Notes to the Consolidated Financial Statements

General disclosures

Aurubis AG, headquartered in Hamburg, Germany, is a quoted corporate entity registered with the District Court of Hamburg under Commercial Register number HR B No. 1775.

As required by Regulation (EC) No. 1606/2002 of the European Parliament and the Council dated July 19, 2002 on the application of international accounting standards, in conjunction with Section 315e (1) of the German Commercial Code (HGB), the accompanying consolidated financial statements as at September 30, 2019 are prepared in accordance with the International Financial Reporting Standards (IFRS) approved and published by the International Accounting Standards Board (IASB), as adopted by the European Union. The interpretations of the International Financial Reporting Standards Interpretations Committee (IFRIC-IC) have been taken into account.

The consolidated financial statements were released for publication after they were approved on December 10, 2019.

The consolidated financial statements have been prepared in euros. If nothing to the contrary is indicated, all amounts are shown in thousands of currency units.

Current and non-current assets and liabilities are presented as separate categories in the statement of financial position. In this context, current assets and current liabilities are expected to be realized within twelve months of the balance sheet date or are held primarily for trading purposes.

The preparation of consolidated financial statements in accordance with IFRS furthermore requires the Executive Board and authorized employees to make estimates and assumptions in certain significant areas. These have an impact on the measurement and presentation of the assets and liabilities in the statement of financial position, and on related income and expenses.

Sectors that particularly require the application of estimates and assumptions are presented under Significant estimates and assumptions, pages 131–132.

This report may include slight deviations in disclosed totals due to rounding.

Significant accounting principles

SCOPE OF CONSOLIDATION

As in the previous fiscal year, in addition to the parent company, Aurubis AG, Hamburg, 21 further companies in which Aurubis AG, Hamburg, holds the majority of the voting rights either directly or indirectly, and thus has control, were included in the consolidated financial statements as at the reporting date by way of full consolidation. The reporting date for the consolidated financial statements corresponds to the balance sheet date of Aurubis AG, Hamburg, and all consolidated subsidiaries, with the exception of three consolidated companies. The balance sheet date of these subsidiaries is December 31. These companies prepared interim financial statements for consolidation purposes as at the reporting date of the consolidated financial statements.

Accordingly, the financial statements of all significant subsidiaries which Aurubis AG controls are included in these consolidated financial statements.

Pursuant to IFRS 11.24, in conjunction with IAS 28, Schwermetall Halbzeugwerk GmbH & Co. KG, Stolberg, a producer of pre-rolled strip, has been accounted for using the equity method. A 50 % investment is held in this entity, which is managed jointly with another partner (joint venture). This investment is classified as discontinued operations in the fiscal year, as it was in the previous year.

CONSOLIDATION PRINCIPLES

The separate financial statements of all companies included in the consolidation are prepared in accordance with the uniform accounting policies that are applied within the Aurubis Group. The financial statements of the main companies included in the consolidated financial statements have been audited by independent auditors.

Capital consolidation is performed as at the acquisition date using the acquisition method, whereby the acquisition cost of the acquired interest is offset against the fair values of acquired assets and liabilities of the subsidiary at that time. Any unallocated difference on the asset side is recognized as goodwill and tested at least annually for impairment. In accordance with IAS 36, goodwill is not amortized on a scheduled basis. Negative goodwill is recognized immediately in profit or loss following a reassessment of the fair values.

Receivables, liabilities, and contingent liabilities, as well as revenues, other income, and expenses between Group companies are eliminated. Profits resulting from transactions between Group companies are eliminated, if material.

In addition to eight German companies, 14 foreign companies are included in the consolidated financial statements. In accordance with the functional currency concept, the financial statements of subsidiaries prepared in foreign currencies were translated into euros, as the euro is Aurubis AG's reporting currency. Transactions in foreign currencies are converted into the functional currency at the exchange rate at the time of the transaction or, in the case of subsequent measurement, at the time of such measurement. Foreign currency transactions are conducted particularly in US dollars. The average US dollar exchange rate during fiscal year 2018/19 was 1.12808 US$/€. The exchange rate as at September 30, 2019 was 1.08890 US$/€. Gains and losses resulting from the fulfillment of such foreign currency transactions, as well as from the conversion of monetary assets and liabilities designated in a foreign currency as at the reporting date, are recorded in profit and loss in the cost of materials unless they have to be accounted for in equity as qualified cash flow hedges or net investments in foreign business operations. In fiscal year 2018/19, foreign currency conversion differences totaling € 0.2 million (previous year: € -1.1 million) were recognized in profit or loss. In accordance with IAS 21, assets and liabilities in the statements of financial position of subsidiaries reporting in a foreign currency are translated at the mid-market rates applicable at the reporting date and the income statement is translated at the average rates for the fiscal year. Any resultant translation differences are recognized directly in equity until the possible disposal of the subsidiary.

Joint ventures are accounted for in accordance with IFRS 11 using the equity method. Profits deriving from upstream/downstream transactions with Group companies are eliminated proportionally.

RECOGNITION OF REVENUES

Revenues are mainly generated from the sale of metals and copper products and are measured in the amount of the consideration that the Group expects to receive from a contract with a customer. The Group recognizes revenues when the authority to exercise control over a product or a service has been transferred to the customer. Bonuses granted in the fiscal year are deducted from revenues. In the case of transport services that generally relate to a specific time period and represent a separate performance obligation, no separation is made on grounds of materiality. Some contracts include rebates and price reductions that are factored into the transaction price.

SHARE-BASED PAYMENT

The recognition and measurement standards of IFRS 2 are to be applied to this compensation component. The component relates to virtual deferred stock with a two-year, forward-looking assessment basis, which is dependent upon the achievement of targets for the operating EBT component and is also based on individual performance. The virtual deferred stock component does not include dividend payments, and the payout is limited to 150 % of the initial value. To determine the fair value of the limitation of the share price development, the value of a European call option is calculated by applying the Black Scholes formula.

FINANCIAL INSTRUMENTS AND CHANGES WITH EFFECT FROM OCTOBER 1, 2018

A **financial instrument** is a contract that simultaneously gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

In this connection, financial assets particularly comprise cash and cash equivalents, equity instruments held in other entities (e.g., investments or share portfolios), trade accounts receivable, other loans and receivables granted, and primary and derivative financial instruments that are held for trading. Financial liabilities generally establish a contractual obligation to deliver cash or other financial assets. These include in particular bonds and other securitized liabilities, liabilities to banks, trade accounts payable, finance lease liabilities, and derivative financial instruments. Within the Group, regular way purchases and sales of primary financial instruments are generally recorded as at the settlement date, i.e., at the date of delivery and transfer of title. Derivative financial instruments are recognized as at the trade date. Financial assets and financial liabilities are generally reported gross (i.e., without being netted).

In accordance with IFRS 9, financial instruments are classified as either measured "at amortized cost" (AC), "at fair value through other comprehensive income" (FV OCI), or "at fair value through profit or loss" (FV P&L).

A debt instrument is measured at amortized cost if both of the following conditions are fulfilled:

» It is held as part of a business model whose objective is to hold assets to collect contractual cash flows.
» The contract conditions of the financial asset lead to cash flows, at fixed times, that only represent redemption and interest payments on the outstanding amount of capital (cash flow criterion).

A debt instrument is measured at fair value through other comprehensive income if both of the following conditions are fulfilled:

- It is held as part of a business model whose objective is both to collect contractual cash flows and to sell financial assets.
- The contract conditions of the financial asset lead to cash flows, at fixed times, that only represent redemption and interest payments on the outstanding amount of capital (cash flow criterion).

If the criteria mentioned above for classification as AC or FV OCI have not been fulfilled, the debt instruments are measured at fair value through profit or loss (FV P&L).

Notwithstanding the above criteria for classification of debt instruments in the categories AC or FV OCI, a company can irrevocably classify its financial assets as "measured at fair value through profit or loss" upon initial recognition if doing so helps prevent or significantly reduce an accounting anomaly (fair value option). The fair value option is not used for financial assets within the Aurubis Group.

Equity instruments are normally classified and measured at fair value through profit or loss. Deviating from this, there is an irrevocable option, upon initial recognition of primary equity instruments that are not held for trading, to recognize fair value changes in other comprehensive income (OCI option). Aurubis uses the OCI option and classifies equity instruments that are not classified as "held for trading" in the category "fair value through OCI" (FV OCI).

Primary financial liabilities are either measured at amortized cost or at fair value through profit or loss. They are measured at fair value through profit or loss when they are held for trading or have been designated as "fair value through profit or loss" (FV option) – under certain conditions – upon initial recognition. Aurubis makes use of the FV option and irrevocably designates liabilities from supply contracts that are not price-fixed (hybrid contracts) at "fair value through profit or loss."

No financial instruments were reclassified into other measurement categories either in fiscal year 2018/19 or in fiscal year 2017/18.

Financial assets are recognized if Aurubis has a contractual right to receive cash and cash equivalents or other financial assets from another company. Financial liabilities are always initially recognized at fair value. Thereby, in the case of financial assets that will not be measured subsequently at fair value through profit or loss, the transaction costs directly attributable to the purchase have to be taken into account. The fair values recognized in the statement of financial position represent the market prices of the financial assets to the extent that these can be determined directly by reference to an active market. Otherwise, they are measured using normal market procedures (valuation models), applying the market parameters specific to the instrument. Non-interest-bearing financial assets with a term exceeding one year are discounted. For financial assets with a residual term of less than one year, it is assumed that the fair value corresponds to the nominal value. Financial assets designated in foreign currency are measured on initial recognition with the valid rate applicable at the date of the transaction and as at the reporting date with the then applicable mid-market rate. Financial assets are derecognized if the contractual rights to payments from the financial assets no longer exist or all opportunities and risks are essentially transferred. Any financial assets sold without recourse were derecognized.

The **interests in affiliated companies and investments** that are reported under financial fixed assets are measured at fair value through profit or loss. They are generally measured at fair value, which is derived from the stock market price, provided a price quoted in an active market is available. Subsequent gains and losses resulting from measurement at fair value are recognized as other financial income/expenses in the income statement.

Aurubis makes use of the OCI option for equity instruments and accounts for **securities classified as fixed assets** at fair value through other comprehensive income. When these equity instruments are sold, the profits and losses that are unrealized up to this point in other comprehensive income are transferred to revenue reserves and are not disclosed in the income statement.

The non-current receivables reported as **other financial fixed assets** are measured at amortized cost for subsequent measurement purposes, applying the effective interest method.

Within the Aurubis Group, **trade accounts receivable** resulting from supply contracts that are not price-fixed are measured at fair value through profit or loss for subsequent measurement purposes. Receivables held for sale within the context of factoring arrangements are measured at fair value through other comprehensive income. On account of their short terms to maturity, remaining trade accounts receivable are measured at nominal value, less any expected credit losses.

Expected credit losses on financial assets measured at amortized cost or at fair value through other comprehensive income are recorded as allowances, i.e., as part of the measurement of these assets in the statement of financial position. A simplified approach for the recognition of impairment losses is applied for trade receivables. In this approach, the expected credit losses are calculated using a so-called cohort model, which is based on the data available for the past three fiscal years. The measurement of the outstanding receivables takes actual historical bad debt losses into account, gving consideration to forward-looking information.

Actual defaults result in derecognition of the receivables affected. A financial asset is considered to be in default if contractual payments cannot be collected and are assumed to be irrecoverable. Any adjustments to the balance of allowances due to an increase or decrease in the amount of expected credit losses are recorded in an allowance account. The decision as to whether a credit default risk is recorded using an allowance account or through direct reduction of the receivables depends on how reliable the assessment of the risk situation is. The default risk for trade accounts receivable is limited by the Aurubis Group's existing commercial credit insurance programs.

Derivative financial instruments that are not included in an effective hedging relationship in accordance with IFRS 9 (hedge accounting) and are therefore "held for trading" must be classified as "measured at fair value through profit or loss."

In addition, delivery contracts are concluded in the Aurubis Group for non-ferrous metals to cover the expected requirement for raw materials and also for the sale of finished products. In the process, physical delivery contracts may be terminated by making compensation payments due to changes in demand. Fixed-price metal delivery contracts are therefore also recognized as derivative financial instruments. Since these are not included in an effective hedging relationship in accordance with IFRS 9, they are similarly classified as "measured at fair value through profit or loss."

To the extent that they are non-current, a large porportion of the **other financial assets** are measured at amortized cost for subsequent measurement purposes, applying the effective interest method.

Cash and cash equivalents have a remaining term on initial recognition of up to three months and are measured at nominal value.

For financial assets that are not accounted for at fair value through profit or loss, **allowances for impairment** need to be recognized on the basis of the expected losses. To calculate these allowances, IFRS 9 provides a three-stage model (general approach). Classification to one of the various stages is dependent on the credit default risk of the respective contractual counterparty. The model requires different levels of impairment assessment depending on the stage.

For cash and cash equivalents and other financial assets that fall within the scope of impairment assessment under IFRS 9, the expected credit loss is primarily determined at the time of their acquisition on the basis of credit default swaps for which losses are calculated that are expected from defaults in the next twelve months. In the case of a significant increase in the default risk, the credit losses expected over the asset's respective term are considered. Because of their short-term nature and the counterparties' high level of creditworthiness, the default risk for the financial assets is low as at the reporting date.

Financial liabilities are recognized if there is a contractual obligation to transfer cash and cash equivalents or other financial assets to another company. Financial liabilities are always initially recognized at fair value. Any directly attributable transaction costs are deducted for all financial liabilities that are not subsequently measured at fair value and are amortized over the term of the liability applying the effective interest method. Financial liabilities denominated in foreign currency are measured on initial recognition with the valid rate applicable at the date of the transaction and as at the reporting date with the then applicable mid-market rate.

Primary financial liabilities, which include borrowings, trade accounts payable, and other primary financial liabilities, are generally measured at amortized cost. If the interest effect is not insignificant, non-interest-bearing liabilities, or liabilities bearing low interest rates, with a residual term exceeding one year, are discounted. In the case of liabilities with a residual term of less than a year, it is assumed that the fair value corresponds to the settlement amount. Trade accounts payable resulting from supply contracts that are not price-fixed provide an exception. These are measured at fair value through profit or loss (FV option) for subsequent measurement purposes. The fair value changes resulting from the company's own credit risk are now recognized in other comprehensive income and not in the income statement.

Liabilities under finance leases are recognized on inception of the lease at the lower of the present value of the leasing payments and the fair value of the leased asset. In subsequent periods, the redemption portions included in the leasing payments reduce the corresponding liabilities.

Derivative financial instruments that are not included in effective hedging relationships are recognized at fair value through profit or loss. Negative amounts result in the recognition of a financial liability.

The Aurubis Group uses **derivative financial instruments** to hedge interest rate and foreign currency risks and to hedge commodity price risks.

Derivative financial instruments are measured at fair value. This represents the market value and can be both positive and negative. If the market value is not available, the fair value is calculated utilizing present value and option price models. As far as possible, relevant market prices and interest rates observed at the reporting date, which are derived from recognized sources, are used as the opening parameters for these models.

Changes in the fair values of derivative financial instruments are recognized either through profit or loss in the income statement or in equity as a component of other comprehensive income. The decisive factor hereby is whether or not the derivative financial instrument is included in an effective hedging relationship. If no **cash flow hedge accounting** relationship exists, the changes in fair values are to be recognized immediately in profit or loss. If, on the other hand, an effective cash flow hedging relationship exists, such changes will be recognized in equity as a component of other comprehensive income.

In order to avoid fluctuations in the income statement due to the different measurement of hedged items and hedging instruments, IFRS 9 includes special regulations relating to hedge accounting. The aim of these hedge accounting regulations is to record gains and losses on hedging instruments and hedged items so that they compensate one another as far as possible.

In addition to documentation, as a prerequisite for the application of the regulations of hedge accounting, IFRS 9 requires proof of an effective hedging relationship. Hedge effectiveness means that changes in fair value (for fair value hedges) or changes in cash flow (for cash flow hedges) of the hedged items are compensated by counteracting changes in the fair value or the cash flows of the hedging instruments, in each case relating to the hedged risk.

The purpose of derivatives that are used as hedging instruments in conjunction with a **cash flow hedge** is to hedge future cash flows. A risk with regard to the amount of future cash flows exists in particular for loans with floating interest rates and planned transactions that are highly likely to occur. Derivative financial instruments used in conjunction with cash flow hedge accounting are recognized at fair value. The gain or loss on measurement is split between an effective and an ineffective portion. The effective portion is the portion of the gain or loss on measurement that represents an effective hedge of the cash flow risk. This is recognized directly in equity under a special heading (cash flow hedge reserve), after taking deferred taxes into account. The ineffective portion deriving from measurement is recognized on the other hand in profit or loss in the income statement. The non-designated portion of the derivative is recorded in a separate reserve for hedging costs in other comprehensive income. Within the Aurubis Group, any changes in fair values of foreign currency options are excluded from the hedging relationship. The accounting treatment of the transactions underlying the hedged cash flows remain unchanged. Following the termination of the hedging relationship, the amounts recorded in the reserve are always transferred to the income statement when gains or losses made in connection with the hedged item are recognized in profit or loss or when the underlying transaction is not actually expected to occur anymore.

The Aurubis Group furthermore enters into hedging relationships that do not satisfy the strict requirements of IFRS 9 and cannot therefore be accounted for in accordance with the hedge accounting regulations. Nevertheless, from an economic point of view, these hedging relationships comply with the principles of risk management. Moreover, hedge accounting is also not applied in the case of the monetary assets and liabilities recognized in connection with foreign currency hedging, because the foreign currency translation gains and losses on the hedged items that need to be realized in profit or loss in accordance with IAS 21 are accompanied by gains and losses on the derivative hedging instruments and more or less compensate one another in the income statement.

The **fair value** of financial instruments is determined pursuant to the regulations of IFRS 13 covering measurement at fair value. The fair value of financial instruments quoted in active markets is calculated based on price quotations insofar as these are prices used in routine

and current transactions. Where no prices quoted in active markets are available, the Aurubis Group uses measurement procedures to determine the fair value of financial instruments. Consequently, the input parameters applied in measurement procedures are based where possible on observable data derived from the prices of relevant financial instruments traded in active markets. The use of these measurement procedures requires estimates and assumptions on the part of the Aurubis Group, the scope of which depends on the price transparency of the financial instrument and its market, and the complexity of the instrument. Management regularly analyzes the methods and influencing factors used to determine the fair value to ensure that they are appropriate. Additional information about the main estimates and assumptions used to determine the fair value can be found in the section Financial instruments, pages 123–127.

DEVIATING ACCOUNTING AND MEASUREMENT METHODS APPLIED FOR FINANCIAL INSTRUMENTS IN THE PREVIOUS YEAR

Pursuant to IAS 39, financial instruments are divided into the following measurement categories: “at fair value through profit or loss,” “held to maturity,” “loans and receivables,” “available for sale,” and “financial liabilities at amortized cost.” The measurement category “at fair value through profit or loss” is divided further into two subcategories: “held for trading” and “fair value option.”

Financial assets are always initially recognized at fair value. In the case of financial assets that will not be measured subsequently at fair value through profit or loss, the transaction costs directly attributable to the purchase have to be taken into account.

The **other financial fixed assets** are assigned to the category “loans and receivables” and, if significant, are measured at amortized cost, applying the effective interest method.

On account of their short terms to maturity, **trade accounts receivable** are measured at nominal value, less allowances for doubtful debts. The allowances take adequate account of credit default risks, which are determined on the basis of past experience and individual assessments of the risks. Actual defaults result in derecognition of the receivables affected.

Trade accounts receivable resulting from supply contracts that are not price-fixed are measured at fair value through profit or loss.

Financial assets held for trading are measured at fair value. These include derivative financial instruments that are not included in an effective hedging relationship in accordance with IAS 39 and therefore have to be compulsorily classified as “held for trading.”

Gains or losses resulting from the subsequent measurement of “held for trading” financial assets are recognized in profit or loss.

Other financial assets and **cash and cash equivalents** are allocated to the category “loans and receivables” and, to the extent that they are non-current, are measured at amortized cost, applying the effective interest method.

Within the Aurubis Group, the **“available-for-sale”** category represents the residual amount of primary financial assets that fall under IAS 39 and are not assigned to another category. They include the interests in affiliated companies that are reported under financial fixed assets, other investments, and securities classified as fixed assets. They are generally measured at fair value, which is derived from the stock market price, provided a price quoted in an active market is available. Subsequent gains and losses resulting from measurement at fair value are recognized in equity as a component of other comprehensive income. This does not apply if these are permanent or significant impairment losses, which need to be recognized in profit or loss. The accumulated gains or losses deriving from measurement at fair value that are recorded as a component of other comprehensive income are only recognized in profit or loss upon disposal of the financial assets.

Within the Aurubis Group, an impairment loss is recognized if the carrying amount of a financial asset is higher than the present value of the future cash flows. The test of whether impairment exists is carried out at every reporting date. Indications such as considerable financial problems on the part of the debtor are taken into account in order to determine objectively whether evidence of impairment exists.

In order to resolve the question of impairment, the existing credit relationships that are assigned to the category “loans and receivables” need to be analyzed and then measured subsequently at amortized cost. At every reporting date, an investigation is required in order to assess whether there are objective indications of impairment that should be recognized in the financial statements. The amount of the loss is calculated as the difference between the carrying amount of the asset and the present value of the expected future cash flows, discounted with the original effective interest rate of the financial instrument (recoverable amount). In this connection, for the sake of simplicity, cash flows from short-term receivables are not discounted. The carrying amount of the asset is reduced to the recoverable amount by means of a direct write-down or by using an allowance account and the reduction is recognized in profit or loss.

For equity instruments of the “available-for-sale” category, an impairment loss is recognized if there are considerable adverse changes in the issuer’s environment or the fair value is significantly lower than the original cost for a long period. The loss is determined as the difference between the current fair value and the carrying amount of the financial instrument. While reversals of impairment losses on debt instruments are to be recognized in profit or loss, in the case of equity instruments they may only be recognized in equity.

Primary financial liabilities are generally measured at amortized cost. If the interest effect is not insignificant, non-interest-bearing liabilities, or liabilities bearing low interest rates, with a residual term exceeding one year, are discounted. In the case of liabilities with a residual term of less than a year, it is assumed that the fair value corresponds to the settlement amount.

Financial assets and financial liabilities that fall under the scope of IAS 39 could under certain circumstances be allocated irrevocably to the subcategory “fair value option” upon initial recognition.

Changes in the fair values of **derivative financial instruments** that form part of an effective cashflow hedge are recognized directly in equity in other comprehensive income. In the context of hedging relationships involving options, the non-designated changes in fair value pursuant to IAS 39 must be recorded in profit or loss. In these consolidated financial statements, however, prior-year figures have been retrospectively adjusted in accordance with the new IFRS 9 regulations. For this reason, these are not disclosed under the consolidated net income but in the reserve for hedging costs. Amounts allocated to other comprehensive income are reclassified to the income statement, and are recognized as income/expense, in the period in which the underlying hedged transaction is recognized.

INTANGIBLE ASSETS

If intangible assets are acquired, they are recognized at acquisition cost. Internally generated intangible assets that provide future economic benefits are recognized at their cost of generation if the criteria for their recognition as an asset are fulfilled. They are amortized on a scheduled, straight-line basis over their expected useful lives of between three and eight years. Scheduled amortization charges relating to investments made in connection with a long-term electricity supply contract are recorded under cost of materials over the term of the contract. An additional license acquired for a consideration exists, which will be amortized on a scheduled basis in the future. With the exception of goodwill, the consolidated financial statements do not include any intangible assets with indefinite useful lives.

PROPERTY, PLANT, AND EQUIPMENT

Items of property, plant, and equipment used in the business operations for more than one year are measured at cost less scheduled depreciation. Such assets also include spare parts and maintenance equipment used for more than one period. Technical minimum stocks are recognized as components of the respective technical equipment and machinery. These stocks are quantities of materials that contain metals and are necessary to establish and ensure a production facility’s functionality for its intended use. Minimum stocks are not subject to scheduled depreciation, as they do not deteriorate or age.

Construction costs include all costs that can be directly attributed to the asset. Borrowing costs that can be directly allocated to the purchase, construction, or production of a qualifying asset are capitalized. Borrowing costs of € 234 thousand (previous year: € 288 thousand) were capitalized in the fiscal year reported, applying a financing cost rate of 1.7 % (previous year: 1.7 %). Depreciation is charged using the straight-line method. In this context, depreciation periods used correspond to the expected economic useful lives of the assets, as applicable within the Group. The following main useful lives are applied:

Buildings	25 to 40 years
Site installations	10 to 25 years
Technical equipment and machinery	5 to 20 years
Technical minimum stock	unlimited useful life
Factory and office equipment	3 to 20 years

General overhauls or maintenance measures resulting in the replacement of components are recognized as an asset if it is probable that future economic benefits will flow to the Group and the costs can be measured reliably.

LEASING

Leased assets that satisfy the criteria of IAS 17 for a finance lease are recognized as fixed assets. This is the case if all significant risks and rewards of economic ownership lie with the respective Group company. Such fixed assets are recognized at fair value or, if lower, at the present value of the minimum lease payments, and are amortized/depreciated using the straight-line method over the lease term or, if it is expected that ownership will be obtained at the end of the lease term, over the economic useful life of the respective assets. The future lease installment payment obligations are recognized as a liability at their present value or current market value. The lease installment is divided into an interest component and a redemption component, to ensure that the lease liability bears interest at a constant rate. The noncurrent portion of the leasing obligation is recorded under non-current financial liabilities and the current portion is recorded under current financial liabilities. The interest component of the leasing rate is recognized in the income statement, leading to a constant interest charge over the term of the leasing agreement.

IMPAIRMENT OF NON-FINANCIAL ASSETS

Intangible assets that have an indefinite useful life, such as goodwill, are not amortized on a scheduled basis but are subjected to an annual impairment test. Furthermore, an assessment is made at every reporting date to determine whether there are any indications that the asset could be impaired. In the same way, items of property, plant, and equipment are tested for impairment if there are any indications of such impairment.

Since the metals contained in the minimum stock can be recovered and the utilization potential of the minimum stock is not subject to wear and tear as it is not used in the production process, an unlimited useful life is assumed. The minimum stocks are therefore not depreciated on a scheduled basis but are instead tested for impairment in conjunction with the respective production facilities if there are any indications of such impairment.

Assets that are amortized or depreciated on a scheduled basis are tested for impairment if events or changes in circumstances indicate that the carrying amount might not be recoverable. Impairment losses are recorded in the amount by which the carrying amount exceeds the recoverable amount. The recoverable amount is the higher of the fair value of the asset less costs to sell and its value in use. For impairment testing purposes, assets are combined at the lowest level for which cash flows can be separately identified (cash-generating units). With the exception of goodwill, non-monetary assets on which impairment losses were recognized in the past are reviewed as at each reporting date to ascertain whether the impairment losses possibly need to be reversed.

INVENTORIES

Inventories are measured at acquisition or production cost on initial recognition. Production cost includes all direct costs attributable to the production process, as well as a systematically allocated share of the production-related overheads.

The acquisition costs of copper concentrates and raw materials for recycling are determined by deducting the treatment and refining charges negotiated with the supplier from the purchase value of the metal. Treatment and refining charges are deductions that are made due to the processing of ore concentrates and raw materials for recycling into copper and precious metals.

In the smelters, work in process is measured by initially measuring the metal content. The equivalent cost of the processing that is still required for production of the fine metal is deducted from this figure. In this manner, the costs incurred during the production process are successively recognized as a component of the total production cost. This procedure applies to the production of copper, precious metals, and minor metals.

When it comes to the production of copper products, in addition to the metal components, the incurred costs of further processing copper into special formats such as wire rod, shapes, and rolled products are taken into consideration for the measurement of finished goods by way of a calculation surcharge.

Inventories are measured using the average cost method in accordance with IAS 2. In this context, the amount recognized as at the reporting date is measured at the lower of cost and net realizable value. Net realizable value is determined on the basis of quoted commodity exchange or market prices as at the reporting date.

OTHER NON-FINANCIAL ASSETS

Other non-financial assets are recognized at amortized cost. Write-downs are made to the extent that the assets are at risk.

INCOME TAXES

Income taxes comprise both current and deferred taxes. The tax expense and/or tax credit is recorded in profit or loss. If, however, the related source transactions are recognized directly in equity or in other comprehensive income, then the income taxes attributed to them are also directly accounted for in equity or in other comprehensive income.

The Aurubis Group companies are subject to income taxes in many countries around the world. The tax expense and/or tax credit is calculated by applying the tax regulations of the individual countries that are applicable as at the reporting date.

Deferred tax assets and liabilities result from temporary differences between the tax-based carrying amounts of assets and liabilities and those taken into account in the IFRS financial statements or from tax loss carryforwards and tax credits not yet utilized. The calculation of deferred taxes is based on the tax rates expected in the individual countries at the time of realization. These tax rates are generally based on legislation that is valid, or has been enacted, as at the reporting date.

Deferred tax assets deriving from temporary differences, tax loss carryforwards, and tax credits are recognized by the respective company entities to the extent that deferred tax liabilities exist. If deferred tax assets exceed deferred tax liabilities, they are recognized to the extent that it is probable that sufficient taxable income will be available in the future to ensure the utilization of these tax assets. The recoverability of the recognized deferred tax assets is reviewed on an individual basis each year.

Deferred tax liabilities that arise due to temporary differences in connection with investments in subsidiaries and associated companies are recognized unless the point in time for the reversal of the temporary differences can be determined by the Group and it is likely that the temporary differences will not reverse in the foreseeable future due to this determining influence.

Deferred tax assets and liabilities are offset gainst one another in cases where a legal right of set-off exists and if they relate to income taxes levied on the same company by the same taxation authority.

DISCONTINUED OPERATIONS AND ASSETS HELD FOR SALE

Discontinued operations are disclosed as soon as part of a company is classified as held for sale, the business area is a separate, significant line of business, and it is for sale as part of a coordinated overall plan.

In accordance with IFRS 5, assets held for sale are measured at the lower of their carrying amount and their fair value less costs to sell.

The consolidated result from discontinued operations is reported in the consolidated income statement separately from expenses and income from continued operations; prior-year figures are shown on a comparable basis. In the consolidated cash flow statement, discontinued operations are included in the cash inflows/outflows from operating, investing, and financing activities. Furthermore, assets and liabilities held for sale are separately disclosed in the consolidated statement of financial position in aggregated form.

To the extent that the disclosures in the notes to the financial statements are related to the consolidated income statement, they refer to continuing operations (with the exception of the section covering acquisitions and discontinued operations).

PROVISIONS

Provisions for pensions and similar obligations are determined in accordance with the projected unit credit method prescribed by IAS 19, based on actuarial reports, applying the mortality tables “Heubeck-Richttafeln 2018 G” (previous year: “Richttafeln 2005 G” issued by Heubeck AG). In this connection, the demographic assumptions applied, as well as expected salary and pension trends and the interest rate to be used, are determined on the basis of current estimates as at the reporting date. Accordingly, actuarial gains and losses can result from deviations between the actual parameters as at the reporting date and the assumptions used for the calculation. These actuarial gains and losses – as well as income deriving from plan assets that are not included in net interest – are recognized immediately and completely as they arise and are disclosed as generated Group equity. Past service cost is recognized immediately as an expense in profit or loss.

To determine the net obligation deriving from defined benefit plans, the fair value of the plan assets is deducted from the present value of the pension obligations.

Other provisions are set up for all other uncertain obligations and risks of the Aurubis Group provided that a related obligation to third parties results from a past event, the settlement of which is expected to result in an outflow of cash resources, and the respective amount can be reliably estimated. If the effect of the time value of money is material, non-current provisions are recognized at their present value.

OTHER NON-FINANCIAL LIABILITIES

Other non-financial assets are recognized at amortized cost.

Contractual liabilities are recorded when one of the parties has fulfilled its contractual obligation. This primarily applies to advance payments received in respect of customer orders that are recognized under other non-financial liabilities.

Significant estimates and assumptions

Accounting and measurement in the consolidated financial statements are influenced by a large number of estimates and assumptions, which are based on past experience, as well as additional factors, including expectations about future events. All estimates and assessments are subject to continuous review and re-evaluation. The use of estimates and assumptions is especially necessary in the following areas:

IMPAIRMENT OF GOODWILL AND OF A LICENSE ACQUIRED FOR A CONSIDERATION

An impairment test is carried out at least annually in line with the accounting policies. In this context, the recoverable amount is calculated on the basis of the value in use Intangible assets, page 128. The calculation of the value in use in particular requires estimates of future cash flows on the basis of calculations made for planning purposes.

The impairment test of the Aurubis Hamburg Copper Products cash-generating unit (CGU) resulted in no impairment of goodwill either in the current or past fiscal year. A 10 % reduction in the predicted cash flows or an increase of 0.5 percentage points in the WACC after taxes – from 5.0 % to 5.5 % – would also not result in the requirement to recognize any impairment losses.

As in the previous year, there was no impairment of the license acquired for a consideration.

FAIR VALUES IN CONJUNCTION WITH BUSINESS COMBINATIONS

Acquired assets, liabilities, and contingent liabilities are recognized with their fair values when accounting for business combinations. Discounted cash flow (DCF)-based procedures, the results of which depend on assumed future cash flows and other assumptions, are often used in this context. The measurement of contingent liabilities depends significantly on the assumptions with respect to the future resource outflows and the probability of their occurrence.

FAIR VALUES OF DERIVATIVES AND OTHER FINANCIAL INSTRUMENTS

The fair values of financial instruments for which there are no quoted prices in an active market are determined on the basis of financial calculation procedures and are influenced by assumptions specific to the instrument. Estimates have a particularly significant influence when the fair value needs to be determined for financial instruments for which at least one significant parameter is not based on observable market data (Level 3 of the fair value hierarchy). The selection and application of suitable parameters and assumptions require an assessment by management. Extrapolation and interpolation procedures have to be applied in particular when data are derived from uncommon market transactions. Detailed information can be found in the section Financial instruments, pages 123–127.

ACCOUNTING FOR INVENTORIES

Various estimates have to be made in connection with the accounting treatment of inventories. For example, estimation procedures are applied when quantifying inventories as well as in the determination of the metal yield content.

PENSION PROVISIONS AND OTHER PROVISIONS

Within the Aurubis Group, retirement benefits for employees are provided on the basis of both defined benefit plans and defined contribution plans.

Obligations deriving from defined benefit pension plans are measured in accordance with actuarial procedures. These procedures are based on several actuarial assumptions, such as, for example, the assumed interest rate, expected salary and pension developments, employee fluctuations, and life expectancy. For the purposes of determining the assumed interest rate, high-quality corporate bonds with commensurate terms and currencies are used as a source of reference. Deviations of the actual development from the assumptions at the beginning of the reporting period lead to remeasurement of the net liability.

When recognizing other provisions, assumptions are made with regard to the probability of the occurrence and the amount and timing of the outflow of resources, which by their nature are subject to uncertainty.

Other significant estimates relate to the determination of the useful lives of intangible assets and items of property, plant, and equipment, the collectability of receivables, and the measurement of inventory risks within inventories.

DISCONTINUED OPERATIONS AND ASSETS HELD FOR SALE

In accordance with IFRS 5, discontinued operations are measured at the lower of their carrying amount and their fair value less costs to sell. The fair value couldn't be determined on the basis of a price on the active market (Level 1) and was therefore determined on the basis of comparable transactions on the market (Level 2). In the process, Segment FRP was divided into two disposal groups (FRP Europe and FRP USA).

Changes in accounting and measurement methods due to new standards and interpretations

The following standards were applied for the first time in fiscal year 2018/19.

Standards and interpretations applied for the first time

	Standards/interpretations	Compulsory application in the EU	Adoption by European Commission	Impact
IFRS 9	Financial Instruments – Classification and Measurement	1/1/2018	11/22/2016	A detailed description of the impacts follows the overview in this table
IFRS 15	Revenue from Contracts with Customers	1/1/2018	9/22/2016	A detailed description of the impacts follows the overview in this table
IFRS 15	Amendments: Revenue from Contracts with Customers	1/1/2018	10/31/2017	A detailed description of the impacts follows the overview in this table
IFRS 2	Amendments: Share-based Payment	1/1/2018	2/26/2018	no impacts
IAS 40	Amendments: Investment Property	1/1/2018	3/14/2018	no impacts
IFRS 4	Amendments: Insurance Contracts	1/1/2018	11/3/2017	no impacts
IFRIC 23	Uncertainty over Income Tax Treatments	1/1/2019	10/23/2018	no significant effects
IFRIC 22	Foreign Currency Transactions and Advance Consideration	1/1/2018	3/28/2018	Translation of advance consideration received or paid in a foreign currency into the functional currency at the spot exchange rate on the day of payment. Aurubis does not expect any material effects.
IFRS 1 IAS 28	Annual Improvements to IFRS (2014–16 cycle)	1/1/2018	2/7/2018	no impacts

IFRS 9

In July 2014, the International Accounting Standards Board (IASB) published the final version of IFRS 9 Financial Instruments, which replaces the existing regulations contained in IAS 39 concerning the accounting and measurement of financial instruments.

Aurubis applied IFRS 9 and the resulting changes to other standards for the first time as at October 1, 2018. The transition to IFRS 9 takes place retrospectively on a modified basis without a change in prior-year figures. This comment, however, excludes compliance with the new regulations on the accounting for cash flow hedges under hedge accounting, which are to be applied to the comparative figures retroactively. Explanations of the impact of the standards are outlined below.

The classification and measurement of financial assets (debt instruments) are determined on the basis of the business model in use and the structure of the cash flows. In this connection, a financial asset is initially classified as either measured "at amortized cost," "at fair value through other comprehensive income," or "at fair value through profit or loss."

The classification of the debt instruments is initially based on the allocation of financial assets according to the business model. For this purpose, Aurubis examined the financial assets and determined which of them were held for the purpose of collecting contractual cash and cash equivalents ("held to collect"), which were "held to collect and sell", and which could not be allocated to any of the two categories ("other").

In addition to the classification based on the business model, an analysis was also carried out with regard to the characteristics of the contractual cash flows of the underlying financial assets on the basis of the so-called SPPI criteria (Solely Payment of Principal and Interest). In the case of financial assets, it was therefore examined whether the contractual cash flows solely represent payments of principal and interest on the principal amount outstanding.

As a general rule, equity instruments are classified and measured at fair value through profit or loss.

The impacts on the classification and measurement of financial assets at the time of first application are shown in the following table:

Reconciliation of classification and measurement categories of financial instruments as at October 1, 2018

in € thousand	Category under IAS 39	Measurement under IAS 39	Measurement category under IFRS 9	Carrying amount pursuant to IAS 39 as at 9/30/2018	Carrying amount pursuant to IAS 9 as at 10/1/2018
Assets					
Interests in affiliated companies	AfS	AC	FV P&L	1,321	1,321
Investments	AfS	AC	FV P&L	115	115
Securities classified as fixed assets	AfS	FV OCI	FV OCI	31,448	31,448
Other financial fixed assets					
Other loans	LaR	AC	AC	45	45
Trade accounts receivable	LaR	AC	AC	97,840	97,740
	FV option	FV P&L	FV P&L	176,661	176,661
Other receivables and financial assets					
Receivables from related parties	LaR	AC	AC	2,096	2,096
Other financial assets	LaR	AC	AC	11,380	11,210
	n/a	AC	n/a	16,283	16,283
	LaR	AC	FV P&L	12,188	12,188
Derivative financial assets					
Derivatives without a hedging relationship	FAHfT	FV P&L	FV P&L	55,257	55,257
Derivatives with a hedging relationship (hedge accounting)	n/a	FV OCI	n/a	2,145	2,145
Cash and cash equivalents	LaR	AC	AC	461,045	461,045
Equity and liabilities					
Bank borrowings	FLAC	AC	AC	277,307	277,307
Liabilities under finance leases	n/a	n/a	n/a	36,369	36,369
Trade accounts payable	FLAC	AC	AC	430,002	430,002
	FV option	FV P&L	FV P&L	406,746	406,746
Liabilities to related parties	FLAC	AC	AC	1,136	1,136
Other non-derivative financial liabilities	FLAC	AC	AC	63,266	63,266
	n/a	AC	n/a	13,372	13,372
Derivative financial liabilities					
Derivatives without a hedging relationship	FLHfT	FV P&L	FV P&L	27,179	27,179
Derivatives with a hedging relationship (hedge accounting)	n/a	FV OCI	n/a	9,065	9,065

Trade accounts receivable are accounted for as follows in accordance with IFRS 9. Trade accounts receivable resulting from supply contracts that are not price-fixed are measured at fair value through profit or loss. Receivables held for sale within the context of factoring arrangements will be allocated to the category "measured at fair value through other comprehensive income." The remaining financial assets under the IAS 39 category "Loans and Receivables" are largely accounted for at amortized cost in accordance with IFRS 9. Due to application of the new impairment model under IFRS 9, the respective carrying amounts of the financial assets not accounted for at fair value through profit or loss decreased as at the time of initial application. The resulting effect of € 0.3 million was deducted in the opening statement of financial position and disclosed under generated Group equity.

The securities included in the category "available for sale" (AfS) were measured at fair value in other comprehensive income pursuant to IAS 39 as at September 30, 2018. However, permanent or significant impairment losses were recognized in profit or loss. In accordance with IFRS 9, Aurubis makes use of the option to classify equity instruments as at "fair value through other comprehensive income." The resulting transition effect of € 24.6 million was deducted in the opening statement of financial position as a component of other comprehensive income. Generated Group equity increased by the same amount.

Furthermore, the financial assets available for sale include share interests in affiliated companies that weren't consolidated due to their minor importance for the consolidated financial statements, as well as investments. Until now, these had been measured at acquisition cost pursuant to IAS 39 under application of IAS 39.46(c) and are now classified to the FV P&L category pursuant to IFRS 9. In the process, the acquisition costs of the share interests were taken as an appropriate estimate for the fair value.

IFRS 9 maintains the existing requirements of IAS 39 for the classification of financial liabilities to a great extent. Under IFRS 9, Aurubis irrevocably classifies financial liabilities from supply contracts that are not yet price-fixed as at fair value through profit or loss. The fair value changes resulting from the company's own credit risk are now recognized in other comprehensive income and not in the income statement.

The "incurred credit loss" impairment model under IAS 39 is replaced by a future-oriented "expected credit loss" model with the introduction of IFRS 9. The expected credit loss model is applicable to all financial instruments that are either measured at amortized cost or at fair value through OCI – with the exception of equity instruments held as financial fixed assets.

In this context, a risk provision is established for the entire term of the financial instrument at the time it is acquired. The general approach stipulates a three-stage process for determining risk provisions. Depending on the credit loss risk of the counterparty, risk provisions are set up for expected twelve-month credit losses (Level 1) or for credit losses expected over the full term (Level 2 and 3). The general approach is applied in the Aurubis Group for cash and cash equivalents and other financial assets that fall within the scope of the impairment provisions under IFRS 9.

A simplified approach for the recognition of impairment losses is applied for trade accounts receivable. Under this approach, the expected credit losses are calculated using a so-called cohort model, which is based on the data for the past three fiscal years. The measurement of the outstanding receivables takes historical bad debt losses into account, giving consideration to forward-looking information.

Due to the short-term nature of the financial assets and the counterparties' high level of creditworthiness, the expected credit losses for cash and cash equivalents and other financial assets are insignificant. The default risk for trade accounts receivable is particularly limited because of existing commercial credit insurance programs. Use of the expected model within the Aurubis Group did not lead to any significant effects.

The new regulations covering hedge accounting involve in particular the accounting for hedging costs in cases where only the change in intrinsic value or the change in value of the spot components is designated as a hedging instrument. In accordance with IAS 39, the changes in value of the non-designated components must be directly recognized in the income statement. In accordance with IFRS 9, the change in the fair value has to be recognized in other comprehensive income – in a separate reserve for hedging costs – while a change in the interest component and the foreign currency basis spread of a foreign currency hedge can be recognized in other

comprehensive income. The hedging costs amounted to € 0.4 million in the previous year and were deducted in the opening statement of finamcial position as a component of other comprehensive income. Generated Group equity accordingly increased by the same amount.

IFRS 9 also includes new regulations for the designation of risk components in non-financial hedged items. Furthermore, IFRS 9 introduced new requirements regarding the reweighting of hedging relationships and prohibits the voluntary termination of hedge accounting application. The requirements for documentation and disclosure have been broadened.

The application of hedge accounting within Aurubis did not result in any further impacts.

IFRS 15

IFRS 15 regulates the point in time and amount at which revenues from customer contracts are to be recognized and includes the extent of the required disclosures in the notes to the financial statements. The new standard does not differentiate between different types of contracts and activities performed, but establishes uniform criteria for when a performance obligation is to be recognized as revenue. Accordingly, revenue is recognized when the customer obtains control of the agreed goods and services and can derive benefit from them. Revenues are measured at the amount of consideration expected to be received by the company. In this context, the determination of revenues is based on a five-stage model that must be applied to all contracts with customers.

Within Aurubis, the change in accounting treatment under IFRS 15 mainly affects the point in time at which revenue is recognized, this being dependent on the point in time when the authority to exercise control over the goods or services is transferred. Revenues are generally recognized by Aurubis at the point in time they are generated, as the performance obligations entered into primarily relate to the transfer of goods. The point in time for such recognition is later in some cases under the new standard.

The transition to IFRS 15 took place retrospectively without any amendment to prior-year figures as at October 1, 2018 (modified retrospective approach). The conversion effects were therefore cumulatively recognized in the revenue reserves at the time of first application. The transition effect amounts to € 0.5 million. Aurubis makes use of the exemption available under IFRS 15.C5(a) and only applies IFRS 15 retrospectively to contracts that haven't been fulfilled yet at the time of initial application.

IFRS 15 uses the terms “contract asset” and “contract liability” to describe what is generally referred to as prepaid expenses/deferred charges or deferred revenues. Aurubis has adopted this terminology.

As at September 30, 2019, the application of IFRS 15 leads to no significant effects on the consolidated statement of financial position or the consolidated income statement, compared to the requirements of IAS 18 that applied prior to the change.

IFRIC 23

The interpretation explains the accounting treatment for and measurement of deferred and current tax assets and liabilities when there are uncertainties about tax treatment. The company has to determine whether it should consider each tax treatment uncertainty independently or together with one or more other tax treatment uncertainties, and then select the approach that provides the more reliable prediction for the resolution of each respective uncertainty.

Aurubis is active internationally and in different tax jurisdictions. The Group analyzed whether and to what extent the company's tax positions were uncertain. Aurubis accounted for the tax treatment of uncertainties by recognizing the amounts that are likely to be realized.

The initial application of the interpretation did not lead to a transitional effect as at October 1, 2018.

The following standards are to be applied to all fiscal years beginning after October 1, 2019. They were not adopted early in the consolidated financial statements.

Standards and interpretations not adopted early

	Standards/interpretations	Compulsory application in the EU	Adoption by European Commission	Impact
IFRS 16	Leases	1/1/2019	10/31/2017	A detailed description of the impacts follows the overview in this table.
IFRS 17	Insurance Contracts	1/1/2021	open	The standard regulates the principles covering recognition, measurement, reporting, and disclosures for insurance contracts within the scope of the standard. IFRS 17 will replace the previously applicable IFRS 4. Based on our current understanding, Aurubis does not expect any material effects.
IAS 19	Amendments: Employee Benefits	1/1/2019	3/13/2019	no impacts
IAS 28	Amendments: Investments in Associates and Joint Ventures	1/1/2019	2/8/2019	no impacts
IAS 1/ IAS 8	Definition of Material	1/1/2020	open	no impacts
IFRS 3	Amendments: Business Combinations	1/1/2020	open	no impacts
IFRS 7/9/ IAS 39	Amendments: Interest Rate Benchmark Reform	1/1/2020	open	Based on our current understanding, Aurubis does not expect any material effects.
Various	Annual Improvements to IFRS (2015 –17 cycle)	1/1/2019	3/14/2019	no impacts
Frame-work		1/1/2020	open	Based on our current understanding, Aurubis does not expect any material effects.

IFRS 16

This standard regulates the accounting treatment for leases. IFRS 16 replaces the previously applicable IAS 17 as well as three leasing-related interpretations. The application of IFRS 16 is compulsory for all companies using IFRS and is generally valid for all leasing arrangements. IFRS 16 provides for a single accounting model for the lessee. Accordingly, right-of-use assets and liabilities deriving from leasing agreements must be recognized in the lessee's statement of financial position except for those with a term of twelve months (or less) or those that can be classified as low-value assets. Aurubis will make use of the options that are available.

For the lessor, the accounting model prescribed by IFRS 16 does not differ materially from the requirements of IAS 17. For accounting purposes, a distinction must still be made here between finance and operating leases.

Aurubis will first apply IFRS 16 with the start of the fiscal year commencing on October 1, 2019.

For purposes of the transition to IFRS 16, we currently expect to apply the modified retrospective method.

Analyses carried out during the project to introduce IFRS 16 indicated that, as at the date of transition of October 1, 2019, the present value of leasing liabilities that need to be recognized will amount to some € 30 million and that recognition of right-of-use assets of a similar amount will inflate the values included in the in the statement of financial position. This has the effect of reducing the equity ratio by approximately 0.5 percentage points. The net financial liabilities will increase by the amount of the additional leasing liabilities. The previous expense for operating leases will no longer be recognized in the income statement. In the future, it will be replaced by the depreciation charges made in respect of the right-of-use assets as well as interest expenses deriving from the unwinding of discount on leasing liabilities. Furthermore, the financial result is expected to be adversely impacted by an amount in the single-digit million range.

Discontinued operations

Following the prohibition of the sale of Segment FRP by the European Commission in February 2019, we are currently involved in the process of reviewing different strategic options for the sale of the segment. The segment thus continues to fulfill the conditions for presentation as discontinued operations pursuant to IFRS 5.

The consolidated net income/net loss from discontinued operations is reported in the consolidated income statement separately from the expenses and income from continued operations; prior-year figures are shown on a comparable basis.

Consolidated net income from discontinued operations

in € million	**12 months 2018/19**	12 months 2017/18
Revenues	1,134	1,270
Changes in inventories of finished goods and work in process	-8	-1
Expenses	-1,105	-1,224
Impairment loss deriving from remeasurement at fair value	-20	0
Earnings before taxes (EBT)	**1**	**45**
Income taxes	-5	-16
Taxes related to remeasurement at fair value	3	0
Consolidated net income/net loss (-) from discontinued operations	**-1**	**29**
Consolidated net income/net loss (-) from discontinued operations attributable to Aurubis AG shareholders	-1	29

An impairment loss of € 20 million before taxes was recognized during the fiscal year. This relates to the measurement of the FRP Europe disposal group, and was accounted for as a component of the consolidated net loss from discontinued operations.

Internal Group expenses and income are fully eliminated in the process of determining the consolidated net income/net loss for both continuing and discontinued operations. The internal Group transactions are eliminated from an economic perspective, i.e., taking the Aurubis Group's future trading relationships into account. The Group will maintain existing supply relationships with the discontinued business division after the sale of Segment FRP. Revenues of Aurubis AG and its subsidiaries deriving from deliveries to the discontinued business division were therefore fully eliminated there.

Carrying amounts of the main groups of assets held for sale and related liabilities

in € million	**9/30/2019**	9/30/2018
Assets		
Fixed assets	173	173
Deferred tax assets	4	1
Non-current receivables and other assets	2	2
Inventories	265	274
Current receivables and other assets	97	122
Cash and cash equivalents	20	18
Assets held for sale	**561**	**590**
Equity and liabilities		
Deferred tax liabilities	13	16
Non-current provisions	46	34
Non-current liabilities	1	1
Current provisions	8	8
Current liabilities	91	103
Liabilities deriving from assets held for sale	**160**	**162**

Cash flows from discontinued operations

in € million	**12 months 2018/19**	12 months 2017/18
Cash inflow from operating activities (net cash flow)	19	18
Cash outflow from investing activities	-16	-16
Cash outflow from financing activities	-2	-1

Notes to the income statement

1. REVENUES

Analysis by product group in € thousand	2018/19	2017/18
Wire rod	4,274,054	4,282,959
Precious metals	2,865,272	2,383,450
Copper cathodes	2,205,521	2,211,942
Shapes	748,965	892,383
Strip, bars, and profiles	348,401	349,968
Chemicals and other products	321,086	303,046
	10,763,299	**10,423,748**

A further breakdown of Aurubis Group revenues by Group segments is provided in the context of segment reporting Segment Reporting, pages 176–177.

As at September 30, 2019, the transaction price to which the (in some cases) unfulfilled performance obligations were attributed was € 1,353,710 thousand. This amount is expected to be recognized within the next two fiscal years.

A remeasurement effect of € -59,749 thousand in fiscal year 2018/19 derived from supply contracts for which prices had not been fixed.

2. CHANGES IN INVENTORIES OF FINISHED GOODS AND WORK IN PROCESS

in € thousand	2018/19	2017/18
Finished goods	61,791	-67,518
Work in process	118,218	67,958
	180,009	**440**

The changes in inventories in the reporting year resulted from an increase in copper and precious metal inventories.

3. OWN WORK CAPITALIZED

Own work capitalized of € 19,695 thousand (previous year: € 18,923 thousand) primarily includes production costs and purchased materials.

4. OTHER OPERATING INCOME

in € thousand	2018/19	2017/18
Cost reimbursements	19,652	22,297
Income deriving from reversals of impairment losses	6,220	0
Income deriving from the recognition of other assets	20,000	0
Income deriving from the reversal of provisions	238	1,585
Other income	15,180	19,516
	61,290	**43,398**

The entire amount reported as “Income deriving from the recognition of other assets” relates to a receivable from the prohibited sale of Segment FRP to Wieland-Werke AG.

5. COST OF MATERIALS

in € thousand	2018/19	2017/18
Raw materials, supplies, and merchandise	9,699,827	9,212,758
Cost of purchased services	297,384	251,942
	9,997,211	**9,464,700**

The cost of materials ratio, represented by the ratio of the cost of materials to revenues and changes in inventories, was 91.4 % (previous year: 90.8 %).

6. PERSONNEL EXPENSES AND EMPLOYEE NUMBERS

in € thousand	2018/19	2017/18
Wages and salaries	299,936	281,957
Social security contributions, pension and other benefit expenses	74,468	69,985
	374,404	**351,942**

Pension expenses include allocations to the provisions for pensions.

The average number of employees in the Group during the year was as follows:

	2018/19	2017/18
Blue collar	4,205	4,096
White collar	2,313	2,219
Apprentices	248	256
	6,766	**6,571**

On average for the year, continuing operations accounted for 5,011 employees (previous year: 4,803 employees).

Among other components, the total compensation of the Aurubis AG Executive Board members, who were newly appointed from fiscal year 2017/18 onwards, includes a share-based compensation component with a cash settlement.

The following parameters were taken as a basis for the calculation of the fair value of the virtual deferred stock compensation plan:

	9/30/2019
Share price (in €)	40.89
Exercise price (in €)	61.02
Expected volatility (weighed average, in %)	33.77
Expected term (weighed average, in years)	2.00
Expected dividend (in %)	3.06
Risk-free interest rate (based on government bonds, in %)	-0.80
Fair value (in € thousand)	117

The expected volatility is based on an assessment of the historic volatility of the company's share price, especially in the period that corresponds to the expected term.

The personnel expenses deriving from the deferred stock compensation plan amounted to € 24 thousand (previous year: € 93 thousand) and are included in the same amount as provisions at the reporting date.

7. DEPRECIATION AND AMORTIZATION

Depreciation of property, plant, and equipment and amortization of intangible assets totaled € 125,407 thousand (previous year: € 119,470 thousand) for the Group. This comprises depreciation of € 123,163 thousand (previous year: € 117,279 thousand) on property, plant, and equipment and amortization of € 2,244 thousand (previous year: € 2,191 thousand) on intangible assets.

No impairment losses were recognized on intangible assets and property, plant, and equipment during the current or previous fiscal year.

The total figure of € 130,391 that is reported for depreciation of property, plant, and equipment and amortization of intangible assets in the tables showing changes in assets (referred to below) includes depreciation on investments in connection with an electricity supply contract of € 4,984 thousand (previous year: € 5,207 thousand), which is disclosed under cost of materials.

A breakdown of the depreciation of property, plant, and equipment and amortization of intangible assets is provided in the summary of changes in the Group's intangible assets and property, plant, and equipment Intangible assets, page 128, and Property, plant, and equipment, page 128.

8. OTHER OPERATING EXPENSES

in € thousand	2018/19	2017/18
Selling expenses	88,039	88,349
Administrative expenses	72,971	71,021
Other taxes	2,670	2,514
Sundry operating expenses	89,992	54,915
	253,672	**216,799**

The selling expenses mainly comprise freight costs. Sundry operating expenses include € 29,871 thousand of previously capitalized project costs in connection with the Future Complex Metallurgy project, which were recognized as an expense because the project was discontinued.

9. INTEREST

in € thousand	2018/19	2017/18
Interest income	3,904	3,592
Interest expense	-17,862	-15,775
	-13,958	**-12,183**

The interest income mainly derives from interest-bearing customer receivables.

The interest expense primarily results from borrowings. Among other items, the interest expense includes the net interest deriving from defined benefit plans, amounting to € 3,303 thousand (previous year: € 3,647 thousand).

10. OTHER FINANCIAL RESULT

in € thousand	2018/19	2017/18
Other financial income	407	689
Other financial expenses	-31	-51
	376	**638**

As in the previous year, other financial income results primarily from securities.

11. INCOME TAXES

Income taxes comprise both current income taxes as well as deferred taxes. Tax liabilities and receivables include obligations or claims deriving from domestic and foreign income taxes for previous years and for the current year. Income taxes were made up as follows:

in € thousand	2018/19	2017/18
Current taxes	55,725	64,168
Deferred taxes	12,970	-4,621
Income taxes	**68,695**	**59,547**

Current taxes include tax expenses of € 2,989 thousand (previous year: tax credits of € 426 thousand) and deferred taxes include tax credits of € 183 thousand (previous year: tax expenses of € 280 thousand) deriving from earlier fiscal years.

The difference between the deferred tax expense of € 12,970 thousand and deferred tax credit of € 4,621 thousand in the previous year mainly results from the change of the tax rates in Belgium and the US and the change in temporary differences relating to the statement of financial position, as well as from tax loss carryforwards.

Applicable German tax legislation for fiscal year 2018/2019 foresees a corporate income tax rate of 15 % (previous year: 15 %), plus a solidarity surcharge of 5.5 % (previous year: 5.5 %). The trade tax rate applicable for Aurubis AG amounts to 16.59 % (previous year: 16.59 %). For the other German Group companies, trade tax rates between 11.09 % and 16.45 % (previous year: 11.09 % and 16.45 %) are applicable. The foreign companies are subject to their respective national income tax rates, which vary between 10 % and 29.58 % (previous year: 10 % and 33.99 %).

In Belgium, the tax rate for fiscal years that end on December 31, 2018 or later is 29.58 % (previously 33.99 %) and the tax rate for fiscal years that end on December 31, 2020 or later is 25 %. We therefore determined a rate of 29.58 % as a basis for calculating current taxes and short-term deferred taxes, and a rate of 25 % for long-term deferred taxes.

The Group taxes include tax effects from foreign subsidiaries to a significant degree. As a consequence, the tax rate of the German parent company of 32.41 % (previous year: 32.41 %) is not applied as the Group tax rate for calculation purposes, but a Group-wide mixed tax rate of 23.29 % (previous year: 23.18 %) is used instead. As in the prior year, the main contributions to earnings come from Aurubis AG and Aurubis Bulgaria AD.

The actual income taxes of € 68,695 thousand (previous year: € 59,547 thousand) were € 8,126 thousand higher (previous year: € 15,094 thousand lower) than the expected income tax expense of € 60,569 thousand (previous year: € 74,641 thousand). The difference between the expected and the actual income tax expense is due to the reasons outlined in the following tax reconciliation:

Reconciliation

in € thousand	2018/19	2017/18
Earnings before taxes	**260,017**	**322,053**
Expected tax charge at 23.29 % (previous year: 23.18 %)	**60,569**	**74,641**
Changes in the expected tax charge due to:		
– changes in tax rates	101	-15,662
– non-recognition and correction of deferred taxes	469	137
– taxes for previous years	3,364	-146
– non-deductible expenses	4,628	1,952
– non-taxable income/ trade tax reductions	-310	-733
– notional interest deduction (Belgium)	-10	-585
– outside basis differences	-106	-56
– other	-10	-1
Income taxes	**68,695**	**59,547**

In 2018/19, there were effects amounting to € 101 thousand due to changes in tax rates (previous year: € -15,662 thousand tax rate change in Belgium and the US).

Effects deriving from the non-recognition and correction of deferred taxes result from write-downs of deferred tax assets and from the adjustment of loss carryforwards, and amount to € 469 thousand (previous year: € 126 thousand).

The effects deriving from taxes for previous years are due in particular to tax impacts deriving from tax field audits that have been concluded.

The higher non-deductible expenses compared to the previous year are mainly due to the non-deductible portion of the dividend income.

The effect of the notional interest deduction in accordance with Belgian tax law in the amount of € -10 thousand (previous year: € -585 thousand) had a lower impact than was the case in the previous year.

The recognized deferred tax assets and deferred tax liabilities result from the following recognition and measurement differences in individual items in the statement of financial position, from tax loss carryforwards, and from outside basis differences (OBD):

	9/30/2019		9/30/2018	
in € thousand	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	4,976	204	5,918	202
Property, plant, and equipment	343	85,148	1,029	81,283
Inventories	11,624	183,801	7,182	168,277
Receivables and other assets	6,981	23,380	2,900	29,309
Pension provisions	74,442	0	43,220	55
Other provisions	7,350	18	5,662	174
Liabilities	26,748	5,438	32,021	2,960
Tax loss carryforwards	140	0	196	0
Outside basis differences	0	788	0	894
Offsetting	-128,639	-128,639	-95,386	-95,386
Consolidated statement of financial position	**3,965**	**170,138**	**2,742**	**187,768**

€ 36,226 thousand (previous year: € 10,082 thousand) of the deferred tax assets and € 207,783 thousand (previous year: € 197,586 thousand) of the deferred tax liabilities will be realized within the next twelve months. Deferred tax assets of € 96,378 thousand (previous year: € 88,046 thousand) and deferred tax liabilities of € 90,994 thousand (previous year: € 85,568 thousand) will be realized after more than twelve months. These figures represent the amounts prior to offsetting.

The income taxes to be accounted for in other comprehensive income are distributed among the following areas:

	9/30/2019		9/30/2018	
in € thousand	Balance	Change	Balance	Change
Deferred taxes				
Derivatives	2,877	1,257	1,620	6,283
Pension provisions	41,065	30,333	10,732	-3,769
Total	**43,942**	**31,590**	**12,352**	**2,514**
Current taxes	-2,412	-532	-1,880	-189

With respect to the change in OCI deriving from pension provisions, please refer to note 23 in the Notes to the Statement of Financial Position Pension provisions and similar obligations, pages 152–156.

The realization of deferred tax assets is considered to be sufficiently probable after taking the Group's forecast development plans and the profit expectations of the subsidiaries into account. Deferred tax assets are recognized in respect of loss carryforwards to the extent that deferred tax liabilities were available or if the companies concerned had positive future earnings forecasts.

Loss carryforwards existed totaling € 23,976 thousand (previous year: € 35,474 thousand). Deferred tax assets of € 140 thousand (previous year: € 196 thousand) were recognized in respect of income tax losses of € 498 thousand (previous year: € 882 thousand).

No deferred tax assets were set up with respect to loss carryforwards of € 23,478 thousand (previous year: € 34,567 thousand), as the possibility of utilizing them is believed to be unlikely from a current perspective. The tax loss carryforwards deemed not to be utilizable can be carried forward without limitation.

Deferred tax liabilities of € 788 thousand (previous year: € 894 thousand) were set up with respect to the differences between the proportional equity of subsidiaries recognized in the consolidated statement of financial position and the investment carrying amounts for these subsidiaries shown in the tax-based records of the respective parent company (so-called outside basis differences) as at the reporting date. No deferred tax liabilities were set up for outside basis differences deriving from undistributed earnings of subsidiaries amounting to € 15,201 thousand (previous year: € 15,722 thousand), since the reversal of these differences is unlikely in the foreseeable future.

12. CONSOLIDATED NET INCOME ATTRIBUTABLE TO NON-CONTROLLING INTERESTS

Of the reported consolidated net income from continuing operations for 2018/19 of € 191,322 thousand (previous year: € 262,506 thousand), a share of income of € 128 thousand (previous year: € 1,161 thousand) is attributable to shareholders other than the shareholders of Aurubis AG, Hamburg. This relates to the non-controlling interests in Aurubis Bulgaria AD, Pirdop.

13. EARNINGS PER SHARE

Basic earnings per share are calculated by dividing the consolidated net earnings from continuing operations, excluding the non-controlling interests, by the weighted average number of shares outstanding during the fiscal year.

	2018/19	2017/18
Consolidated net income attributable to Aurubis AG shareholders from continuing operations (in € thousand)	191,194	261,345
Weighted average number of shares (in thousand units)	44,957	44,957
Basic earnings per share from continuing operations (in €)	**4.25**	**5.81**
Diluted earnings per share from continuing operations (in €)	**4.25**	**5.81**

Diluted earnings per share are determined by augmenting the average number of the shares outstanding during the fiscal year to include the maximum number of shares that could have been issued if all conversion rights on convertible bonds had been exercised. Where applicable, the consolidated net income is increased at the same time by the interest expense incurred on convertible bonds less the corresponding taxes.

Since conversion rights on convertible bonds existed neither in the reporting year nor in the prior year, the diluted earnings per share for the Aurubis Group correspond to the basic earnings per share.

Notes to the statement of financial position

14. INTANGIBLE ASSETS

The development of the costs of acquisition or generation and the accumulated amortization and impairment-related write-downs of the intangible assets are as follows:

Costs of acquisition or construction

in € thousand	10/1/2018	Additions	Disposals	Transfers	9/30/2019
Intangible assets					
Franchises, industrial property rights, and licenses	146,038	2,484	-352	4,874	153,042
Goodwill	43,170	0	0	0	43,170
Payments on account for intangible assets	8,806	3,721	0	-4,874	7,653
	198,013	**6,205**	**-352**	**0**	**203,865**

Amortization and impairment losses

in € thousand	10/1/2018	Amortization and impairment losses for the fiscal year	Disposals	Transfers	9/30/2019
Intangible assets					
Franchises, industrial property rights, and licenses	-50,442	-7,228	350	0	-57,319
Goodwill	-24,522	0	0	0	-24,522
Payments on account for intangible assets	0	0	0	0	0
	-74,964	**-7,228**	**350**	**0**	**-81,841**

Carrying amount

in € thousand	9/30/2019	9/30/2018
Intangible assets		
Franchises, industrial property rights, and licenses	95,723	95,596
Goodwill	18,648	18,648
Payments on account for intangible assets	7,653	8,805
	122,025	**123,049**

Costs of acquisition or construction

in € thousand	10/1/2017	Discontinued operations	Additions	Disposals	Transfers	9/30/2018
Intangible assets						
Franchises, industrial property rights, and licenses	155,750	-4,326	1,741	-7,781	654	146,038
Goodwill	43,170	0	0	0	0	43,170
Payments on account for intangible assets	4,312	0	5,147	0	-654	8,805
	203,232	**-4,326**	**6,888**	**-7,781**	**0**	**198,013**

Amortization and impairment losses

in € thousand	10/1/2017	Discontinued operations	Amortization and impairment losses for the fiscal year	Disposals	Transfers	9/30/2018
Intangible assets						
Franchises, industrial property rights, and licenses	-47,092	2,866	-7,398	1,182	0	-50,442
Goodwill	-24,522	0	0	0	0	-24,522
Payments on account for intangible assets	0	0	0	0	0	0
	-71,614	**2,866**	**-7,398**	**1,182**	**0**	**-74,964**

Carrying amount

in € thousand	9/30/2018	9/30/2017
Intangible assets		
Franchises, industrial property rights, and licenses	95,596	108,658
Goodwill	18,648	18,648
Payments on account for intangible assets	8,805	4,312
	123,049	**131,618**

Intangible assets comprise licenses acquired for a consideration, primarily in connection with a long-term electricity supply contract, as well as goodwill on consolidation arising in the Aurubis Group.

As in the prior year, most of the goodwill (€ 17,439 thousand) is attributable to the Aurubis Hamburg Copper Products cash-generating unit (CGU).

Aurubis carries out an impairment test on goodwill at least annually. For the impairment test on goodwill, the goodwill acquired in conjunction with a business combination is allocated to the CGU that is expected to benefit from the synergies of the business combination. If the carrying amount of the CGU to which the goodwill was allocated exceeds its recoverable amount, a commensurate impairment loss is recognized on the allocated goodwill.

As in the prior year, there was no requirement to recognize an impairment loss for the Aurubis Hamburg Copper Products CGU.

The recoverable amount is the higher of the fair value less costs to sell and value in use. Aurubis determines the recoverable amount on the basis of the value in use. The value in use is determined by means of discounting future cash flows after taxes with a risk-adjusted discount rate (WACC) after taxes (discounted cash flow method). Due to the calculated cash flows after taxes, a cost of capital after taxes is used as well.

The cash flow estimates cover a planning horizon of four years before transferring to perpetuity. The cash flows were established within the scope of a qualified planning process including use of internal company values based on past experience and extensive market knowledge, and they take into consideration management's assessment and estimates regarding the future development of the regional market.

In addition to the weighted capital costs, the significant assumptions used to calculate the value in use are the forecast earnings trend and the sustainable growth rate of the terminal value at a level of 1 %. The growth rate was derived from future expectations and does not exceed the long-term average growth rates of the respective markets.

The WACC used for discounting purposes amounted to 5.0 % after taxes or 7.2 % before taxes as at September 30, 2019 (previous year: 6.1 % after taxes or 8.6 % before taxes).

As in the prior year, there was no requirement to recognize impairment losses on intangible assets with a limited useful life.

No development costs were capitalized during the fiscal year. Research costs are recognized in profit or loss for the respective periods Research and development, page 174.

15. PROPERTY, PLANT, AND EQUIPMENT

The costs of acquisition or construction and the accumulated depreciation and impairment losses on property, plant, and equipment are as follows:

Costs of acquisition or construction

in € thousand	10/1/2018	Exchange rate differences	Additions	Disposals	Transfers	9/30/2019
Property, plant, and equipment						
Land and buildings	628,256	-104	19,701	-8,049	18,320	658,123
Technical equipment and machinery	1,918,683	-159	30,066	-42,553	66,272	1,972,309
Other equipment, factory and office equipment	82,004	-13	11,477	-5,368	5,725	93,825
Leased assets *	57,399	0	3,255	-765	0	59,889
Payments on account for assets under construction	118,796	-15	136,469	-29,886	-90,316	135,049
	2,805,138	**-291**	**200,968**	**-86,620**	**0**	**2,919,194**

Amortization and impairment losses

in € thousand	10/1/2018	Exchange rate differences	Previously recognized impairment loss reversed during the fiscal year	Depreciation and impairment losses for the fiscal year	Disposals	Transfers	9/30/2019
Property, plant, and equipment							
Land and buildings	-374,335	85	6,220	-18,456	6,687	0	-379,799
Technical equipment and machinery	-1,154,274	158	0	-93,967	40,554	0	-1,207,529
Other equipment, factory and office equipment	-55,356	13	0	-7,202	5,019	0	-57,527
Leased assets *	-21,811	0	0	-3,536	765	0	-24,582
Payments on account for assets under construction	-1,320	15	0	0	0	0	-1,304
	-1,607,096	**272**	**6,220**	**-123,163**	**53,024**	**0**	**-1,670,744**

Carrying amount

in € thousand	9/30/2019	9/30/2018
Property, plant, and equipment		
Land and buildings	278,324	253,921
Technical equipment and machinery	764,779	764,409
Other equipment, factory and office equipment	36,298	26,648
Leased assets *	35,306	35,588
Payments on account for assets under construction	133,744	117,476
	1,248,450	**1,198,042**

* Leased assets primarily comprise buildings (€ 3,211 thousand), as well as technical equipment and machinery (€ 32,095 thousand).

Costs of acquisition or construction

in € thousand	10/1/2017	Discontinued operations	Exchange rate differences	Additions	Disposals	Transfers	9/30/2018
Property, plant, and equipment							
Land and buildings	662,485	-42,581	-469	4,959	-3,419	7,281	628,256
Technical equipment and machinery	2,115,720	-220,228	-579	29,495	-38,252	32,527	1,918,683
Other equipment, factory and office equipment	92,455	-14,916	-25	6,307	-3,958	2,141	82,004
Leased assets *	43,999	-348	0	13,748	0	0	57,399
Payments on account for assets under construction	62,740	-6,236	-29	104,454	-184	-41,949	118,796
	2,977,399	**-284,309**	**-1,102**	**158,963**	**-45,813**	**0**	**2,805,138**

Amortization and impairment losses

in € thousand	10/1/2017	Discontinued operations	Exchange rate differences	Depreciation and impairment losses for the fiscal year	Disposals	Transfers	10/1/2018
Property, plant, and equipment							
Land and buildings	-372,588	11,851	395	-17,261	3,268	0	-374,335
Technical equipment and machinery	-1,250,734	148,141	576	-90,618	37,433	928	-1,154,274
Other equipment, factory and office equipment	-64,805	11,843	25	-6,256	3,837	0	-55,356
Leased assets *	-19,015	348	0	-3,144	0	0	-21,811
Payments on account for assets under construction	-421	0	29	0	0	-928	-1,320
	-1,707,563	**172,183**	**1,025**	**-117,279**	**44,538**	**0**	**-1,607,096**

Carrying amount

in € thousand	9/30/2018	9/30/2017
Property, plant, and equipment		
Land and buildings	253,921	289,897
Technical equipment and machinery	764,409	864,986
Other equipment, factory and office equipment	26,648	27,650
Leased assets *	35,588	24,984
Payments on account for assets under construction	117,476	62,319
	1,198,042	**1,269,836**

* Leased assets primarily comprise buildings, as well as technical equipment and machinery.

Depreciation in the current fiscal year does not include any impairment losses.

The addition of € 13,748 thousand in the previous year resulted from new leased facilities in connection with the storage and transshipment of copper concentrates in Bulgaria. Leased assets were acquired only to a minor extent during the fiscal year. The carrying amount of the leased facilities was € 35,306 thousand as at September 30, 2019. The terms of these contracts provide for fixed installment payments over fixed periods. No collateral has been provided.

Furthermore, the carrying amount of the leased facilities includes carrying amounts of € 4,288 thousand (previous year: € 4,747 thousand) for ships used for transporting copper concentrates and sulfuric acid, and carrying amounts of € 3,211 thousand (previous year: € 3,654 thousand) for the warehouse used for storing copper concentrates in Brunsbüttel. Some of the lease payments are adjusted annually based on the indexed price trend for industrial products. The lease agreements are mainly based on fixed rental arrangements. Collateral has not been provided for them.

No property, plant and equipment was pledged as security for loans within the Group as at September 30, 2019, and September 30, 2018. Purchase commitments for fixed assets amounted to € 94,637 thousand as at September 30, 2019 (previous year: € 105,554 thousand).

Minimum stocks are recognized in technical equipment and machinery as components of the respective technical equipment and machinery. Minimum stocks are quantities of materials that are necessary to establish and ensure a production facility's continuing functionality for its intended use. A total of € 291,161 thousand was attributable to the technical minimum stock as at September 30, 2019 (previous year: € 291,359 thousand).

16. FINANCIAL FIXED ASSETS

in € thousand	**9/30/2019**	9/30/2018
Share interests in affiliated companies	2,593	1,321
Investments	105	115
Other financial fixed assets	11,312	31,493
	14,010	**32,929**

The share interests in affiliated companies and investments included in the financial fixed assets in the amount of € 2,698 thousand (previous year: € 1,436 thousand) are classified at fair value in profit or loss pursuant to IFRS 9. The shares are not quoted and there is no active market for them. There is no current intention to sell the share interests.

An overview of the investments included in the financial assets of Aurubis AG, Hamburg, is presented on pages 184–185.

Other financial fixed assets primarily include securities classified as fixed assets, which mainly comprise a share interest in Salzgitter AG, Salzgitter. For these share interests, Aurubis makes use of the option under IFRS 9 to classify equity instruments as at "fair value through other comprehensive income."

17. INVENTORIES

in € thousand	**9/30/2019**	9/30/2018
Raw materials and supplies	673,527	812,866
Work in process	723,757	605,346
Finished goods, merchandise	330,851	262,216
Payments on account of inventories	29	270
	1,728,164	**1,680,698**

As at the reporting date, write-downs of € 18,990 thousand were recorded against inventories (previous year: € 29,920 thousand).

18. TRADE ACCOUNTS RECEIVABLE

The trade accounts receivable as at September 30, 2019 and as at September 30, 2018 were due within one year.

The age structure of the trade accounts receivable is as follows:

in € thousand	Carrying amount	of which: neither written down as at the reporting date nor overdue	of which: not written down as at the reporting date and overdue in the following time spans: less than 30 days	between 30 and 180 days	more than 180 days
As at September 30, 2019 Trade accounts receivable	**312,224**	283,226	23,421	2,234	3,343
As at September 30, 2018 Trade accounts receivable	**274,501**	230,928	39,209	1,480	2,884

Movements on the allowances for trade accounts receivable that were not covered by commercial credit insurance were as follows:

in € thousand	9/30/2019	9/30/2018
Individual write-downs as at October 1	**1,792**	**3,048**
Discontinued operations	0	-1,228
Changes in allowances during the period	50	-28
Additions	165	57
Reversals	-108	-71
Exchange rate impacts	-7	-14
Balance as at September 30	**1,842**	**1,792**

In addition, expected credit losses of € 170 thousand were accounted for.

All expenses and income deriving from allowances and write-offs of trade accounts receivable are shown respectively under other operating expenses or other operating income.

As regards the balances of trade accounts receivable that are neither impaired nor overdue, there is no indication as at the reporting date that the debtors will not fulfill their payment obligations.

To a large extent, credit risks deriving from trade accounts receivable were safeguarded against through use of commercial credit insurance.

19. OTHER RECEIVABLES AND OTHER ASSETS

Other receivables and other assets comprise both other financial and other non-financial assets.

Non-current receivables and other assets are made up as follows as at the reporting date:

in € thousand	9/30/2019	9/30/2018
Non-current (with a residual term of more than 1 year)		
Derivative financial instruments belonging to the category "FV P&L"	14,011	14,530
Derivative financial instruments held as hedging instruments in the context of hedge accounting	0	0
Other non-current financial assets	13,714	13,400
Non-current financial assets	**27,725**	**27,930**
Other non-current non-financial assets	506	764
Other non-current non-financial assets	**506**	**764**

Current receivables and other assets are made up as follows as at the balance sheet date:

in € thousand	9/30/2019	9/30/2018
Current (with a residual term of less than 1 year)		
Derivative financial instruments belonging to the category "FV P&L"	22,315	40,727
Derivative financial instruments held as hedging instruments in the context of hedge accounting	46	2,145
Receivables from related parties	1,073	2,096
Sundry other current financial assets	34,597	26,451
Other current financial assets	**58,031**	**71,419**
Income tax receivables	12,066	2,492
Sundry other current non-financial assets	22,576	37,358
Other current non-financial assets	**34,642**	**39,850**

The sundry other current non-financial assets mainly comprise VAT receivables of Aurubis Bulgaria AD, Pirdop.

The sundry other current financial assets include a continuing involvement arising from del credere risks with factoring companies and late payment and currency risks deriving from current trade accounts receivable in the amount of € 2,055 thousand (previous year: € 13,358 thousand). The level of continuing involvement corresponds to the maximum risk of loss, mainly based on the assumption that all receivables open on the reporting date that were sold remain outstanding for the entire period for which Aurubis can be held responsible for the late payment risk.

A liability of € 2,045 thousand was reported in connection with the continuing involvement (previous year: € 13,372 thousand). All trade accounts receivable sold to factoring companies have a term of less than one year, meaning that the fair value of the continuing involvement and the associated liability each correspond to the carrying amount.

In total, outstanding receivables of € 291,031 thousand (previous year: € 285,807 thousand) had been sold to factoring companies as at the reporting date.

With the exception of interest derivatives, there is no interest rate fluctuation risk deriving from any receivable or other asset. Further information on the interest derivatives is provided in Financial instruments, pages 160–174.

As regards other financial assets that are neither written down nor overdue, there is no indication as at the reporting date that the debtors will not fulfill their payment obligations.

20. CASH AND CASH EQUIVALENTS

Cash and cash equivalents consist of current account balances with banks, cash in hand, and checks. Cash at banks mainly comprises euro balances.

21. EQUITY

The share capital amounted to € 115,089,210.88 and is divided into 44,956,723 no-par-value shares, each with a notional amount of € 2.56. The share capital is fully paid in.

The Executive Board is authorized, subject to the approval of the Supervisory Board, to increase the share capital by February 23, 2021, by up to € 57,544,604.16 once or in several installments.

The share capital has been conditionally increased by up to € 57,544,604.16 by issuing up to 22,478,361 new no-par-value shares with a proportionate notional amount per share of € 2.56 of the share capital (conditional capital increase). It will be used to grant shares to the holders or creditors of conversion and/or option rights from convertible bonds, bonds with warrants, profit participation rights or participating bonds (or combinations of these instruments) that can be issued by March 1, 2022.

Generated Group equity comprises consolidated net income, the revenue reserves of all Group companies, the accumulated unappropriated earnings of the subsidiaries since their initial consolidation and the accumulated amounts resulting from consolidation adjustments recognized in profit or loss. In addition, the effects deriving from the remeasurement of the net liability resulting from the defined benefit pension plans (after taxes), which are recorded directly in equity, are also included.

The legal reserve of € 6,391 thousand, which is not available for distribution, is also included in this amount. The change in generated Group equity from € 2,090,677 thousand as at September 30, 2018, to € 2,164,969 thousand as at September 30, 2019, includes the dividend payment of € 69,683 thousand, effects of € -71,504 thousand (after taxes) recognized in equity deriving from the remeasurement of the net liability resulting from the defined benefit pension plans and the consolidated net income for fiscal year 2018/19 of € 190,581 thousand.

Changes in accumulated other comprehensive income totaling € -22,313 thousand (previous year: € -16,981 thousand) mainly comprise gains and losses of € -5,353 thousand (previous year: € -26,795 thousand) deriving from the measurement at market of cash flow hedges and € -20,188 thousand (previous year: € +3,410 thousand) deriving from measurement at market of financial investments and were partially compensated for by income taxes. The significant negative change compared to the previous year is also due to the initial application of IFRS 9.

An amount of € 18,971 thousand (previous year: € -17,201 thousand) was transferred during the period from other comprehensive income to the consolidated income statement in the context of cash flow hedge accounting and is primarily recorded in the cost of materials.

The non-controlling interests amounting to € 539 thousand (previous year: € 556 thousand) comprise the interests of non-Group shareholders in the equity of a company that is fully consolidated by Aurubis AG, namely Aurubis Bulgaria AD, Pirdop.

The change in non-controlling interests includes a proportional share of the dividend payment, amounting to € 145 thousand. The consolidated result of € 128 thousand in fiscal year 2018/19 had a counteracting effect.

Changes in equity are presented in detail in the Consolidated Statement of Changes in Equity, page 121.

PROPOSED APPROPRIATION OF EARNINGS

The separate financial statements of Aurubis AG, Hamburg, have been prepared in accordance with German GAAP (HGB – German Commercial Code).

Net income for the year of Aurubis AG	**€ 124,745,891.75**
Profit brought forward from the prior year	€ 65,145,084.22
Allocations to other revenue reserves	€ 62,300,000.00
Unappropriated earnings	**€ 127,590,975.97**

A proposal will be made to the Annual General Meeting that Aurubis AG's unappropriated earnings of € 127,590,975.97 are used to pay a dividend of € 1.25 per no-par-value share (= € 56,195,903.75) and that € 71,395,072.22 be carried forward.

The company currently does not hold any own shares. If the number of no-par-value shares changes until the Annual General Meeting, an accordingly adjusted proposal on the distribution of profits will be presented at the Annual General Meeting, with an unchanged proposal for the appropriation of the profit of € 1.25 per no-par-value share with a dividend entitlement.

A dividend of € 1.55 per share was paid in fiscal year 2018/19, totaling € 69,682,920.65.

ADDITIONAL INFORMATION ON CAPITAL MANAGEMENT

The main purpose of management control is to increase the corporate value of the Aurubis Group, in that a positive contribution to the enterprise as a whole is generated beyond the capital costs. The Group's liquidity sourcing is secured through a combination of the Group's cash flow, borrowings, as well as lines of credit available from our banks. Existing credit facilities and lines of credit can compensate for fluctuations in the cash flow development at any time. The objective is to keep the Group's debt structure in equilibrium in the long term. Control and monitoring are carried out on the basis of defined key ratios. Net debt and liquidity are controlled in the medium and short term by means of regular cash flow forecasts.

One of the main key ratios used to determine and compare profitability is ROCE (return on capital employed), which reflects the yield on the capital that is utilized in the operating business or for investments. ROCE is defined as the ratio of EBIT (earnings before interest and taxes), including the operating result from investments measured using the equity method, to capital employed as at the reporting date. Capital employed comprises equity and interest-bearing liabilities, less cash and cash equivalents.

The Aurubis Group's operating ROCE decreased from 15.0 % in the previous year to 8.6 % in the current fiscal year. The substantial decline in operating ROCE is primarily due to the lower earnings for the fiscal year.

All external requirements under financial covenants were fulfilled in the fiscal year reported.

22. DEFERRED TAXES

The breakdown of the deferred tax liabilities is presented in Income taxes, page 130.

23. PENSION PROVISIONS AND SIMILAR OBLIGATIONS

Within the Aurubis Group, retirement benefits for eligible employees are provided on the basis of both defined benefit plans and defined contribution plans.

The majority of defined benefit plan commitments in the Aurubis Group relate to Germany and the US. On the one hand, these represent individual contractual direct commitments. On the other hand, the Group provides benefits in the form of defined benefit commitments within collective plans. Both funded and unfunded plans exist. In this context, the subsidiaries in the US were classified as discontinued operations, so the obligations deriving from these pension plans as at the reporting date are no longer disclosed as pension provisions but as liabilities deriving from assets held for sale. In the following reconciliations, the reclassification effect is included in the reporting line "Discontinued operations."

In Germany, the Group provides eligible employees with pension benefits as well as disability and surviving dependent benefits. These are provided to a great extent through pension and support funds, the assets of which may solely be utilized to satisfy the Aurubis Group's pension obligations.

Generally, the amount of the pension benefit per qualified year of service is determined as a percentage of a pensionable salary. In Germany, pensions are reviewed every three years and adjusted, where necessary, in a manner corresponding to the price index development.

In Germany, the company pension plan for new employees hired after September 29, 2003, was amended and is now based on defined contribution commitments. Processing is carried out by an external pension fund and an insurance company.

Furthermore, a subsidiary in the US grants employees pension, health care, and life insurance benefits for the period after retirement under specific conditions related to age and duration of employment with the company. These retirement benefits are based on collective agreements that only apply to unionized employees. These represent lifelong pension benefits whose level depends on the duration of employment. The amount of the benefits does not depend on the salary. Health care benefits are provided after the employee leaves the company until an established minimum age. While the pension commitments are mainly financed through the specific assets of a separate pension fund, there is no separate fund for the health care and life insurance benefits provided in the US.

Within the Group, actuarial reports were obtained for all benefit obligations. The reports take uniform Group-wide accounting policies into consideration, while nevertheless reflecting special country-specific circumstances.

For purposes of the September 30, 2019 reporting date, the company used the new “Heubeck-Richttafeln 2018 G” actuarial tables published on October 4, 2018. The company used the “Richttafeln 2005G” actuarial tables issued by Heubeck AG in the previous year, because the final validation and implementation of the new mortality tables had not yet been completed at the time the annual financial statements were being prepared.

In addition, the following market discount rates, salary, and pension trends were used as a basis to calculate the pension obligations:

	9/30/2019	9/30/2018
Discount rate	0.70 %	1.70 %
Expected income development	2.75 %	2.75 %
Expected pension development	1.60 %	1.60 %

Income and pension trends are not relevant for the calculation of the pension obligations of the US subsidiary. As was the case in the previous year, Aurubis Buffalo Inc., Buffalo, is classified as a discontinued operation in the fiscal year. A discount rate of 3.02 % was used for the measurement of the pension provision included in the liabilities deriving from the assets held for sale.

The net pension provision for defined benefit obligations disclosed in the consolidated statement of financial position as at September 30, 2019 and September 30, 2018 is as follows:

in € thousand	9/30/2019	9/30/2018
Present value of pension commitments	619,559	509,158
of which funded	506,789	409,156
– Fair value of plan assets	324,488	310,152
Net carrying amount on September 30	**295,071**	**199,006**
of which disclosed as assets	0	0
of which disclosed as liabilities	295,071	199,006

The net liability for benefit commitments, taking into account the separate reconciliations for the present value of the defined benefit obligation and the plan assets, is derived as follows:

Development of the present value of the pension obligations

in € thousand	9/30/2019	9/30/2018
Present value of unfunded benefit obligations	100,002	128,349
Present value of funded benefit obligations	409,156	442,188
Present value of the pension commitments as at October 1	**509,158**	**570,537**
Discontinued operations	0	-68,758
Current service cost	8,510	8,618
Loss deriving from plan settlements	0	64
Interest cost on the pension obligations	8,478	8,778
Remeasurements	112,074	7,977
Actuarial gains/losses deriving from demographic assumptions	5,848	0
Actuarial gains/losses deriving from financial assumptions	94,596	8,159
Actuarial gains/losses deriving from adjustments based on experience	11,631	-182
Benefits paid	-18,661	-18,058
Present value of the pension commitments as at September 30	**619,559**	**509,158**

Development of the plan assets

in € thousand	2018/19	2017/18
Fair value of the plan assets as at October 1	**310,152**	**326,855**
Discontinued operations	0	-36,147
Interest income	5,175	5,131
Remeasurement effects	17,733	19,594
Benefits paid	-12,780	-12,619
Contributions made by employer	4,208	7,338
Fair value of the plan assets as at September 30	**324,488**	**310,152**

Development of the net liability

in € thousand	2018/19	2017/18
Net liability as at October 1	**199,006**	**243,682**
Discontinued operations	0	-32,611
Current service cost	8,510	8,618
Loss deriving from plan settlements	0	64
Net interest result	3,303	3,647
Remeasurement effects	94,341	-11,617
Benefits paid	-5,881	-5,439
Employer contributions to the plan	-4,208	-7,338
Net liability as at September 30	**295,071**	**199,006**

The remeasurement effects are directly recorded in other comprehensive income and are disclosed under generated Group equity. The net interest result is disclosed under interest expense. In contrast, the other components of the pension expenses (current and past service cost and the loss deriving from plan settlements) are recorded in personnel expenses.

In Germany, the defined benefit plans are primarily administered through processes in operation within the pension fund and the benefit fund. In this context, the pension fund is overseen by the German Federal Financial Supervisory Authority (BaFin).

Regulations related to the pension fund's capital investment portfolio are defined by the "Ordinance on the Investment of Restricted Assets of Insurance Undertakings (Investment Ordinance)." The Investment Ordinance regulates the permitted quantitative distribution and mix of capital investments for the pension fund. A large portion of the pension fund's assets are invested in a segmented special fund. The contributions are calculated in accordance with the respective current technical business plan.

The risk capital investments (equity instruments and debt instruments with a rating lower than investment grade) may account for a maximum of 35 % of the carrying amount of the pension fund's coverage assets. The real estate rate is currently, with the approval of the German Federal Financial Supervisory Authority, 28.8 % of the coverage assets' carrying amount. Derivatives are primarily only used for hedging purposes. The risk of longevity is taken into account by the actuary, after performing a review, by adjusting the biometric parameters where necessary.

The benefit fund is also oriented to the Investment Ordinance with respect to permitted capital investments. The contributions are within the range of the tax-related possibilities.

The plan assets in the Group are made up as follows:

in € thousand	**9/30/2019**	9/30/2018
Cash and cash equivalents	5,693	4,592
Equity instruments	46,833	37,997
Debt instruments	101,586	108,375
Real estate	148,178	148,839
Reinsurance policies	4,801	4,509
Other net assets	17,397	5,840
Total plan assets	**324,488**	**310,152**

The plan assets include neither internal financial instruments nor real estate used internally. The equity and debt instruments held via security funds are allocated to their corresponding investment classes in the overview.

Market prices are generally available for the equity instruments as a result of their respective quotations on an active market.

The debt instruments are also regularly traded on an active market.

Real estate is held directly and is located exclusively in Germany. There is no active market from which market prices can be derived. Appraisals were obtained for all of the real estate in the plan assets.

The company is subject to various risks in connection with the defined benefit plans. The company is subject to general technical insurance risks in particular, such as the risk of longevity, the risk of interest rate changes, the market price risk, and, to a small extent, a risk of inflation.

SENSITIVITY ANALYSIS

The following sensitivity analysis shows the effect of changes in the parameters on the present value of the defined benefit obligations. Each change in a significant actuarial assumption was analyzed separately, i.e., if one parameter varied, the other parameters remained constant. Possible correlation effects between the individual assumptions are not taken into consideration:

		Effect on the obligation			
		9/30/2019		9/30/2018	
in € thousand	Change in parameter	**Increase**	**Decrease**	Increase	Decrease
Actuarial interest rate	±50 basis points	-50,530	58,154	-39,124	44,649
Expected income development	±50 basis points	11,882	-11,277	9,493	-8,998
Expected pension development	±50 basis points	40,007	-42,220	30,708	-32,859
Life expectancy	±1 year	33,778	-32,565	23,605	-23,625

The undiscounted future pension payments are expected to fall due within the following time bands:

in € thousand	9/30/2019	9/30/2018
Less than 1 year	19,506	19,055
Between 1 and 5 years	79,798	79,086
More than 5 years	612,990	586,785
Total	**712,294**	**684,926**

The weighted average duration of obligations deriving from defined benefit plans as at September 30, 2019 is 18.2 years (previous year: 16.6 years).

The expense for defined contribution pension plans amounted to € 19,533 thousand in the year reported (previous year: € 20,179 thousand). This includes both voluntary commitments and the employer's contribution made by the Group to statutory pension schemes.

24. OTHER PROVISIONS

	Non-current		Current		Total	
in € thousand	9/30/2019	9/30/2018	9/30/2019	9/30/2018	9/30/2019	9/30/2018
Personnel-related provisions	48,081	41,803	21,651	19,915	69,731	61,718
Provisions for onerous contracts	0	0	794	3,213	794	3,213
Environmental provisions	11,316	11,966	1,550	603	12,866	12,569
Sundry provisions	1,907	1,806	18,539	10,045	20,447	11,851
	61,304	**55,575**	**42,534**	**33,776**	**103,839**	**89,351**

The individual classes of provisions developed as follows during the fiscal year reported:

in € thousand	Balance as at 10/1/2018	Used	Released	Allocated	Interest effect	Exchange rate difference	Balance as at 9/30/2019
Personnel-related provisions	61,718	-15,196	-19	23,251	2	-25	69,731
Provisions for onerous contracts	3,213	-3,208	0	790	0	0	794
Environmental provisions	12,569	-2,403	-37	2,754	3	-21	12,866
Sundry provisions	11,851	-9,989	-182	18,772	0	-6	20,447
	89,351	**-30,795**	**-238**	**45,567**	**5**	**-52**	**103,839**

The personnel-related provisions consisted mainly of obligations to employees relating to anniversary bonuses, temporary assistance benefits, and those deriving from early retirement agreements. Provisions for environmental risks primarily relate to clean-up measures at the Lünen site. The provisions have terms of up to 23 years. The probable costs were determined by taking into account past experience in comparable cases, existing appraisals, and the clean-up methods that will be used on the basis of present knowledge. The increase in sundry provisions is mainly due to higher provisions for lawsuits.

25. LIABILITIES

Financial liabilities as at the reporting date are as follows:

in € thousand	9/30/2019	9/30/2018
Non-current (with a residual term of more than 1 year)		
Bank borrowings	116,491	247,540
Liabilities under finance leases	33,320	33,324
Non-current borrowings	**149,811**	**280,864**
Derivative financial instruments belonging to the category "FV P&L"	813	68
Liabilities to related parties	950	0
Derivative financial instruments held as hedging instruments in the context of hedge accounting	1,382	0
Other non-current financial liabilities	**3,145**	**68**
Non-current financial liabilities	**152,956**	**280,932**
Current (with a residual term of less than 1 year)		
Trade accounts payable	768,695	836,748
Trade accounts payable	**768,695**	**836,748**
Bank borrowings	149,784	29,767
Liabilities under finance leases	3,103	3,045
Current borrowings	**152,887**	**32,812**
Derivative financial instruments belonging to the category "FV P&L"	26,367	27,111
Liabilities to related parties	25	1,136
Derivative financial instruments held as hedging instruments in the context of hedge accounting	11,022	9,065
Sundry other current financial liabilities	62,773	76,638
Other current financial liabilities	**100,187**	**113,950**
Current financial liabilities	**1,021,769**	**983,510**

Sundry other current financial liabilities include personnel obligations such as Christmas bonus payments, outstanding vacation entitlements, and success-based bonus payments.

The liabilities under finance leases represent the present value of the lease installments and the contractually guaranteed residual values at the end of the lease term. The related payments are due as follows:

	9/30/2019				9/30/2018			
in € thousand	less than 1 year	1 to 5 years	more than 5 years	Total	less than 1 year	1 to 5 years	more than 5 years	Total
Expected lease payments	**5,582**	**19,405**	**26,854**	**51,841**	**5,051**	**18,276**	**30,194**	**53,521**
Interest portion	1,959	6,299	7,160	15,418	2,006	6,705	8,441	17,152
Redemption portion	3,623	13,106	19,694	36,423	3,045	11,571	21,753	36,369

The finance leasing agreements include both extension and purchase options, as well as price adjustment clauses.

The following table shows the Aurubis Group's contractually agreed undiscounted interest and redemption payments for non-derivative financial liabilities and the discounted net cash flows of the derivative financial instruments with negative fair values.

Payments in the amount of € 458,119 thousand (previous year: € 328,229 thousand) deriving from forward foreign exchange transactions with a negative fair value are matched by receipts of € 445,430 thousand as at September 30, 2019 (previous year: € 317,716 thousand). Derivatives with positive fair values qualify as assets and are therefore not included here.

		Payments		
in € thousand	**Carrying amount as at 9/30/2019**	less than 1 year	1 to 5 years	more than 5 years
Bank borrowings	266,275	149,784	113,072	3,419
Liabilities under finance leases	36,423	3,623	13,106	19,694
Trade accounts payable	768,695	768,695	0	0
Liabilities to related parties	975	25	950	0
Derivarives belonging to the category "FV P&L"	27,180	26,367	813	0
Derivatives designated as hedging instruments for hedge accounting purposes	12,404	11,022	1,382	0
Sundry other financial liabilities	62,773	62,773	0	0
Total	**1,174,725**	**1,022,289**	**129,323**	**23,113**

		Payments		
in € thousand	**Carrying amount as at 9/30/2018**	less than 1 year	1 to 5 years	more than 5 years
Bank borrowings	277,307	29,767	243,840	3,700
Liabilities under finance leases	36,369	3,045	11,571	21,753
Trade accounts payable	836,748	836,748	0	0
Liabilities to related parties	1,136	1,136	0	0
Derivatives of the held-for-trading category	27,179	27,111	68	0
Derivatives designated as hedging instruments for hedge accounting purposes	9,065	9,065	0	0
Sundry other financial liabilities	76,638	76,638	0	0
Total	**1,264,442**	**983,510**	**255,479**	**25,453**

The presentation above shows the financial instruments that were held as at September 30, 2019 and September 30, 2018 respectively, and for which contractual agreements on the payments existed. Foreign currency amounts are translated at the closing rate.

Aurubis had no bank borrowings secured by mortgages and fixed assets. Financial assets have not been pledged as collateral for bank borrowings.

Non-financial liabilities as at the reporting date are as follows:

in € thousand	**9/30/2019**	9/30/2018
Non-current (with a residual term of more than 1 year)		
Non-current non-financial liabilities	0	0
Non-current non-financial liabilities	**0**	**0**
Current (with a residual term of less than 1 year)		
Income tax liabilities	13,723	9,662
Income tax liabilities	**13,723**	**9,662**
Other tax liabilities	6,190	4,941
Social security obligations	7,491	9,163
Advance payments received on orders	3,579	5,252
Sundry other current non-financial liabilities	3,839	4,484
Other current non-financial liabilities	**21,099**	**23,840**
Current non-financial liabilities	**34,822**	**33,502**

Other tax liabilities mainly comprise VAT liabilities.

26. OTHER FINANCIAL COMMITMENTS AND CONTINGENT LIABILITIES

in € thousand	9/30/2019	9/30/2018
Capital expenditure commitments	94,637	105,554
Obligations under long-term contracts	228,012	200,862
Warranty obligations	1,092	1,184
Commitments relating to discounted bills of exchange	2,294	1,324
	326,035	**308,924**

The capital expenditure commitments mainly relate to property, plant, and equipment.

Obligations under long-term contracts are mainly related to the provision of transport and handling services by various service providers.

Furthermore, an agreement is in place with an energy utility for the cost-based procurement of one billion kilowatt hours of electricity per annum over a term of 30 years commencing in 2010.

In addition, there is a long-term Group agreement for the supply of oxygen for different sites.

FINANCIAL COMMITMENTS UNDER LEASES

As at September 30, 2019, commitments under operating leases amounted to € 39,891 thousand (previous year: € 27,780 thousand). These are due as follows:

in € thousand	less than 1 year	1 to 5 years	more than 5 years	Total
9/30/2019 Commitments under operating leases	10,648	21,081	8,162	**39,891**
9/30/2018 Commitments under operating leases	8,543	14,887	4,350	**27,780**

Lease payments in fiscal year 2018/19 recognized as expenses amounted to € 10,821 thousand (previous year: € 7,170 thousand).

As at September 30, 2019, there are no contingent liabilities. In the previous year, there were contingent liabilities of € 1,683 thousand, primarily resulting from tax risks.

27. FINANCIAL INSTRUMENTS

The Aurubis Group is exposed to market risks, liquidity risks, and default risks as a result of the deployment of financial instruments.

MARKET RISKS

Market risks arise as a result of a possible change in risk factors that lead to a decrease in the market value of the transactions affected by these risk factors. The following groups of general risk factors are relevant for the Aurubis Group: currency exchange rate risks, interest rate fluctuation risks, and other price risks.

CURRENCY EXCHANGE RATE RISKS

As a result of its business operations, the Aurubis Group is exposed to currency exchange rate fluctuations. Changes in exchange rates can lead to losses in the value of financial instruments. Foreign currency forward and option contracts are concluded to limit currency risks. These mainly relate to the US dollar. For this purpose, the daily foreign currency positions from underlying transactions are offset against each other each day and any remaining open positions are squared by means of foreign exchange derivatives. Aurubis works exclusively with business partners with good credit standing on all foreign exchange hedge transactions.

Furthermore, foreign currency forward and option contracts were concluded during the past fiscal year to hedge future receipts. Provided the criteria for cash flow hedges were fulfilled, the results of these hedge transactions are initially recognized in the accompanying financial statements initially in other comprehensive income in the amount of the effective part of the hedge.

These results are recognized in profit or loss as soon as the underlying hedged transaction is recognized in profit or loss. Fundamental shifts in currency relationships, in particular between the euro and the US dollar, can, however, only be hedged for a limited time in this context.

Information on the management of exchange rate risks is provided in the Risk Report in the Management Report, page 99.

The foreign currency risk constitutes a cash flow risk and represents the risk position for the following period. This corresponds to the net amount of the nominal volume of the non-derivative and derivative financial instruments held, which are exposed to exchange rate risks. In addition, planned revenue transactions of the following periods are included to the extent that these are taken into account for currency risk management purposes to show the risk position for the following period.

Foreign currency risk

	€/US$	
in € thousand	**9/30/2019**	9/30/2018
Risk position deriving from recognized transactions	-565,991	-756,824
Budgeted revenues	584,156	453,640
Forward foreign exchange contracts	223,271	499,927
Put option transactions	-48,673	-30,883
Net exposure	**192,763**	**165,860**

IFRS 7 requires a sensitivity analysis to be performed for each type of risk to indicate the market risks. The use of sensitivity analyses determines the potential impacts on profit or loss and on equity, as at the reporting date, of a change in the respective risk variable for each type of risk. The impacts for the periods are determined by relating the hypothetical changes in the risk variables to the amount reported as at the reporting date. In doing so, it is assumed that the amount reported as at the reporting date is representative for the entire year.

In order to determine the exchange rate risk, a sensitivity analysis is performed for the foreign currencies that pose a significant risk for the business; in this instance, the US dollar. For the purpose of the sensitivity analysis for the currencies, it was assumed that the exchange rate of the euro compared with the US dollar would change by ±10 %, respectively.

If the euro had been 10 % stronger or weaker against the US dollar on September 30, 2019 or September 30, 2018 as compared to the closing rate prevailing on the reporting date, then – from a foreign currency risk perspective – equity and net income for the year would have changed to the extent shown in the following table. All relevant recognized foreign currency items have been included in the calculation, as well as the budgeted revenues of the following period that were considered in the foreign currency risk exposure assessment.

Currency sensitivity

	€/US$	
in € thousand	**9/30/2019**	9/30/2018
Closing rate	1.0889	1.1576
Devaluated rate (€ against US$)	**0.9800**	**1.0418**
Effect on earnings	64,850	50,162
of which budgeted revenues	64,906	50,404
of which non-derivative transactions	20,342	22,248
of which derivative transactions	-20,398	-22,490
Effect on equity	-27,951	-22,601
Appreciated rate (€ against US$)	**1.1978**	**1.2734**
Effect on earnings	-52,833	-40,199
of which budgeted revenues	-53,105	-41,240
of which non-derivative transactions	-16,417	-17,360
of which derivative transactions	16,689	18,401
Effect on equity	22,526	18,058

INTEREST RATE FLUCTUATION RISKS

Interest rate fluctuation risks arise due to potential changes in market interest rates and can result in a change in the fair value of fixed-interest financial instruments and interest payment fluctuations for variable interest rate financial instruments. Any interest rate risks that arise are hedged by interest rate swaps. Interest rate fluctuation risks are of significant importance in the financial sector. Provided the criteria for cash flow hedges are fulfilled for the hedging of variable interest payments, the results of these hedge transactions are initially recognized in other comprehensive income in the amount of the effective portion of the hedge transaction. They are recognized in profit or loss as soon as the underlying hedged transaction is recognized in profit or loss in the respective fiscal year. No interest rate hedges were transacted during the fiscal year.

Details of how interest rate fluctuation risks are managed are provided in the Risk Report in the Management Report, pages 97–100.

The table below shows the net exposure for variable interest-bearing risk positions.

Variable interest-bearing risk positions

	Total amount		less than 1 year	
in € thousand	**9/30/2019**	9/30/2018	**9/30/2019**	9/30/2018
Loans/time deposits	412,481	424,429	412,481	424,429
Other risk positions	-271,661	-269,014	-271,661	-269,014
of which hedged against the interest rate fluctuation risk	0	0	0	0
Net exposure	**140,820**	**155,415**	**140,820**	**155,415**

In accordance with IFRS 7, interest rate fluctuation risks are presented in a sensitivity analysis, which reflects the effects of a change in market interest rates on interest income, interest expenses and equity.

In the event of an increase (decrease) in all relevant interest rates by 100 basis points (50 basis points), equity and earnings for the year as at September 30, 2019 and September 30, 2018, respectively, would change, as shown by the following table. The same items have been included in the calculation as were considered for the determination of the net exposure presented above.

Interest rate sensitivities

	9/30/2019		9/30/2018	
in € thousand	+100 BP	–50 BP	+100 BP	–50 BP
Effect on earnings	2,484	-1,866	2,478	-2,019
Effect on equity	0	0	0	0

OTHER PRICE RISKS

As a result of its business operations, the Aurubis Group is exposed to commodity price risks. Among other measures, non-ferrous metals futures contracts are entered into in order to mitigate these price risks. The contracts are mainly focused on the hedging of the copper price. For this purpose, incoming and outgoing metal quantities from underlying transactions are offset against each other each day and remaining open positions are squared by means of metal exchange transactions. We work exclusively with business partners with good credit standing on all metal hedge transactions.

If price-fixed metal delivery agreements for non-ferrous metals, which are contracted to cover the expected raw material requirement or the expected sale of finished products, are accounted for as derivative financial instruments, then market value changes in these are recognized in profit or loss. Gains and losses from the contrary development of the fair value of the hedged items and the hedge transactions are therefore recognized directly in profit or loss.

Details of metal price risk management processes are provided in the Risk Report in the Management Report, pages 97–100.

The Aurubis Group has secured its electricity consumption by concluding a long-term agreement with an energy utility. Aurubis is exposed to an electricity price risk from the measurement of part of this agreement.

The nominal volumes of the derivative financial instruments covering copper, silver, gold, as well as electricity, coal, and CO_2, which result from the gross total of the nominal amounts of the individual purchasing and sales contracts, are as follows.

Nominal volumes of the derivatives

in € thousand	9/30/2019	9/30/2018
Copper	1,060,551	1,323,799
Silver	60,977	82,665
Gold	336,154	274,114
Electricity, coal, CO_2	230,721	232,787
	1,688,403	**1,913,365**

In accordance with IFRS 7, commodity price risks are shown in the form of a sensitivity analysis, which reflects the effects of a change in the commodity prices on the net income for the period.

In the event of a 10 % increase (decrease) in all relevant commodity prices, earnings for the year would be changed as at September 30, 2019 and September 30, 2018 respectively as shown in the following table. The calculation includes all derivatives for copper, silver, gold, as well as electricity, coal, and CO_2 as at the reporting date.

Commodity price sensitivity

	Copper		Silver		Gold		Electricity, coal, CO_2	
in € thousand	9/30/2019	9/30/2018	9/30/2019	9/30/2018	9/30/2019	9/30/2018	9/30/2019	9/30/2018
Price increase								
Effect on earnings	35,344	36,662	1,947	6,085	18,741	19,180	5,932	5,884
Price decrease								
Effect on earnings	-35,344	-36,662	-1,947	-6,085	-18,741	-19,180	-5,932	-5,884

The effects on earnings shown in the commodity price sensitivity table for metals are partially or completely compensated through the measurement of the purchase or sales contracts that are not yet fixed, since these positions are provisionally measured at the respective price on the reporting date.

DERIVATIVE FINANCIAL INSTRUMENTS

The Aurubis Group uses derivative financial instruments to hedge exchange rate and other price risks. These are reported according to their residual term either under current or non-current financial assets and financial liabilities. Provided the criteria for the application of hedge accounting are fulfilled, these are disclosed as cash flow hedges.

Financial derivatives

	Assets				Liabilities			
	9/30/2019		9/30/2018		9/30/2019		9/30/2018	
in € thousand	Carrying amount	Nominal volume	Carrying amount	Nominal volume	Carrying amount	Nominal volume	Carrying amount	Nominal volume
Foreign exchange forward contracts								
without a hedging relationship	11,228	661,713	9,802	845,222	285	121,767	1,448	130,537
as cash flow hedges	0	0	2,014	58,053	12,403	323,692	9,065	187,397
Foreign currency options								
without a hedging relationship	0	0	0	0	0	0	0	0
as cash flow hedges	46	43,368	131	27,918	0	0	0	0
Metal futures contracts								
without a hedging relationship	10,961	463,907	30,754	900,503	25,432	1,097,429	25,279	838,578
as cash flow hedges	0	0	0	0	0	0	0	0
Other transactions								
without a hedging relationship	14,137	223,741	14,701	231,950	1,462	6,980	452	837
as cash flow hedges	0	0	0	0	0	0	0	0

The nominal volume of the derivative financial instruments is the sum of the nominal amounts of the individual purchase and sales contracts. By contrast, the fair value is determined by measuring all contracts at the prices applicable at the measurement date. It indicates the potential impact on income of the prompt settlement of all derivatives as at the reporting date, without considering the hedged transactions.

The impact on earnings of changes in the fair value of financial derivatives that relate to a cash flow hedge is recognized in equity through other comprehensive income in the amount of the effective portion. The hedging costs for these financial derivatives are recorded in other comprehensive income and are disclosed as a separate reserve item. The cumulative amounts recorded in equity are reclassified to the income statement in the period in which the hedged cash flows impact the income statement, and are mainly recorded as a component of the cost of materials.

The ineffective portion of the fair value change is, by contrast, recognized directly in profit or loss. Ineffectiveness results in particular from the credit risk (CRA) and the foreign currency basis spread (CCBS), which are not reflected in the hedged transaction. The average hedging rate for foreign currency forward contracts designated as a hedging instrument was 1.1529 USD/EUR as at September 30, 2019, while the rate applicable for the foreign currency option contracts was 1.2377 USD/EUR.

As was the case in the previous year, no ineffective portions of the change in fair value of the hedge instruments were identified that had to be recognized during the fiscal year reported.

The following overview shows a reconciliation of the other comprehensive income for the fiscal year that results from accounting for hedging relationships:

Cash flow hedges

in € thousand	2018/19 Measurement at market of cash flow hedges	2018/19 Hedging costs	2017/18 Measurement at market of cash flow hedges
Balance as at October 1	**-7,051**	**-395**	**19,744**
Change in fair value	-24,323	-499	-9,594
Reclassification to profit or loss	18,970	395	-17,201
Balance as at September 30	**-12,404**	**-499**	**-7,051**

The following two tables show when the cash flows deriving from cash flow hedges will occur and when they will influence the income statement:

Cash flow hedges as at September 30, 2019

Occurrence and impact on income statement in € thousand	Carrying amount	Nominal volume	less than 1 year	1 to 5 years
Foreign exchange forward contracts				
Assets	**0**	0	0	0
Liabilities	**12,403**	323,692	229,276	94,416
Foreign currency options				
Assets	**46**	43,368	43,368	0
Liabilities	**0**	0	0	0

Cash flow hedges as at September 30, 2018

Occurrence and impact on income statement in € thousand	Carrying amount	Nominal volume	less than 1 year	1 to 5 years
Foreign exchange forward contracts				
Assets	**2,014**	58,053	58,053	0
Liabilities	**9,065**	187,397	187,397	0
Foreign currency options				
Assets	**131**	27,918	27,918	0
Liabilities	**0**	0	0	0

LIQUIDITY RISKS

Liquidity risks constitute the risks that prevent the business from settling its own liabilities. The contractually agreed undiscounted interest and redemption payments of the financial liabilities are shown in the section Liabilities, pages 157-159.

The adequate sourcing of the Group with liquid funds is ensured not only by the Group's cash flow but also by the existing short-term and long-term credit lines with our banks. Fluctuations in cash flow can therefore be compensated for. An autonomous executive committee monitors the development of Aurubis' liquidity position on a timely and regular basis and reports to the Executive Board. Further management measures taken regarding liquidity risks are described in the Risk Report, pages 97–100.

DEFAULT RISKS

Default risks exist for all classes of financial instruments, in particular for trade accounts receivable. The concentration of the credit risk is limited due to the extensive and heterogeneous customer base. The largest individual customer account receivable balances are regularly controlled. The credit risk arising from derivative financial instruments is limited in that the corresponding contracts are only concluded with contractual parties and banks that have a good credit standing.

The customers have been classified according to their credit rating within the context of the credit risk management process and each customer has been given a specific credit limit.

The carrying amounts of the financial assets recognized in the statement of financial position, less any write-downs, represent the maximum potential default risk without taking into account the value of any securities received or other risk-mitigating agreements.

Furthermore, to minimize default risks as far as possible, we monitor the receivables due from our business associates on a regular basis. Apart from instruments that are customary within the market, such as letters of credit and guarantees, we also make particular use of commercial credit insurance to safeguard against potential bad debts. If receivables are sold under factoring agreements, this is done without recourse.

Additional disclosures for financial instruments

Carrying amounts, valuations and fair values by measurement category in € thousand	Measure-ment cate-gory under IFRS 9	2018/19					
		Carrying amount 9/30/2019	Measurement in the statement of financial position under IFRS 9			Measure-ment in the statement of financial position under IAS 17	Fair value 9/30/2019
			Amortized cost	Fair value through equity	Fair value through profit or loss		
Assets							
Share interests in affiliated companies	FV P&L	2,593			2,593		2,593
Investments	FV P&L	105			105		105
Securities classified as fixed assets	FV OCI	11,261		11,261			11,261
Other financial fixed assets							
Other loans	AC	50	50				50
Trade accounts receivable	AC	161,380	161,380				161,380
	FV P&L	149,255			149,255		149,255
	FV OCI	1,589		1,589			1,589
Other receivables and financial assets							
Receivables from related parties	AC	1,073	1,073				1,073
Other financial assets	AC	27,515	27,515				27,515
	FV P&L	15,210			15,210		15,210
	n/a	5,586	5,586				n/a
Derivative financial assets							
Derivatives without a hedging relationship	FV P&L	36,326			36,326		36,326
Derivatives with a hedging relationship (hedge accounting)	n/a	46		46			46
Cash and cash equivalents	AC	421,481	421,481				421,481
Liabilities							
Bank borrowings	AC	266,275	266,275				274,659
Liabilities under finance leases	n/a	36,423				36,423	36,423
Trade accounts payable	AC	499,243	499,243				499,243
	FV P&L	269,452			269,452		269,452
Liabilities to related parties	AC	975	975				975
Other non-derivative financial liabilities	AC	60,728	60,728				60,728
	n/a	2,045	2,045				n/a
Derivative financial liabilities							
Derivatives without a hedging relationship	FV P&L	27,180			27,180		27,180
Derivatives with a hedging relationship (hedge accounting)	n/a	12,403		12,403			12,403
Of which aggregated by measurement categories in accordance with IFRS 9:							
Financial assets at amortized cost (AC)		611,499	611,499				611,499
Financial assets at fair value through other comprehensive income (FV OCI)		12,850		12,850			12,850
Financial assets at fair value through profit or loss (FV P&L)		203,489			203,489		203,489
Financial liabilities at amortized cost (AC)		827,221	827,221				835,605
Financial liabilities at fair value through profit or loss (FV P&L)		296,632			296,632		296,632

		2017/18					
			Measurement in the statement of financial position under IAS 39				
Carrying amounts, valuations and fair values by measurement category in € thousand	Measurement category under IAS 39	Carrying amount 9/30/2018	Amortized cost	Fair value through equity	Fair value through profit or loss	Measurement in the statement of financial position under IAS 17	Fair value 9/30/2018
Assets							
Share interests in affiliated companies	AfS	1,321	1,321				n/a
Investments	AfS	115	115				n/a
Securities classified as fixed assets	AfS	31,448		31,448			31,448
Other financial fixed assets							
Other loans	LaR	45	45				45
Trade accounts receivable	LaR	97,840	97,840				97,840
	FV option	176,661			176,661		176,661
Other receivables and financial assets							
Receivables from related parties	LaR	2,096	2,096				2,096
Other financial assets	LaR	23,568	23,568				23,568
	n/a	16,283	16,283				n/a
Derivative financial assets							
Derivatives without a hedging relationship	FAHfT	55,257			55,257		55,257
Derivatives with a hedging relationship (hedge accounting)	n/a	2,145		2,145			2,145
Cash and cash equivalents	LaR	461,045	461,045				461,045
Liabilities							
Bank borrowings	FLAC	277,307	277,307				285,969
Liabilities under finance leases	n/a	36,369				36,369	36,369
Trade accounts payable	FLAC	430,002	430,002				430,002
	FV option	406,746			406,746		406,746
Liabilities to related parties	FLAC	1,136	1,136				1,136
Other non-derivative financial liabilities	FLAC	63,266	63,266				63,266
	n/a	13,372	13,372				n/a
Derivative financial liabilities							
Derivatives without a hedging relationship	FLHfT	27,179			27,179		27,179
Derivatives with a hedging relationship (hedge accounting)	n/a	9,065		9,065			9,065
Of which aggregated by measurement categories in accordance with IAS 39:							
Loans and receivables (LaR)		584,594	584,594				584,594
Available-for-sale (AfS)		32,884	1,436	31,448			31,448
Financial assets designated for measurement at fair value through profit or loss (FV option)		176,661			176,661		176,661
Financial assets held for trading (FAHfT)		55,257			55,257		55,257
Financial liabilities at amortized cost (FLAC)		771,711	771,711				780,373
Financial liabilities held for trading (FLHfT)		27,179			27,179		27,179
Financial liabilities designated for measurement at fair value through profit or loss (FV option)		406,746			406,746		406,746

The market value of financial instruments to be recognized at fair value is as a general rule determined on the basis of quotations on the relevant exchanges. If no such quotations are available, measurement is carried out applying a process that is customary for the market (measurement methods), based on instrument-specific market parameters and interest rates drawn from recognized sources.

If observable input parameters are not available or only partially available, the fair value is calculated on the basis of appropriate measurement methods. In the Aurubis Group, this applies in particular to the extrapolation of market data for electricity and coal, with due regard to market information about price determination and liquidity considerations. If insufficient market information is available, management's best estimate for a certain input parameter is used to determine the value. Thus, if observable input parameters are not available or only partially available on the market, the measurement process is significantly influenced by the use of estimates and assumptions.

Due to the predominantly short-term nature of cash and cash equivalents, trade accounts receivable and payable, other financial assets, receivables from and payables to related parties, and other non-derivative financial liabilities, an assumption is made that the fair values correspond to the carrying amounts.

An assumption has been made for share interests in non-corporate entities and non-quoted corporate entities that the carrying amount corresponds to the market value. It would only be possible to reliably determine the market value in conjunction with specific sales negotiations.

Pursuant to IFRS 13, the following tables show the measurement methods used to determine the fair value for Level 1, Level 2, and Level 3 as well as the main non-observable parameters that were used for measurement.

In this connection, the individual levels are defined in accordance with IFRS 13 as follows:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2: procedures under which all input parameters with a significant effect on the fair value are observable either directly or indirectly in the market
- Level 3: procedures that use input parameters which have a significant influence on the fair value and are not based on observable market data

Financial instruments from Level 1 measured at fair value

Type	Measurement method
Securities classified as fixed assets	Exchange quotations

Financial instruments from Level 2 measured at fair value

Type	Measurement method and applied input parameters
Foreign exchange forward contracts	Par method, taking into account actively traded forward rates and the currently valid interest rate for discounting purposes as at the reporting date
Foreign currency options	Black-Scholes model: calculation based on the exchange rates as at the reporting date, taking into account the expected volatility of the respective exchange rate during the term of the option and customary market interest rates
Interest rate swaps	Discounted cash flow (DCF) method: this adds together the present value of the expected future cash flows and discounts them, utilizing a market-conform interest rate
Metal futures contracts	DCF method, taking into account actively traded metal forward rates and customary market interest rates for discounting purposes as at the reporting date
Other transactions	DCF method: discounting of the expected future cash flows over the remaining term of the contracts, based on use of current market interest rates

Financial instruments from Level 2 not measured at fair value

Type	Measurement method and applied input parameters
Borrowings	DCF method: discounting of expected future cash flows with currently applicable interest rates for financial liabilities with comparable conditions and residual terms

Financial instruments from Level 3 measured at fair value

Type	Measurement method	Significant non-observable measurement parameters	Interdependence between significant non-observable parameters and fair value
Share interests in affiliated companies and investments	Discounted cash flow method	Future expected cash flows	The fair value is continually reviewed by applying significant, non-observable measurement parameters to determine if any measurement adjustments need to be made
Energy supply contract	Discounted cash flow method	Extrapolation of market data for electricity and coal	The fair value would be higher (lower) if: – the price for electricity increased more (less) than expected – the price for coal increased more (less) than expected

If the parameters used for measurement fall into different levels of the measurement hierarchy, the fair value measurement is fully classified as belonging to the lowest level to which an input parameter is attributed, where this parameter significantly influences the entire fair value.

If there are any reclassifications to other levels in the measurement hierarchy, the Aurubis Group accounts for these as at the beginning of the relevant fiscal year.

The following overview shows the main measurement parameters that provide the basis for those financial instruments that are accounted for at fair value and presented in the Notes to the Consolidated Financial Statements.

Hierarchical classification of fair values of financial instruments in accordance with IFRS 7 as at September 30, 2019

Aggregated by classes in € thousand	Fair value 9/30/2019	Level 1	Level 2	Level 3
Share interests in affiliated companies	**2,593**	**0**	**0**	**2,593**
Investments	**105**	**0**	**0**	**105**
Securities classified as fixed assets	**11,261**	**11,261**	**0**	**0**
Trade accounts receivable	**150,844**	**0**	**150,844**	**0**
Other financial assets	**15,210**	**0**	**15,210**	**0**
Derivative financial assets				
Derivatives without a hedging relationship	36,326	0	22,315	14,011
Derivatives with a hedging relationship	46	0	46	0
Assets	**216,385**	**11,261**	**188,415**	**16,709**
Bank borrowings	**274,659**	**0**	**274,659**	**0**
Trade accounts payable	**269,452**	**0**	**269,452**	**0**
Derivative financial liabilities				
Derivatives without a hedging relationship	27,180	0	27,180	0
Derivatives with a hedging relationship	12,403	0	12,403	0
Liabilities	**583,694**	**0**	**583,694**	**0**

Hierarchical classification of fair values of financial instruments in accordance with IFRS 7 as at September 30, 2018

Aggregated by classes in € thousand	Fair value 9/30/2018	Level 1	Level 2	Level 3
Securities classified as fixed assets	**31,448**	**31,448**	**0**	**0**
Trade accounts receivable	**176,661**		**176,661**	**0**
Derivative financial assets				
Derivatives without a hedging relationship	55,257	0	41,987	13,270
Derivatives with a hedging relationship	2,145	0	2,145	0
Assets	**265,511**	**31,448**	**220,793**	**13,270**
Bank borrowings	**285,969**	**0**	**285,969**	**0**
Trade accounts payable	**406,746**	**0**	**406,746**	**0**
Derivative financial liabilities				
Derivatives without a hedging relationship	27,179	0	27,179	0
Derivatives with a hedging relationship	9,065	0	9,065	0
Liabilities	**728,959**	**0**	**728,959**	**0**

There were no reclassifications between the individual levels in fiscal year 2018/19 or in the previous year.

The following overview shows a reconciliation of the financial instruments measured at fair value and classified in Level 3:

Reconciliation of financial instruments in Level 3 as at September 30, 2019

Aggregated by classes in € thousand	Balance as at 10/1/2018	Sales/ purchases	Gains (+)/ losses (–) recorded in the income statement	**Balance as at 9/30/2019**	Gains (+)/ losses (–) for financial instruments held at the reporting date
Share interests in affiliated companies	1,321	1,272	0	**2,593**	0
Investments	115	-10	0	**105**	0
Derivative assets without a hedging relationship	13,270	0	741	**14,011**	741

Reconciliation of financial instruments in Level 3 as at September 30, 2018

Aggregated by classes in € thousand	Balance as at 10/1/2017	Sales/purchases	Gains (+)/ losses (–) recorded in the income statement	**Balance as at 9/30/2018**	Gains (+)/ losses (–) for derivatives held at the reporting date
Derivative assets without a hedging relationship	4,196	6,222	2,852	**13,270**	2,852

Gains and losses deriving from derivative financial instruments classified as Level 3 relate to part of an energy supply contract and are recorded in the income statement under “Cost of materials.”

The fair value of these financial instruments is partially based on non-observable input parameters, which are largely related to the price of electricity and coal. If the Aurubis Group had taken other possible suitable alternative measurement parameters as a basis for measuring the relevant financial instruments on September 30, 2019, the recorded fair value would have been € 12,377 thousand (previous year: € 10,728 thousand) higher in the case of an increase in the electricity price and a decrease in the coal price by 20 %, respectively, at the end of the term or € 8,810 thousand (previous year: € 7,179 thousand) lower in the case of a decrease in the electricity price and an increase in the coal price by 20 %, respectively, at the end of the term. In order to calculate the maximum impacts which can arise from the relative uncertainty in the determination of the fair values of financial instruments whose measurement is based on non-observable parameters, the Aurubis Group remeasures such financial instruments by incorporating parameters that are at the outer limits of the range of reasonably possible alternatives for non-observable input data. Since it is nevertheless unlikely that a scenario will arise in which all of the non-observable parameters are at the outer limits of the range of reasonably possible alternatives at the same time, the estimated values previously mentioned should exceed the actual uncertainty factors when determining the fair value as at the reporting date. Thus, the disclosures shown do not represent a prediction or an indication of any future changes in the fair value.

OFFSETTING OPTIONS FOR DERIVATIVE FINANCIAL ASSETS AND LIABILITIES

The financial instruments that Aurubis enters into are subject to netting agreements with financial institutions that include a mutual right of offset. However, these agreements do not fulfill the criteria for offsetting in the statement of financial position, as the netting right can only be utilized if one of the contracting parties defaults.

The following table shows the financial assets and liabilities in the Aurubis Group that are subject to offsetting options.

Offsetting options for derivative financial assets and liabilities

in € thousand	2018/19	2017/18
Financial assets		
Gross amount of financial assets in the statement of financial position	36,372	57,402
Financial instruments that qualify for offsetting in the statement of financial position	0	0
Net value of financial assets in the statement of financial position	36,372	57,402
Offsettable due to framework agreements	-13,608	-18,262
Total net value of financial assets	**22,764**	**39,140**
Financial liabilities		
Gross amount of financial liabilities in the statement of financial position	-39,583	-36,244
Financial instruments that qualify for offsetting in the statement of financial position	0	0
Net value of financial liabilities in the statement of financial position	-39,583	-36,244
Offsettable due to framework agreements	13,608	18,262
Total net value of financial liabilities	**-25,975**	**-17,982**

Net earnings by measurement category

in € thousand	2018/19
Financial assets at amortized cost (AC)	1,843
Financial assets at fair value through other comprehensive income (FV OCI)	402
Financial assets and liabilities at fair value through profit or loss (FV P&L)	435
Financial liabilities at amortized cost (AC)	4,566
	7,246

in € thousand	2017/18
Loans and receivables (LaR)	-23,889
Available-for-sale financial assets (AfS)	277
Financial instruments held for trading (FAHfT and FLHfT)	21,683
Financial liabilities at amortized cost (FLAC)	5,805
	3,876

The net income/expense deriving from the financial assets measured at fair value through other comprehensive income relates exclusively to equity instruments. The net income/expense deriving from the financial assets and liabilities measured at fair value through profit or loss mainly include the gains/losses deriving from metal futures contracts on the exchanges and forward foreign exchange contracts. Furthermore, fixed-price metal delivery contracts treated as derivatives are taken into account, as are purchase or sales contracts that are not yet price-fixed, which result in a partial compensation effect since they are measured at the respective price on the reporting date. Dividends, but not interest, are included in the calculation. The foreign currency impact deriving from items accounted for at amortized cost, which is included in the net income for fiscal year 2018/19, amounts to € 6,846 thousand (previous year: € -17,643 thousand). In the previous year, effects on earnings deriving from financial assets and liabilities designated at fair value through profit or loss were disclosed under financial instruments held for trading.

28. RESEARCH AND DEVELOPMENT

Research and development costs of € 15,880 thousand were recognized in profit or loss for the Aurubis Group for fiscal year 2018/19 (previous year: € 10,227 thousand). No development costs were capitalized during the fiscal year reported (previous year: € 673 thousand).

Notes to the cash flow statement

The consolidated cash flow statement reports the cash flows in the Aurubis Group in fiscal year 2018/19 and in the prior-year comparative period. In accordance with IAS 7, a distinction is made between the cash inflow from operating activities, the cash outflow from investing activities, and the cash outflow from financing activities.

Commencing with earnings before taxes, adjustment is made for all non-cash-effective expenses and income, the financial result (consisting of the result from investments measured using the equity method, interest expenses, interest income, and other financial expenses and income), income taxes paid out, and changes in working capital to arrive at the cash inflow from operating activities (net cash flow).

The net cash flow as at September 30, 2019 amounted to € 272 million, compared to € 203 million in the previous year. This was due in particular to sales of precious metals at higher prices.

Investments in fixed assets totaled € 221 million in the reporting period (previous year: € 168 million). The higher investment in fixed assets in the fiscal year included payments for the now terminated Future Complex Metallurgy project, for preparations made for the planned maintenance shutdown in Hamburg (October 2019), and for the construction of a new Innovation and Training Center at the Hamburg site.

After deducting the cash outflow from investing activities of € 208 million (previous year: € 143 million) from the net cash flow of € 272 million (previous year: € 203 million), the free cash flow amounts to € 64 million (previous year: € 60 million).

The cash outflow from financing activities amounted to € 102 million (previous year: € 151 million) and, in fiscal year 2018/19, mainly comprised the € 70 million dividend distribution.

Cash and cash equivalents of € 441 million deriving from both continuing and discontinued operations were available to the Group as at September 30, 2019 (€ 479 million as at September 30, 2018).

The following table shows the cash-effective and non-cash-effective changes in borrowings.

in € million	**Balance as at 10/1/2018**	Cash-effective	Additions for finance leases	**Balance as at 9/30/2019**
Bank borrowings	277	-11	0	266
Liabilities under finance leases	36	-5	5	36
	313	**-16**	**5**	**302**

Segment reporting

	Segment Metal Refining & Processing		Segment Flat Rolled Products		Other	
in € thousand	**2018/19 operating**	2017/18 operating	**2018/19 operating**	2017/18 operating	**2018/19 operating**	2017/18 operating
Revenues						
Total revenues	10,741,921	10,407,246	1,300,358	1,452,014	22,522	17,488
Inter-segment revenues	151,884	161,037	12,671	19,216	3,190	2,646
Revenues with third parties	10,590,037	10,246,209	1,287,687	1,432,798	19,332	14,842
EBITDA	434,922	476,772	-12,852	29,874	-63,256	-43,807
Depreciation and amortization	-123,466	-118,204	-25,805	-11,460	-1,590	-1,124
EBIT	311,457	358,568	-38,657	18,414	-64,846	-44,931
Interest income	16,091	14,241	1,536	1,576	170	0
Interest expense	-23,284	-20,116	-10,613	-9,697	-259	-323
Result from investments measured using the equity method	0	0	284	10,868	0	0
Other financial income	5	357	0	0	402	332
Other financial expenses	0	-38	-31	0	0	-13
Earnings before taxes	304,268	353,012	-47,481	21,161	-64,533	-44,935
Income taxes	0	0	0	0	0	0
Consolidated net income						
Return on capital employed (ROCE)[1]	15.5 %	19.4 %	-10.6 %	7.4 %		
Capital expenditure on intangible assets and property, plant and equipment	203,379	152,081	16,219	17,435	3,821	12,383
Average number of employees	4,628	4,473	1,755	1,768	383	330

[1] Prior-year figures adjusted for Segment FRP.
Regarding the basic derivation of the ROCE, we refer to the Combined Management Report
Results of operations, net assets, and financial position of the Aurubis Group, pages 76–77.

Total		Reconciliation/ consolidation		Effects deriving from discontinued operations		Group (continuing operations)	
2018/19 operating	2017/18 operating	**2018/19 IFRS**	2017/18 IFRS	**2018/19 IFRS**	2017/18 IFRS	**2018/19 IFRS**	2017/18 IFRS
11,897,057	11,693,850	0	0	-1,133,757	-1,270,102	10,763,299	10,423,748
358,814	462,839	56,099	39,993	-15,907	-49,764	399,006	453,068
-150,861	-130,788	-2,345	-2,579	27,799	13,897	-125,407	-119,470
207,954	332,051	53,753	37,414	11,892	-35,867	273,599	333,598
17,797	15,817	-13,865	-12,186	-28	-39	3,904	3,592
-34,156	-30,136	13,864	12,185	2,430	2,176	-17,862	-15,775
284	10,868	-1,993	1,691	1,709	-12,559	0	0
407	689	0	0	0	0	407	689
-31	-51	0	0	0	0	-31	-51
192,254	329,238	51,760	39,104	16,003	-46,289	260,017	322,053
						-68,695	-59,547
						191,322	262,506
223,419	181,899	0	0	-16,219	-16,048	207,200	165,851
6,766	6,571	0	0	-1,755	-1,768	5,011	4,803

Aurubis reporting is separated into two operational business segments, Metal Refining & Processing (MRP) and Flat Rolled Products (FRP).

Segment MRP processes complex metal concentrates, copper scrap, and metal-bearing recyclable materials into metals of the highest quality. From an organizational perspective, it includes the Commercial and Operations divisions. The Commercial division combines all market-relevant organizational units (i.e., raw material procurement and product sales). The Operations division is responsible for the production of all basic products and metals, as well as their further processing into other products such as wire rod and shapes.

Segment FRP processes copper and copper alloys – primarily brass, bronze, and high-performance alloys – into flat rolled products and specialty wire products and then markets them.

Segment FRP is designated as a discontinued business division that needs to be reported separately on an aggregated basis in the consolidated income statement and in the consolidated statement of financial position in accordance with IFRS 5. As Segment FRP's operating business activities are continuing unchanged and are being monitored and managed by the Aurubis Group's Executive Board, this company division also fulfills the definition of a segment that must be reported on, even after its classification as a discontinued business division, and will be accordingly presented separately for segment reporting purposes until the sales transaction has been completed.

The operating segments are reported upon in the same manner as they are reported to the chief operating decision makers for internal reporting purposes. The chief operating decision makers are defined as the full Executive Board of Aurubis AG.

The Aurubis Group is divided into two reportable segments, which differ as regards their production processes and their products, and are managed independently. The "other" column discloses central administrative income and costs that cannot be directly allocated to one of the reportable segments.

The internal reporting is generally based on the accounting policies in accordance with IFRS, which are applied in the consolidated financial statements. For internal management purposes, the IFRS-based results are reconciled to the operating result.

The operating result is derived from the IFRS results of operations by:

- Adjusting by effects deriving from the application of IFRS 5
- Adjusting for measurement results deriving from the application of IAS 2. In this context, the metal price fluctuations resulting from the application of the average cost method are eliminated. Likewise, non-permanent write-downs or write-ups in the value of copper inventories as at the reporting date are eliminated
- Eliminating any non-cash-effective impacts deriving from purchase price allocations

As compared to the previous year, the reconciliation was changed to eliminate only non-permanent write-downs and write-ups in the value of copper inventories as at the reporting date.

The reconciliation to the IFRS-based consolidated financial statements is shown in the reconciliation/consolidation column. In this connection, a total of € 0 thousand (previous year: € -491 thousand) of the earnings before taxes (EBT) derives from consolidation impacts, while € 51,760 thousand (previous year: € 39,596 thousand) derives from reconciliation to the IFRS EBT.

The elimination of external sales, amounting to € 1,133,757 thousand and shown in the column "Effects from discontinued operations" (previous year: € 1,270,102 thousand), represents the external sales of Segment FRP less Segment MRP's internal Group sales with Segment FRP that are fully eliminated in the discontinued business division, amounting to € 153,909 thousand (previous year: € 162,664 thousand). In the context of measurement in accordance with IFRS 5, scheduled depreciation and amortization (€ 14,272 thousand) in Segment FRP and the application of equity accounting for the purpose of consolidating the investment in a joint venture (€ 1,709 thousand) must be discontinued.

The Group generates most of its revenues with business associates in countries within the European Union. The breakdown of external revenues by region is based on the location of the customers, and is as follows:

in € thousand	**2018/19**	2017/18
Germany	4,807,774	3,927,859
Other European Union countries	3,868,738	4,347,272
Rest of Europe	434,782	439,037
Asia	1,416,080	1,324,856
America	810,336	1,099,237
Other countries	559,347	555,589
Group total	**11,897,057**	**11,693,850**

The breakdown of capital expenditure and non-current assets by region is based on the location of the respective assets:

in € thousand	Capital expenditure[1] 2018/19	Capital expenditure[1] 2017/18	Fixed assets[1] 2018/19	Fixed assets[1] 2017/18
Germany	152,691	108,906	923,511	896,181
Bulgaria	33,655	45,719	332,065	338,767
Belgium	21,748	13,237	175,059	171,935
Other European countries	7,537	5,730	64,720	69,608
North America	7,788	8,307	61,841	50,566
Group total	**223,419**	**181,899**	**1,557,196**	**1,527,057**

[1] This information relates to the entire Group, including discontinued operations.

The locations in other European countries are mainly operational sites within the European Union.

SEGMENT DATA

The revenues of the individual segments consist of inter-segment revenues and of revenues with non-group third parties. The total third party revenues of the individual segments correspond to the consolidated revenues of the Group. The prices and conditions for products and services exchanged between Group companies and segments correspond to those with third parties.

in € thousand	Segment Metal Refining & Processing 2018/19	Segment Metal Refining & Processing 2017/18	Segment Flat Rolled Products 2018/19	Segment Flat Rolled Products 2017/18	Other 2018/19	Other 2017/18	Total 2018/19	Total 2017/18
Wire rod	4,274,054	4,282,959	0	0	0	0	4,274,054	4,282,959
Copper cathodes	2,205,521	2,211,942	2,818	8,398	0	0	2,208,339	2,220,340
Precious metals	2,865,272	2,383,450	0	0	0	0	2,865,272	2,383,450
Shapes	748,965	892,383	71,394	77,180	0	0	820,359	969,563
Strip, bars, and profiles	194,492	187,304	1,117,534	1,243,706	0	0	1,312,026	1,431,010
Chemicals and other products	301,733	288,171	95,941	103,514	19,332	14,842	417,007	406,528
	10,590,037	**10,246,209**	**1,287,687**	**1,432,798**	**19,332**	**14,842**	**11,897,057**	**11,693,850**

Operating EBIT represents operating earnings before taxes, adjusted for the financial result attributable to the segment. Based on this, operating EBITDA is operating EBIT adjusted for depreciation of property, plant, and equipment and amortization of intangible assets belonging to the segment.

During the fiscal year reported, impairment losses previously recognized in segment MRP, amounting to €6,220 thousand, were reversed. No impairment losses or reversals of impairment losses, within the meaning of IAS 36, were recorded in Segment FRP.

The average number of employees for each segment includes all the employees of companies that were consolidated in the accompanying consolidated financial statements.

Other disclosures

DISCLOSURES CONCERNING RELATIONSHIPS TO RELATED PARTIES

In accordance with IAS 24, related parties are regarded as all individual persons and entities that can be influenced by, or that can themselves influence, the Company.

The employees' representatives on the Supervisory Board received compensation for their employment at Aurubis AG at a level that is normal for the market.

Within the Aurubis Group, various Group companies purchase different types of products and services from and provide different types of products and services to related companies as part of their normal business activities. Such delivery and service relationships are conducted using market prices. In the case of services, these are charged on the basis of existing contracts.

The following amounts relate to a joint venture that is disclosed in discontinued operations and accounted for using the equity method:

9/30/2019

in € thousand	Income	Expenses	Receivables	Liabilities
Schwermetall Halbzeugwerk GmbH & Co. KG	100,773	26,583	0	1,955

9/30/2018

in € thousand	Income	Expenses	Receivables	Liabilities
Schwermetall Halbzeugwerk GmbH & Co. KG	106,480	29,908	0	775

The following amounts relate to non-consolidated related companies:

9/30/2019

in € thousand	Income	Expenses	Receivables	Liabilities
Joint ventures	0	0	48	0
Subsidiaries	8,474	1,284	2,323	1,070

9/30/2018

in € thousand	Income	Expenses	Receivables	Liabilities
Joint ventures	1	0	0	1,300
Subsidiaries	11,003	1,493	4,371	1,149

With the exception of Salzgitter AG, no individual shareholders of Aurubis AG are able to exercise a significant influence on the Aurubis Group.

Salzgitter Group companies account for € 977 thousand in expenses for the fiscal year (previous year: € 2,455 thousand) and income of € 63 thousand (previous year: € 47 thousand). As at the reporting date, there were related liabilities of € 100 thousand (previous year: € 119 thousand) and receivables of € 1 thousand (previous year: € 3 thousand).

As at the reporting date, no letters of comfort had been issued to related parties.

SUBSEQUENT EVENTS

On November 19, 2019, the European Commission informed the company that it intended to review Aurubis' planned acquisition of Metallo more intensively (referred to as phase II). Aurubis AG expects approval by April 2020 at the latest.

There were no other significant events after the reporting date.

INFORMATION CONCERNING THE EXECUTIVE BOARD AND THE SUPERVISORY BOARD

TOTAL COMPENSATION

The **fixed compensation components** consist of the fixed compensation, the pension plans, and the fringe benefits.

The system for **variable compensation** includes both annual variable compensation (2/3 of the annual bonus) and multiannual variable compensation, which is forward-looking. The multiannual, forward-looking variable compensation consists of both a performance cash plan over three fiscal years and stock deferred (virtual stock – 1/3 of the annual bonus) over two fiscal years. The ratio of multiannual to annual variable compensation is 60:40.

The total compensation received by the active Executive Board members for fiscal year 2018/19 amounts to € 2,764,288 and, in addition to a fixed component in the amount of € 1,431,739, includes fringe benefits of € 70,630 and a variable component of € 1,261,919 in the fiscal year reported. In total, payments for compensation due in the short term amounted to € 2,204,788 (previous year: € 2,278,798) and payments for compensation due in the long term amounted to € 559,500 (previous year: € 870,333).

In addition, expenses for pension provisions in the amount of € 560,165 (previous year: € 570,000) and for a virtual deferred stock compensation plan in the amount of € 117,392 (previous year: € 93,149) were recognized in the income statement.

A one-time payment of € 1,600,000 was made in the previous year due to the termination of a contract.

Former members of the Executive Board and their surviving dependents received a total of € 2,237,067; € 27,789,965 has been provided for their pension entitlement.

Total compensation of the Aurubis AG Executive Board members newly appointed from fiscal year 2017/18 onwards includes a share-based compensation component with a cash settlement and a Performance Cash Plan.

The recognition and measurement standards of IFRS 2 are to be applied to the share-based compensation component with a cash settlement. This component involves virtual deferred stock. The resulting obligation equates to the fair value of the virtual stock. The expenses amounted to € 24 thousand in the year reported (previous year: € 93 thousand). The carrying amount of the provisions as at the fiscal year-end amounted to € 117 thousand (previous year: € 93 thousand).

Furthermore, expenses of € 490 thousand for the Performance Cash Plan were recognized (previous year: € 241 thousand), which are included with the same amount in the provisions as at the reporting date.

The compensation of the Supervisory Board for fiscal year 2018/19 amounted in total to € 1,511,630.

Details of the individual compensation of the members of the Executive Board and the Supervisory Board are presented and explained in the Compensation Report.

REPORTABLE SECURITIES TRANSACTIONS

SHARE DEALINGS BY BOARD MEMBERS

In accordance with Art. 19 Market Abuse Regulation (EU No. 596/2014), the members of the Executive Board and the Supervisory Board must disclose the acquisition and sale of shares in the company. This does not apply if the total transactions per person do not reach an amount of € 5,000 per calendar year.

One member of the Supervisory Board informed the company that he had acquired or sold no-par-value shares in the company in the period from October 1, 2018 to September 30, 2019:

- Prof. Dr. Fritz Vahrenholt: purchased 2,500 no-par-value shares.

One member of the Executive Board informed the company that he had acquired or sold no-par-value shares in the company in the period from October 1, 2018 to September 30, 2019:

- Mr. Roland Harings: purchased 10,000 no-par-value shares.

DECLARATION OF CONFORMITY WITH THE GERMAN CORPORATE GOVERNANCE CODE IN ACCORDANCE WITH SECTION 161 OF THE GERMAN STOCK CORPORATION ACT (AKTG)

The declaration required under Section 161 of the German Stock Corporation Act (AktG) has been issued by the Executive Board and the Supervisory Board and has been made permanently accessible to the shareholders on the company's website.

NOTIFICATION PURSUANT TO SECTION 160 (1) NO. 8 OF THE GERMAN STOCK CORPORATION ACT (AKTG)

The voting rights notifications Aurubis AG received up to the date of preparation of the financial statements with respect to exceeding and falling below the relevant notification thresholds, in accordance with Section 33 (1) of the German Securities Trading Act (WpHG), are made available in the Aurubis AG's separate financial statements.

They are also available online at www.aurubis.com/en/about-aurubis/corporate-governance/voting-rights-notifications.

DISCLOSURES CONCERNING AUDITORS' FEES

The following fees were recorded as expenses for fiscal year 2018/19 for services rendered by the global Deloitte network (PricewaterhouseCoopers in the previous year):

in € thousand	2018/19	2017/18
Financial statement auditing services	914	1,140
Other assurance services	0	50
Tax advisory services	0	150
Other services	9	171
Total	**923**	**1,511**

This year's costs for the audit of the financial statements do not include € 62 thousand for the audit of the Italian subsidiaries, which continue to be audited by PricewaterhouseCoopers. Subsequent costs of € 100 thousand for PriceWaterhouseCoopers were also incurred in relation to the financial statements.

The following fees related to services rendered by Deloitte GmbH Wirtschaftsprüfungsgesellschaft (PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft in the previous year):

in € thousand	2018/19	2017/18
Financial statement auditing services	623	710
Other assurance services	0	49
Tax advisory services	0	146
Other services	0	110
Total	**623**	**1,015**

Investments

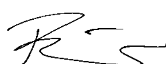
pursuant to Section 313 (2) of the German Commercial Code (HGB) as at September 30, 2019

	Company name and registered office	% of capital held directly and indirectly	Held directly by
1	Aurubis AG		
	Fully consolidated companies		
2	Aurubis Belgium nv/sa, Brussels	100	1
3	Aurubis Holding Sweden AB, Stockholm	100	2
4	Aurubis Sweden AB, Finspång	100	3
5	Aurubis Finland Oy, Pori	100	2
6	Aurubis Holding USA LLC, Buffalo	100	2
7	Aurubis Buffalo Inc., Buffalo	100	6
8	Aurubis Netherlands BV, Zutphen	100	2
9	Aurubis Mortara S.p.A., Mortara	100	2
10	Cumerio Austria GmbH, Wien	100	1
11	Aurubis Bulgaria AD, Pirdop	99,86	10
12	Aurubis Engineering EAD, Sofia	100	10
13	Aurubis Italia Srl, Avellino	100	1
14	Aurubis Stolberg GmbH & Co. KG, Stolberg	100	1
15	Aurubis U.K. Ltd., Smethwick	100	14
16	Aurubis Slovakia s.r.o., Dolny Kubin	100	14
17	CABLO Metall-Recycling & Handel GmbH, Fehrbellin	100	1
18	Peute Baustoff GmbH, Hamburg	100	1
19	RETORTE GmbH Selenium Chemicals & Metals, Röthenbach	100	1
20	E.R.N. Elektro-Recycling NORD GmbH, Hamburg	100	1
21	Aurubis Product Sales GmbH, Hamburg	100	1
22	Deutsche Giessdraht GmbH, Emmerich	100	1
	Companies accounted for using the equity method		
23	Schwermetall Halbzeugwerk GmbH & Co. KG, Stolberg	50	14

	Company name and registered office	% of capital held directly and indirectly	Held directly by
	Non-consolidated companies		
24	Aurubis Switzerland SA, Yverdon-les-Bains	100	1
25	Aurubis Stolberg Verwaltungs-GmbH, Stolberg	100	1
26	Hüttenbau-Gesellschaft Peute mbH, Hamburg	100	1
27	Aurubis Hong Kong Ltd., Hong Kong	100	2
28	Aurubis Metal Products (Shanghai) Co., Ltd, Shanghai	100	27
29	Aurubis Rus LLC, St. Petersburg	100	2
30	Retorte do Brasil, Joinville	51	19
31	C.M.R. International N.V., Antwerp	50	1
32	Schwermetall Halbzeugwerk GmbH, Stolberg	50	14
33	JoSeCo GmbH, Kirchheim/Swabia	50	19
34	Aurubis Middle East FZE, Dubai	100	21
35	Aurubis Turkey Kimya Anonim Sirketi, Istanbul	100	11
36	Ampashield NV/SA, Herentals	75	2
37	Aurubis America Holding Inc., Tampa	100	1
38	Aurubis Tampa LLC, Tampa	100	37

Hamburg, December 10, 2019

The Executive Board



Roland Harings
Chairman

Dr. Thomas Bünger
Member

Rainer Verhoeven
Member

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the Consolidated Financial Statements give a true and fair view of the net assets, financial position, and results of operations of the Group, and the Combined Management Report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Hamburg, December 10, 2019

The Executive Board

Roland Harings
Chairman

Dr. Thomas Bünger
Member

Rainer Verhoeven
Member