

## Balance sheet disclosures

## 12. Intangible assets

## CHANGES IN INTANGIBLE ASSETS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2018

| € million                                 | Brand names   | Goodwill      | Capitalized development costs for products under development | Capitalized development costs for products currently in use | Other intangible assets | Total         |
|---|---------------|---------------|--|---|-------------------------|---------------|
| <b>Cost</b>                               |               |               |  |   |                         |               |
| <b>Balance at Jan. 1, 2018</b>            | <b>16,995</b> | <b>23,443</b> | <b>7,115</b>   | <b>28,952</b>   | <b>8,588</b>            | <b>85,093</b> |
| Foreign exchange differences              | -43           | -131          | -20  | -125  | -103                    | -421          |
| Changes in consolidated Group             | -             | 6             | -  | 0   | 12                      | 18            |
| Additions                                 | -             | -             | 4,192  | 1,042   | 581                     | 5,815         |
| Transfers                                 | -             | -             | -4,040   | 4,040   | 41                      | 41            |
| Disposals                                 | -             | -             | 32   | 1,890   | 127                     | 2,049         |
| <b>Balance at Dec. 31, 2018</b>           | <b>16,952</b> | <b>23,318</b> | <b>7,215</b>   | <b>32,020</b>   | <b>8,992</b>            | <b>88,496</b> |
| <b>Amortization and impairment</b>        |               |               |  |   |                         |               |
| <b>Balance at Jan. 1, 2018</b>            | <b>83</b>     | <b>0</b>      | <b>95</b>  | <b>14,999</b>   | <b>6,496</b>            | <b>21,674</b> |
| Foreign exchange differences              | -2            | 0             | -1   | -55   | -79                     | -137          |
| Changes in consolidated Group             | -             | 0             | 0  | -   | -1                      | -1            |
| Additions to cumulative amortization      | 3             | -             | -  | 3,665   | 669                     | 4,337         |
| Additions to cumulative impairment losses | -             | -             | 3  | 41  | 13                      | 57            |
| Transfers                                 | -             | -             | -15  | 15  | 1                       | 1             |
| Disposals                                 | -             | -             | -  | 1,897   | 109                     | 2,005         |
| Reversal of impairment losses             | -             | -             | 42   | -   | 0                       | 42            |
| <b>Balance at Dec. 31, 2018</b>           | <b>84</b>     | <b>1</b>      | <b>42</b>  | <b>16,768</b>   | <b>6,989</b>            | <b>23,883</b> |
| <b>Carrying amount at Dec. 31, 2018</b>   | <b>16,868</b> | <b>23,317</b> | <b>7,173</b>   | <b>15,251</b>   | <b>2,003</b>            | <b>64,613</b> |

## CHANGES IN INTANGIBLE ASSETS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2019

| € million                                 | Brand names   | Goodwill      | Capitalized development costs for products under development | Capitalized development costs for products currently in use | Other intangible assets | Total         |
|---|---------------|---------------|--|---|-------------------------|---------------|
| <b>Cost</b>                               |               |               |  |   |                         |               |
| <b>Balance at Jan. 1, 2019</b>            | <b>16,952</b> | <b>23,318</b> | <b>7,215</b>   | <b>32,020</b>   | <b>8,992</b>            | <b>88,496</b> |
| Foreign exchange differences              | -18           | -57           | 33   | 77  | 12                      | 46            |
| Changes in consolidated Group             | 5             | 17            | -  | -   | 234                     | 256           |
| Additions                                 | -             | -             | 3,251  | 1,920   | 770                     | 5,940         |
| Transfers                                 | -             | -             | -4,301   | 4,299   | 54                      | 52            |
| Classified as held for sale               | 61            | 15            | -  | -   | 47                      | 122           |
| Disposals                                 | -             | 16            | 8  | 1,421   | 126                     | 1,571         |
| <b>Balance at Dec. 31, 2019</b>           | <b>16,878</b> | <b>23,247</b> | <b>6,188</b>   | <b>36,895</b>   | <b>9,889</b>            | <b>93,098</b> |
| <b>Amortization and impairment</b>        |               |               |  |   |                         |               |
| <b>Balance at Jan. 1, 2019</b>            | <b>84</b>     | <b>1</b>      | <b>42</b>  | <b>16,768</b>   | <b>6,989</b>            | <b>23,883</b> |
| Foreign exchange differences              | 0             | -             | 0  | 45  | 6                       | 51            |
| Changes in consolidated Group             | -             | -             | -  | -   | 147                     | 147           |
| Additions to cumulative amortization      | 3             | -             | -  | 4,049   | 680                     | 4,731         |
| Additions to cumulative impairment losses | -             | 15            | 7  | 8   | 4                       | 34            |
| Transfers                                 | -             | -             | -1   | 1   | 2                       | 2             |
| Classified as held for sale               | 0             | -             | -  | -   | 12                      | 12            |
| Disposals                                 | -             | 16            | -  | 1,422   | 114                     | 1,551         |
| Reversal of impairment losses             | -             | -             | 3  | 396   | 3                       | 402           |
| <b>Balance at Dec. 31, 2019</b>           | <b>86</b>     | <b>-</b>      | <b>45</b>  | <b>19,053</b>   | <b>7,700</b>            | <b>26,884</b> |
| <b>Carrying amount at Dec. 31, 2019</b>   | <b>16,793</b> | <b>23,247</b> | <b>6,143</b>   | <b>17,842</b>   | <b>2,189</b>            | <b>66,214</b> |

Other intangible assets comprise in particular concessions, purchased customer lists and dealer relationships, industrial and similar rights, and licenses in such rights and assets.

The allocation of the brand names and goodwill to the operating segments is shown in the following table:

| € million                               | 2019          | 2018          |
|---|---------------|---------------|
| <b>Brand names by operating segment</b> |               |               |
| Porsche                                 | 13,823        | 13,823        |
| Scania Vehicles and Services            | 932           | 949           |
| MAN Truck & Bus                         | 1,127         | 1,127         |
| MAN Energy Solutions                    | 415           | 415           |
| Ducati                                  | 404           | 404           |
| Other                                   | 93            | 150           |
|   | <b>16,793</b> | <b>16,868</b> |
| <b>Goodwill by operating segment</b>    |               |               |
| Porsche                                 | 18,825        | 18,825        |
| Scania Vehicles and Services            | 2,699         | 2,755         |
| MAN Truck & Bus                         | 587           | 587           |
| MAN Energy Solutions                    | 265           | 267           |
| Ducati                                  | 290           | 290           |
| ŠKODA                                   | 160           | 158           |
| Porsche Holding Salzburg                | 151           | 156           |
| Other                                   | 271           | 280           |
|   | <b>23,247</b> | <b>23,317</b> |

The impairment test for recognized goodwill and brand names is based on value in use. Recoverability is not affected by a variation in the growth forecast with respect to the perpetual annuity or in the discount rate of +/-0.5 percentage points.

Research and development costs developed as follows:

| € million  | 2019          | 2018          | %          |
|--|---------------|---------------|------------|
| Total research and development costs                               | 14,306        | 13,640        | 4.9        |
| of which capitalized development costs                             | 5,171         | 5,234         | -1.2       |
| Capitalization ratio in %  | 36.1          | 38.4          |            |
| Amortization of capitalized development costs                      | 4,064         | 3,710         | 9.6        |
| <b>Research and development costs recognized in profit or loss</b> | <b>13,199</b> | <b>12,116</b> | <b>8.9</b> |

### 13. Property, plant and equipment

#### CHANGES IN PROPERTY, PLANT AND EQUIPMENT IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2018

| € million                                   | Land, land rights and buildings, including buildings on third-party land | Technical equipment and machinery | Other equipment, operating and office equipment | Payments on account and assets under construction | Total          |
|---|--|-----------------------------------|---|---|----------------|
| <b>Cost</b>                                 |  |                                   |   |   |                |
| <b>Balance at Jan. 1, 2018</b>              | <b>34,335</b>  | <b>45,450</b>                     | <b>68,909</b>                                   | <b>6,876</b>                                      | <b>155,569</b> |
| Foreign exchange differences                | -98  | -216                              | -79   | -59   | -452           |
| Changes in consolidated Group               | 168  | 9                                 | 6   | 6   | 189            |
| Additions                                   | 597  | 1,103                             | 4,960   | 6,452   | 13,112         |
| Transfers                                   | 858  | 1,753                             | 2,048   | -4,703  | -43            |
| Disposals                                   | 117  | 1,424                             | 1,495   | 35  | 3,071          |
| <b>Balance at Dec. 31, 2018</b>             | <b>35,743</b>  | <b>46,676</b>                     | <b>74,350</b>                                   | <b>8,537</b>                                      | <b>165,305</b> |
| <b>Depreciation and impairment</b>          |  |                                   |   |   |                |
| <b>Balance at Jan. 1, 2018</b>              | <b>14,621</b>  | <b>32,286</b>                     | <b>53,352</b>                                   | <b>69</b>   | <b>100,327</b> |
| Foreign exchange differences                | -39  | -130                              | -59   | -5  | -232           |
| Changes in consolidated Group               | 10   | 7                                 | 1   | -   | 18             |
| Additions to cumulative depreciation        | 1,062  | 3,222                             | 5,593   | -   | 9,876          |
| Additions to cumulative impairment losses   | 22   | 21                                | 273   | 258   | 574            |
| Transfers                                   | -5   | 47                                | -25   | -18   | -1             |
| Disposals                                   | 83   | 1,370                             | 1,318   | 0   | 2,770          |
| Reversal of impairment losses               | 36   | 26                                | 14  | 41  | 117            |
| <b>Balance at Dec. 31, 2018</b>             | <b>15,552</b>  | <b>34,057</b>                     | <b>57,803</b>                                   | <b>263</b>  | <b>107,675</b> |
| <b>Carrying amount at Dec. 31, 2018</b>     | <b>20,191</b>  | <b>12,618</b>                     | <b>16,546</b>                                   | <b>8,274</b>                                      | <b>57,630</b>  |
| of which assets leased under finance leases |  |                                   |   |   |                |
| Carrying amount at Dec. 31, 2018            | 267  | 5                                 | 41  | 0   | 314            |

Future finance lease payments due, and their present values, are shown in the following table:

| € million                                    | 2019      | 2020 – 2023 | from 2024  | Total      |
|--|-----------|-------------|------------|------------|
| Finance lease payments                       | 68        | 231         | 360        | 659        |
| Interest component of finance lease payments | 18        | 73          | 119        | 210        |
| <b>Carrying amount of liabilities</b>        | <b>51</b> | <b>158</b>  | <b>241</b> | <b>449</b> |

## CHANGES IN PROPERTY, PLANT AND EQUIPMENT IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2019

| € million                                  | Land, land rights<br>and buildings,<br>including<br>buildings on<br>third-party land | Technical<br>equipment and<br>machinery | Other<br>equipment,<br>operating and<br>office equipment | Payments on<br>account and<br>assets under<br>construction | Total          |
|--|--|---|--|--|----------------|
| <b>Cost</b>                                |  |   |  |  |                |
| <b>Balance at Jan. 1, 2019<sup>1</sup></b> | <b>39,976</b>  | <b>46,684</b>                           | <b>74,702</b>  | <b>8,536</b>   | <b>169,898</b> |
| Foreign exchange differences               | 198  | 181                                     | 303  | 36   | 718            |
| Changes in consolidated Group              | 56   | 16                                      | 28   | 8  | 108            |
| Additions                                  | 1,862  | 1,716                                   | 5,403  | 6,104  | 15,084         |
| Transfers                                  | 1,867  | 2,776                                   | 2,946  | -7,109   | 481            |
| Classified as held for sale                | 124  | 206                                     | 54   | 21   | 406            |
| Disposals                                  | 303  | 1,077                                   | 1,331  | 29   | 2,740          |
| <b>Balance at Dec. 31, 2019</b>            | <b>43,531</b>  | <b>50,090</b>                           | <b>81,997</b>  | <b>7,526</b>   | <b>183,143</b> |
| <b>Depreciation and impairment</b>         |  |   |  |  |                |
| <b>Balance at Jan. 1, 2019<sup>1</sup></b> | <b>15,418</b>  | <b>34,052</b>                           | <b>57,821</b>  | <b>263</b>   | <b>107,554</b> |
| Foreign exchange differences               | 48   | 131                                     | 218  | 6  | 402            |
| Changes in consolidated Group              | 0  | 3                                       | 15   | 0  | 18             |
| Additions to cumulative depreciation       | 1,927  | 3,407                                   | 6,237  | -  | 11,572         |
| Additions to cumulative impairment losses  | 53   | 2                                       | 63   | 142  | 260            |
| Transfers                                  | 151  | 20                                      | 38   | -59  | 149            |
| Classified as held for sale                | 26   | 88                                      | 30   | -  | 145            |
| Disposals                                  | 149  | 1,014                                   | 1,169  | -  | 2,332          |
| Reversal of impairment losses              | 32   | 14                                      | 331  | 109  | 487            |
| <b>Balance at Dec. 31, 2019</b>            | <b>17,389</b>  | <b>36,498</b>                           | <b>62,862</b>  | <b>242</b>   | <b>116,991</b> |
| <b>Carrying amount at Dec. 31, 2019</b>    | <b>26,142</b>  | <b>13,592</b>                           | <b>19,135</b>  | <b>7,284</b>   | <b>66,152</b>  |

1 Value in the opening balance adjusted (see disclosures on IFRS 16).

In the previous year, payments for assets leased under operating leases recognized in the income statement amounted to €1,690 million. With respect to internally used assets, € 1,544 million of this figure was attributable to minimum lease payments and €13 million to contingent lease payments in the previous year. The payments of €133 million under subleases primarily related to minimum lease payments in the previous year.

Government grants of €146 million (previous year: €207 million) were deducted from the cost of property, plant and equipment and as in the previous year noncash benefits received amounting to €0.4 million were not capitalized as the cost of assets.

In connection with land and buildings, real property liens of €1,221 million (previous year: €1,062 million) are pledged as collateral for partial retirement obligations, financial liabilities and other liabilities.

## 14. Lease assets and investment property

### CHANGES IN LEASE ASSETS AND INVESTMENT PROPERTY IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2018

| € million                                 | Lease assets  | Investment property | Total         |
|---|---------------|---------------------|---------------|
| <b>Cost</b>                               |               |                     |               |
| <b>Balance at Jan. 1, 2018</b>            | <b>52,226</b> | <b>748</b>          | <b>52,973</b> |
| Foreign exchange differences              | 609           | 12                  | 621           |
| Changes in consolidated Group             | -138          | -                   | -138          |
| Additions                                 | 21,256        | 38                  | 21,294        |
| Transfers                                 | -106          | 2                   | -104          |
| Disposals                                 | 16,354        | 13                  | 16,367        |
| <b>Balance at Dec. 31, 2018</b>           | <b>57,493</b> | <b>786</b>          | <b>58,279</b> |
| <b>Depreciation and impairment</b>        |               |                     |               |
| <b>Balance at Jan. 1, 2018</b>            | <b>13,007</b> | <b>279</b>          | <b>13,287</b> |
| Foreign exchange differences              | 60            | 2                   | 62            |
| Changes in consolidated Group             | -57           | -                   | -57           |
| Additions to cumulative depreciation      | 7,282         | 16                  | 7,298         |
| Additions to cumulative impairment losses | 510           | 0                   | 511           |
| Transfers                                 | -8            | 0                   | -8            |
| Disposals                                 | 6,744         | 8                   | 6,752         |
| Reversal of impairment losses             | 103           | 0                   | 103           |
| <b>Balance at Dec. 31, 2018</b>           | <b>13,947</b> | <b>290</b>          | <b>14,237</b> |
| <b>Carrying amount at Dec. 31, 2018</b>   | <b>43,545</b> | <b>496</b>          | <b>44,042</b> |

In the previous year, we had expected to receive the following payments from noncancelable leases and rental agreements:

| € million      | 2019  | 2020 – 2023 | from 2024 | Total |
|----------------|-------|-------------|-----------|-------|
| Lease payments | 4,108 | 5,187       | 17        | 9,312 |

## CHANGES IN LEASE ASSETS AND INVESTMENT PROPERTY IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2019

| € million                                  | Lease assets  | Investment property | Total         |
|--|---------------|---------------------|---------------|
| <b>Cost</b>                                |               |                     |               |
| <b>Balance at Jan. 1, 2019<sup>1</sup></b> | <b>57,998</b> | <b>803</b>          | <b>58,802</b> |
| Foreign exchange differences               | 1,075         | 5                   | 1,080         |
| Changes in consolidated Group              | -46           | -1                  | -48           |
| Additions                                  | 24,906        | 43                  | 24,949        |
| Transfers                                  | -533          | 0                   | -533          |
| Disposals                                  | 19,015        | 6                   | 19,021        |
| <b>Balance at Dec. 31, 2019</b>            | <b>64,384</b> | <b>845</b>          | <b>65,229</b> |
| <b>Depreciation and impairment</b>         |               |                     |               |
| <b>Balance at Jan. 1, 2019<sup>1</sup></b> | <b>14,076</b> | <b>291</b>          | <b>14,367</b> |
| Foreign exchange differences               | 333           | 1                   | 334           |
| Changes in consolidated Group              | 73            | -                   | 73            |
| Additions to cumulative depreciation       | 8,087         | 17                  | 8,103         |
| Additions to cumulative impairment losses  | 510           | -                   | 510           |
| Transfers                                  | -151          | 0                   | -151          |
| Disposals                                  | 7,314         | 1                   | 7,315         |
| Reversal of impairment losses              | 169           | 0                   | 169           |
| <b>Balance at Dec. 31, 2019</b>            | <b>15,446</b> | <b>307</b>          | <b>15,753</b> |
| <b>Carrying amount at Dec. 31, 2019</b>    | <b>48,938</b> | <b>538</b>          | <b>49,476</b> |

1 Value in the opening balance adjusted (see disclosures on IFRS 16).

Lease assets include assets leased out under the terms of operating leases and assets covered by long-term buyback agreements.

Investment property includes apartments rented out and leased dealerships with a fair value of €1,206 million (previous year: €1,106 million). Fair value is estimated using an investment method based on internal calculations (Level 3 of the fair value hierarchy). Operating expenses of €56 million (previous year: €46 million) were incurred for the maintenance of investment property in use. Expenses of €0.1 million (previous year: €0.6 million) were incurred for unused investment property.

## 15. Equity-accounted investments and other equity investments

### CHANGES IN EQUITY-ACCOUNTED INVESTMENTS AND OTHER EQUITY INVESTMENTS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2018

| € million  | Equity-accounted<br>investments | Other equity investments | Total         |
|--|---------------------------------|--------------------------|---------------|
| <b>Gross carrying amount</b>                           |                                 |                          |               |
| <b>Balance at Jan. 1, 2018</b>                         | <b>8,431</b>                    | <b>1,827</b>             | <b>10,259</b> |
| Foreign exchange differences                           | -9                              | 9                        | 0             |
| Changes in consolidated Group                          | 269                             | -368                     | -99           |
| Additions  | 247                             | 693                      | 939           |
| Transfers  | -                               | 0                        | 0             |
| Disposals  | 84                              | 19                       | 103           |
| Changes recognized in profit or loss                   | 3,371                           | -                        | 3,371         |
| Dividends <sup>1</sup>                                 | -3,460                          | -                        | -3,460        |
| Other changes recognized in other comprehensive income | 62                              | 1                        | 62            |
| <b>Balance at Dec. 31, 2018</b>                        | <b>8,826</b>                    | <b>2,142</b>             | <b>10,968</b> |
| <b>Impairment losses</b>                               |                                 |                          |               |
| <b>Balance at Jan. 1, 2018</b>                         | <b>238</b>                      | <b>507</b>               | <b>745</b>    |
| Foreign exchange differences                           | -1                              | -1                       | -2            |
| Changes in consolidated Group                          | -                               | -4                       | -4            |
| Additions  | 155                             | 172                      | 326           |
| Transfers  | -                               | 0                        | 0             |
| Disposals  | -                               | 5                        | 5             |
| Reversal of impairment losses                          | -                               | 1                        | 1             |
| <b>Balance at Dec. 31, 2018</b>                        | <b>392</b>                      | <b>668</b>               | <b>1,060</b>  |
| <b>Carrying amount at Dec. 31, 2018</b>                | <b>8,434</b>                    | <b>1,474</b>             | <b>9,908</b>  |

1 Dividends are shown before withholding tax.

**CHANGES IN EQUITY-ACCOUNTED INVESTMENTS AND OTHER EQUITY INVESTMENTS  
IN THE PERIOD JANUARY 1, DECEMBER 31, 2019**

| € million  | Equity-accounted<br>investments | Other equity investments | Total         |
|--|---------------------------------|--------------------------|---------------|
| <b>Gross carrying amount</b>                           |                                 |                          |               |
| <b>Balance at Jan. 1, 2019</b>                         | <b>8,826</b>                    | <b>2,142</b>             | <b>10,968</b> |
| Foreign exchange differences                           | 22                              | 6                        | 28            |
| Changes in consolidated Group                          | 16                              | -252                     | -236          |
| Additions  | 236                             | 856                      | 1,093         |
| Transfers  | -                               | 0                        | 0             |
| Classified as held for sale                            | -                               | 15                       | 15            |
| Disposals  | 76                              | 88                       | 164           |
| Changes recognized in profit or loss                   | 3,326                           | -                        | 3,326         |
| Dividends <sup>1</sup>                                 | -3,786                          | -                        | -3,786        |
| Other changes recognized in other comprehensive income | 75                              | -34                      | 41            |
| <b>Balance at Dec. 31, 2019</b>                        | <b>8,639</b>                    | <b>2,616</b>             | <b>11,255</b> |
| <b>Impairment losses</b>                               |                                 |                          |               |
| <b>Balance at Jan. 1, 2019</b>                         | <b>392</b>                      | <b>668</b>               | <b>1,060</b>  |
| Foreign exchange differences                           | 1                               | 0                        | 1             |
| Changes in consolidated Group                          | -                               | -131                     | -131          |
| Additions  | 143                             | 226                      | 369           |
| Transfers  | -                               | -                        | -             |
| Classified as held for sale                            | -                               | 0                        | 0             |
| Disposals  | -                               | 31                       | 31            |
| Reversal of impairment losses                          | 67                              | 18                       | 85            |
| <b>Balance at Dec. 31, 2019</b>                        | <b>470</b>                      | <b>714</b>               | <b>1,183</b>  |
| <b>Carrying amount at Dec. 31, 2019</b>                | <b>8,169</b>                    | <b>1,902</b>             | <b>10,071</b> |

1 Dividends are shown before withholding tax.

Equity-accounted investments include joint ventures in the amount of €5,851 million (previous year: €6,372 million) and associates in the amount of €2,318 million (previous year: €2,062 million).

Of the other changes recognized in other comprehensive income, €53 million (previous year: €7 million) is attributable to joint ventures and €22 million (previous year: €55 million) to associates. They are mainly the result of foreign exchange differences in the amount of €94 million (previous year: €9 million), pension plan remeasurements in the amount of €1 million (previous year: €31 million) and fair value measurement of cash flow hedges in the amount of €-27 million (previous year: €28 million).

## 16. Noncurrent and current financial services receivables

| € million                           | CARRYING AMOUNT |               |                | FAIR VALUE     | CARRYING AMOUNT |               |                | FAIR VALUE     |
|-------------------------------------|-----------------|---------------|----------------|----------------|-----------------|---------------|----------------|----------------|
|                                     | Current         | Noncurrent    | Dec. 31, 2019  | Dec. 31, 2019  | Current         | Noncurrent    | Dec. 31, 2018  | Dec. 31, 2018  |
| Receivables from financing business |                 |               |                |                |                 |               |                |                |
| Customer financing                  | 22,873          | 49,175        | 72,048         | 73,248         | 21,487          | 45,089        | 66,575         | 67,500         |
| Dealer financing                    | 16,781          | 2,512         | 19,293         | 19,270         | 14,781          | 2,099         | 16,879         | 16,839         |
| Direct banking                      | 305             | 5             | 310            | 310            | 284             | 3             | 288            | 288            |
|                                     | <b>39,958</b>   | <b>51,692</b> | <b>91,650</b>  | <b>92,827</b>  | <b>36,551</b>   | <b>47,191</b> | <b>83,742</b>  | <b>84,627</b>  |
| Receivables from operating leases   | 285             | –             | 285            | 285            | 219             | –             | 219            | 219            |
| Receivables from finance leases     | 18,371          | 35,281        | 53,652         | 54,742         | 17,446          | 31,501        | 48,948         | 49,572         |
|                                     | <b>58,615</b>   | <b>86,973</b> | <b>145,588</b> | <b>147,855</b> | <b>54,216</b>   | <b>78,692</b> | <b>132,909</b> | <b>134,418</b> |

The receivables from customer financing and finance leases contained in financial services receivables of €145.6 billion (previous year: €132.9 billion) increased by €2 million (previous year: decreased by €26 million) as a result of a fair value adjustment from portfolio hedging.

The receivables from customer and dealer financing are secured by vehicles or real property liens. Of the receivables, €181 million (previous year: €175 million) was furnished as collateral for financial liabilities and contingent liabilities.

The receivables from dealer financing include €22 million (previous year: €24 million) receivable from unconsolidated affiliated companies.

The receivables from finance leases – almost all of them for vehicles – were based on the following expected cash flows as of December 31, 2018:

| € million  | 2019          | 2020 – 2023   | from 2024  | Total         |
|--|---------------|---------------|------------|---------------|
| Future payments from finance lease receivables                                   | 18,768        | 33,611        | 156        | 52,534        |
| Unearned finance income from finance leases (discounting)                        | -1,321        | -2,256        | -9         | -3,586        |
| <b>Present value of minimum lease payments outstanding at the reporting date</b> | <b>17,446</b> | <b>31,355</b> | <b>146</b> | <b>48,948</b> |

## 17. Noncurrent and current other financial assets

| € million   | CARRYING AMOUNT |              |               | CARRYING AMOUNT |              |               |
|---|-----------------|--------------|---------------|-----------------|--------------|---------------|
|   | Current         | Noncurrent   | Dec. 31, 2019 | Current         | Noncurrent   | Dec. 31, 2018 |
| Positive fair value of derivatives  | 1,622           | 1,628        | 3,250         | 2,047           | 1,932        | 3,979         |
| Receivables from loans, bonds, profit participation rights (excluding interest) | 6,639           | 3,278        | 9,917         | 5,513           | 3,441        | 8,953         |
| Miscellaneous financial assets  | 3,955           | 646          | 4,601         | 4,026           | 1,149        | 5,175         |
|   | <b>12,216</b>   | <b>5,553</b> | <b>17,769</b> | <b>11,586</b>   | <b>6,521</b> | <b>18,107</b> |

Other financial assets include receivables from related parties of €9.7 billion (previous year: €8.8 billion). Other financial assets amounting to €244 million (previous year: €89 million) were furnished as collateral for financial liabilities and contingent liabilities. There is no original right of disposal or pledge for the furnished collateral on the part of the collateral taker.

In addition, the miscellaneous financial assets include cash and cash equivalents that serve as collateral (mainly under asset-backed securities transactions).

The positive fair values of derivatives relate to the following items:

| € million   | Dec. 31, 2019 | Dec. 31, 2018 |
|---|---------------|---------------|
| Transactions for hedging  |               |               |
| foreign currency risk from assets using fair value hedges                 | 39            | 109           |
| foreign currency risk from liabilities using fair value hedges            | 36            | 77            |
| interest rate risk using fair value hedges                                | 662           | 561           |
| interest rate risk using cash flow hedges                                 | 13            | 54            |
| foreign currency and price risk from future cash flows (cash flow hedges) | 785           | 2,049         |
| <b>Hedging transactions Total</b>   | <b>1,535</b>  | <b>2,851</b>  |
| Assets related to derivatives not included in hedging relationships       | 1,715         | 1,128         |
| <b>Total</b>  | <b>3,250</b>  | <b>3,979</b>  |

Positive fair values of €6 million (previous year: €24 million) were recognized from transactions for hedging interest rate risk (fair value hedges) used in portfolio hedges.

Further details on derivative financial instruments as a whole are given in the section entitled "Financial risk management and financial instruments".

## 18. Noncurrent and current other receivables

| € million                      | CARRYING AMOUNT |              |               | CARRYING AMOUNT |              |               |
|--------------------------------|-----------------|--------------|---------------|-----------------|--------------|---------------|
|                                | Current         | Noncurrent   | Dec. 31, 2019 | Current         | Noncurrent   | Dec. 31, 2018 |
| Other recoverable income taxes | 4,244           | 806          | 5,050         | 4,189           | 773          | 4,962         |
| Miscellaneous receivables      | 3,028           | 1,916        | 4,945         | 2,015           | 1,835        | 3,849         |
|                                | <b>7,272</b>    | <b>2,722</b> | <b>9,995</b>  | <b>6,203</b>    | <b>2,608</b> | <b>8,811</b>  |

Miscellaneous receivables include assets to fund post-employment benefits in the amount of €65 million (previous year: €76 million). This item also includes the share of the technical provisions attributable to reinsurers amounting to €58 million (previous year: €60 million).

Current other receivables are predominantly non-interest-bearing.

Other receivables include contingent receivables from long-term construction contracts recognized using the percentage of completion (PoC) method. They were reported under trade receivables in the previous year. They correspond to the contract assets recognized under contracts with customers and changed as follows:

| € million  | 2019       | 2018       |
|--|------------|------------|
| <b>Contingent construction contract receivables at Jan. 1</b>          | <b>352</b> | <b>338</b> |
| Additions and disposals  | -36        | 4          |
| Changes in consolidated Group  | -          | -          |
| Change in valuation allowances   | 1          | 10         |
| Classified as held for sale  | 4          | -          |
| Changes in estimates and assumptions as well as contract modifications | -          | -          |
| Foreign exchange differences   | 2          | 0          |
| <b>Contingent construction contract receivables at Dec. 31</b>         | <b>314</b> | <b>352</b> |

Costs to fulfill contracts were not capitalized in the Volkswagen Group. The Volkswagen Group capitalizes costs to obtain a contract and amortizes them on a straight-line basis over the life of the contract only if they are material, the underlying contract has a term of at least one year, and these costs would not have been incurred, if the corresponding contract had not been entered into. On December 31, 2019, costs to obtain contracts amounting to €65 million (previous year: €- million) were recognized as assets. In 2019, amortization charges on capitalized costs to obtain contracts amounted to €13 million (previous year: €- million). No impairment losses were recognized on capitalized costs to obtain contracts in 2019 and 2018.

## 19. Tax assets

| € million           | CARRYING AMOUNT |               |               | CARRYING AMOUNT |               |               |
|---------------------|-----------------|---------------|---------------|-----------------|---------------|---------------|
|                     | Current         | Noncurrent    | Dec. 31, 2019 | Current         | Noncurrent    | Dec. 31, 2018 |
| Deferred tax assets | -               | 13,106        | 13,106        | -               | 10,131        | 10,131        |
| Tax receivables     | 1,190           | 341           | 1,531         | 1,879           | 476           | 2,355         |
|                     | <b>1,190</b>    | <b>13,447</b> | <b>14,637</b> | <b>1,879</b>    | <b>10,606</b> | <b>12,486</b> |

€7,490 million (previous year: €6,036 million) of the deferred tax assets are due within one year.

## 20. Inventories

| € million                                | Dec. 31, 2019 | Dec. 31, 2018 |
|--|---------------|---------------|
| Raw materials, consumables and supplies  | 6,099         | 5,543         |
| Work in progress                         | 4,110         | 4,382         |
| Finished goods and purchased merchandise | 30,617        | 30,553        |
| Current lease assets                     | 5,699         | 5,107         |
| Prepayments                              | 222           | 168           |
| Hedges on inventories                    | -6            | -8            |
|  | <b>46,742</b> | <b>45,745</b> |

At the same time as the relevant revenue was recognized, inventories in the amount of €192 billion (previous year: €179 billion) were included in cost of sales. Loss allowances (excluding lease assets) recognized as expenses in the reporting period amounted to €672 million (previous year: €902 million). Vehicles amounting to €340 million (previous year: €316 million) were assigned as collateral for partial retirement obligations.

## 21. Trade receivables

| € million                     | Dec. 31, 2019 | Dec. 31, 2018 |
|-------------------------------|---------------|---------------|
| Trade receivables from        |               |               |
| third parties                 | 13,445        | 13,356        |
| unconsolidated subsidiaries   | 180           | 206           |
| joint ventures                | 4,283         | 3,958         |
| associates                    | 32            | 51            |
| other investees and investors | 1             | 317           |
|                               | <b>17,941</b> | <b>17,888</b> |

In the previous year contingent receivables from long-term construction contracts recognized using the percentage of completion (PoC) method were reported under trade receivables, which are now included in other receivables.

The fair values of the trade receivables correspond to the carrying amounts.

## 22. Marketable securities

The marketable securities serve to safeguard liquidity. They are short-term fixed-income securities and shares. Most securities are measured at fair value. Current securities amounting to €639 million (previous year: €997 million) were furnished as collateral for financial liabilities and contingent liabilities. There is no original right of disposal or pledge for the furnished collateral on the part of the collateral taker.

## 23. Cash, cash equivalents and time deposits

| € million                                     | Dec. 31, 2019 | Dec. 31, 2018 |
|---|---------------|---------------|
| Bank balances                                 | 25,264        | 28,522        |
| Checks, cash-in-hand, bills and call deposits | 659           | 416           |
|   | <b>25,923</b> | <b>28,938</b> |

Bank balances are held at various banks in different currencies and include time deposits, for example.

## 24. Equity

The subscribed capital of Volkswagen AG is composed of no-par value bearer shares with a notional value of €2.56. As well as ordinary shares, there are preferred shares that entitle the bearer to a €0.06 higher dividend than ordinary shares, but do not carry voting rights.

The Annual General Meeting on May 14, 2019 resolved to create authorized capital of up to €179 million, expiring on May 13, 2024, to issue new preferred bearer shares.

In June 2018, Volkswagen AG placed unsecured subordinated hybrid notes with an aggregate principal amount of €2.8 billion via a subsidiary, Volkswagen International Finance N.V., Amsterdam, the Netherlands (VIF). The perpetual hybrid notes were issued in two tranches and can be called by VIF. The first call date for the first tranche (€1.3 billion and a coupon of 3.375%) is after 6 years, and the first call date for the second tranche (€1.5 billion and a coupon of 4.625%) is after 10 years.

Interest may be accumulated depending on whether a dividend is paid to Volkswagen AG shareholders. Under IAS 32, these hybrid notes must be classified in their entirety as equity. The capital raised was recognized in equity, less a discount and transaction costs and net of deferred taxes. The interest payments payable to the noteholders will be recognized directly in equity. IAS 32 only allows these hybrid notes to be classified as debt once the respective hybrid note was called.

In July 2018, Volkswagen AG called the first tranche of hybrid notes with an aggregate principal amount of €1.3 billion placed in 2013 via VIF (issuer). In addition, other effects of €14 million had to be recognized in equity.

The expiry of the put options granted to noncontrolling interest shareholders of MAN SE on March 4, 2019 resulted in an increase in equity of €0.7 billion. See the “Key Events” section for more information.

### CHANGE IN ORDINARY AND PREFERRED SHARES AND SUBSCRIBED CAPITAL

|                        | SHARES      |             | €             |               |
|------------------------|-------------|-------------|---------------|---------------|
|                        | 2019        | 2018        | 2019          | 2018          |
| Balance at January 1   | 501,295,263 | 501,295,263 | 1,283,315,873 | 1,283,315,873 |
| Capital increase       | –           | –           | –             | –             |
| Balance at December 31 | 501,295,263 | 501,295,263 | 1,283,315,873 | 1,283,315,873 |

The capital reserves comprise the share premium totaling €14,225 million (previous year: €14,225 million) from capital increases, the share premium of €219 million from the issuance of bonds with warrants and an amount of €107 million appropriated on the basis of the capital reduction implemented in 2006. No amounts were withdrawn from the capital reserves.

#### DIVIDEND PROPOSAL

In accordance with section 58(2) of the Aktiengesetz (AktG – German Stock Corporation Act), the dividend payment by Volkswagen AG is based on the net retained profits reported in the annual financial statements of Volkswagen AG prepared in accordance with the German Commercial Code. Based on these annual financial statements of Volkswagen AG, net retained profits of €3,273 million are eligible for distribution following the transfer of €1,685 million to the revenue reserves. The Board of Management and Supervisory Board will propose to the Annual General Meeting that a total dividend of €3,271 million, i.e. €6.50 per ordinary share and €6.56 per preferred share, be paid from the net retained profits. Shareholders are not entitled to a dividend payment until it has been resolved by the Annual General Meeting.

A dividend of €4.80 per ordinary share and €4.86 per preferred share was distributed in fiscal year 2019.

#### NONCONTROLLING INTERESTS

As of December 31, 2019, noncontrolling interests amounted to €1,870 million (previous year: €225 million). Most of the noncontrolling interests in equity arose as a result of the IPO of the TRATON GROUP. See the “Key Events” section for further details.

The table below shows summarized financial information of the TRATON GROUP, including goodwill and fair value adjustments at the acquisition date:

| € million   | TRATON GROUP |
|---|--------------|
| Equity interest in % <sup>1</sup>                           | 10.28        |
| Equity interest   | 1,640        |
| Earnings after tax attributable to noncontrolling interests | 125          |
| Noncurrent assets   | 29,623       |
| Current assets  | 16,728       |
| Noncurrent liabilities                                      | 14,938       |
| Current liabilities   | 16,664       |
| Sales revenue   | 26,901       |
| Earnings after tax  | 1,517        |
| Other comprehensive income, net of tax                      | -316         |
| Gross cash flow   | 3,433        |
| Change in working capital                                   | -2,346       |
| Cash flows from operating activities                        | 1,087        |
| Cash flows from investing activities                        | 634          |
| Net cash flow   | 1,721        |

1 The percentage only includes direct noncontrolling interests.

## 25. Noncurrent and current financial liabilities

| € million                           | CARRYING AMOUNT |                |                | CARRYING AMOUNT |                |                |
|-------------------------------------|-----------------|----------------|----------------|-----------------|----------------|----------------|
|                                     | Current         | Noncurrent     | Dec. 31, 2019  | Current         | Noncurrent     | Dec. 31, 2018  |
| Bonds                               | 19,789          | 68,839         | 88,629         | 19,132          | 62,416         | 81,549         |
| Commercial paper and notes          | 18,103          | 20,147         | 38,250         | 22,381          | 18,975         | 41,356         |
| Liabilities to banks                | 17,337          | 15,337         | 32,674         | 18,455          | 15,447         | 33,903         |
| Deposits business                   | 30,252          | 2,395          | 32,647         | 28,555          | 1,455          | 30,010         |
| Loans and miscellaneous liabilities | 1,429           | 1,629          | 3,058          | 1,183           | 2,433          | 3,617          |
| Lease liabilities                   | 1,002           | 5,208          | 6,210          | 51              | 399            | 449            |
|                                     | <b>87,912</b>   | <b>113,556</b> | <b>201,468</b> | <b>89,757</b>   | <b>101,126</b> | <b>190,883</b> |

## 26. Noncurrent and current other financial liabilities

| € million  | CARRYING AMOUNT |              |               | CARRYING AMOUNT |              |               |
|--|-----------------|--------------|---------------|-----------------|--------------|---------------|
|  | Current         | Noncurrent   | Dec. 31, 2019 | Current         | Noncurrent   | Dec. 31, 2018 |
| Negative fair values of derivative financial instruments | 2,245           | 1,950        | 4,195         | 1,439           | 1,134        | 2,573         |
| Interest payable   | 691             | 116          | 807           | 661             | 113          | 774           |
| Miscellaneous financial liabilities                      | 7,922           | 2,434        | 10,356        | 7,316           | 1,972        | 9,288         |
|  | <b>10,858</b>   | <b>4,499</b> | <b>15,358</b> | <b>9,416</b>    | <b>3,219</b> | <b>12,635</b> |

The negative fair values of derivatives relate to the following items:

| € million   | Dec. 31, 2019 | Dec. 31, 2018 |
|---|---------------|---------------|
| Transactions for hedging  |               |               |
| foreign currency risk from assets using fair value hedges                 | 107           | 65            |
| foreign currency risk from liabilities using fair value hedges            | 5             | 10            |
| interest rate risk using fair value hedges                                | 97            | 61            |
| interest rate risk using cash flow hedges                                 | 53            | 17            |
| foreign currency and price risk from future cash flows (cash flow hedges) | 2,172         | 936           |
| <b>Hedging transactions Total</b>   | <b>2,435</b>  | <b>1,088</b>  |
| Liabilities related to derivatives not included in hedging relationships  | 1,760         | 1,484         |
| <b>Total</b>  | <b>4,195</b>  | <b>2,573</b>  |

Negative fair values of €63 million (previous year: €22 million) were recognized from transactions for hedging interest rate risk (fair value hedges) used in portfolio hedges.

Further details on derivative financial instruments as a whole are given in the section entitled "Financial risk management and financial instruments".

## 27. Noncurrent and current other liabilities

| € million                              | CARRYING AMOUNT |              |               | CARRYING AMOUNT |              |               |
|--|-----------------|--------------|---------------|-----------------|--------------|---------------|
|  | Current         | Noncurrent   | Dec. 31, 2019 | Current         | Noncurrent   | Dec. 31, 2018 |
| Payments received on account of orders | 7,474           | 5,202        | 12,676        | 6,936           | 4,300        | 11,235        |
| Liabilities relating to                |                 |              |               |                 |              |               |
| other taxes                            | 2,812           | 133          | 2,946         | 2,273           | 112          | 2,384         |
| social security                        | 610             | 162          | 772           | 546             | 43           | 589           |
| wages and salaries                     | 5,848           | 1,008        | 6,856         | 5,299           | 947          | 6,247         |
| Miscellaneous liabilities              | 2,576           | 766          | 3,342         | 2,539           | 1,046        | 3,585         |
|  | <b>19,320</b>   | <b>7,271</b> | <b>26,591</b> | <b>17,593</b>   | <b>6,448</b> | <b>24,041</b> |

The liabilities from payments on account received under contracts with customers correspond to contract liabilities under contracts with customers. They changed as follows:

#### CHANGES IN LIABILITIES FROM PAYMENTS ON ACCOUNT RECEIVED UNDER CONTRACTS WITH CUSTOMERS

| € million   | 2019          | 2018         |
|---|---------------|--------------|
| <b>Liabilities from advance payments received under contracts with customers at Jan. 1</b>  | <b>9,669</b>  | <b>7,261</b> |
| Additions and disposals   | 1,245         | 2,395        |
| Changes in consolidated Group   | 12            | 4            |
| Classified as held for sale   | 167           | –            |
| Changes in estimates and assumptions as well as contract modifications                      | –             | –            |
| Foreign exchange differences  | 148           | 8            |
| <b>Liabilities from advance payments received under contracts with customers at Dec. 31</b> | <b>10,907</b> | <b>9,669</b> |

## 28. Tax liabilities

| € million                | CARRYING AMOUNT |              |               | CARRYING AMOUNT |              |               |
|--------------------------|-----------------|--------------|---------------|-----------------|--------------|---------------|
|                          | Current         | Noncurrent   | Dec. 31, 2019 | Current         | Noncurrent   | Dec. 31, 2018 |
| Deferred tax liabilities | –               | 5,007        | 5,007         | –               | 5,030        | 5,030         |
| Provisions for taxes     | 1,876           | 2,991        | 4,867         | 1,412           | 3,047        | 4,458         |
| Tax payables             | 408             | –            | 408           | 456             | –            | 456           |
|                          | <b>2,283</b>    | <b>7,998</b> | <b>10,282</b> | <b>1,867</b>    | <b>8,077</b> | <b>9,944</b>  |

€387 million (previous year: €407 million) of the deferred tax liabilities are due within one year.

## 29. Provisions for pensions and other post-employment benefits

Provisions for pensions are recognized for commitments in the form of retirement, invalidity and dependents' benefits payable under pension plans. The benefits provided by the Group vary according to the legal, tax and economic circumstances of the country concerned, and usually depend on the length of service and remuneration of the employees.

Volkswagen Group companies provide occupational pensions under both defined contribution and defined benefit plans. In the case of defined contribution plans, the Company makes contributions to state or private pension schemes based on legal or contractual requirements, or on a voluntary basis. Once the contributions have been paid, there are no further obligations for the Volkswagen Group. Current contributions are recognized as pension expenses of the period concerned. In 2019, they amounted to a total of €2,565 million (previous year: €2,385 million) in the Volkswagen Group. Of this figure, contributions to the compulsory state pension system in Germany amounted to €1,796 million (previous year: €1,745 million).

In the case of defined benefit plans, a distinction is made between pensions funded by provisions and externally funded plans.

The pension provisions for defined benefits are measured by independent actuaries using the internationally accepted projected unit credit method in accordance with IAS 19, under which the future obligations are measured on the basis of the ratable benefit entitlements earned as of the balance sheet date. Measurement reflects actuarial assumptions as to discount rates, salary and pension trends, employee turnover rates, longevity and increases in healthcare costs, which were determined for each Group company depending on the economic environment. Remeasurements arise from differences between what has actually occurred and the prior-year assumptions as well as from changes in assumptions. They are recognized in other comprehensive income, net of deferred taxes, in the period in which they arise.

Multi-employer pension plans exist in the Volkswagen Group in the United Kingdom, Switzerland, Sweden and the Netherlands. These plans are defined benefit plans. A small proportion of them are accounted for as defined contribution plans, as the Volkswagen Group is not authorized to receive the information required in order to account for them as defined benefit plans. Under the terms of the multi-employer plans, the Volkswagen Group is not liable for the obligations of the other employers. In the event of its withdrawal from the plans or their winding-up, the proportionate share of the surplus of assets attributable to the Volkswagen Group will be credited or the proportionate share of the deficit attributable to the Volkswagen Group will have to be funded. In the case of the defined benefit plans accounted for as defined contribution plans, the Volkswagen Group's share of the obligations represents a small proportion of the total obligations. No probable significant risks arising from multi-employer defined benefit pension plans that are accounted for as defined contribution plans have been identified. The expected contributions to those plans will amount to €22 million for fiscal year 2020.

Owing to their benefit character, the obligations of the US Group companies in respect of post-employment medical care in particular are also carried under provisions for pensions and other post-employment benefits. These post-employment benefit provisions take into account the expected long-term rise in the cost of healthcare. In fiscal year 2019, €18 million (previous year: €14 million) was recognized as an expense for healthcare costs. The related carrying amount as of December 31, 2019 was €266 million (previous year: €231 million).

The following amounts were recognized in the balance sheet for defined benefit plans:

| € million  | Dec. 31, 2019 | Dec. 31, 2018 |
|--|---------------|---------------|
| Present value of funded obligations                                | 21,090        | 15,606        |
| Fair value of plan assets  | 12,478        | 10,920        |
| Funded status (net)  | 8,613         | 4,686         |
| Present value of unfunded obligations                              | 32,710        | 28,312        |
| Amount not recognized as an asset because of the ceiling in IAS 19 | 2             | 23            |
| <b>Net liability recognized in the balance sheet</b>               | <b>41,324</b> | <b>33,022</b> |
| of which provisions for pensions                                   | 41,389        | 33,097        |
| of which other assets  | 65            | 76            |

#### SIGNIFICANT PENSION ARRANGEMENTS IN THE VOLKSWAGEN GROUP

For the period after their active working life, the Volkswagen Group offers its employees benefits under attractive, modern occupational pension arrangements. Most of the arrangements in the Volkswagen Group are pension plans for employees in Germany classified as defined benefit plans under IAS 19. The majority of these obligations are funded solely by recognized provisions. These plans are now largely closed to new members. To reduce the risks associated with defined benefit plans, in particular longevity, salary increases and inflation, the Volkswagen Group has introduced new defined benefit plans in recent years whose benefits are funded by appropriate external plan assets. The above-mentioned risks have been largely reduced in these pension plans. The proportion of the total defined benefit obligation attributable to pension obligations funded by plan assets will continue to rise in the future. The significant pension plans are described in the following.

#### German pension plans funded solely by recognized provisions

The pension plans funded solely by recognized provisions comprise both contribution-based plans with guarantees and final salary plans. For contribution-based plans, an annual pension expense dependent on income and status is converted into a lifelong pension entitlement using annuity factors (guaranteed modular pension entitlements). The annuity factors include a guaranteed rate of interest. At retirement, the modular pension entitlements earned annually are added together. For final salary plans, the underlying salary is multiplied at retirement by a percentage that depends on the years of service up until the retirement date.

The present value of the guaranteed obligation rises as interest rates fall and is therefore exposed to interest rate risk.

The pension system provides for lifelong pension payments. The companies bear the longevity risk in this respect. This is accounted for by calculating the annuity factors and the present value of the guaranteed obligation using the latest generational mortality tables – the “Heubeck 2018 G” mortality tables – which already reflect future increases in life expectancy.

To reduce the inflation risk from adjusting the regular pension payments by the rate of inflation, a pension adjustment that is not indexed to inflation was introduced for pension plans where this is permitted by law.

#### German pension plans funded by external plan assets

The pension plans funded by external plan assets are contribution-based plans with guarantees. In this case, an annual pension expense dependent on income and status is either converted into a lifelong pension entitlement using annuity factors (guaranteed modular pension entitlement) or paid out in a single lump sum or in installments. In some cases, employees also have the opportunity to provide for their own retirement through deferred compensation. The annuity factors include a guaranteed rate of interest. At retirement, the modular pension entitlements earned annually are added together. The pension expense is contributed on an ongoing basis to a separate pool of assets that is administered independently of the Company in trust and invested in the capital markets. If the plan assets exceed the present value of the obligations calculated using the guaranteed rate of interest, surpluses are allocated (modular pension bonuses).

Since the assets administered in trust meet the IAS 19 criteria for classification as plan assets, they are deducted from the obligations.

The amount of the pension assets is exposed to general market risk. The investment strategy and its implementation are therefore continuously monitored by the trusts' governing bodies, on which the companies are also represented. For example, investment policies are stipulated in investment guidelines with the aim of limiting market risk and its impact on plan assets. In addition, asset-liability management studies are conducted if required so as to ensure that investments are in line with the obligations that need to be covered. The pension assets are currently invested primarily in fixed-income or equity funds. The main risks are therefore interest rate and equity price risk. To mitigate market risk, the pension system also provides for cash funds to be set aside in an equalization reserve before any surplus is allocated.

The present value of the obligation is the present value of the guaranteed obligation after deducting the plan assets. If the plan assets fall below the present value of the guaranteed obligation, a provision must be recognized in that amount. The present value of the guaranteed obligation rises as interest rates fall and is therefore exposed to interest rate risk.

In the case of lifelong pension payments, the Volkswagen Group bears the longevity risk. This is accounted for by calculating the annuity factors and the present value of the guaranteed obligation using the latest generational mortality tables – the “Heubeck 2018 G” mortality tables – which already reflect future increases in life expectancy. In addition, the independent actuaries carry out annual risk monitoring as part of the review of the assets administered by the trusts.

To reduce the inflation risk from adjusting the regular pension payments by the rate of inflation, a pension adjustment that is not indexed to inflation was introduced for pension plans where this is permitted by law.

Calculation of the pension provisions was based on the following actuarial assumptions:

| %                                   | GERMANY |      | ABROAD |      |
|-------------------------------------|---------|------|--------|------|
|                                     | 2019    | 2018 | 2019   | 2018 |
| Discount rate at December 31        | 1.09    | 1.97 | 2.30   | 3.16 |
| Payroll trend                       | 3.59    | 3.48 | 2.16   | 2.66 |
| Pension trend                       | 1.50    | 1.50 | 2.68   | 2.41 |
| Employee turnover rate              | 1.24    | 1.17 | 3.75   | 3.93 |
| Annual increase in healthcare costs | –       | –    | 5.56   | 5.50 |

These assumptions are averages that were weighted using the present value of the defined benefit obligation.

With regard to life expectancy, consideration is given to the latest mortality tables in each country. The discount rates are generally defined to reflect the yields on prime-rated corporate bonds with matching maturities and currencies. The iBoxx AA 10+ Corporates index was taken as the basis for the obligations of German Group companies. Similar indices were used for foreign pension obligations.

The payroll trends cover expected wage and salary trends, which also include increases attributable to career development.

The pension trends either reflect the contractually guaranteed pension adjustments or are based on the rules on pension adjustments in force in each country.

The employee turnover rates are based on past experience and future expectations.

The following table shows changes in the net defined benefit liability recognized in the balance sheet:

| € million  | 2019          | 2018          |
|--|---------------|---------------|
| <b>Net liability recognized in the balance sheet at January 1</b>              | <b>33,022</b> | <b>32,666</b> |
| Current service cost   | 1,555         | 1,410         |
| Net interest expense   | 660           | 620           |
| Actuarial gains (-)/losses (+) arising from changes in demographic assumptions | -67           | 399           |
| Actuarial gains (-)/losses (+) arising from changes in financial assumptions   | 8,689         | -957          |
| Actuarial gains (-)/losses (+) arising from experience adjustments             | 27            | -105          |
| Income/expenses from plan assets not included in interest income               | 654           | -530          |
| Change in amount not recognized as an asset because of the ceiling in IAS 19   | 21            | 3             |
| Employer contributions to plan assets  | 969           | 708           |
| Employee contributions to plan assets  | -9            | -9            |
| Pension payments from company assets   | 873           | 842           |
| Past service cost (including plan curtailments)                                | -25           | 24            |
| Gains (-)/losses (+) arising from plan settlements                             | 2             | 2             |
| Changes in consolidated Group  | -3            | 10            |
| Classified as held for sale  | 14            | -             |
| Other changes  | -8            | -5            |
| Foreign exchange differences from foreign plans                                | -4            | -30           |
| <b>Net liability recognized in the balance sheet at December 31</b>            | <b>41,324</b> | <b>33,022</b> |

The change in the amount not recognized as an asset because of the ceiling in IAS 19 contains an interest component, part of which was recognized in the financial result in profit or loss, and part of which was recognized outside profit or loss directly in equity.

The change in the present value of the defined benefit obligation is attributable to the following factors:

| € million  | 2019          | 2018          |
|--|---------------|---------------|
| <b>Present value of obligations at January 1</b>                               | <b>43,918</b> | <b>43,829</b> |
| Current service cost   | 1,555         | 1,410         |
| Interest cost  | 921           | 901           |
| Actuarial gains (-)/losses (+) arising from changes in demographic assumptions | -67           | 399           |
| Actuarial gains (-)/losses (+) arising from changes in financial assumptions   | 8,689         | -957          |
| Actuarial gains (-)/losses (+) arising from experience adjustments             | 27            | -105          |
| Employee contributions to plan assets  | 19            | 19            |
| Pension payments from company assets   | 873           | 842           |
| Pension payments from plan assets  | 300           | 237           |
| Past service cost (including plan curtailments)                                | -25           | 24            |
| Gains (-)/losses (+) arising from plan settlements                             | -8            | 0             |
| Changes in consolidated Group  | -7            | 10            |
| Classified as held for sale  | 182           | -             |
| Other changes  | -2            | -460          |
| Foreign exchange differences from foreign plans                                | 135           | -73           |
| <b>Present value of obligations at December 31</b>                             | <b>53,800</b> | <b>43,918</b> |

In the previous year, actuarial gains/losses arising from changes in demographic assumptions were mainly the result of the first-time application of the “Heubeck 2018 G” mortality tables.

Following the regular review of our pension plans, one plan used by South American subsidiaries had to be classified as a defined contribution plan in fiscal year 2018, and this led to a change in the pension obligation reported in the above table. The decrease in the present value of the defined benefit obligation in the amount of €460 million is shown under other changes.

Changes in the relevant actuarial assumptions would have had the following effects on the defined benefit obligation:

| Present value of defined benefit obligation if |                                 | DEC. 31, 2019 |                   | DEC. 31, 2018 |                   |
|--|---------------------------------|---------------|-------------------|---------------|-------------------|
|  |                                 | € million     | Change in percent | € million     | Change in percent |
| Discount rate                                  | is 0.5 percentage points higher | 48,598        | -9.67             | 40,048        | -8.81             |
|  | is 0.5 percentage points lower  | 59,888        | 11.32             | 48,398        | 10.20             |
| Pension trend                                  | is 0.5 percentage points higher | 56,633        | 5.27              | 46,147        | 5.07              |
|  | is 0.5 percentage points lower  | 51,258        | -4.73             | 41,892        | -4.61             |
| Payroll trend                                  | is 0.5 percentage points higher | 54,331        | 0.99              | 44,382        | 1.05              |
|  | is 0.5 percentage points lower  | 53,319        | -0.89             | 43,507        | -0.94             |
| Longevity                                      | increases by one year           | 55,719        | 3.57              | 45,311        | 3.17              |

The sensitivity analysis shown above considers the change in one assumption at a time, leaving the other assumptions unchanged versus the original calculation, i.e. any correlation effects between the individual assumptions are ignored.

To examine the sensitivity of the defined benefit obligation to a change in assumed longevity, the estimates of mortality were reduced as part of a comparative calculation to the extent that doing so increases life expectancy by approximately one year.

The average duration of the defined benefit obligation weighted by the present value of the defined benefit obligation (Macaulay duration) is 22 years (previous year: 19 years).

The present value of the defined benefit obligation is attributable as follows to the members of the plan:

| € million  | 2019          | 2018          |
|--|---------------|---------------|
| Active members with pension entitlements                   | 33,027        | 25,783        |
| Members with vested entitlements who have left the Company | 3,136         | 2,580         |
| Pensioners   | 17,637        | 15,555        |
|  | <b>53,800</b> | <b>43,918</b> |

The maturity profile of payments attributable to the defined benefit obligation is presented in the following table, which classifies the present value of the obligation by the maturity of the underlying payments:

| € million                                | 2019          | 2018          |
|--|---------------|---------------|
| Payments due within the next fiscal year | 1,161         | 1,160         |
| Payments due between two and five years  | 5,121         | 5,251         |
| Payments due in more than five years     | 47,518        | 37,508        |
|  | <b>53,800</b> | <b>43,918</b> |

Changes in plan assets are shown in the following table:

| € million  | 2019          | 2018          |
|--|---------------|---------------|
| <b>Fair value of plan assets at January 1</b>                            | <b>10,920</b> | <b>11,192</b> |
| Interest income on plan assets determined using the discount rate        | 261           | 281           |
| Income (+)/expenses (-) from plan assets not included in interest income | 654           | -530          |
| Employer contributions to plan assets                                    | 969           | 708           |
| Employee contributions to plan assets                                    | 9             | 9             |
| Pension payments from plan assets  | 299           | 237           |
| Gains (+)/losses (-) arising from plan settlements                       | 10            | 2             |
| Changes in consolidated Group  | -5            | 0             |
| Classified as held for sale  | 167           | -             |
| Other changes  | 7             | -455          |
| Foreign exchange differences from foreign plans                          | 139           | -46           |
| <b>Fair value of plan assets at December 31</b>                          | <b>12,478</b> | <b>10,920</b> |

Other changes in the previous year were attributable to the change in the presentation of a plan used by South American subsidiaries.

The investment of the plan assets to cover future pension obligations resulted in income of €915 million (previous year: expenses of €250 million).

Employer contributions to plan assets are expected to amount to €927 million (previous year: €769 million) in the next fiscal year.

Plan assets are invested in the following asset classes:

| € million                            | DEC. 31, 2019                      |                                       |       | DEC. 31, 2018                      |                                       |       |
|--------------------------------------|------------------------------------|---------------------------------------|-------|------------------------------------|---------------------------------------|-------|
|                                      | Quoted prices<br>in active markets | No quoted prices<br>in active markets | Total | Quoted prices<br>in active markets | No quoted prices<br>in active markets | Total |
| Cash and cash equivalents            | 501                                | –                                     | 501   | 666                                | 2                                     | 669   |
| Equity instruments                   | 401                                | –                                     | 401   | 375                                | –                                     | 375   |
| Debt instruments                     | 850                                | 5                                     | 855   | 1,041                              | 4                                     | 1,044 |
| Direct investments in<br>real estate | –                                  | 110                                   | 110   | 11                                 | 100                                   | 112   |
| Derivatives                          | 15                                 | –28                                   | –13   | –21                                | –17                                   | –38   |
| Equity funds                         | 2,653                              | 20                                    | 2,673 | 1,433                              | 26                                    | 1,459 |
| Bond funds                           | 5,729                              | 128                                   | 5,857 | 5,443                              | 118                                   | 5,561 |
| Real estate funds                    | 170                                | –                                     | 170   | 193                                | –                                     | 193   |
| Other funds                          | 1,225                              | 22                                    | 1,247 | 890                                | 6                                     | 896   |
| Other instruments                    | 83                                 | 594                                   | 676   | 80                                 | 568                                   | 648   |

44.6% (previous year: 53.3%) of the plan assets are invested in German assets, 27.0% (previous year: 27.4%) in other European assets and 28.4% (previous year: 19.3%) in assets in other regions.

Plan assets include €14 million (previous year: €3 million) invested in Volkswagen Group assets and €14 million (previous year: €12 million) in Volkswagen Group debt instruments.

The following amounts were recognized in the income statement:

| € million   | 2019         | 2018         |
|---|--------------|--------------|
| Current service cost  | 1,555        | 1,410        |
| Net interest on the net defined benefit liability                   | 662          | 623          |
| Past service cost (including plan curtailments)                     | –25          | 24           |
| Gains (–) or losses (+) arising from plan settlements               | 2            | 2            |
| <b>Net income (–) and expenses (+) recognized in profit or loss</b> | <b>2,194</b> | <b>2,059</b> |

The above amounts are generally included in the personnel costs of the functional areas in the income statement. Net interest on the net defined benefit liability is reported in interest expenses.

### 30. Noncurrent and current other provisions

| € million   | Obligations arising from sales | Employee expenses | Litigation and legal risks | Miscellaneous provisions | Total         |
|---|--------------------------------|-------------------|----------------------------|--------------------------|---------------|
| <b>Balance at Jan. 1, 2018</b>                          | <b>27,867</b>                  | <b>4,886</b>      | <b>5,802</b>               | <b>7,631</b>             | <b>46,185</b> |
| Foreign exchange differences                            | 39                             | -17               | -88                        | -21                      | -88           |
| Changes in consolidated Group                           | -2                             | -7                | -1                         | -44                      | -53           |
| Utilization   | 10,437                         | 1,632             | 2,396                      | 2,415                    | 16,880        |
| Additions/New provisions                                | 12,179                         | 2,019             | 2,131                      | 3,153                    | 19,483        |
| Unwinding of discount/effect of change in discount rate | -108                           | 5                 | -19                        | 9                        | -114          |
| Reversals   | 2,503                          | 99                | 516                        | 662                      | 3,780         |
| <b>Balance at Dec. 31, 2018</b>                         | <b>27,035</b>                  | <b>5,155</b>      | <b>4,913</b>               | <b>7,651</b>             | <b>44,754</b> |
| of which current  | 13,986                         | 2,248             | 2,349                      | 5,291                    | 23,874        |
| of which noncurrent                                     | 13,050                         | 2,906             | 2,563                      | 2,360                    | 20,879        |
| <b>Balance at Jan. 1, 2019<sup>1</sup></b>              | <b>27,035</b>                  | <b>5,155</b>      | <b>4,913</b>               | <b>7,639</b>             | <b>44,742</b> |
| Foreign exchange differences                            | 199                            | 15                | -14                        | 41                       | 241           |
| Changes in consolidated Group                           | -1                             | 3                 | -1                         | 0                        | 2             |
| Classified as held for sale                             | 33                             | 10                | -                          | 12                       | 55            |
| Utilization   | 9,442                          | 1,899             | 1,913                      | 2,404                    | 15,658        |
| Additions/New provisions                                | 11,618                         | 2,633             | 2,835                      | 3,486                    | 20,572        |
| Unwinding of discount/effect of change in discount rate | 3                              | 225               | -29                        | 20                       | 220           |
| Reversals   | 2,391                          | 128               | 531                        | 795                      | 3,845         |
| <b>Balance at Dec. 31, 2019</b>                         | <b>26,988</b>                  | <b>5,993</b>      | <b>5,260</b>               | <b>7,976</b>             | <b>46,217</b> |
| of which current  | 13,468                         | 2,466             | 3,112                      | 5,388                    | 24,434        |
| of which noncurrent                                     | 13,520                         | 3,527             | 2,147                      | 2,588                    | 21,783        |

1 Value in the opening balance adjusted (see disclosures on IFRS 16).

The obligations arising from sales contain provisions covering all risks relating to the sale of vehicles, components and genuine parts through to the disposal of end-of-life vehicles. They primarily comprise warranty obligations, calculated on the basis of losses to date and estimated future losses. They also include provisions for discounts, bonuses and similar allowances which are incurred after the balance sheet date, but for which there is a legal or constructive obligation attributable to sales revenue before the balance sheet date.

Provisions for employee expenses are recognized for long-service awards, time credits, partial retirement arrangements, severance payments and similar obligations, among other things.

In addition to residual provisions relating to the diesel issue, the provisions for litigation and legal risks contain amounts related to a large number of legal disputes and official proceedings in which Volkswagen Group companies become involved in Germany and internationally in the course of their operating activities. In particular, such legal disputes and other proceedings may occur in relation to suppliers, dealers, customers, employees, or investors. Please refer to the "Litigation" section for a discussion of the legal risks.

Miscellaneous provisions relate to a wide range of identifiable specific risks, price risks and uncertain obligations, which are measured in the amount of the expected settlement value.

Miscellaneous provisions additionally include provisions amounting to €568 million (previous year: €562 million) relating to the insurance business.

### 31. Put options and compensation rights granted to noncontrolling interest shareholders

In the previous year, this balance sheet item consisted primarily of the present value of the cash settlement of €90.29 per share in accordance with section 305 of the Aktiengesetz (AktG – German Stock Corporation Act) offered to MAN shareholders in connection with the control and profit and loss transfer agreement. The put options granted to noncontrolling interest shareholders expired in the fiscal year. The liability for shares not tendered and for compensation payments remaining after these rights expired was reclassified directly to equity.

Further information can be found in the “Key Events” section.

### 32. Trade payables

| € million                     | Dec. 31, 2019 | Dec. 31, 2018 |
|-------------------------------|---------------|---------------|
| Trade payables to             |               |               |
| third parties                 | 21,948        | 22,928        |
| unconsolidated subsidiaries   | 222           | 235           |
| joint ventures                | 375           | 327           |
| associates                    | 195           | 113           |
| other investees and investors | 5             | 4             |
|                               | <b>22,745</b> | <b>23,607</b> |