The 3.7% rise in equity to €28.5 billion in the reporting period was mainly attributable to healthy earnings. The equity ratio was 12.7 (13.7)%.

Noncurrent liabilities were up 14.8%, mainly because of a rise in noncurrent financial liabilities to refinance the business volume. Current liabilities increased by a total of 10.3% and the current financial liabilities included in this item rose markedly.

At €29.9 (31.4) billion, deposits from the direct banking business were lower at the end of 2018 than they had been a year earlier.

RETURN ON INVESTMENT (ROI) AND VALUE CONTRIBUTION
The Volkswagen Group’s financial target system centers on continuously and sustainably increasing the value of the Company. In order to ensure the efficient use of resources in the Automotive Division and to measure the success of this, we have been using a value-based management system for a number of years, with return on investment (ROI) as a relative indicator and value contribution\(^1\), a key performance indicator linked to the cost of capital, as an absolute performance measure.

The return on investment serves as a consistent target in strategic and operational management. If the return on investment exceeds the market cost of capital, there is an increase in the value of the invested capital and a positive value contribution. The concept of value-based management allows the success of the Automotive Division and individual business units to be evaluated. It also enables the earnings power of our products, product lines and projects – such as new plants – to be measured.

Components of value contribution
Value contribution is calculated on the basis of the operating result after tax and the opportunity cost of invested capital.

The operating result shows the economic performance of the Automotive Division and is initially a pre-tax figure. Using the various international income tax rates of the relevant companies, we assume an overall average tax rate of 30% when calculating the operating result after tax.

The cost of capital is multiplied by the average invested capital to give the opportunity cost of capital. Invested capital is calculated as total operating assets reported in the balance sheet (property, plant and equipment, intangible assets, lease assets, inventories and receivables) less non-interest-bearing liabilities (trade payables and payments on account received). Average invested capital is derived from the balance at the beginning and the end of the reporting period.

As the concept of value-based management only comprises our operating activities, assets relating to investments in subsidiaries and associates and the investment of cash funds are not included when calculating invested capital. Interest charged on these assets is reported in the financial result.

Determining the current cost of capital
The cost of capital is the weighted average of the required rates of return on equity and debt. The cost of equity is determined using the Capital Asset Pricing Model (CAPM).

This model uses the yield on long-term risk-free Bunds, increased by the risk premium attaching to investments in the equity market. The risk premium comprises a general market risk and a specific business risk.

The general risk premium of 6.5% reflects the general risk of a capital investment in the equity market and is oriented on the Morgan Stanley Capital International (MSCI) World Index.

The specific business risk – price fluctuations in Volkswagen preferred shares – has been modeled in comparison to the MSCI World Index when calculating the beta factor. The MSCI World Index is a global capital market benchmark for investors.

The analysis period for the beta factor calculation spans five years with annual beta figures calculated on a daily basis followed by the subsequent calculation of the average. A beta factor of 1.17 (1.12) was determined for 2018.

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\(^1\) The value contribution corresponds to the Economic Value Added (EVA\(^\text{®}\)). EVA\(^\text{®}\) is a registered trademark of Stern Stewart & Co.
The cost of debt is based on the average yield for long-term debt. As borrowing costs are tax-deductible, the cost of debt is adjusted to account for the tax rate of 30%.

A weighting on the basis of a fixed ratio for the fair values of equity and debt gives an effective cost of capital for the Automotive Division of 6.2 (6.0)% for 2018.

**RETURN ON INVESTMENT (ROI) AND VALUE CONTRIBUTION IN THE AUTOMOTIVE DIVISION**

The operating result after tax of the Automotive Division, including the proportionate operating result of the Chinese joint ventures, was €11,438 (11,756) million in fiscal year 2018. Volume improvements were unable to compensate for the year-on-year decline that was primarily caused by rising depreciation and amortization charges due to the large volume of capital expenditure, higher research and development costs, as well as the fair value measurement of gains and losses on certain derivatives, which have been reported here since the beginning of the year. Effects on earnings and assets from purchase price allocation are not taken into account as they cannot be influenced operationally by management.

In the reporting year, the invested capital rose to €104,424 (97,021) million. The increase was particularly due to higher inventories as well as to additions to investments in property, plant and equipment and capitalized development costs.

The return on investment (ROI) is the return on invested capital for a particular period based on the operating result after tax. The ROI declined year-on-year as a result of the lower operating profit and higher invested capital. However, at 11.0 (12.1)%, it exceeded our minimum rate of return on invested capital of 9% in spite of the adverse effects of the special items on earnings.

At €6,474 (5,821) million, the opportunity cost of capital (invested capital multiplied by cost of capital) was up on the prior-year level due to the increase in the invested capital and the higher cost of capital. After deduction of the opportunity cost of invested capital, operating result after tax – which was negatively impacted by special items – led to a positive value contribution of €4,964 (5,935) million.


### RETURN ON INVESTMENT (ROI) AND VALUE CONTRIBUTION IN THE AUTOMOTIVE DIVISION

<table>
<thead>
<tr>
<th>€ million</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating result after tax</td>
<td>11,438</td>
<td>11,756</td>
</tr>
<tr>
<td>Invested capital (average)</td>
<td>104,424</td>
<td>97,021</td>
</tr>
<tr>
<td>Return on investment (ROI) in %</td>
<td>11.0</td>
<td>12.1</td>
</tr>
<tr>
<td>Cost of capital in %</td>
<td>6.2</td>
<td>6.0</td>
</tr>
<tr>
<td>Cost of invested capital</td>
<td>4,964</td>
<td>5,935</td>
</tr>
<tr>
<td>Value contribution</td>
<td>6,474</td>
<td>5,821</td>
</tr>
</tbody>
</table>

1 Including proportionate inclusion of the Chinese joint ventures (including the relevant sales and component companies) and allocation of consolidation adjustments between the Automotive and Financial Services Divisions.