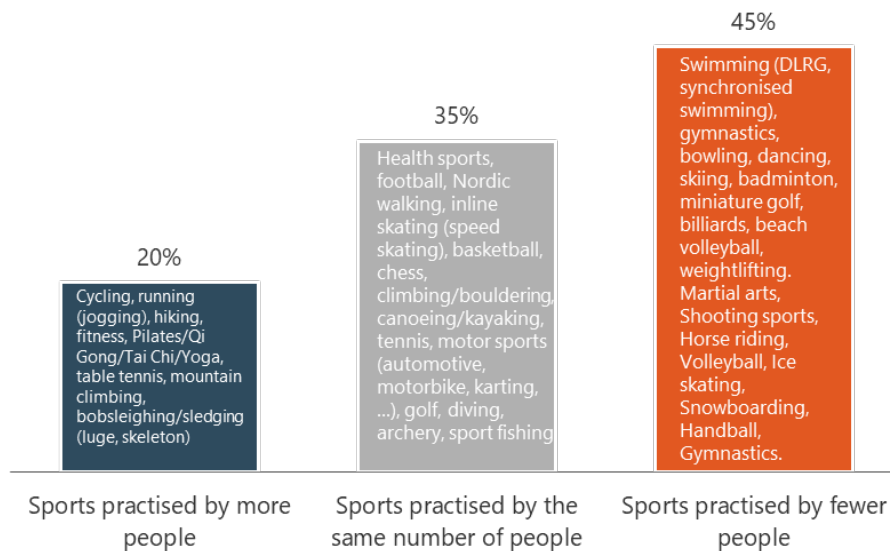
Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020. Basis: People who were unable to participate in at least one sport in 2020 due to the Covid 19 pandemic. Sum of responses = 100%.

Fitness was also frequently named as a sport that could not be practised. This was an open survey, i. e. the results presented are to be interpreted as a qualitative picture of the mood, without being able to guarantee completeness with regard to the 71 types of sport (clusters).

Almost half of the sports were played by fewer people in 2020 (45%) than in the last measurement in 2017 (Figure 6). This tends to affect sports that take place indoors, such as swimming,

bowling, gymnastics, martial arts or shooting sports, volleyball, handball, or gymnastics, but also horse riding, skiing and beach volleyball.

Fig. 6: Proportions of sports practised more or less often *.



Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

* Proportion of sports played by more, the same number or fewer people at least once a year in 2020 than in 2017. Basis: Top 40 sports. Sum = 100%.

After all, 20% of the sports were practised by a larger proportion of the population. The higher shares of exercise are primarily found in the high-volume outdoor sports such as cycling, running/jogging, hiking, mountain climbing and sledging. Fitness was also practised by more people compared to 2017, but here the year 2017 is not a suitable year for comparison due to the generally positive development of fitness sports as already described above.

Figure 7 below shows the proportion of regular (i. e. weekly) sporting activity for the top 10 sports, differentiated according to the phases "during" and "without" Lockdown⁵. According to this, the regularity of sporting activity during the lockdowns was significantly reduced in almost all of the sports shown here. This is especially true for bowling, swimming and football, with over 70% fewer athletes active each week. Fitness, health sports and gymnastics were also practised much less regularly during the lockdowns than in times without lockdown. While there were very few positive differences in walking and running, cycling was also done less regularly during the lockdowns - for example, trips to work may have been omitted.

⁵ The respondents were asked for a general assessment across both lockdowns, without differentiation between the two individual lockdowns in spring and autumn or winter. As can be shown, for example, by the MoMo study for children & adolescents, physical activities can also differ between the lockdowns (more than normal during lockdown one, less during lockdown two; Schmidt et al. 2021).

Fig. 7: Regularity by sport and during/without lockdowns.

SPORTING ACTIVITY AT LEAST ONCE PER WEEK (IF PRACTICED)

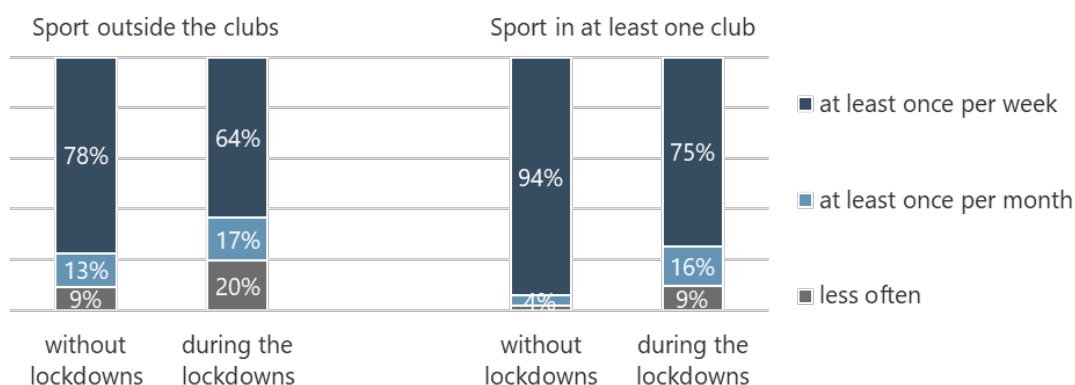
	Without lockdowns	relative difference	During the lockdowns
Cycling	66%	-12%	58%
Running/Jogging	69%	1%	70%
Hiking	32%	3%	33%
Fitness	86%	-51%	42%
Swimming	46%	-72%	13%
Health sport	85%	-41%	50%
Soccer	52%	-71%	15%
Gymnastics	82%	-29%	58%
Pilates, Yoga etc.	73%	-14%	63%
Bowling	10%	-90%	1%

Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

The significant decrease in the regularity of sports practice is also evident in aggregate across all sports in and outside of clubs (Fig. 8). Club athletes, who are generally characterised by more regular training than self-organised athletes, had to reduce their weekly sporting activity more frequently: 94% of club athletes were active at least once a week without the lockdowns, while this proportion fell to 75% during the lockdowns, which corresponds to a difference of 19 percentage points. In the case of exclusively self-organised sportspeople, the proportion of those active weekly fell from 78% without lockdowns to 64% during the lockdowns, i. e. by 14 percentage points.

Fig. 8: Regularity of sporting activity without and during lockdowns and by organisational form

ACTIVE ATHLETES ONLY



Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

The results presented on changes in sports behaviour in the corona pandemic are confirmed by further studies described in the following excursus.

Excursus: State of research / secondary data on sports behaviour.

Studies. In a study, the University of Giessen focused in particular on the lockdown phase in spring 2020 and showed that 31% of the respondents had reduced their sporting activities. In contrast, only 6% of respondents did more sport during this phase compared to before. According to this study, age in particular was related to the change in sports activity - the duration of sports tended to be reduced more with increasing age. 27% of the respondents said that their sport activity had not changed during the lockdown. 36% did not practise any sport at all, regardless of the lockdowns (Mutz & Gehrke, 2020).

A study by Schöttl, Follert and Daumann investigated how sports behaviour among recreational and amateur athletes changed during the new circumstances (Schöttl, Follert & Daumann 2022). According to this, the lockdown had a particularly harsh effect on those who mainly practise sport in clubs. Club athletes did significantly less sport during the lockdown than individual athletes, who had already organised their own sports programme and completed it on their own. On the contrary, self-organised athletes did significantly more sport during the lockdown. It was also not confirmed that team athletes substitute their team sports with individual sports. This was driven by the motives for practising sport: the competitive character and social aspects of club sport were not addressed by the alternative self-organised sport (Schöttl, Follert & Daumann 2022).

Data from a survey conducted as part of the SSA in March and April indicate reduced sporting activity overall. According to this, 50% of the respondents said they had done less sport than normal during the lockdown, compared to 10% of respondents with more sporting activity (Sports Satellite Account 2020).

In the course of 2020, on the other hand, the reduced sporting activity seemed to stabilise again, as shown by another survey conducted within the framework of the SSA. According to this, in November 2020, 35% of the respondents reported having done less or even significantly less sport so far because of the pandemic, while 24% reported higher or significantly higher sport activity. In this study, sports with a fixed sports facility and club sports could be described as the losers of the lockdown. On the one hand, it was shown that the majority of sports could be practised less or significantly less. This particularly affected sports that are predominantly tied to a fixed sports facility that was closed at the time of the lockdown or that are increasingly practised in clubs. Examples of sports that were particularly affected were - without a complete list - bowling, swimming, handball, minigolf, golf or fitness. On the other hand, a few already high-volume sports were practised more frequently during the lockdown. This concerns the outdoor sports of running/jogging, cycling, Nordic walking and hiking (Repenning et al. 2021b).

In a multinational study (14 countries), Wilke et al. examined the extent of pandemic-related restrictions in public life on the level of physical activity (Wilke et al. 2021). Compared to the pre-restriction period, self-reported physical activity decreased overall by 41% for moderate to intense physical activity and by 42% for intense physical activity. The reduction was higher in occupational than in leisure time, greater among young and old compared to middle-aged individuals, and greater among previously more active compared to less active individuals, but similar between men and women. Compared to the pre-pandemic period, the proportion of

people adhering to the WHO guidelines decreased from 80.9% to 62.5%. According to the authors, the results suggest that physical activity levels declined significantly worldwide during the COVID-19 pandemic (Wilke et al. 2021).

Froböse and Wallman-Sperlich (2021) do not show any changes in the level of physical activity; the values for 2018 and 2021 are similar: for 2021, 19% "inactive", 11% "minimalists" and 70% "active"; compared to 2018, only the proportion of "active" people has increased by one percentage point. Nevertheless, the authors of the DKV Report uncovered pandemic-related changes in physical activity behaviour for 2020: According to the report, 48% of respondents said they went for a walk more often, 24% each walked or cycled more often or did more fitness at home, 21% cycled more in their free time, 17% went jogging or walking more often, 14% used more relaxation techniques and 13% increasingly used fitness apps or online sports courses (Froböse & Wallmann-Sperlich 2021)⁶.

With regard to lockdown-related changes in the physical activity and sports behaviour of children and adolescents, the Motor Function Module Longitudinal Study (MoMo Study for short) yields the following results, among others: Declines in sporting activity were already evident in the first lockdown in spring 2020 and even more markedly in the lockdown in autumn 2020. In contrast, physical activity - which includes activities such as playing outdoors, gardening, housework, walking or cycling - exceeded the reference values in the first lockdown, while physical activity decreased significantly during the second lockdown. This effect is also seen in the proportions of children and adolescents who comply with the WHO guidelines on physical activity⁷ (higher proportions during Lockdown 1, lower during Lockdown 2). However, both lockdowns had in common that "vulnerable" and disadvantaged groups had suffered particularly from the lockdowns, including children and adolescents without access to green spaces and overweight children (Schmidt et al. 2021).

Activity-Tracker. Usage data from tracking apps such as Garmin (manufacturer of wearables, among others) or Strava (social network for internet-based tracking of sporting activities) show significantly higher activity rates for April 2020 than in the previous year. According to Garmin, the recorded running activities in Germany increased by 75%, those related to cycling even by 87%. Indoor cardio training, on the other hand, was reduced by 50%, as was lane swimming (Garmin 2021). For Strava, the activities measured during the first lockdown exceeded those expected for Germany by 45% (Strava 2021). It is unclear for both data sources to what extent actual changes in sports behaviour can be concluded on the basis of these data - were more activities recorded per user or were there more users? Were other activities compensated, i. e. exercised less instead? Regardless of this, the results confirm the picture of significantly expanded outdoor activities in 2020.

⁶ For the interpretation of the results, it should be noted that the data were collected from the end of March to the beginning of May 2020 and therefore only cover a part of the year 2020 (strongly influenced by the lockdown)..

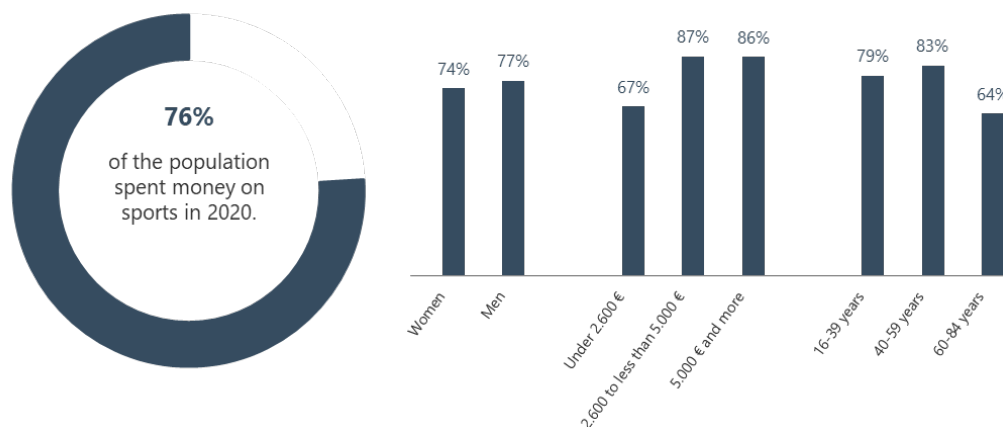
⁷ At least 60 minutes of moderate to high intensity physical activity daily.

Consumption expenditure related to active sports behaviour differs by income and age.

In this section, sport-related consumer behaviour is presented. First of all, it indicates how many people in the adult population and which population groups have spend money on sport in 2020 and for which consumption categories. This is followed by a description of the total sports consumption extrapolated to the adult population as well as individual consumption categories and types of sports. By means of time comparisons (2017 and 2020), the effects of the Covid 19 pandemic are presented. Particularly strongly increased and particularly strongly decreased expenditures, which can be analysed in detail through the combination of type of sport and consumption category, form the conclusion of this chapter.

Population shares with sport-related expenditure. With a share of 76%, a large part of the adult population spent money on sports in 2020. In relation to the 87% of the population (see Fig. 1 above) who played sport, this means that for 86% of those who played sport, sport also involved at least one expense (76% divided by 87%), or vice versa, that only 14% of athletes did not spend any money on sport at all.

Fig. 9: Population Shares with expenditure on sport



Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

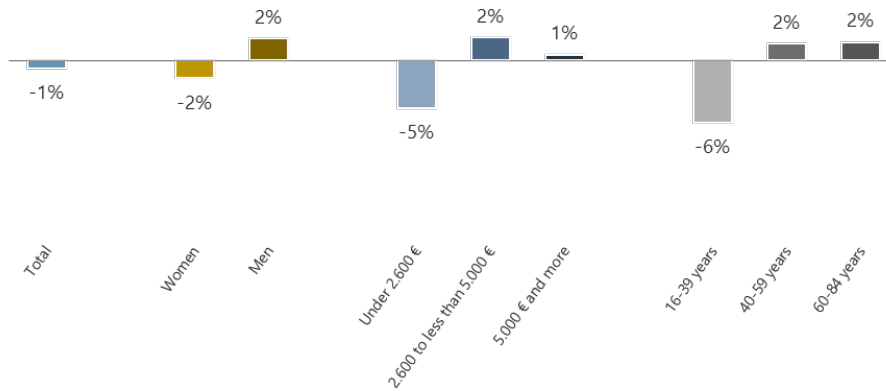
Men tend to spend more money on sports than women, but to a lesser extent. Significant differences can be seen between the income classes⁸. While only (or at least) 67% of people in the lowest income bracket spent money on sports, almost 90% of people in the middle- and high-income bracket did so. Differentiated by age, people in the middle age group are the most likely to spend money on sports.

Compared to 2017, the proportion of people in the population who basically spent money on sport has remained almost constant (Fig. 10.) An analysis of (regular) sporting activity shows a lower proportion among women, people with lower incomes and younger people.

⁸ Monthly net household income.

Fig. 10: Development of population shares with expenditure on sport in 2020, compared to 2017

DIFFERENCES IN DIFFERENT POPULATION GROUPS, IN PERCENT



Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

Figure 11 illustrates the categories on which the population spent money on sport in 2017 and 2020 and the changes that have occurred. Between 30% and 37% of adults spent money on sports shoes, sportswear and sports equipment in 2020, for example. Apart from travel to sports, which involved spending for just under half of respondents (46%), these basic items represent the most common sports-related goods. Compared to 2017, sports shoes and sportswear were purchased by significantly fewer people. The situation is different for sports equipment, where the population share remained very constant at 30%.

Fig. 11: Population shares with expenditure on various sport-related goods and services, 2017 vs. 2020

PROPORTION OF RESPONDENTS WITH AT LEAST ONE SPENDING PER CATEGORY

	2017	2020	Difference in % points	Relative difference
Sports shoes	40%	34%	-6%	-15%
Sportswear	45%	37%	-8%	-18%
Sports equipment and gear (new purchase)	31%	30%	-1%	-5%
Care, repair & maintenance of equipment	20%	21%	1%	5%
Rental & loans	15%	6%	-9%	-61%
Membership fees (for active sports)	15%	16%	1%	10%
Use of sports facilities (Entrance fees, without fitness)	37%	22%	-15%	-42%
Gyms & online courses	17%	21%	4%	24%
Course Fees & Fees for training or perfor. diagn.	9%	6%	-3%	-33%
Competition or participation fees	3%	3%	0%	0%
Sports trips (to training or competitions)	Not determinable	46%		
Sports travel (sports holidays, day trips)	22%	24%	2%	10%

Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

With the exception of a few expenditure categories (expenditure on gyms⁹, expenditure on the care, repair and maintenance of sports equipment, club fees and sports trips (especially day trips)), fewer people spent money on the various categories for most of the other expenditure categories. Entrance fees for the use of sports facilities, rental and loan expenses as well as expenses for course fees were reduced the most. While at a very aggregated level, the comparison of population shares with basic expenditure on sport shows only slight differences between the years (Fig. 10), the comparison of these shares in relation to various consumption categories already indicates considerable reductions in expenditure in 2020 (Fig. 11).

Sports consumption expenditure by gender, income and age, without time comparisons. If

one compares the shares of different population groups that spent money on sport or the different consumption categories in 2020, a clear picture emerges. Figure 12 shows the respective deviations from the total value, i. e. the entire adult population. With regard to gender-specific differences, it can be seen that women spent more money on course fees, training or performance diagnostics than men. On the other hand, more men than women spent money on sports shoes, sports equipment, care, repair and maintenance, rental and loan expenses as well as sports-related travel to training or sports practice. There are no significant differences between men and women in spending on sportswear, club fees (for active sports), expenditure on the use of sports facilities, gyms, competition and participation fees, and sports trips, i.e. sports holidays or training camps.

While the differences in consumption frequencies between the sexes are comparatively small, there are clear differences by income class. In almost all consumption categories, more people with higher incomes spent money than people with lower incomes. Similar proportions can be seen among the income classes only for rent and loan expenses and course fees.

The consumption behaviour of different age groups is also very different. Expenditure on sports equipment, sports clothing, admissions to sports facilities and gyms is most common among younger people, while expenditure on sports shoes, care, repair and maintenance, as well as sports-related travel, is most common among middle-aged people.

Expenditure on club fees (for active sports) is made by an above-average number of older persons - this is the only category in which older persons have made above-average expenditures.

⁹ Here, however, the comparison is limited in interpretation due to sharply rising membership figures from 2017-2019 - there may also have been reductions in the costs of gyms and online courses during the pandemic

Fig. 12: Shares with expenditure on sport in 2020 by gender, income and age

DIFFERENCE IN POPULATION SHARES WITH AT LEAST ONE ISSUE PER CATEGORY COMPARED TO THE OVERALL FIGURE IN 2020, IN PERCENTAGE POINTS

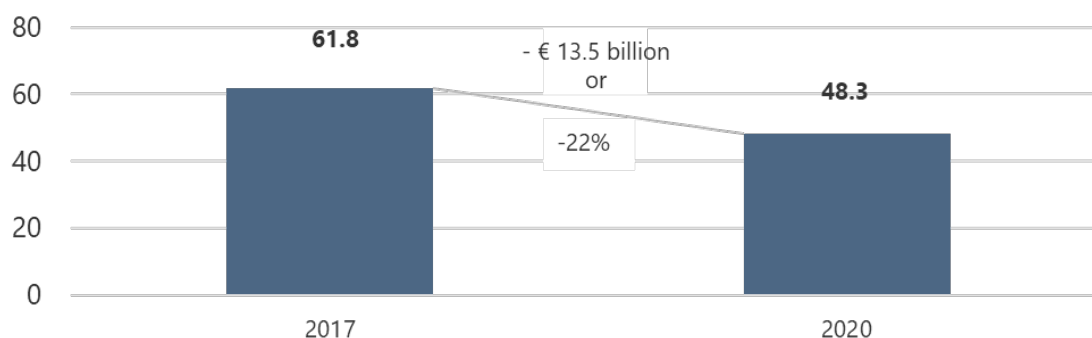
	Women	Men	Under 2.600 €	2.600 to less than 5.000 €	5.000 € and more	16-39 years	40-59 years	60-84 years
Sports shoes	-2	2	-5	5	12	-6	15	-9
Sportswear	-1	1	-10	8	18	3	3	-7
Sports equipment and gear (new purchase)	-3	3	-7	4	11	8	1	-9
Care, repair & maintenance of equipment	-5	5	-4	3	10	-2	5	-4
Rental & loans	-2	2	1	1	0	3	0	-4
Membership fees (for active sports)	-0	-0	-7	6	7	-4	0	5
Use of sports facilities (Entrance fees, without fitness)	-1	1	-4	6	2	7	-0	-7
Gyms & online courses	0	-0	-6	3	11	7	1	-9
Course Fees & Fees for training or perfor. diagn.	2	-2	0	-0	2	-2	2	-0
Competition or participation fees	-1	1	-1	0	4	-1	1	-1
Sports trips (to training or competitions)	-3	3	-10	11	19	-3	9	-6
Sports travel (sports holidays, day trips)	1	-1	-8	5	14	2	5	-8

Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

Total consumer spending down 22%, with differences between spending categories and types of sport.

Consumer spending on sport as a whole and on various sport-related goods and services in time comparison. Adding up the categories considered in the SSA (and described in detail later), total consumer spending on active sports for adults amounted to € 61.8 billion in 2017, and € 48.3 billion in 2020. Thus, in 2020, € 13.5 billion less was spent, which corresponds to a minus of 22% (Fig. 13).

Abb. 13: Total expenditure on active sport in 2017 and 2020, in € billion.



Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

Adult expenditure fell in almost all categories from 2017 to 2020 (Fig. 14). With regard to the decreased expenditure, a distinction must be made between the decreases in absolute amounts in € billion and the relative differences. Measured in absolute amounts, the highest reduction in expenditure is in sports-related travel: € 4 billion less was spent on travel to training or competitions than in 2017, and € 2 billion less in total for sports holidays and training camps. Expenditure on the use of sports facilities was also very significantly reduced by € 2.3 billion or 62% (from € 3.7 billion to € 1.4 billion). Expenditure on rental and hire of sports equipment (minus € 1.4 billion), sportswear (minus € 1.3 billion), care, repair and maintenance of sports equipment (minus € 1.0 billion) and sports footwear (minus € 0.8 billion) each fell by about € 1 billion.

In terms of the relative differences between the years 2017 and 2020, expenditure that tends to be linked to fixed places of sporting activity was reduced most significantly. This applies, for example, to rentals (e. g. ski equipment, water sports rentals) with minus 78%, admissions for the use of sports facilities (e. g. swimming pools, ski lifts) with minus 62% and competition and participation fees with minus 67% (whereby the initial level of € 0.3 billion is low compared to the other categories). Figure 14 below shows the aggregated expenditure of the adult population on active sport across all sports in 2017 and 2020 in € billion, as well as absolute differences and relative differences in percentages.

Fig. 14: Total expenditure on different consumption categories in active sport in 2017 and 2020, in € billion.

EXPENDITURE IN BILLION €		2017	2020	Difference in € billion	Relative difference
Sports shoes		4.6	3.8	-0.8	-17%
Sportswear		6.4	5.1	-1.3	-20%
Sports equipment and gear (new purchase)		10.0	11.4	1.4	14%
Care, repair & maintenance of equipment		5.0	4.0	-1.0	-20%
Rental & loans		1.8	0.4	-1.4	-78%
Membership fees (for active sports)		2.0	1.7	-0.3	-15%
Use of sports facilities (Entrance fees, without fitness)		3.7	1.4	-2.3	-62%
Gyms & online courses		4.1	4.6	0.5	12%
Course Fees & Fees for training or perfor. diagn.		1.2	0.6	-0.6	-50%
Competition or participation fees		0.3	0.1	-0.2	-67%
Sports trips (to training or competitions)		9.7	5.7	-4.0	-41%
Sports travel (sports holidays, day trips)		7.2	5.2	-2.0	-28%
Other*					

Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

*Other: sports food, medical services, prevention products, books and magazines, computers, games software, video/audio material, liability insurance, equipment insurance, accident insurance, clubhouse or restaurant visits.

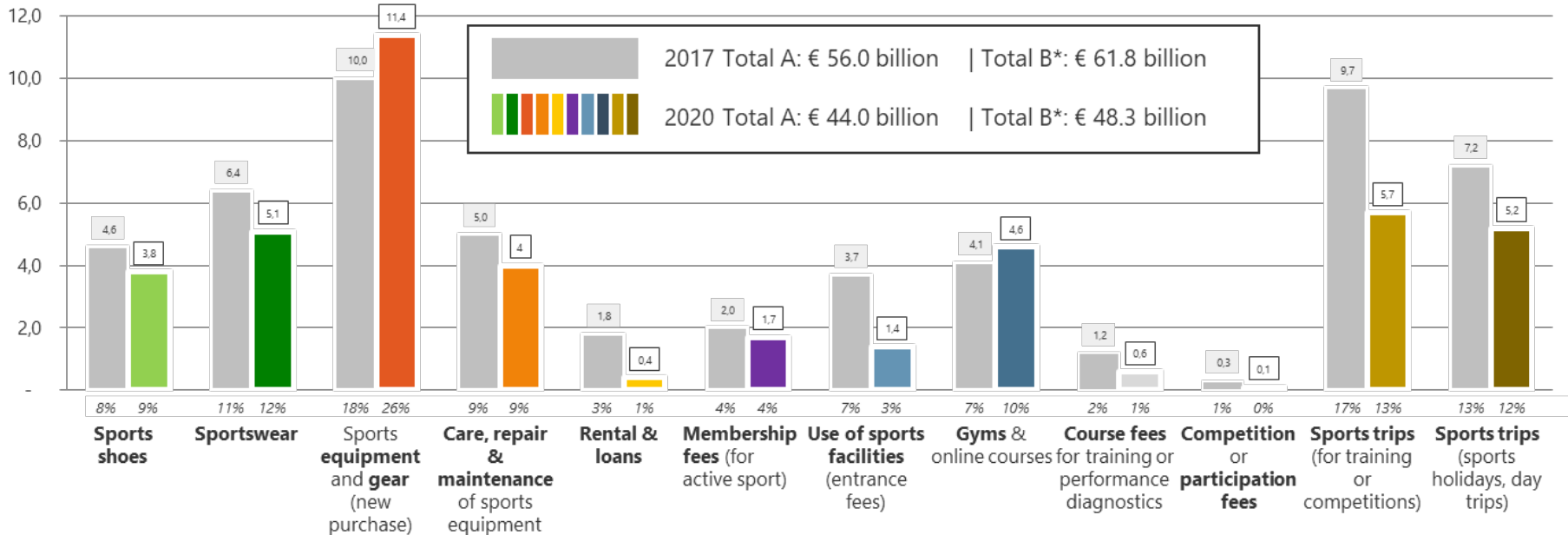
Two categories show higher expenditure in 2020 than in 2017. Firstly, more was spent on gyms and online courses. This is partly due to the comparison period. In fact, expenditure on training in fitness studios (overall) has decreased. According to the DSSV, the turnover of fitness studios was € 5.51 billion in 2019 (with turnover figures increasing in previous years) and € 4.16 billion in 2020, i. e. around € 1.3 billion or 25% less. In addition, the number of members in 2020 has fallen from 11.7 to 10.3 million (minus 12%, including suspended memberships) (DSSV 2021).

Thus, in 2020, more money was spent exclusively on sports equipment than in 2017. While sports equipment worth € 10 billion was consumed in 2017, it was € 11.4 billion in 2020. The € 1.4 billion in additional expenditure corresponds to an increase of 14 percent.

Consumption patterns over time. Figure 15 once again illustrates the different consumption patterns in 2017 and 2020. While sports-related trips, i. e. trips to sports or training as well as sports-related trips (sports holidays and day trips), accounted for a total of 30% of sports-related consumer spending before the start of the pandemic, trips accounted for only 25% of total spending in 2020. In contrast, the relevance of sports equipment has increased significantly, with its share rising from 18% to 26%. Admissions for the use of sports facilities accounted for a significantly lower share of total consumption (3%) than in 2017 (7%), while spending on gyms and online courses accounted for a higher share (7% in 2017 vs. 10% in 2020).

Abb. 15: Consumption patterns for active sport (16+)

AGGREGATED CONSUMPTION PATTERN FOR ACTIVE SPORTS ACTIVITY IN GERMANY (16+), IN € BILLION (ITALICS = % OF TOTAL).



*Total B: plus expenses for miscellaneous, e.g. sports food, medical services, prevention products, books and magazines, computers, games software, video/audio material, liability, equipment and accident insurance, clubhouse or public house visits

Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

Sports with the highest consumer spending. In 2020, the most money was invested in cycling across all categories with a total of € 11 billion (Fig. 16). On average, the 22% of the population who spent money on cycling spent about € 380 per person. Compared to 2017, cycling-related consumption has more than doubled, taking over from fitness (previously ranked as the top sporting expenditure). More was also spent on running and jogging in 2020, at € 2.7 billion (€ 2.2 billion in 2017).

Fig. 16: Top 10 sports with the highest spending on active sports in 2020

	Proportion of the population practising the sport (in %)	Proportion of the population with expenditure on the sport (in %)	Of which average expenditure for the sport ("> 0")	Total expenditure by persons on the sport (in € billion)*	2017		
					Ranking	€ billion	
1 Cycling	42%	22%	380 €	11.0	↑	2	5.2
2 Fitness	31%	20%	320 €	8.2	↓	1	7.7
3 Hiking	33%	23%	200 €	4.5	→	3	4.7
4 Horse riding	3%	3%	1.540 €	3.7	→	4	3.9
5 Running/Jogging	34%	19%	110 €	2.7	↑	7	2.2
6 Motorsport	3%	3%	1.230 €	2.6	-	-	-
7 Swimming	29%	21%	100 €	1.9	↓	5	3.6
8 Golf	3%	3%	890 €	1.8	-	-	-
9 Skiing	7%	4%	310 €	1.5	↓	6	2.2
10 Mountain climbing	8%	6%	210 €	1.1	-	-	-
Other sports	-	-	-	5.0	-	-	-

Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

In the equestrian sector, the differences between the years are comparatively small at about minus € 200 million, which is also owing to the fact that the high operating and maintenance costs for stables and horses, for example, are not variable, but fixed (if own horses are available).

Expenditures for swimming and skiing were significantly reduced in 2020. For swimming, there is a decrease of € 1.7 billion to € 1.9 billion in 2020, for skiing € 0.7 billion to € 1.5 billion in 2020.

The higher expenditure on cycling is primarily due to a € 3.2 billion increase in expenditure on "sports equipment", i. e. for cycling primarily bicycles, as shown in Figure 17. In total, € 6.3 billion was spent on bicycles and e-bikes in 2020. The Zweirad-Industrie-Verband (ZIV) also calculated a sales value of € 6.4 billion for bicycles and e-bikes in 2020. Compared to the turnover in 2019 of € 4.0 billion, the turnover had thus increased by around 61% (ZIV 2021).

The adult population also spent more money on cycling-related day trips (plus € 0.5 billion) or cycling clothing (plus € 0.3 billion) than in 2017. Overall, in line with the pandemic-related change in sports behaviour, among other things, higher spending volumes were recorded in the consumption categories, especially in outdoor sports, as the top 10 of additional spending in the combination of sports and consumption categories show (figure 17).

Fig. 17: Top-10 additional expenditure in the combined detailed view at sport and expenditure level, 2017 vs. 2020

Expenditure category	sport	2017, in € billion	2020, in € billion	Absolute difference 2017-2020, in € billion	Development from 2017 to 2020
Sports equipment	Cycling	3.1	6.3	3.2	105%
Travelling to the sport – by car	Hiking	0.2	0.8	0.6	279%
Day trips total expenditure	Hiking	0.5	1.0	0.5	93%
Sports shoes	Running/Jogging	0.7	1.2	0.5	66%
Day trips total expenditure	Cycling	0.4	0.8	0.4	83%
Sports equipment	Fitness	0.5	0.8	0.3	68%
Sportswear	Cycling	0.5	0.8	0.3	61%
Travelling to the sport – by car	Skiing	0.0	0.2	0.1	330%
Clubhouse or club restaurant visits	Cycling	0.2	0.3	0.1	46%
Sportswear	Running/Jogging	0.5	0.6	0.1	17%

Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020.

If we look at the combinations of sports and expenditure in Figure 18 with regard to the largest reductions in expenditure, expenditure on journeys to sports with one's own car for fitness sports with minus € 0.8 billion, swimming with minus € 0.5 billion and football with minus € 0.2 billion as well as sports holidays for hiking with minus € 0.6 billion and skiing with minus € 0.6 billion in 2020 are significantly lower than in 2017. In general, swimming sports are affected by large reductions in expenditure in many categories.

Fig. 18: Top-10 of reduced expenditure in the combined detailed view at sport and expenditure level, 2017 vs. 2020

Expenditure category	Sport	2017, in € billion	2020, in € billion	Absolute difference 2017-2020, in € billion	Development from 2017 to 2020
Travelling to the sports – by car	Fitness	1.8	1.0	-0.80	-47%
Use of sports facilities (entrance fees)	Swimming	1.2	0.5	-0.80	-61%
Sports holidays	Hiking	1.6	0.9	-0.60	-41%
Sports holidays	Skiing	1.0	0.5	-0.60	-56%
Travelling to the sports – by car	Swimming	1.2	0.7	-0.50	-44%
Sportswear	Swimming	0.5	0.1	-0.30	-70%
Use of sports facilities (entrance fees)	Skiing	0.5	0.2	-0.30	-58%
Course fees, training, diagnostics*	Horse Riding	0.3	0.0	-0.30	-91%
Travelling to the sports - PKW	Football	0.4	0.2	-0.20	-58%
Sports shoes	Football	0.3	0.1	-0.20	-54%

Source: Sports Satellite Account (SSA) of the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Institute for Sport Science (BISp); calculations and presentation: 2HMforum. Reporting year: 2020. *More specifically: course fees, self-financed training or performance diagnostics.

Excursus: Impact of the Covid 19 pandemic on sports clubs.

In order to identify the need for action, decision-makers in politics, sport and business should be provided with reliable data on the effects of the Covid 19 pandemic on the sports economy as early as possible. In summer 2020, the BMWi therefore commissioned a study to determine the impact of the pandemic on sport (Repenning et al. 2021b). A central objective of this study was to determine the economic impact of the Covid 19 pandemic on sports clubs and organised sport. The target group of the survey was all sports clubs in Germany. The data was collected by means of an online survey. The invitation to participate in the survey was sent by the state sports federations. The field phase took place in January 2021. 7,024 sports clubs from 11 state sports federations took part in the survey, which corresponds to a participation rate of 12%. The survey lasted an average of 20 minutes (median).

The central results of the study with regard to the sports clubs are presented below. A lack of member recruitment, especially due to a lack of events, was most frequently named as a "strong" or "rather strong" problem by the sports clubs. A rather strong loss of active members was also stated by many sports clubs. The problem of the loss/dismissal of trainers and exercise instructors was rather minor.

The income of sports clubs from events fell most significantly in 2020, and sponsorship income was also significantly reduced. Membership fees, on the other hand, had not fallen dramatically in January 2020; these represent a significant lever due to their great importance for the basic financing of sports clubs. As of January 2021, the overall average development of net membership in mass sports was approx. -3%, compared to the previous year¹⁰. Admission fees were reduced by one third. Expenditure was reduced most significantly in the special-purpose sector (including the organisation of sporting events). Significantly lower payments to trainers and coaches were also observed; construction and operating costs for sports facilities remained consistently high in 2020. In total, there was a minimum income (across all clubs) of approx. 640 million € and savings of 620 million € in 2020 for grassroots sports clubs.

In January 2021, 16% of the sports clubs were in a poor economic position or their existence was threatened. 19% of the sports clubs applied for at least one support measure across all measures, 16% of all sports clubs received support. For 2021, the economic situation was predominantly assessed as worse (43%) or similar to that in 2020 (53%). Challenges for 2021 were mainly related to active memberships and the recruitment and retention of volunteers. With regard to possible support for sports clubs to bridge the pandemic, there was a broad list of mentions with no particular focus. Therefore, there does not seem to be one support measure that solves most of the problems. More than half of the clubs did not see any positive effects of the pandemic. At the same time, this means that 45% of the clubs saw at least one reason to perceive the pandemic as an opportunity. First and foremost, a stronger bond between members and the opportunities of digitalisation were mentioned.

¹⁰ According to the DOSB survey and measured against the LSB figures, there will be a 3.5% decline in membership for 2020; the cut-off date for recording is 01.01.2020 or 2021 (DOSB 2021).

Positioning and discussion

Sport is a leisure activity that is mostly relevant to health and represents a significant economic factor. For this economic factor, private sport consumption and thus the sport behaviour of the population is of often underestimated but central importance. Against the backdrop of the Covid 19 pandemic, both aspects were examined in detail in the present report.

Overall, with regard to the sporting behaviour of the adult population, it can be noted that in 2020 (here as an indicator for Covid 19 effects), despite an increase in outdoor sport and an expansion of the basic, occasional sporting activity to larger parts of the population, less sport was practised overall due to the contact restrictions and the "lockdowns". Many sports (almost half!) were played less often in 2020 than in 2017. Athletes who play organised sports in clubs were more restricted by the pandemic than self-organised athletes. At the level of sports, the greatest increases in the number of active sportspeople in 2020 were recorded in running, hiking and cycling, while the greatest losses were recorded in swimming and bowling. Even taking into account methodological differences in the findings on sporting behaviour in the coronal pandemic (which depend, among other things, on the chosen research approach, the specific question, the understanding of sport (number of types and intensities of sport surveyed; sport vs. exercise vs. physical activity), the time of the survey or the temporal frame of reference), the results of this survey within the framework of the SSA, which combines the measurement of sporting activity with expenditure and economic effects, point in the same or a similar direction as previous research findings.

The lower level of sporting activity is reflected in the expenditure associated with sport, i. e. sport consumption. Overall, adults spent about € 13.5 billion less on active sports in 2020 than in 2017, a reduction of 22%. Lower expenditure relates to almost all expenditure categories and in particular to sports-related services (sports courses, rental and loan expenses, competition and participation fees and admissions for the use of sports facilities), but also to sports-related tourism. In the case of expenditure on sports equipment, a comparison of the years 2017 and 2020 shows a positive balance at the aggregate level, for which the continuing bicycle boom, which will accelerate again in 2020, is predominantly responsible.

That other factors besides the overall lower sports activity will have an effect on the lower sports consumption in 2020 is likely in view of the "consumption opportunities" also affected by the contact restrictions and lockdowns, such as closed sports shops. However, the effects cannot be considered isolated from each other any more than possible online substitution can be considered in terms of purchases.

The overall economic impact of this lower consumer spending in the form of macroeconomic indicators can only be calculated with a time lag. However, the pandemic posed an enormous challenge to sporting goods retailers and providers of sporting services in 2020, which the federal government (and the Länder) tried to counteract, among other things, with Corona emergency aid, bridging aid or short-time working allowances. The sports sector, for example, is one of the industries in which short-time work was used particularly frequently in comparison. The share of short-time work in selected sports sectors was consistently above the average for all sectors of the German economy. At its peak, more than a third of all employees in fitness centres were on short-time work. In sports clubs and the operation of sports facilities, the figures in

mid-2020 were also significantly higher than the peak of 16% for the economy as a whole, at up to 28% and 30% respectively (Bundesagentur für Arbeit 2021).

It is not only sport that has suffered from the Covid 19 pandemic. For example, according to data from the Federal Statistical Office, total consumer spending by private households (including sports consumption) fell by 6% in the first three quarters of 2020, while annual growth rates of 2.9% to 3.0% were observed in the years 2017 to 2019 (Federal Statistical Office 2020). In contrast, the consumption expenditure of adults for active sports has fallen by 22% - i.e. by a significantly higher amount compared to total consumption.

The results show gaps in club sport and thus also for children and young people, in the maintenance of voluntary work as well as for the swimming pools, which were already financially burdened before the pandemic. Special efforts are needed here to enable a recovery of sport as an economic factor and to avoid long-term negative effects.

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List of the 71 sports of the Sports Satellite Account (SSA)

(according to the Institute of Sports Science at the University of Mainz; Preuß, Alfs & Ahlert 2012). Own illustration.

Sports (alphabetical)	
American football	Football
Archery	Gliding/ Motor flying (Aviation sports)
Athletics	Golf
Badminton	Gymnastics/Aerobic (<i>German: Gymnastik</i>)
Ballet	Gymnastics (<i>German: Turnen</i>)
Baseball/ Softball/Cricket	Handball
Basketball	Health sports (back training, fall prevention, heart sports, lung sports)
Beach Volleyball	Hiking
Biathlon	Hockey
Billiards	Ice Hockey
Bobsleighting/ Sledding (luge, skeleton)	Ice skating (figure skating, speed skating, ...)
Bodybuilding	Inline skating (speed skating)
Bowling/ Skittles	Lawn power sports
Boxing	Martial arts (Aikido, Karate, Judo, Ju Jutsu, Taekwondo, Kickboxing, ...)
Canoeing/ Kayaking	Minigolf
Chess	Modern pentathlon
Climbing/ Bouldering	Motor sports (automobile, motorcycle, kart, ...)
Curling	Mountaineering
Cycling (BMX, road bike, mountain bike, artistic cycling, bicycle ball, bicycle polo, unicycle hockey, ...)	Nordic walking
Dancing	Paragliding/ Hang gliding
Diving	Pilates/Qi Gong/Tai Chi/Yoga
Fencing	Riding (vaulting, dressage, military, show jumping, ...)
Fitness (gym - courses, equipment, ...)	Roller skating (roller hockey)

Rowing	Squash
Rugby	Windsurfing/ Surfing
Running (Jogging)	Swimming (including DLRG – German Life-guard Association, synchronized swimming)
Sailing	Table tennis
Shooting	Tennis
Skateboarding	Triathlon
Skiing (Alpine, Nordic, Cross-country, ...)	Ultimate Frisbee
Skydiving	Volleyball/ Fistball
Snowboarding	Water jumping
Sport acrobatics	Water polo
Sport boating	Water ski/ Wakeboarding
Sport fishing	Weightlifting
Wrestling	

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