Wiesbaden, 21 February 2019

**Background document on the 2019 revision of the consumer price index for Germany**

The consumer price index for Germany is regularly revised. In the context of changing over to a new base year - from 2010 to 2015 - the weighting patterns have been updated. Also, methodological improvements have been implemented in consumer price statistics. Both issues may lead to changes in the price development data released earlier.

This background document explains the effects that revisions of the weighting patterns have on the consumer price index. It also shows the impact of methodological changes on the results of the consumer price index, including the influence of the new calculation methods regarding package holidays and rents.

**The consumer price index reflects the price development of household consumption expenditure**

Households face price changes when they do their shopping, book a travel or pay their rent. Price changes, or prices remaining unchanged, are covered every month through a statistical model in the consumer price index. The consumer price index measures the average price development of all goods and services bought by households for consumption purposes.

**The main purpose of the consumer price index is to measure inflation and to provide a basis for stable values of payments**

The consumer price index as a measure of inflation is a major economic indicator especially for the financial and banking sector. For the European Central Bank and Deutsche Bundesbank, the consumer price index is a central indicator in assessing inflation trends and controlling monetary policy.

Often, individuals and businesses use consumer price indices in contracts to adjust payments recurring over the long term, such as rents or maintenance payments. In official statistics, price indices are used to adjust nominal economic aggregates for price changes, such as the gross domestic product.
To calculate the consumer price index, prices of goods and services are collected every month in outlets and from service providers. In addition, for about 15 years, a continuously increasing proportion of prices have been collected via the internet as internet trade is growing in importance. In this context, automated web-based price collection is also used (web scraping).

**Price developments are included with a weight in the overall index**

Calculating the consumer price index is a complex, multi-stage process. There are three weighting levels. First, information is integrated regarding the individual product groups' importance for consumption. This is done by means of a weighting pattern for goods and services. The weighting pattern for outlet types reflects the importance of outlet types in the market. Germany's regions are covered in the weighting pattern for the Länder by means of their relative proportions of household consumption expenditure. Between revisions, the three weighting levels are kept constant so that the consumer price index is not influenced by changes in consumption habits.

**As consumption and purchasing habits change, the calculation bases have to be updated from time to time**

The consumer price index has to take into account both changes in consumption and purchasing habits and new developments. This is why the weighting patterns are generally revised every five years by changing over to a new base year. On this occasion, methodological modifications are implemented, too. In a press release, the Federal Statistical Office for the first time presented final results of the consumer price index for Germany on the new base year 2015. The changes involved in this rebasing and their major effects on the results are presented below.

In official statistics, a revision generally refers to results released earlier. In part, data that were not available before are included in the calculation and methodological or conceptual modifications are implemented, also retrospectively. In a consumer price index revision, results are recalculated back to January of the new base year. This means that the current changeover applies to the whole period back to January 2015. Data for earlier periods have not been recalculated; they have just been rebased in mathematical terms to the new base year 2015. The new base year has replaced the previous base year 2010. This means that the annual average of 2015 of the consumer price index has been set to 100.
The adjustments caused by the 2019 revision tend to have a downward effect on the inflation rates

What are the differences between the revised inflation rates - that is, the year-on-year percentage change rates - and the results released previously for the period 2016 to 2018? The monthly change rates calculated on the new basis for 2016 are slightly higher than the rates on base 2010, especially for the first half of the year. For 2017 and 2018, the price increases are somewhat smaller. Revision differences for the individual months range from 0.12 (July 2016) to -0.33
(September 2018). Revision differences are the difference between the recalculated year-on-year change rates and the relevant change rates calculated previously.

Through the revision, the year-on-year rates of change tend to have become lower when examined over the whole period. On an annual average of 2016, the previous rate of 0.5% has been confirmed by the new results on base 2015. By the revision, the change rate has slightly been corrected downwards from 1.8% to 1.5% for 2017 and from 1.9% to 1.8% for 2018. Due to the changeover from base 2010 to base 2015, the rates of change from 2014 to 2015 can be interpreted only to a limited extent and, consequently, are not included in the analysis. On the whole, the impact of the revision is similar to that of previous revisions.
At the level of concrete price representatives, individual products are continuously replaced in the basket of goods and services

Calculating the consumer price index is based on the basket of goods and services that represents all goods and services purchased by households in Germany for consumption purposes. The individual products included in price monitoring are always those that currently are often purchased. This is why the basket of goods and services is continuously updated, irrespective of revisions. For example, products connected with the progressing digitalisation were included already some years ago. Since the index was rebased, they have been shown separately. They include music streaming, e-book reader and e-book download. Also, hearing aids and the repair of dentures are shown separately. One reason for the health sector becoming more and more important is certainly the rising proportion of elderly people in the total population.

In a weighting pattern, all products in the basket of goods and services are grouped by product type. For roughly 650 individual product types, ranging from apples to cinema visits, the weighting pattern contains the relevant expenditure shares of total household consumption expenditure. The weighting pattern is used to aggregate the price developments observed for the various product types. In the overall consumer price index, this gives them the importance that corresponds to their average proportion of total household consumption expenditure.

**Figure 3**
The two levels of the basket of goods and services in the consumer price index
On the whole, the weighting pattern for goods and services on the new base shows just slight changes in the consumption patterns

The largest difference between the new and the old weighting pattern is observed for the proportion of housing expenditure. The increase by 0.8 percentage points from base 2010 to base 2015 is mainly due to the fact that the rent for garages has been reclassified from transport to housing. The weight of net rents has decreased. The reason is that the increase of expenditure on rents is smaller than that of expenditure regarding the entire basket of goods and services.

Figure 4
Weighting pattern for selected goods and services in base years 2010 and 2015
Percent

<table>
<thead>
<tr>
<th></th>
<th>Weighting share in 2015</th>
<th>Weighting share in 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>32.5</td>
<td>31.7</td>
</tr>
<tr>
<td>Transport</td>
<td>12.9</td>
<td>13.5</td>
</tr>
<tr>
<td>Recreation, entertainment and culture</td>
<td>11.3</td>
<td>11.5</td>
</tr>
<tr>
<td>Food and non-alcoholic beverages</td>
<td>9.7</td>
<td>10.3</td>
</tr>
<tr>
<td>Restaurant and accommodation services</td>
<td>4.7</td>
<td>4.5</td>
</tr>
<tr>
<td>Health</td>
<td>4.6</td>
<td>4.4</td>
</tr>
<tr>
<td>Clothing and footwear</td>
<td>4.5</td>
<td>4.5</td>
</tr>
</tbody>
</table>

In the weighting pattern on the new base, food and non-alcoholic beverages have an expenditure proportion of 9.7%. On the old base, their proportion was 10.3%. This decrease is due to several factors, some of which show opposite trends. Generally it is a typical phenomenon in highly industrialised countries that food expenditure as a proportion of total expenditure is decreasing. In relative terms, high-income consumers spend decreasing amounts on food. Households with relatively low income are assumed to react to disproportionate price rises by changing over to lower-quality products or lower-price shops. However, people probably are increasingly aware of organic food and, consequently, are ready to pay higher food prices. The fact that people eat more often at restaurants and the like seems to have a downward effect on the expenditure proportion of food, too. This is suggested by the higher expenditure proportion
of restaurant and accommodation services. In the weighting pattern on the new base, consumers spend 3.6% of their expenditure on restaurant services; in 2010 the proportion was by 0.2 percentage points lower. When all these factors are taken into account, the proportion of food and non-alcoholic beverages decreases slightly.

**Downward effect of the new weighting pattern for goods and services explains most of the revision differences**

It might be expected that, after an updating of the weighting pattern, the recalculated inflation rates are lower because consumers react to price changes and switch to cheaper product variants (substitution effect). Generally, the results available confirm the expectation. The recalculated weighting pattern has a downward effect on the inflation rates published previously, especially for 2017 and 2018. In 2016, there were several special effects. One of these special effects with a particularly high impact is the price development of heating oil. In 2016, heating oil prices fell sharply on the previous year, and at the same time a lower weight has been attributed to heating oil in the new weighting pattern. This has led to an upward effect on prices regarding the overall consumer price index on the new base in 2016.

**Figure 5**
Revision differences – Influence of the weighting pattern for goods and services
Percentage points

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The weighting pattern for outlet types on the new base shows that purchasing patterns in shop-based business have changed only slightly.

The weighting pattern for outlet types has been updated, too, and now refers to base year 2015. The outlet categories in shop-based business differ especially in terms of price and product-range strategies. Internet trade is a separate category.

Outlet types are included in the consumer price index according to their market relevance for the individual product types as such relevance differs between product types. For example, specialist shops have the largest market shares as regards footwear purchases, whereas they are almost negligible when it comes to buying milk. Distinguishing between outlet types is hardly possible for services such as insurance or bank services. The same applies to energy sources such as electricity and gas. This is why those consumption areas are largely excluded from the weighting pattern for outlet types. Currently, the goods sectors for which outlet types are weighted cover roughly a third of household consumption expenditure.

The updated outlet type weights show that purchasing patterns have hardly shifted within shop-based business. For example, discount shops and specialist markets have maintained their market relevance of roughly 37%.

Figure 6
Aggregated weights of outlet types in base years 2010 and 2015
Percent

<table>
<thead>
<tr>
<th>Outlet Type</th>
<th>2015</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount shop, specialist market</td>
<td>36.8</td>
<td>36.7</td>
</tr>
<tr>
<td>Specialist shop</td>
<td>26.1</td>
<td>26.8</td>
</tr>
<tr>
<td>Supermarket, consumer market</td>
<td>22.4</td>
<td>23.0</td>
</tr>
<tr>
<td>Internet trade</td>
<td>8.9</td>
<td></td>
</tr>
<tr>
<td>Department store</td>
<td>2.4</td>
<td>2.7</td>
</tr>
<tr>
<td>Other</td>
<td>1.7</td>
<td>1.4</td>
</tr>
</tbody>
</table>
The importance of internet trade has increased and differs considerably between product groups

In the last few years, households have made more and more online purchases. It is therefore not surprising that the importance of internet trade has grown most significantly, that is, by 1.7 percentage points. Its proportion is almost 11% now. Internet trade does not have the same market relevance for all product groups. For example, for clothing or household appliances it is markedly higher than for food.

![Figure 7](https://example.com/figure7.png)

**Figure 7**
Weight of internet trade in selected product groups
Percent

<table>
<thead>
<tr>
<th>Category</th>
<th>Internet trade</th>
<th>Shop-based retail trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goods</td>
<td>11</td>
<td>89</td>
</tr>
<tr>
<td>Clothing</td>
<td>24</td>
<td>76</td>
</tr>
<tr>
<td>Footwear</td>
<td>21</td>
<td>79</td>
</tr>
<tr>
<td>Household appliances</td>
<td>31</td>
<td>69</td>
</tr>
<tr>
<td>Radio and TV sets</td>
<td>29</td>
<td>71</td>
</tr>
<tr>
<td>Food</td>
<td>1</td>
<td>99</td>
</tr>
</tbody>
</table>

The distribution of weights refers to product types in the consumer price index for which outlet types are weighted.

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Price developments do not differ much between internet trade and shop-based business. For instance, clothing and footwear prices decrease almost always towards the end of a season. This is observed in internet trade, too. The medium-term trend of clothing and footwear becoming more expensive over time is recorded both in internet trade and in shop-based business. Prices of household appliances and TV sets have decreased in the last few years in both sectors.

**Dynamic pricing is taken into account in consumer price statistics**

Nevertheless there are some special aspects in internet trade to which consumer price statistics have to react - for instance, dynamic pricing. Automated algorithms are in part used in internet trade to change product prices at short intervals. Since 2017, pricing habits in internet trade have been studied at the Federal Statistical Office. Where online dealers change prices particularly often, price collection is adjusted and extended for the online businesses concerned. In this
context, automated web-based price collection is also applied (web scraping). It is currently used to collect prices of rail tickets, long-distance coach travels and hired cars.

**The weighting pattern of the Länder on the new base shows that household consumption expenditure has shifted only slightly within Germany**

The Länder are included with different weights in the consumer price index for Germany. Those weights are fixed according to the Länder proportions of household consumption expenditure in Germany. The new weights of the Länder do not have a significant influence on the revision differences of the consumer price index.

**Table 1: Weighting pattern of the Länder in base year 2015**

<table>
<thead>
<tr>
<th>Land</th>
<th>Household consumption expenditure¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baden-Württemberg</td>
<td>14.1</td>
</tr>
<tr>
<td>Bayern</td>
<td>16.8</td>
</tr>
<tr>
<td>Berlin</td>
<td>3.9</td>
</tr>
<tr>
<td>Brandenburg</td>
<td>2.6</td>
</tr>
<tr>
<td>Bremen</td>
<td>0.8</td>
</tr>
<tr>
<td>Hamburg</td>
<td>2.4</td>
</tr>
<tr>
<td>Hessen</td>
<td>7.7</td>
</tr>
<tr>
<td>Mecklenburg-Vorpommern</td>
<td>1.6</td>
</tr>
<tr>
<td>Niedersachsen</td>
<td>9.4</td>
</tr>
<tr>
<td>Nordrhein-Westfalen</td>
<td>21.7</td>
</tr>
<tr>
<td>Rheinland-Pfalz</td>
<td>5.1</td>
</tr>
<tr>
<td>Saarland</td>
<td>1.2</td>
</tr>
<tr>
<td>Sachsen</td>
<td>4.4</td>
</tr>
<tr>
<td>Sachsen-Anhalt</td>
<td>2.4</td>
</tr>
<tr>
<td>Schleswig-Holstein</td>
<td>3.6</td>
</tr>
<tr>
<td>Thüringen</td>
<td>2.3</td>
</tr>
<tr>
<td>Germany</td>
<td>100.0</td>
</tr>
</tbody>
</table>

¹Calculation based on results from the Working Party on the National Accounts of the Länder.
In addition to updating the weighting patterns, a revision also includes the implementation of methodological improvements. The two major methodological changes in this revision refer to package holidays and rents.

**Package holidays have a considerable impact on the consumer price index due to their high weight and the strong seasonal fluctuations of their prices**

Germans like to travel. A type of travel that is particularly popular with tourists is package holidays, which combine several services such as round trip tickets, food and accommodation. The high proportion of package holidays in the average household budget has remained unchanged at 2.7% after the new weighting pattern was introduced. The strong seasonal fluctuations of prices in the travel market, combined with the relatively high weight, have a marked effect on the consumer price index. At the same time, frequent shifts occur in the package holiday market, for instance, regarding the most popular travel destinations.

**Adjusting the method for package holidays has led to marked changes in the seasonal pattern, whereas the year-on-year results have been adjusted to a much smaller extent**

Adjusting the methodology as part of the revision has led to modified year-on-year changes. The average price change in 2018, for example, has slightly been revised upwards from +2.8% to +3.2%.

**Figure 8**
**Price development for package holidays on an annual average before and after the revision**
**Percentage change on the previous year**

<table>
<thead>
<tr>
<th>Year</th>
<th>Base 2015</th>
<th>Base 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>-0.8</td>
<td>-1.6</td>
</tr>
<tr>
<td>2017</td>
<td>+2.2</td>
<td>+2.4</td>
</tr>
<tr>
<td>2018</td>
<td>+3.2</td>
<td>+2.8</td>
</tr>
</tbody>
</table>

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Transitions between seasons can better be represented with the new method

As a result of the methodological changes, the seasonal fluctuations regarding package holidays are represented more precisely. Package holiday prices reach their lowest level at the beginning of the year, then they rise until midsummer and fall again until November. In addition, there are price surcharges around Easter and Christmas holidays. Price differences of more than 50% in the course of a year are not unusual.

In a first step of the revision, changes in consumption patterns were taken into account. Only high-turnover destinations are included. Consequently, some destinations have been excluded, whereas the importance of other holiday regions has increased. For instance, Tunisia is no longer part of the package holiday sample. Package holiday flights to the Balearic Islands and to Greece now have a higher weight in index calculation. In a second step, improvements in the methodological representation of transitions between seasons were implemented. In the past, flexible weights were given to destinations, depending on their seasonal demand. This means, for example, that travels to the Balearic Islands had a higher weight in summer than in winter. With the changeover to base 2015, fixed annual weights have been introduced. Consequently, month-on-month changes in the transition period from one season to another can now be interpreted as genuine price changes.

With the introduction of the new methodology, the typical seasonal pattern has been maintained. The months of July and August are still seasonal peaks and price surcharges are observed at Easter and Christmas. On the new base 2015, the seasonal pattern is more pronounced, with higher index figures in the summer months and lower figures in the winter months.

Figure 9
Price indices for package holidays before and after the revision

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For all-year destination countries, the sample of travels has been extended in the revision. In the past, only separate seasonal samples for the winter and the summer were covered, whereas now travels are included that can be made throughout the year. This allows informative price comparisons to be made for the beginning and the end of the summer and winter seasons. The inclusion of all-year travels provides an important basis for the new calculation method with fixed annual weights. It plays a major role in the estimation of prices required outside the seasonal period.

The methodological changes regarding package holidays are not only reflected in the package holiday price development showing stronger seasonal fluctuations but have also an impact on the entire consumer price index. Although the revision differences in this area illustrate the strong influence of package holidays, no systematic pattern is observed. The reason is that the introduction of fixed weights and the changed consumption patterns have opposite effects and partly offset each other.

Figure 10
Revision differences – Influence of the new method in the context of package holidays
Percentage points

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The new sample of rents allows the overall development of rents to be represented more precisely

The index of net rents (exclusive of heating expenses) has a very high weight (19.6%) and is thus extremely relevant for the overall consumer price index. To take better account of that relevance, the sample of rents has fundamentally been revised.

The sample of rents consists of several strata. The strata structure the sample, improve representativeness and allow detailed information to be obtained. A stratum regarding the type of dwelling is required by the classification of the consumer price index. Residential objects are classified by dwelling unit (dwelling, single-family house), year of construction (until 1948/from 1949) and size (up to/over 70 m²). The results calculated previously were also based on this distinction.

In the revision, a distinction by landlord type has been introduced, as this criterion is important for the development of rents. Based on the results of the census of buildings and housing, which is conducted as part of the population census, a distinction is made between private small-scale landlords, public housing cooperatives and private housing companies. Private small-scale landlords have a major importance in the German rented accommodation market. With an average of roughly 66%, they have a high weight in the German index of rents.

In the past, the sample of rents was broken down by Land. Now, four types of administrative district are distinguished in addition. In accordance with the administrative district classification of the Federal Institute for Research on Building, Urban Affairs and Spatial Development, the sample is structured according to settlement density: cities not attached to an administrative district, urban districts, higher-density rural districts and thinly populated rural districts. Only just over a quarter of rental expenses is made in rural regions. The rest of rental expenses is divided roughly equally among cities not attached to an administrative district and urban districts.

![Diagram of landlord types and administrative district types in the new index of rents](image-url)

Differences from 100 percent are due to rounding.

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Increase in rents is lowest for private small-scale landlords

Due to the new stratification by district and landlord types, price developments can now be shown at a more detailed level. Marked differences in the development of rents are revealed in the breakdown by landlord type.

The development of rent shows, among other things, that the degree of profit orientation differs between landlord types. In 2018, the rents demanded by private housing companies from tenants rose much more sharply than those of housing cooperatives and private small-scale landlords.

Figure 12
Indices of rents by landlord type
2015 = 100

Private small-scale landlords are representatively reflected in the new sample

New weights introduced for landlord types as part of the revision lead to a slower overall increase in rents. The development of net rents in 2018 as shown in the consumer price index has not changed due to the methodological changes. For the previous two years, the development of rents has slightly been revised downwards, that is, by 0.2 percentage points in 2017 and by 0.1 percentage points in 2016. One of the reasons is that, before the revision, private small-scale landlords were underrepresented. This has been corrected by the revision. Rents of private small-scale landlords are now weighted according to their actual proportion of total rental expenses, so that they have a higher weight than before the revision. However, the increase in rents of small-scale landlords has been below average in the last few years. Consequently, the higher weight attributed to this development has a downward effect on the development of rents. All landlord types are now included in the index of rents according to their actual proportion of total rental expenses.
Figure 13
Development of net rents on an annual average before and after the revision
Percentage change on the previous year

<table>
<thead>
<tr>
<th>Year</th>
<th>Base 2015</th>
<th>Base 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>+1.1</td>
<td>+1.2</td>
</tr>
<tr>
<td>2017</td>
<td>+1.4</td>
<td>+1.6</td>
</tr>
<tr>
<td>2018</td>
<td>+1.6</td>
<td>+1.6</td>
</tr>
</tbody>
</table>

Net rents refer to all tenancy agreements. This includes existing tenancy agreements, first-time letting and re-letting as well as landlord types and district types.

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Development of rents on new base: smaller increases at aggregated level

The fact that the weight of private small-scale landlords has been raised is also reflected in the monthly revision differences of the consumer price index. Due to the higher influence of the relatively low rent increases of private small-scale landlords, the new index of rents has a downward effect on the consumer price index. The largest difference caused by the revision is that for February 2017. For that month, the new index of rents has reduced the consumer price index by 0.07 percentage points.

Figure 14
Revision differences – Influence of the new method in the context of rents
Percentage points

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Sharp increases in rents of dwellings re-let in the metropolises

The regional location is of particular importance for the development of rents. The availability of district types allows the results to be represented in a new way. Marked differences are observed between urban and rural regions. In the last few years, rents have increased more sharply the more densely populated the relevant region is and the higher demand is in that region.

In addition to the four district types, the price development has been determined for the seven largest cities. On average, the rents there rose even more sharply than in the other cities. The largest differences have been observed between the largest cities and rural districts. When including rents of existing tenancy agreements, the rents in the metropolises rose by 1.8% in 2018, while the rent increase in thinly populated rural districts was 1.2%.

To gain insight into the current development of rents in the metropolises, the sample of rents has been evaluated for the movement of rents regarding new agreements after change of tenant, excluding existing agreements. Large differences in rent changes have been observed for cases of tenant change. In some cases, the rent did not change much, or not at all, while in other cases, the rents rose substantially. On average, the increase in rents was about 11% in 2018. This is a special evaluation based on a rather small sample, so that the results involve considerable uncertainty.
Why is the publicly perceived development of rents higher than the one officially measured?

Sharp increases in rents, especially in urban regions, are often subject to public debate. However, the consumer price index regarding rents at first sight shows rather moderate increases. What is the reason for this? The reason is that the consumer price index should give a representative picture of the development of rents for all rented dwellings in Germany, not just for dwellings that are re-let to new tenants, with rents being raised.

For this purpose, landlords are asked to indicate the rents they actually receive for selected dwellings. Consequently, the index of rents calculated on this basis includes the rents regarding existing tenancy agreements according to their actual relevance. Sharp rent increases occur mainly for dwellings let for the first time or re-let to new tenants. However, the proportion of re-lettings in the sample of rents is small. With an average term of tenancy agreements of about 10 years, tenants change in an average of about 10% of the rented dwellings every year. This means that the influence of re-lettings on the development of rents is less than 1% on a monthly average.

First-time lettings, too, have a very small impact on the entire development of rents in the consumer price index. For instance, in 2017 roughly 250,000 new dwellings were completed (rented dwellings and owner-occupied dwellings). This is just 0.6% per year when put in relation to the total stock of dwellings in Germany (roughly 42 million). Consequently, first-time and re-lettings, with potentially relatively high rent increases, have a rather small influence on the total index of rents. Nevertheless, it is especially the rents of first-time and re-lettings that are a major indicator of the difficult housing situation. Many people looking for a dwelling have problems paying such rents.

The difference between the development of rents as shown by official statistics and that of many other studies is due to the tenancy agreements covered. Many non-official statistics are based on current advertisements shown at real estate portals. However, such advertisements contain only data on dwellings offered for first-time and re-letting; rents of existing tenancy agreements are not covered. Also, it is often the development of rents in urban areas that is the focus of interest. In many cases, the development of rents regarding existing agreements in rural regions is not taken into account. The index of rents in the consumer price index covers all rents, irrespective of whether they refer to first-time letting, re-letting or existing agreements.
The results of consumer price statistics are available free of charge from the website of the Federal Statistical Office

The inflation rate in January 2019 was 1.4%. But did you know that the prices of e-book downloads rose by 5.3% from January 2018 to January 2019? Or that, in January 2019, people paid an average 24.6% less for package holidays than in December 2018?

The most popular figure of consumer price statistics is the monthly inflation rate - it makes it to newspaper articles and TV news. When the final consumer price index is released, several hundred sub-indices are also available at the same time.

For the results of price statistics please go to:

- the GENESIS-Online database at www.destatis.de > GENESIS-Online Database.
- the consumer prices theme page at www.destatis.de > Themes > Economy > Prices > Consumer price index

Tools offered for easy understanding of price statistics

A wealth of data are included in the consumer price index. Its calculation is a complex multi-stage process. Our interactive applications provide easy access to the system of price statistics (at the moment only partly available in English). They illustrate how the inflation rate is produced in official statistics.

The Price Monitor illustrates the development of consumer prices, taking as examples selected and frequently purchased goods and services. It shows by what percentage the prices in the rele-
vant month are higher or lower than the annual average of 2015. The price development of individual products may differ markedly from the aggregated price development expressed by the inflation rate. Often this corresponds better with what consumers experience.

The Price Kaleidoscope shows that the inflation rate depends not only on price changes. Another important factor is the proportion with which the price developments of the individual goods and services are included in the consumer price index. The proportion, or the weight, with which the price development of a specific product type is included in the overall index is illustrated by means of the areas in the Price Kaleidoscope. The colour shows how the prices of the relevant product type have changed. Shades of red indicate higher prices, while shades of blue show lower prices.

The Personal Inflation Calculator reflects one’s own consumption pattern. The extent to which individual households are affected by inflation always depends on how much money they spend on what products. For example, those who do not have a car will not spend any money on motor fuels - although these are part of the basket of goods and services. In the Personal Inflation Calculator, users can interactively modify the weights of some products so that these correspond better to their own consumer habits. In this way, users can obtain their personal inflation rate and compare it with the officially determined rate.
The video "Verbraucherpreisindex und Inflationsrate" ([http://youtu.be/44NNZCVJ0JU](http://youtu.be/44NNZCVJ0JU)) illustrates briefly how the consumer price index is produced, how it is connected with the inflation rate, and what the basket of goods and services and the weighting pattern really mean.

**Please use our updated service offers regarding stable-value clauses**

The changeover to a new base year may be an additional challenge for contracting parties who regularly have to check whether payments recurring over the long term (for instance, rents, life annuities or maintenance payments) have to be adjusted. This is why information on how to deal with revised results is provided on the price statistics theme page specifically for this user group. Our usual service offers, such as the calculation tool helping in the adjustment of agreements, will be available soon in an updated version.