

POWER ENGINEERING BUSINESS AREA BALANCE SHEET STRUCTURE

€ million	Dec. 31, 2019	Dec. 31, 2018
Noncurrent assets	2,206	2,499
Current assets	4,202	3,597
Total assets	6,408	6,097
Equity	2,885	2,953
Noncurrent liabilities	777	754
Current liabilities	2,746	2,391

The Power Engineering Business Area's intangible assets and property, plant and equipment were lower than the respective prior-year figures. Noncurrent assets decreased in total. Current assets rose 16.8% compared with December 31, 2018. The "Assets held for sale" item included in current assets mainly comprises the asset carrying amount expected to be derecognized following the planned disposal of Renk. Total assets in the Power Engineering Business Area stood at €6.4 (6.1) billion at the end of 2019.

On December 31, 2019, the Power Engineering Business Area's equity amounted to €2.9 (3.0) billion. Noncurrent liabilities were at the prior-year level. Noncurrent financial liabilities increased, while other noncurrent liabilities declined. Overall, current liabilities were higher than a year earlier. Contributing factors were a rise in current financial liabilities and in liabilities held for sale, which include the carrying amount of the liabilities of Renk expected to be derecognized.

Financial Services Division balance sheet structure

At the end of 2019, the Financial Services Division had total assets of €241.3 billion, 7.9% more than on December 31, 2018.

Noncurrent assets were up by 11.7% in total. The property, plant and equipment included in this item decreased. Investment property and lease assets rose due to business growth and as a result of the application of the new IFRS 16, while other receivables and financial assets declined by a corresponding amount. Noncurrent financial services receivables rose, driven by higher volumes.

Current assets amounted to €94.4 (92.2) billion. While current financial services receivables increased, current other receivables and financial assets declined. As of December 31, 2019, cash and cash equivalents in the Financial Services Division stood at €6.2 billion, up €1.5 billion on the prior-year figure.

The Financial Services Division accounted for around 49.4 (48.8)% of the Volkswagen Group's assets at the balance sheet date.

At €30.9 billion, the Financial Services Division's equity was 8.4% higher than the figure at the previous balance sheet date, driven mainly by healthy earnings. The equity ratio was 12.8 (12.7)%.

Noncurrent liabilities were up by 11.1% at the end of 2019, mainly because of a rise in noncurrent financial liabilities to refinance the business volume. Overall, current liabilities were higher than a year earlier. Especially the current financial liabilities included in this item recorded an increase.

Deposits from the direct banking business totaled €32.5 (29.9) billion, thus exceeding the figure recorded as of December 31, 2018.

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 contribution¹, 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 contribution¹ 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.

¹ The value contribution corresponds to the Economic Value Added (EVA®). EVA® is a registered trademark of Stern Stewart & Co.

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 7.5% reflects the general risk of a capital investment in the equity market.

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 (1.17) was determined for 2019.

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 6.3 (6.2)% for 2019.

COST OF CAPITAL AFTER TAX AUTOMOTIVE DIVISION

%	2019	2018
Risk-free rate	0.0	0.8
Market risk premium	7.5	6.5
Volkswagen-specific risk premium	1.3	1.1
(Volkswagen beta factor)	(1.17)	(1.17)
Cost of equity after tax	8.8	8.4
Cost of debt	1.9	2.5
Tax	–0.6	–0.8
Cost of debt after tax	1.3	1.8
Proportion of equity	66.7	66.7
Proportion of debt	33.3	33.3
Cost of capital after tax	6.3	6.2

RETURN ON INVESTMENT (ROI) AND VALUE CONTRIBUTION IN THE REPORTING PERIOD

At €13,019 (11,438) million, the Automotive Division's operating result after tax, including the proportionate operating result of the Chinese joint ventures, was up on the prior-year figure. Improvements in the mix and increased vehicle sales, reversals of impairment losses as part of the remeasurement of development costs, product cost optimization as well as the measurement of certain derivatives and a decline in negative special items had a positive impact. In particular, higher depreciation and amortization charges due to the large volume of capital expenditure and a rise in research and development costs had an offsetting effect. 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 €116,016 (104,424) million. The increase was particularly due to the change in the accounting for leases (IFRS 16) that entered into force on January 1, 2019, as well as additions to capex 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. In spite of the additional adverse effects of the special items on earnings as well as the increase in the invested capital resulting from the new IFRS 16, the ROI improved as a result of the higher operating profit and amounted to 11.2 (11.0)%, which is above our minimum rate of return on invested capital of 9%.

At €7,328 (6,474) 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. 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 €5,691 (4,964) million.

More information on value-based management is contained in our publication entitled “Financial Control System of the Volkswagen Group”, which can be downloaded from our Investor Relations website: www.volkswagenag.com/en/Investor-Relations/news-and-publications/More_Publications.html.

RETURN ON INVESTMENT (ROI) AND VALUE CONTRIBUTION IN THE AUTOMOTIVE DIVISION¹

€ million	2019	2018
Operating result after tax	13,019	11,438
Invested capital (average) ²	116,016	104,424
Return on investment (ROI) in %	11.2	11.0
Cost of capital in %	6.3	6.2
Cost of invested capital	7,328	6,474
Value contribution	5,691	4,964

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.

2 When calculating the average invested capital, the effect of the application of the new IFRS 16 for full year 2019 was taken into account.