

# COMBINED MANAGEMENT REPORT

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# Foundations of the Group

## Business model of the Group

### BUSINESS ACTIVITIES

Aurubis AG is a provider of non-ferrous metals that operates worldwide. As an integrated group, we process complex metal concentrates, scrap metals, and metal-bearing recycling raw materials into metals of the highest purity. In addition to our main metal, copper, our metal portfolio also includes gold, silver, lead, nickel, tin, minor metals such as tellurium and selenium, and platinum group metals.

The company is based in Hamburg, Germany, where its headquarters and key production facilities are located. Most of its other sites are located in Europe, with larger production centers in Germany, Belgium, and Bulgaria. Outside Europe, Aurubis also has a production site in the US, and a global sales and service network.

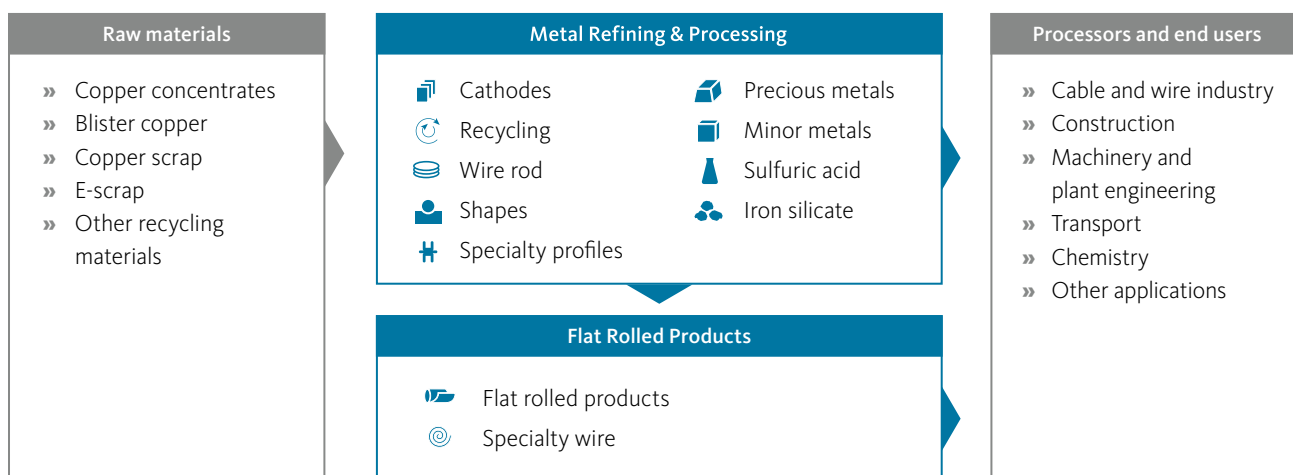
### BUSINESS MODEL

In accordance with our Vision 2025, we will consistently expand our current copper-focused business model to encompass a broader multi-metal approach in the future. This means that, in addition to copper, other metals will be extracted from systematically purchased raw materials and intermediate products and then processed into value-added sales products. We use both copper concentrates and recycling materials as raw materials.

We process copper concentrates that are obtained from ores and offered by mining and trading companies on the global market. Because we have no stakes in mines, we have to buy the necessary raw materials for our two primary smelters in Hamburg and Pirdop on the international market. Aurubis has a global, diversified supplier portfolio; we source a significant portion of our copper concentrates from South American countries such as Peru, Chile, and Brazil. We also purchase raw materials from other countries like Bulgaria, Georgia, and Canada. As a buyer, Aurubis competes with other primary copper smelters, most of which are located in China and Japan. Copper concentrates for the Hamburg site reach us primarily by waterway and are transshipped via the port terminal in Brunsbüttel. There, the different copper concentrates are also premixed in accordance with the requirements of our production processes. At the site in Pirdop, Bulgaria, concentrates reach us by land and sea via the port of Burgas.

We use copper concentrates, copper scrap, other metal-bearing recycling materials, and bought-in intermediates as feed material. Most of the copper scrap and metal-bearing recycling raw materials for our two secondary smelters in Lünen (Germany) and Olen (Belgium) are sourced in Europe. Furthermore, we use copper scrap with high copper contents for cooling purposes in both of our primary smelters.

## Business model in fiscal year 2018/19



## Sites and employees

Europe			
DE	Hamburg	Headquarters Aurubis AG	2,575
		E. R. N. Elektro-Recycling NORD GmbH	13
		Peute Baustoff GmbH	13
	Lünen	Aurubis AG	664
	Stolberg	Aurubis Stolberg GmbH & Co. KG	433
	Emmerich	Deutsche Giessdraht GmbH	120
	Fehrbellin	CABLO Metall- Recycling & Handel GmbH	50
	Röthenbach	RETORTE GmbH Selenium Chemicals & Metals	41
	Nersingen/ Strass	CABLO Metall- Recycling & Handel GmbH	20
	Berlin	Aurubis AG	2 Group headquarters
	Hanau	Aurubis AG	2
BG	Pirdop	Aurubis Bulgaria AD	882
BE	Olen	Aurubis Belgium NV/SA	630
	Brussels	Aurubis Belgium NV/SA	27
NL	Zutphen	Aurubis Netherlands BV	295
FI	Pori	Aurubis Finland Oy	256
IT	Avellino	Aurubis Italia Srl	103
	Mortara	Aurubis Mortara S.p.A.	28
UK	Smethwick/ Birmingham	Aurubis UK Ltd.	23
SK	Dolný Kubín	Aurubis Slovakia s. r. o.	15
SE	Finspång	Aurubis Sweden AB	6 -
FR	Lyon/ Septème	Aurubis Product Sales GmbH	3
RU	St. Petersburg	Aurubis Rus LLC <sup>1</sup>	2
ES	Barcelona	Aurubis Product Sales GmbH	1
TR	Istanbul	Aurubis Turkey Kimya Anonim Sirketi <sup>1</sup>	1
<b>Employees in Europe</b>			<b>6,205</b>
US			
US	Buffalo	Aurubis Buffalo Inc.	624
	Chicago	Aurubis Buffalo Inc.	5
	Tampa	Aurubis Tampa LLC <sup>1</sup>	2
<b>Employees in the US</b>			<b>631</b>

Asia			
CN	Shanghai	Aurubis Metal Products (Shanghai) Co., Ltd. <sup>1</sup>	4
	Hong Kong	<sup>2</sup>	1
	Beijing	<sup>2</sup>	1
UAE	Dubai	Aurubis Middle East FZE <sup>1</sup>	3
SG	Singapore	<sup>2</sup>	3
TH	Bangkok	<sup>2</sup>	3
JP	Tokyo	<sup>2</sup>	1
KR	Seoul	<sup>2</sup>	1
<b>Employees in Asia</b>			<b>17</b>
<b>Total employees</b>			<b>6,853</b>

If not otherwise indicated, the KPIs relate to permanent and temporary employment arrangements as at the reporting date of September 30, 2019. Excluding Schwermetall Halbzeugwerk GmbH & Co. KG, Stolberg (DE), in which Aurubis holds a 50% stake, as well as Ampashield NV/SA (BE). In addition to the fully consolidated companies, the numbers include the employees of the non-consolidated companies Aurubis Metal Products (Shanghai) Co., Ltd., Aurubis Rus LLC (St. Petersburg), Aurubis Middle East FZE (Dubai), and Aurubis Turkey Kimya Anonim Sirketi (Istanbul), which had a combined total of ten employees in fiscal year 2018/19. They also include ten independent sales employees at international sites.

<sup>1</sup> Non-consolidated companies.

<sup>2</sup> Agency/self-employed sales employee, non-consolidated.

### Raw materials

Concentrates and recycling materials are the raw materials from which copper is produced.



### Sales and distribution network

An international sales and distribution network markets our products.



### Products

The copper is processed into products. Some products are already the result of copper production.

Cathodes

Specialty profiles

Iron silicate

Specialty wire

Wire rod

Strip/foil

Sulfuric acid

Precious metals

Shapes

Minor metals

Status: September 30, 2019

Metal trading companies are the main actors on the supply side, though some recycling materials also reach us directly from product manufacturers. On the demand side, our main competitors are other copper and metal smelters, as well as metal processors that also utilize recycling materials. Copper scrap tends to reach us by land.

In the course of our production processes, we convert copper concentrates and copper scrap into copper cathodes [Q Glossary, page 194](#). This is the standardized product format that is traded on the international metal exchanges. Copper cathodes are the starting product for fabricating additional copper products, but they can also be sold directly. Our product portfolio mainly comprises standard and specialty products made of copper and copper alloys. When it comes to processing, we have manufacturing capabilities for continuous cast copper wire rod, continuous cast shapes [Q Glossary, page 194](#), rolled products, strip, specialty wire, and profiles.

Additional products result from processing the elements that accompany copper in the feed materials. In particular, these include different metals such as gold, silver, lead, nickel, tin, minor metals like tellurium and selenium, and platinum group metals. We also produce iron silicate [Q Glossary, page 194](#) and sulfuric acid, the latter of which forms as a by-product of copper concentrate processing. Sulfuric acid customers and competitors are very diverse: customers include companies from the chemical, fertilizer, and metal processing industries.

The sales markets for our products are varied and international. Aurubis' direct customers include companies from the copper semis industry, the cable and wire industry, the electrical and electronics sector, and the chemical industry, as well as suppliers from the renewable energies, construction, and automotive sectors.

To close the value chain for copper and other metals, we place a high priority on the "closing-the-loop" approach. The focus of this approach is on materials such as production waste and residues that accumulate along the copper value chain in production, for example with our customers. The materials range from copper scrap with very high copper content, which we can directly feed into the copper fabrication process, to stamping waste containing precious metals and high levels of copper, alloyed scrap, slags from foundries, and other industrial residues.

## GROUP STRUCTURE

In fiscal year 2018/19, the Aurubis Group's organizational framework was based on the underlying business model. The Group's structure is made up of two operating segments, which are the basis of segment reporting pursuant to IFRS 8 for fiscal year 2018/19: Segment Metal Refining & Processing and Segment Flat Rolled Products.

- » **Segment Metal Refining & Processing (MRP)** processes complex metal concentrates, copper scrap, and metal-bearing recycling materials into metals of the highest quality. Segment MRP includes the Commercial and Operations divisions. The Commercial division combines all market-relevant organizational units and is therefore responsible for purchasing feed materials and selling products. The Operations division is responsible for the production of all basic products and metals, as well as for their further processing into other products, such as continuous cast wire rod and shapes. The sites in Hamburg (Germany), Pirdop (Bulgaria), Olen (Belgium), and Lünen (Germany) manufacture copper cathodes, among other products. These cathodes are processed further into wire rod and shapes at the Hamburg (Germany), Olen (Belgium), Emmerich (Germany), and Avellino (Italy) sites.
- » The second segment, **Segment Flat Rolled Products (FRP)**, processes copper and copper alloys – primarily brass, bronze, and high-performance alloys – into flat rolled products and specialty wire, which it then markets. The main production sites for this are Zutphen (Netherlands), Buffalo (USA), Stolberg (Germany), and Pori (Finland). Furthermore, the segment also includes slitting and service centers in Birmingham (UK), Dolný Kubín (Slovakia), and Mortara (Italy), as well as sales offices worldwide. The European Commission blocked the sale of Segment FRP in February 2019. Aurubis AG is currently reviewing other strategic options for the segment. The segment thus continues to fulfill the conditions for presentation as discontinued operations pursuant to IFRS 5.

A list of shareholdings pursuant to Section 313 (2) of the German Commercial Code (HGB) as at September 30, 2019 is provided in the notes to the financial statements.

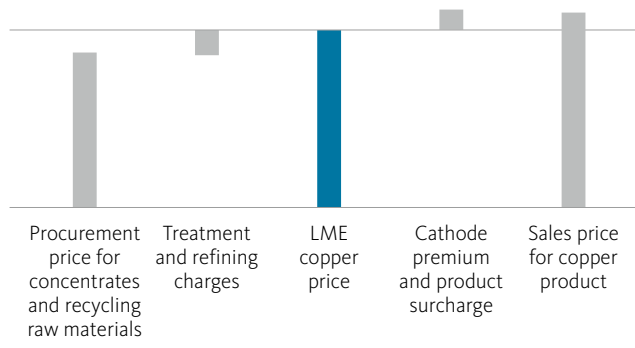
## SIGNIFICANT INFLUENCING FACTORS RELEVANT TO THE BUSINESS

The significant factors specific to the business are the treatment and refining charges [Q Glossary, page 195](#) for copper concentrates and recycling materials, the metal prices, the Aurubis copper premium [Q Glossary, page 194](#), and product surcharges [Q Glossary, page 195](#) for copper products, as well as sales revenues for sulfuric acid. Furthermore, efficient metal gains in our plants lead to effects on earnings.

Copper is priced first and foremost on the London Metal Exchange (LME [www.lme.com](http://www.lme.com)) [Q Glossary, page 194](#), which facilitates physical transactions, hedging, and investment business. The price is not just a benchmark for exchange trading but serves as the basis for pricing in the raw material and product business.

### Pricing along the value chain

Schematic illustration



Treatment and refining charges are negotiated with suppliers when purchasing copper-bearing raw materials. The TC/RC trend depends on the current supply and demand structure on the global markets. Essentially, these charges are discounts on the purchase price for turning raw materials into copper cathodes (the commodity exchange product) and other metals and metal compounds.

The metal exchange and market quotation for copper serves as the price basis for our copper product sales. The premium and product surcharges, which are charged for converting cathodes into copper products, are also part of the sales price.

Our business development is also influenced by external factors. These include the economic performance in key countries and activities on the international financial markets; the political, legal, and social conditions; changes in the exchange rate and interest rate level; and the situation on our relevant markets.

## Corporate control

### CONTROL SYSTEM

The management control system's main objective is to increase the Aurubis Group's corporate value. Concretely, the company should generate value beyond the costs of capital.

### CORPORATE CONTROL PARAMETERS

In order to measure financial success for the medium and long term within the scope of value-oriented corporate control, Aurubis uses the following central control parameters:

- » Operating consolidated earnings before taxes = operating EBT
- » Operating ROCE (return on capital employed) [Q Glossary, page 195](#) of the Group

These parameters are regularly presented to the Executive Board and are utilized for internal control purposes. The variable compensation of the Executive Board and the management is also based on these parameters.

The Aurubis Group reports in accordance with International Financial Reporting Standards (IFRS). For internal management purposes, it does not comply with the past amendment to IAS 2 that requires exclusive application of the FIFO or average cost method. This is to avoid earnings volatilities due to metal price fluctuations resulting from measurement according to the average cost method. Such measurement effects, in our opinion, are not necessary to gain an understanding of the Aurubis Group's business activities and results from an operational perspective and need to be eliminated. Furthermore, one-time effects from purchase price allocations were eliminated that otherwise would have led to a distortion in the Aurubis Group's presentation of the results of operations, financial position, and net assets.

The internal reporting and management of the Group are carried out on the basis of the operating result in order to present the Aurubis Group's success independently of these measurement effects for internal management purposes.

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 impacts 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 of the value of copper inventories as at the reporting date are eliminated
- » Elimination of non-cash effects deriving from purchase price allocations

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

Any permanent impairment losses or reversals of impairment losses are recognized as part of the operating result from this reporting year onwards and serve to better depict the results of operations, net assets, and financial position. This amendment to the reconciliation resulted in the recognition of a permanent impairment loss of € 31 million as at the reporting date. An equivalent amendment in the previous year wouldn't have resulted in the recognition of an impairment loss in the income statement.

The purely theoretical amendment to the requirement to eliminate effects deriving from purchase price allocations did not lead to any changes to figures in the year reported or to those of the previous year.

### Operating return on capital employed (ROCE)

in € million	9/30/2019	9/30/2018
Fixed assets excluding financial fixed assets <sup>1</sup>	1,485	1,450
Inventories	1,532	1,549
Trade accounts receivable	390	374
Other receivables and assets	196	191
- Trade accounts payable	-818	-904
- Provisions and other liabilities	-367	-371
<b>Capital employed as at the reporting date</b>	<b>2,418</b>	<b>2,290</b>
Earnings before taxes (EBT)	192	329
Financial result	16	3
<b>Earnings before interest and taxes (EBIT)</b>	<b>208</b>	<b>332</b>
Investments accounted for using the equity method <sup>1</sup>	0	11
<b>Earnings before interest and taxes (EBIT) – adjusted</b>	<b>208</b>	<b>342</b>
<b>Return on capital employed (operating ROCE)</b>	<b>8.6%</b>	<b>15.0%</b>

<sup>1</sup> The shares of Schwermetal Halbzeugwerk GmbH & Co. KG accounted for using the equity method have been included for this reporting year. This adjustment should improve the depiction of Segment FRP's profitability. Prior-year figures have been adjusted accordingly.

Operating ROCE defines the relationship between operating earnings before interest and taxes (EBIT [Q Glossary, page 195](#)) together with the operating result from investments measured using the equity method and the operating capital employed as at the reporting date and depicts the return on capital employed.

In a manner corresponding to the calculation of the operating result, operating capital employed is derived by adjusting the IFRS-based balance sheet items by the effects as previously mentioned.

A reconciliation of the balance sheet and income statement from IFRS to operating figures is provided in the Economic Report section of the Combined Management Report.

## Research & Development

In the Research & Development department, we developed new methods, researched future products, and optimized production processes in the reporting period 2018/19. For us, research and development serve as a crucial foundation to continue improving our competitive edge and the company's growth.

Until the middle of calendar year 2019, our work focused on further developing metallurgical processes, especially with respect to the flexibility and productivity of the complex raw materials and recycling materials we use. We carried out extensive trials on a pilot scale and worked on process models for future plant equipment.

These development results and the basic engineering subprojects we completed as part of the internal growth project Future Complex Metallurgy (FCM) form the foundation for future investments and internal growth as part of our multi-metal strategy.

On June 12, 2019, the Executive Board and Supervisory Board passed a resolution to stop the FCM project. The basic engineering results indicated significantly higher investment costs than anticipated. The project was thus no longer as cost-effective as originally expected.

In the past fiscal year, we also worked on improving metal recovery from iron silicate slag as well as the product quality of the slag itself by carrying out trials in our pilot facility and validating the metallurgical process. The results provided the basis for the technical plant engineering.

In coordination with Raw Material Purchasing and in close collaboration with leading companies from the mining industry, we are developing solutions for processing future feed materials, particularly complex concentrates from new mine projects. Our goal is to develop corresponding processing facilities so that Aurubis can utilize these concentrates in its smelter network.

Apart from the projects that are part of our growth strategy, the optimization of existing core processes played an important role as well. We're working on improving the efficiency of primary copper production [Q Glossary, page 195](#) in Hamburg and Pirdop. In this context, we installed and tested various sensors, for example to continuously record the "bath level" in the flash smelter and the quality of copper matte and iron silicate stone. We use this basic data to better understand and optimize the impacts of different factors on production. With model calculations, we improved the input materials in the smelting furnace and the converter's mode of operation.

In fiscal year 2018/19, we also investigated waste heat boiler leakages in the primary smelters and in the KRS in Lünen [Q Glossary, page 194](#). The objective of this work is to develop a deeper understanding of the reasons for the leakages in the past fiscal year and how we can prevent them in the future. An interdepartmental team identified the reasons and is currently working on solutions to substantially reduce the frequency of these leakages.

Another significant work area during the reporting period was the optimization of the copper tankhouse [Q Glossary, page 195](#). Through systematic analyses of the operating data and lab trials, we improved the electricity yield in this production area. We developed an IT-supported program that compiles the vast amount of data and presents it in a clear way, which enables us to monitor the performance of the individual tankhouse cells more easily.

In light of rising demands related to the reliability of automotive connectors, we researched modern coating technologies during the reporting period, which are currently being tested by suppliers. Moreover, we worked on new low-alloyed, high-conductivity copper alloys in the same area of application.

When it comes to lead-free machining materials (the BlueBrass family), we have primarily concentrated on semi-finished wire products in the last several years. During the past fiscal year, the focus shifted to expanding the BlueBrass strip portfolio.

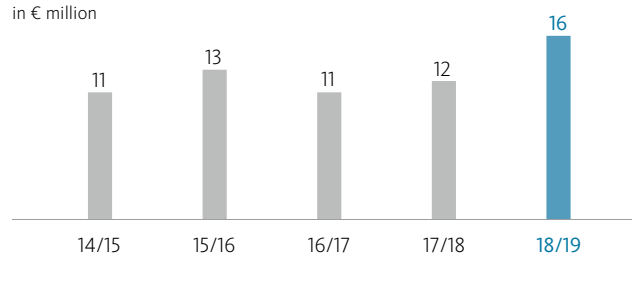
In the area of power electronics, we introduced a new material with a longer lifespan to the market, for use in power modules. We also continued our other research activities in this business sector with academic and industrial partners. Our goal is to develop state-of-the-art material solutions especially for electric vehicles.

For the future, we plan to continue sharpening the focus of our research and development activities, placing an even stronger emphasis on optimizing production and developing products further.

The entire Aurubis Group's R&D expenditures in fiscal year 2018/19 amounted to € 16 million, compared to € 12 million in reporting year 2017/18. We have a total of 84 employees in this area (previous year: 78 employees), who are located at our sites in Buffalo, Finspång, Hamburg, Lünen, Olen, Pirdop, Pori, Stolberg, and Zutphen.

### R&D expenditure

in € million



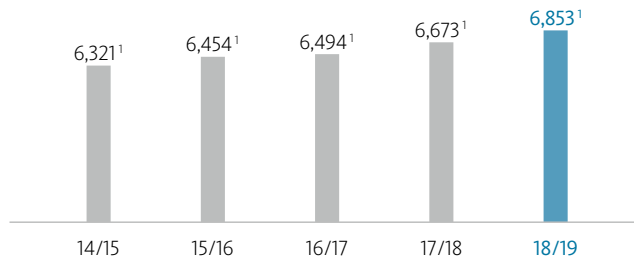


## Human resources

A total of 6,853 employees worked in the Aurubis Group worldwide as at September 30, 2019 (previous year: 6,673). Of this number, 57.4% were employed at German sites and 42.6% worked in other countries. Aurubis Group personnel are mainly dispersed among the following countries: Germany (3,933), Bulgaria (882), Belgium (657), USA (631), the Netherlands (295), Finland (256), and Italy (131).

### Aurubis Group employees

Number as at 9/30

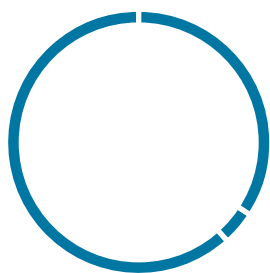


<sup>1</sup> Excluding Schwermetall Halbzeugwerk GmbH & Co. KG.

### Aurubis Group personnel structure

Number as at 9/30/2019

4,214  
Blue collar



2,350  
White collar

289  
Apprentices

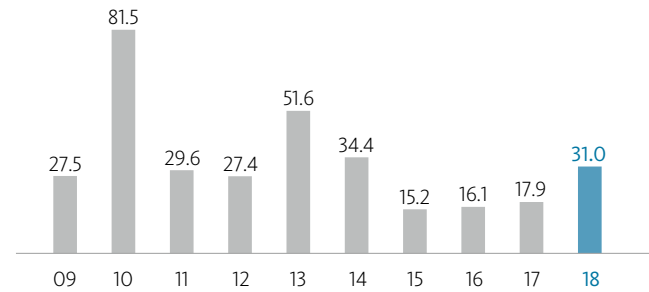
## Environmental protection and occupational health

### ENVIRONMENTAL PROTECTION IN THE GROUP

We take responsibility for protecting our environment and our climate. Our production facilities therefore use modern and energy-efficient plant technology that also complies with very high environmental standards. In this way, we conserve natural resources and aim to maintain a clean environment for future generations. We have set targets in environmental protection, defined corresponding KPIs, and established measures to achieve the targets across the Group. The effectiveness of these targets and measures is reviewed continuously.

### Capital expenditure for environmental protection in copper production and processing

in € million as at 12/31 of each calendar year



The continuous improvement of water pollution control, soil conservation, climate protection, and emission prevention is key to achieving sustainable environmental protection. For this reason, Aurubis has invested more than € 600 million in environmental protection measures in the Group since 2000.

## OCCUPATIONAL HEALTH AND SAFETY IN THE GROUP

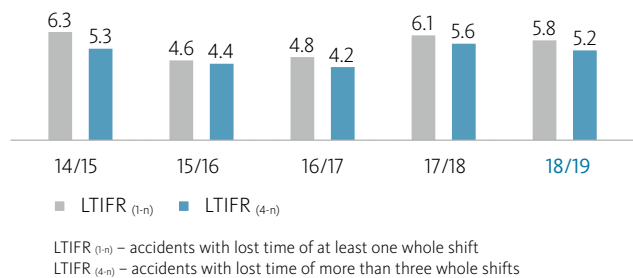
Group Health and Safety is responsible for creating the technical, organizational, and personal conditions in the company to prevent work-related accidents, injuries, and illnesses.

The acronym LTIFR (lost time injury frequency rate) indicates the accident rate in the company. This KPI describes the number of work-related accidents with at least one lost shift per one million hours worked (related to Aurubis employees).

After declining for several years, the accident frequency figure rose again in fiscal years 2016/17 and 2017/18. LTIFR decreased to 5.8 in fiscal year 2018/19 (previous year: 6.1). In absolute terms, this equated to 59 (previous year: 60).

### Accident frequency

LTIFR = lost time injury frequency rate



A new communication concept, 10forZero, will support the company in achieving its long-term objective, referred to as Vision Zero, meaning zero accidents, injuries, and illnesses. This concept combines new communication tools together with new training units to implement the 10 Golden Rules of occupational health and safety.

Additional goals will be set to achieve our vision as well, including the development of occupational health and safety management systems pursuant to ISO 45001, the introduction of new, optimized procedures for recording and handling near-misses, and the implementation of health and safety (H&S) audits and cross-site checks.

Furthermore, efforts will be made to optimize risk assessments, near-miss reports, and Group-wide reporting through IT systems.

## Separate Non-Financial Report

The section [Q Sustainability, pages 36–55](#) provides additional information on the topics of sustainability, environmental protection, energy, the climate, and occupational health, as does our website [www.aurubis.com/download-center/all](http://www.aurubis.com/download-center/all). Aurubis AG reports on both the Aurubis Group and Aurubis AG in the form of a consolidated, separate Non-Financial Report, whose content is also available in the Sustainability section of this report and on the website.

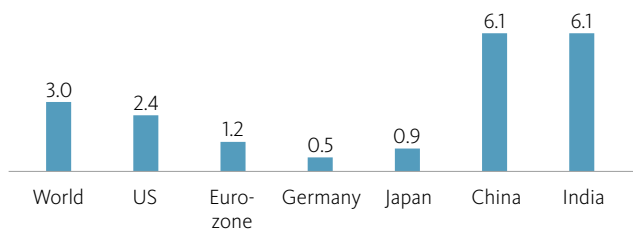
# Economic Report

## General economic conditions

Development in the global economy remained positive in fiscal year 2018/19, if somewhat subdued compared to the previous year. In its October forecast, the International Monetary Fund (IMF, [www.imf.org](http://www.imf.org)) expects an increase of 3.0% (previous year: 3.6%). The lower growth has largely been attributed to the sustained trade conflict between the US and China, a conflict which, from a macroeconomic perspective, remains one of the dominant themes of fiscal year 2018/19. Added to this, Brexit discussions and various other geopolitical tensions have led to greater uncertainty.

### Expected GDP growth in 2019

in %



Source: International Monetary Fund, October 2019

For the eurozone, the IMF forecasts a growth rate of 1.2% (previous year: 1.9%). Having played a driving role in this trend last year, Germany can expect its economic momentum to slow to a comparatively low 0.5% (previous year: 1.5%) in 2019. The IMF identifies cautious foreign demand, decreased stock due to weaker industrial output, and regional factors such as falling sales figures for the automobile industry in Germany, uncertainties relating to Brexit in the UK, and weaker domestic demand in Italy as the primary causes of weaker growth in Europe.

For the US, the IMF is predicting economic growth of 2.4% for 2019 (previous year: 2.9%). The main drivers of this stable growth continue to be current fiscal policy, as well as low unemployment figures and promising levels of domestic consumption. It views the course of the US government, particularly in light of the current state of bilateral relations with China, as posing a potential risk to the US economy.

The Chinese economy is expected to follow a course of continued growth with considerable momentum in 2019. At a predicted 6.1%, however, progress is unlikely to match that of the previous year (6.6%). Once again, the effects of the economic conflict and of weakened foreign demand are being felt clearly here.

Global finance markets were largely favorable in 2019. In the US, the Federal Reserve decreased the federal funds rate in July, September, and October, resulting in a rate of between 1.50 and 1.75% on October 31, 2019. In Europe meanwhile, the European Central Bank has maintained its zero interest rate policy.

## Conditions specific to the industry

We are mainly active on the international copper market and its submarkets. These witnessed the following developments in fiscal year 2018/19:

The international copper concentrate market was characterized by high mining output and thus good concentrate availability. The quota of production losses – due to factors such as extreme weather, strikes, or technological or legislative issues – remained relatively small. Research company Wood Mackenzie estimates this quota at 1.6% for copper concentrates in 2019 (previous year: 3.1%) (estimate in October). Mine expansions and reactivations had a positive effect on the availability of concentrate. All told, the 2019 figure for copper mining output should, according to Wood Mackenzie, match that of last year, which amounted to 20.7 million t (copper content).

Turning to the smelter industry, there were numerous production shutdowns in Asia and South America, chiefly due to tighter environmental regulations at local level. Despite this, demand for copper, particularly among Asian smelters, increased due to further expansion in capacity. As a result both of planned and unplanned shutdowns, Aurubis' activities on the spot market [Q Glossary, page 195](#) remained minimal throughout the entire duration of fiscal year 2018/19.

Once again, the European market for recycling raw materials has proved favorable, even though the supply volumes of copper scrap in the first half of the year in particular did not match the record high of the previous year. The relatively stable copper price in fiscal year 2018/19 ensured a high volume flow from collection and treatment activities in the metal trade. On the demand side, this trend was complemented by a good supply situation for smelters and other consumers of copper scrap. At the beginning of fiscal year 2018/19, restrictions introduced by China on the import of high-purity copper scrap led to shortages in the European scrap market. As a reaction to the stricter import restrictions in China, some Asian countries increased their processing capacity for copper scrap with low metal contents. As a result, copper scrap exports from Europe to these countries increased temporarily. The situation did, however, ease noticeably in the second half of the fiscal year. Contributing factors here include the Chinese government's imposition of an import quota on high-purity copper scrap, and the consequent decline in demand among Chinese smelters for European scrap. Simultaneously, the supply of recycling materials from the US increased, since the trade dispute between the US and China and associated tariffs have made the shipment of copper scrap from the US to Asia less attractive. Having begun the year considerably below the previous year's level, the refining charges for copper scrap in Europe (published by the research firm CRU) recovered, surpassing both the previous year's comparative value and the multiyear average by March 2019. Complex recycling raw materials such as electrical and electronic scrap were also available in sufficient quantities on the market.

Refined copper output was affected, as in the year prior, by two main factors in fiscal year 2018/19. The first of these was the proliferation of planned and unplanned production shutdowns that took place primarily across Asia, affecting operations in India, China, and Japan, among others. Interruptions to production also occurred in Europe and in Chile. In contrast to these developments, Chinese capacity was expanded, and global refining capacity was utilized well on the whole. According to ICSG, this was at 83% in the first half-year (previous year: 87%). Overall, Wood Mackenzie forecasts that global output of refined copper for 2019 will reach a level around 0.3% above that of the previous year, bringing it to roughly 23.5 million t.

For refined copper demand, Wood Mackenzie expects a level of 23.6 million to be achieved for 2019, a value which only slightly exceeds that of the previous year. Chinese demand for copper is difficult to calculate at present, owing to the uncertainties associated with the current trade dispute and its impact on global growth.

Exchange inventories of copper cathodes remained at comparatively low levels in 2019. After beginning the fiscal year 2018/19 at around 445,000 t, reserves held by the metal exchanges LME, COMEX, and SHFE had reached approximately 424,000 t at its close.

Wood Mackenzie expects a largely balanced global market for refined copper in 2019.

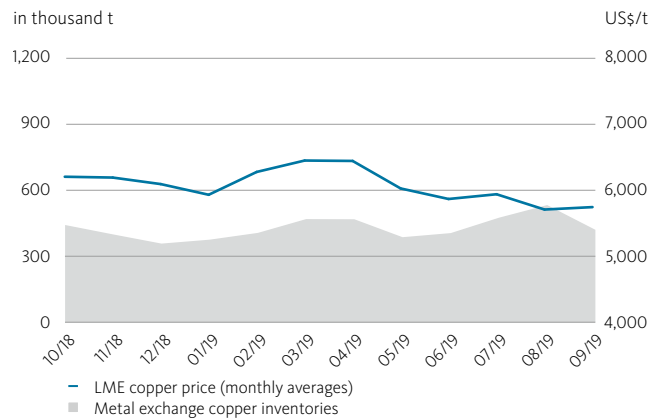
The international market for continuous cast wire rod, which accounts for about 75 % of global cathode output, should continue to grow in 2019 at a rate of 1.7 %, according to CRU. We deliver most of our wire rod to Europe, where an output volume slightly below that of the previous year is forecast for 2019. While the demand from manufacturers of enameled wire reduced considerably during the course of 2019, as, to some extent, did the demand from manufacturers of cable for the automotive industry, there was a steady development of demand from the construction and energy sectors.

The global market for sulfuric acid developed satisfactorily in fiscal year 2018/19. High demand as well as production shutdowns led to a tightening of the market and consequently to high prices over long stretches of the reporting period. However, by the end of the third quarter, the market had cooled noticeably. This development could also be seen in Europe, where gliding averages were less volatile than on the international markets throughout the reporting period, as market information provider ICIS reported.

The LME copper price was characterized by sustained volatility during fiscal year 2018/19, arising primarily from uncertainties related to the continued economic dispute between the US and China. Following a copper price of US\$ 6,180/t (settlement, [Q Glossary, page 195](#)) at the beginning of October 2018, the fiscal year closed with an LME copper price of US\$ 5,728 (settlement). The lowest price of the year was US\$ 5,537 (September 3, 2019). Almost six months prior, the high was US\$ 6,572 (March 1, 2019). The average price for the fiscal year was US\$ 6,070 (previous year: US\$ 6,684).

### Copper price and metal exchange copper inventories

from 10/1/2018 to 9/30/2019



## Economic development within the Aurubis Group

### RESULTS OF OPERATIONS, NET ASSETS, AND FINANCIAL POSITION OF THE AURUBIS GROUP

In order to portray the Aurubis Group's operating success independently of measurement influences for internal management purposes, the presentation of the IFRS results of operations, net assets, and financial position is supplemented by the results of operations and net assets explained on the basis of operating values.

Aurubis has intended to sell Segment FRP since fiscal year 2017/18. Therefore, the special presentation and measurement requirements specified in IFRS 5 must continue to be applied for Segment FRP, as they were in the previous year. These include, among other things, a separate, aggregated disclosure of the consolidated net income/loss deriving from discontinued operations in the consolidated income statement, as well as a separate, aggregated disclosure of assets and liabilities held for sale for the discontinued operations in the consolidated statement of financial position. Furthermore, additional disclosures must be made in the notes to the financial statements [Q Notes to the Consolidated Financial Statements](#). With respect to measurement in accordance with IFRS 5, among other things, any impact on income deriving from scheduled depreciation and amortization in Segment FRP, or from the application of equity accounting for the purpose of consolidating the investment in the joint venture Schwermetall Halbzeugwerk GmbH & Co. KG, must be discontinued in the IFRS consolidated financial statements.

The Executive Board continues to treat Segment FRP as an operating reporting segment and, consequently, the financial reporting for operating purposes will remain unchanged until the sales transaction is finalized.

As a result, the accounting impacts deriving from IFRS 5 in the financial statements are reversed in the reconciliation between IFRS reporting and operating reporting.

As regards the reconciliation of the consolidated income statement, the items reported as discontinued operations are again shown separately. For purposes of measurement, the impacts on income deriving from scheduled depreciation and amortization of fixed assets, or from the application of equity accounting for the purpose of consolidating the investment, are accounted for, as in the past. In order to demonstrate the Aurubis Group's operating success, subsequent adjustments are also made to inventories and non-current assets.

In order to adjust the measurement impacts in inventories resulting from the application of IAS 2, metal price fluctuations resulting from the application of the average cost method are eliminated in the same manner as any non-permanent write-downs or appreciation in value for copper inventories at the reporting date. Furthermore, fixed assets have been adjusted for non-cash-effective impacts deriving from purchase price allocations.

As regards the reconciliation of the consolidated statement of financial position, assets and liabilities held for sale as discontinued operations are again disclosed in a disaggregated form and the measurement effects on the relevant items in the statement of financial position are recognized as they have been in the past.

The following table shows how the respective operating results for the 2018/19 fiscal year and for the comparative prior-year period have been determined.

## Reconciliation of the consolidated income statement

in € million	12 months 2018/19					12 months 2017/18				
	IFRS from continuing operations	Adjustment effects			Operating	IFRS from continuing operations	Adjustment effects			Operating
		Discontinued operations	Inventories	PPA			Discontinued operations	Inventories	PPA	
<b>Revenues</b>	<b>10,763</b>	<b>1,134</b>	<b>0</b>	<b>0</b>	<b>11,897</b>	<b>10,424</b>	<b>1,270</b>	<b>0</b>	<b>0</b>	<b>11,694</b>
Changes in inventories of finished goods and work in process	180	-7	-94	0	79	0	-1	-7	0	-8
Own work capitalized	20	0	0	0	20	19	0	0	0	19
Other operating income	61	1	0	0	62	43	2	0	0	45
Cost of materials	-9,997	-931	38	0	-10,890	-9,464	-1,039	-33	0	-10,536
<b>Gross profit</b>	<b>1,027</b>	<b>197</b>	<b>-56</b>	<b>0</b>	<b>1,168</b>	<b>1,022</b>	<b>232</b>	<b>-40</b>	<b>0</b>	<b>1,214</b>
Personnel expenses	-374	-131	0	0	-505	-352	-132	0	0	-484
Depreciation of property, plant, and equipment and amortization of intangible assets	-125	-28	0	2	-151	-119	-14	0	3	-130
Other operating expenses	-254	-50	0	0	-304	-217	-51	0	0	-268
<b>Operational result (EBIT)</b>	<b>274</b>	<b>-12</b>	<b>-56</b>	<b>2</b>	<b>208</b>	<b>334</b>	<b>35</b>	<b>-40</b>	<b>3</b>	<b>332</b>
Result from investments measured using the equity method	0	-2	2	0	0	0	13	-2	0	11
Interest income	4	0	0	0	4	3	0	0	0	3
Interest expense	-18	-2	0	0	-20	-16	-2	0	0	-18
Other financial income	0	0	0	0	0	1	0	0	0	1
<b>Earnings before taxes (EBT)</b>	<b>260</b>	<b>-16</b>	<b>-54</b>	<b>2</b>	<b>192</b>	<b>322</b>	<b>46</b>	<b>-42</b>	<b>3</b>	<b>329</b>
Income taxes	-69	-2	19	-2	-54	-59	-16	14	-3	-64
<b>Consolidated net income</b>	<b>191</b>	<b>-18</b>	<b>-35</b>	<b>0</b>	<b>138</b>	<b>263</b>	<b>30</b>	<b>-28</b>	<b>0</b>	<b>265</b>

Explanation of the presentation and the adjustment effects in [Q Results of operations, net assets, and financial position of the Aurubis Group, page 76](#).

## RESULTS OF OPERATIONS (OPERATING)

Operating EBT in fiscal year 2018/19 amounts to € 192 million (previous year: € 329 million) and is derived from continuing and discontinued operations of the IFRS result before income taxes, as follows:

The Aurubis Group generated IFRS earnings before taxes of € 260 million from continuing operations in fiscal year 2018/19 (previous year: € 322 million). IFRS earnings before taxes from discontinued operations amount to € -16 million (previous year: € 46 million).

The accounting impacts of IFRS 5 were reversed to derive the operating result. Accordingly, scheduled depreciation and amortization (€ -14 million) and the recognition in income of the shares of Schwermetall Halbzeugwerk GmbH & Co. KG consolidated using the equity method (€ -2 million) were taken into account in the reconciliation to the operating result, as in the past.

Moreover, to derive the operating result, the IFRS result was adjusted for inventory measurement effects of € -54 million (previous year: € -42 million) (the total of the following positions: "Changes in inventories of finished goods and work in process," "Cost of materials," and "Result from investments measured using the equity method"), as well as for impacts of € 2 million (previous year: € 3 million) deriving from allocations of the purchase price, resulting in operating earnings before taxes of € 192 million (previous year: € 329 million).

Operating EBT was negatively influenced by:

- » Planned and unplanned maintenance shutdowns at smelter sites, which led in particular to considerably lower concentrate throughput and thus to lower revenues from treatment and refining charges
- » The change in the definition of our operating result, which led to recognition of an ongoing impairment loss of € 31 million against copper inventories held within the Group
- » A € 20 million impairment loss recognized against Segment FRP's non-current assets
- » Higher energy costs
- » Expenses after the termination of our internal investment project Future Complex Metallurgy (FCM)
- » Weaker demand for shapes and flat rolled products

Positive effects on operating EBT included:

- » A good metal gain in Q4
- » Precious metal sales, taking advantage of high precious metal prices
- » Higher sulfuric acid revenues due to considerably higher prices, despite lower output volumes resulting from the shutdowns
- » Positive contributions from our efficiency improvement program
- » A receivable from Wieland-Werke AG arising from the prohibited sale of Segment Flat Rolled Products

The Group's revenues increased by € 203 million to € 11,897 million (previous year: € 11,694 million) during the reporting period. This development was primarily due to higher precious metal prices and higher precious metal sales volumes. Lower sales volumes of copper products had a counteracting impact.

### Breakdown of revenues

in %	2018/19	2017/18
Germany	40	34
European Union	33	37
Rest of Europe	4	4
Other countries	23	25
<b>Total</b>	<b>100</b>	<b>100</b>

The inventory change of € 79 million (previous year: € -8 million) was due to a build-up of copper and precious metal inventories.

In a manner corresponding to the development for revenues and inventory changes, the cost of materials increased by € 354 million, from € 10,536 million in the previous year to € 10,890 million.

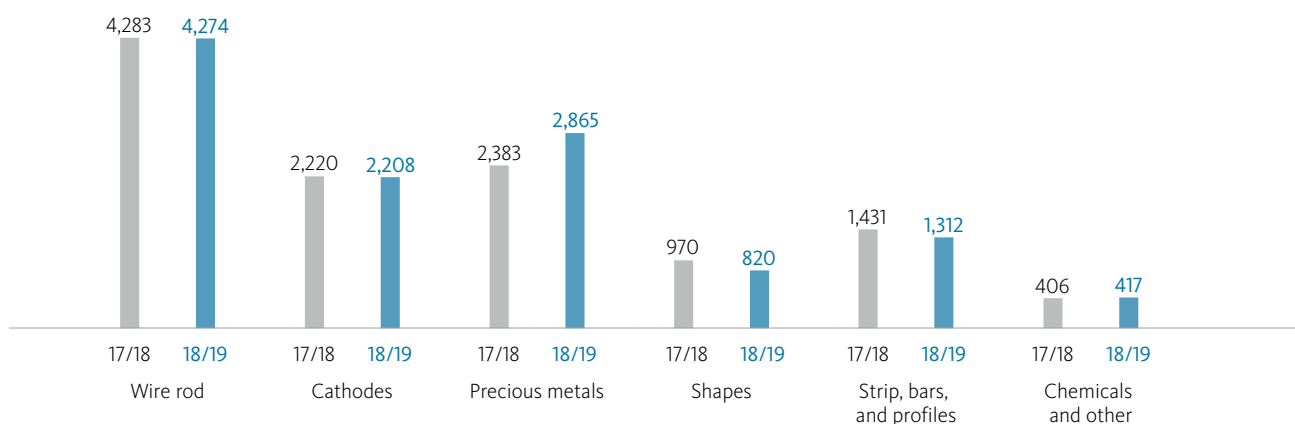
At a level of € 20 million (previous year: € 19 million), own work capitalized was slightly above that of the previous year.

Other operating income increased by € 17 million to € 62 million (previous year: € 45 million). This includes income from the recognition of a receivable from Wieland-Werke AG, amounting to € 20 million, which derived from the rejected sale of Segment FRP.



## Development of revenues by products

in € million



Consequently, gross profit was slightly lower at € 1,168 million (previous year: € 1,214 million).

Personnel expenses increased from € 484 million in the previous year to € 505 million. The increase was due to wage tariff increases and a higher number of employees. We particularly strengthened our personnel resources in order to address certain future issues.

At a level of € 151 million, depreciation and amortization of fixed assets was significantly above that of the previous year (€ 130 million). The figure includes impairment losses of € 13.5 million recognized against Segment FRP's fixed assets.

Other operating expenses rose by € 36 million, from € 268 million in the previous year to € 304 million. This figure includes some € 30 million in previously capitalized project costs relating to the terminated FCM project, which were recognized as an expense.

Earnings before interest and taxes (EBIT) therefore amounted in total to € 208 million (previous year: € 332 million).

The reduction in the result from investments measured using the equity method mainly derives from the recognition of an impairment loss, amounting to € 6.5 million.

At a level of € 16 million, the net interest expense was slightly above that of the previous year (€ 15 million).

After taking the financial result into account, operating earnings before taxes (EBT) were € 192 million (previous year: € 329 million).

Operating consolidated net income of € 138 million remained after tax (previous year: € 265 million). Operating earnings per share amounted to € 3.08 (previous year: € 5.87).

## RESULTS OF OPERATIONS (IFRS) FROM CONTINUING OPERATIONS

The Aurubis Group generated consolidated net income of € 191 million in fiscal year 2018/19 (previous year: € 263 million).

### Consolidated income statement

in € million	2018/19 IFRS	2017/18 IFRS
<b>Revenues</b>	<b>10,763</b>	<b>10,424</b>
Changes in inventories/ own work capitalized	200	19
Other operating income	61	43
Cost of materials	-9,997	-9,464
<b>Gross profit</b>	<b>1,027</b>	<b>1,022</b>
Personnel expenses	-374	-352
Depreciation of property, plant, and equipment and amortization of intangible assets	-125	-119
Other operating expenses	-254	-217
<b>Operational result (EBIT)</b>	<b>274</b>	<b>334</b>
Financial result	-14	-12
<b>Earnings before taxes (EBT)</b>	<b>260</b>	<b>322</b>
Income taxes	-69	-59
<b>Consolidated net income</b>	<b>191</b>	<b>263</b>

The Group's revenues increased by € 339 million to € 10,763 million (previous year: € 10,424 million) during the reporting period. This development was primarily due to higher precious metal prices and higher precious metal sales volumes. Lower sales volumes of copper products had a counteracting impact.

The inventory change of € 180 million (previous year: € 0 million) was due to a build-up of copper and precious metal inventories. Furthermore, measurement effects from the use of the average cost method had an impact.

At a level of € 20 million (previous year: € 19 million), own work capitalized was slightly above that of the previous year.

In a manner corresponding to the development for revenues and inventory changes, the cost of materials increased by € 533 million, from € 9,464 million in the previous year to € 9,997 million.

Other operating income increased by € 18 million to € 61 million (previous year: € 43 million). This includes income from the recognition of a receivable from Wieland-Werke AG, amounting to € 20 million, which derived from the prohibited sale of Segment FRP.

Gross profit was slightly higher at € 1,027 million (previous year: € 1,022 million).

In addition to the effects on earnings already described in the explanation of the operating results of operations, the change in gross profit was also due to metal price developments. The use of the average cost method leads to metal price valuations that are close to market prices. Metal price volatility therefore has direct effects on changes in inventories/the cost of materials and hence on the IFRS gross profit. The depiction of this volatility in the IFRS gross profit is not relevant to the cash flow and does not reflect Aurubis' operating development.

Personnel expenses rose from € 352 million in the previous year to € 374 million. The increase was due to wage tariff increases and a higher number of employees. We particularly strengthened our personnel resources in order to address certain future issues.

At a level of € 125 million, depreciation and amortization of fixed assets was above that of the previous year (€ 119 million) in keeping with higher investments in fixed assets.

Other operating expenses increased by € 37 million, from € 217 million in the previous year to € 254 million. This includes some € 30 million in previously capitalized project costs relating to the terminated FCM project, which were recognized as an expense.

Earnings before interest and taxes (EBIT) therefore amounted to a total of € 274 million (previous year: € 334 million).

At a level of € 14 million, the net interest expense was slightly above that of the previous year (€ 12 million).

After taking the financial result into account, earnings before taxes were € 260 million (previous year: € 322 million).

Consolidated net income of € 191 million from continuing operations remained after tax (previous year: € 263 million). Earnings per share from continuing operations amounted to € 4.25 (previous year: € 5.81).

### NET ASSETS (OPERATING)

The table [Q Reconciliation of the consolidated statement of financial position, page 82](#) shows the derivation of the operating statement of financial position as at September 30, 2019 and as at September 30, 2018.

Total assets decreased slightly from € 4,077 million as at September 30, 2018 to € 4,059 million as at September 30, 2019. Among other factors, cash and cash equivalents decreased by € 38 million compared to the previous year, from € 479 million to € 441 million.

The Group's equity fell by € 27 million, from € 2,261 million as at the end of the previous last fiscal year to € 2,234 million as at September 30, 2019. The decline was due to the dividend payment of € 70 million and the remeasurement of pension obligations amounting to € 94 million, included in other comprehensive income. The operating consolidated net income of € 138 million had a positive effect.

Overall, the operating equity ratio (the ratio of equity to total assets) was therefore 55.0% compared to 55.5% as at the end of the previous fiscal year.

Current liabilities from trade accounts payable decreased by € 86 million for reasons relating to the reporting date, from € 904 million to € 818 million. At a level of € 302 million as at September 30, 2019, borrowings were also slightly below those at the end of the previous fiscal year-end (€ 314 million). A bonded loan (Schuldscheindarlehen) of € 127 million is due in February 2020 and is thus classified under current liabilities.

The following table shows the development of borrowings:

### Development of borrowings

in € million	9/30/2019	9/30/2018
Non-current bank borrowings	116	248
Non-current liabilities under finance leases	33	33
<b>Non-current borrowings</b>	<b>149</b>	<b>281</b>
Current bank borrowings	150	30
Current liabilities under finance leases	3	3
<b>Current borrowings</b>	<b>153</b>	<b>33</b>
<b>Borrowings</b>	<b>302</b>	<b>314</b>

## Reconciliation of the consolidated statement of financial position

in € million	9/30/2019					9/30/2018				
	IFRS from continuing operations	Adjustment effects			Operating	IFRS from continuing operations	Adjustment effects			Operating
		Discontinued operations	Inventories	PPA			Discontinued operations	Inventories	PPA	
<b>ASSETS</b>										
Fixed assets	1,384	156	-11	-30	1,499	1,354	174	-13	-32	1,483
Deferred tax assets	4	4	46	0	54	3	1	25	0	29
Non-current receivables and other assets	29	2	0	0	31	28	2	0	0	30
Inventories	1,728	265	-461	0	1,532	1,681	274	-406	0	1,549
Current receivables and other assets	405	97	0	0	502	385	122	0	0	507
Cash and cash equivalents	421	20	0	0	441	461	18	0	0	479
Assets held for sale	561	-561	0	0	0	590	-590	0	0	0
<b>Total assets</b>	<b>4,532</b>	<b>-17</b>	<b>-426</b>	<b>-30</b>	<b>4,059</b>	<b>4,502</b>	<b>1</b>	<b>-394</b>	<b>-32</b>	<b>4,077</b>
<b>EQUITY AND LIABILITIES</b>										
Equity	2,593	-17	-316	-26	2,234	2,566	1	-281	-25	2,261
Deferred tax liabilities	170	14	-110	-4	70	188	16	-113	-7	84
Non-current provisions	356	46	0	0	402	254	34	0	0	288
Non-current liabilities	153	1	0	0	154	281	1	0	0	282
Current provisions	43	8	0	0	51	34	8	0	0	42
Current liabilities	1,057	91	0	0	1,148	1,017	103	0	0	1,120
Liabilities deriving from assets held for sale	160	-160	0	0	0	162	-162	0	0	0
<b>Total equity and liabilities</b>	<b>4,532</b>	<b>-17</b>	<b>-426</b>	<b>-30</b>	<b>4,059</b>	<b>4,502</b>	<b>1</b>	<b>-394</b>	<b>-32</b>	<b>4,077</b>

Explanation of the presentation and the adjustment effects in [Q Results of operations, net assets, and financial position of the Aurubis Group, pages 76–77](#).

## RETURN ON CAPITAL (OPERATING)

The return on capital employed (ROCE) shows the return on the capital employed in the operating business or for an investment. It was determined taking the operating EBIT of the last four quarters into consideration.

The substantial decline in operating ROCE, from 15.0% in the previous reporting year to 8.6%, is primarily due to the lower earnings for the fiscal year.

### Operating return on capital employed (ROCE)

in € million	9/30/2019	9/30/2018
Fixed assets excluding financial fixed assets <sup>1</sup>	1,485	1,450
Inventories	1,532	1,549
Trade accounts receivable	390	374
Other receivables and assets	196	191
– Trade accounts payable	-818	-904
– Provisions and other liabilities	-367	-371
<b>Capital employed as at the reporting date</b>	<b>2,418</b>	<b>2,290</b>
Earnings before taxes (EBT)	192	329
Financial result	16	3
<b>Earnings before interest and taxes (EBIT)</b>	<b>208</b>	<b>332</b>
Investments accounted for using the equity method <sup>1</sup>	0	11
<b>Earnings before interest and taxes (EBIT) – adjusted</b>	<b>208</b>	<b>342</b>
<b>Return on capital employed (operating ROCE)</b>	<b>8.6%</b>	<b>15.0%</b>

<sup>1</sup> The shares of Schwermetall Halbzeugwerk GmbH & Co. KG accounted for using the equity method have been included for this reporting year. This adjustment should improve the depiction of Segment FRP's profitability. Prior-year figures have been adjusted accordingly.

## NET ASSETS (IFRS)

Total assets increased from € 4,502 million as at the end of the previous fiscal year to € 4,532 million as at September 30, 2019. In addition to the effects already described in the explanation on the operating net assets, measurement effects from the use of the average cost method increased the figure for inventories.

### Structure of the statement of financial position of the Group

in %	9/30/2019	9/30/2018
Fixed assets	31	30
Inventories	38	37
Receivables, etc.	10	10
Cash and cash equivalents	9	10
Assets held for sale	12	13
	<b>100</b>	<b>100</b>
Equity	57	57
Provisions	12	10
Liabilities	27	29
Liabilities deriving from assets held for sale	4	4
	<b>100</b>	<b>100</b>

The Group's equity rose by € 27 million, from € 2,566 million as at the end of the previous fiscal year to € 2,593 million as at September 30, 2019. This was largely due to the consolidated net income of € 191 million from continuing operations. The dividend payment of € 70 million and the remeasurement of pension obligations amounting to € 94 million included in other comprehensive income had a counteracting effect.

Overall, the equity ratio is 57.2% compared to 57.0% as at the end of the previous fiscal year.

The following table shows the development of borrowings for continuing operations:

### Development of borrowings

in € million	9/30/2019	9/30/2018
Non-current bank borrowings	116	248
Non-current liabilities under finance leases	33	33
<b>Non-current borrowings</b>	<b>149</b>	<b>281</b>
Current bank borrowings	150	30
Current liabilities under finance leases	3	3
<b>Current borrowings</b>	<b>153</b>	<b>33</b>
<b>Borrowings</b>	<b>302</b>	<b>314</b>

At a level of € 302 million as at September 30, 2019, borrowings were slightly below those at the end of the previous fiscal year (€ 314 million). A bonded loan (Schuldscheindarlehen) of € 127 million is due in February 2020 and is thus classified under current liabilities.

### RETURN ON CAPITAL (IFRS)

The operating result is used for control purposes within the Group. Operating ROCE is explained under [Q Return on capital \(operating\)](#), page 83.

### FINANCIAL POSITION OF THE AURUBIS GROUP

The following comments include both continuing and discontinued operations.

The Group's liquidity sourcing is secured through a combination of the Group's cash flow, short-term and long-term borrowings, as well as lines of credit available from our banks. Existing credit facilities and lines of credit can be utilized to compensate for fluctuations in the cash flow development at any time. These fluctuations result from operating business in particular and primarily serve to finance net working capital.

The development of the Aurubis Group's liquidity position is monitored regularly on a timely basis. Control and monitoring are carried out on the basis of defined key ratios.

The main key financial ratio for controlling debt is debt coverage, which calculates the ratio of net borrowings [Q Glossary, page 195](#) (borrowings less cash and cash equivalents) to earnings before interest, taxes, depreciation, and amortization (EBITDA [Q Glossary, page 195](#)) and shows the number of periods required to redeem the existing borrowings from the Group's income – assuming an unchanged earnings situation.

The interest coverage ratio expresses how the net interest expense is covered by EBITDA.

Our long-term objective is to achieve a well-balanced debt structure. In this context, we consider debt coverage <3 and interest coverage >5 to be well balanced.

We use the operating result for control purposes within the Group. Accordingly, the Group's key operating financial ratios are presented as follows:

### Operating Group financial ratios

	9/30/2019	9/30/2018
Debt coverage = net borrowings/EBITDA	-0.4	-0.4
Interest coverage = EBITDA/net interest	21.9	32.3

Additional control measures related to liquidity risks are outlined in the Risk and Opportunity Report in the Combined Management Report [Q pages 96 – 103](#).

### ANALYSIS OF LIQUIDITY AND FUNDING

The cash flow statement shows the cash flows within the Group. It highlights how funds are generated and used.

The Aurubis Group continued to generate a good operating net cash flow [Q Glossary, page 195](#) of € 272 million in fiscal year 2018/19 (previous year: € 203 million). This was due in particular to sales of precious metals at higher prices.

The cash outflow from investing activities totaled € 208 million (previous year: € 143 million). The higher investment in fixed assets in the fiscal year included payments for the now terminated Future Complex Metallurgy project, for the planned maintenance shutdown in Pirdop, 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. Furthermore, the sale of investment property had a positive effect of some € 8 million on the cash flow from investment activities in the previous year.

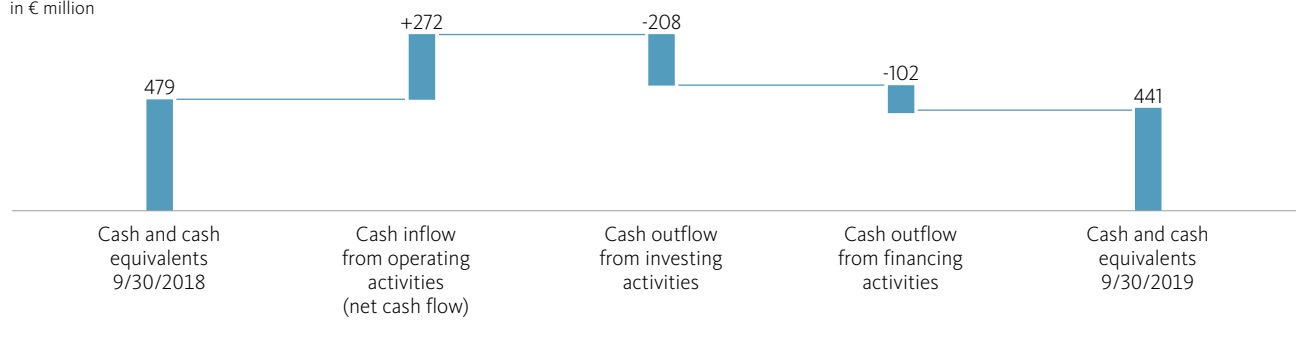
After deducting the cash outflow from investing activities of € 208 million from the net cash flow of € 272 million from operating activities, the free cash flow [Q Glossary, page 195](#) amounts to € 64 million (previous year: € 60 million).

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 from continuing and discontinued operations were available to the Group as at September 30, 2019 (€ 479 million as at September 30, 2018). Cash and cash equivalents are utilized for operating business activities, investing activities, and the redemption of borrowings.

### Source and application of funds

in € million



Net surplus financial funds amounted to € 139 million as at September 30, 2019 (previous year: € 165 million).

### Net borrowings in the Group

in € million	9/30/2019	9/30/2018
Borrowings	302	314
- Cash and cash equivalents	441	479
<b>Net borrowings (minus = assets)</b>	<b>-139</b>	<b>-165</b>

In addition to cash and cash equivalents, the Aurubis Group has unutilized credit line facilities and thus has adequate liquidity reserves. Parallel to this, within the context of factoring agreements, the Group makes use of the sale of receivables without recourse as an off-balance-sheet financial instrument.

## Business performance in the segments

### SEGMENT METAL REFINING & PROCESSING

#### Key figures

in € million	2018/19 operating	2017/18 operating
Revenues	10,742	10,407
EBIT	311	359
EBT	304	353
Capital expenditure	203	152
Depreciation and amortization	-123	-118
Operating ROCE	15.5 %	19.4 %
Capital employed	2,013	1,852
Number of employees (average)	4,628	4,473

#### BUSINESS PERFORMANCE AND EARNINGS TREND

The main factors driving earnings in Segment Metal Refining & Processing (MRP) are treatment and refining charges (TC/RCs) that are negotiated as deductions from the purchase price of the metals for converting raw materials and recycling materials into the exchange product – copper cathodes – and other metals. Additional earnings components include revenues from precious metal and sulfuric acid sales, as well as the metal gain. Furthermore, the Aurubis copper premium and the so-called product surcharge charged for processing copper cathodes into copper products are also significant earnings components.

Segment MRP generated total revenues of € 10,742 million during the reporting period (previous year: € 10,407 million). This development was primarily due to the higher average copper price and higher precious metal prices. Lower sales volumes of copper products had a countereffect.

Operating EBT for Segment MRP amounted to € 304 million during the reporting period, down significantly on the very good previous year (€ 353 million). The development of operating EBT was substantially influenced by planned and unplanned shutdowns at our smelter sites, which led in particular to considerably lower concentrate throughput and thus to lower revenues from treatment and refining charges. At the start of the

fiscal year, unplanned shutdowns at our Hamburg, Pirdop, and Lünen sites led to an impact of approximately € 25 million on earnings. A scheduled maintenance shutdown at our Pirdop site in May/June had a negative effect of € 15 million. Higher processing volumes compensated for significantly lower refining charges for copper scrap compared to the previous year. Higher energy costs weighed on the operating result. Furthermore, a weakening economic environment led to significantly weaker demand for shapes products, driven by the flat rolled products sector especially.

Positive impacts included a good metal gain in Q4 with increased metal prices, higher sulfuric acid revenues due to considerably higher prices despite lower production volumes stemming from the shutdown, and contributions from our efficiency improvement program.

Overall, at € 304 million, Segment MRP's operating result was 14% below the prior-year level (€ 353 million). At 15.5% (previous year: 19.4%), the segment's operating ROCE was less than the previous year, due primarily to the lower result of the fiscal year. The full-year forecast for operating EBT and operating ROCE from the Annual Report 2017/18 was reduced accordingly in the Interim Report published for the first half of 2018/19.

#### RAW MATERIAL MARKETS

##### Satisfactory treatment and refining charges for copper concentrates

In fiscal year 2018/19, good mine output was met by rising demand among smelters, especially in China, despite isolated smelter shutdowns. The copper price level served as an incentive for the mining industry to fully utilize its production capacity, a development that also benefited from the absence of any significant production disruptions. While TC/RCs for standard copper concentrates on the spot market were above the benchmark of US\$ 80.8/t and 8.08 cents/lb at the start of the fiscal year, stronger demand for standard copper concentrates starting in March 2019 led to a substantial reduction in spot TC/RCs, down to levels of US\$ 55/t and 5.50 cents/lb in August 2019, according to Wood Mackenzie. Due to planned and unplanned shutdowns, Aurubis was hardly active on the spot market during the fiscal year.



Generally speaking, we are only marginally dependent on the spot market thanks to our long-term supply strategy.

### Refining charges for copper scrap remain at a good level

During fiscal year 2018/19, the copper scrap market was characterized by a good supply due to relatively constant metal prices and a stable economic situation throughout longer periods of the fiscal year. The trade conflict between the US and China and the introduction of import quotas for high-quality scrap (referred to as category 6 scrap) led to a shift in metal flows from the US towards Europe, among other regions. Because of the good availability, refining charges for copper scrap were at a good level, though much lower than in the very good previous year.

The availability of complex recycling materials, including industrial residues and electrical and electronic scrap, was stable with good refining charges, positively influenced in part by China's import ban on copper scrap with higher levels of impurities (referred to as category 7 scrap), which started in early 2019.

Due to different import and export restrictions, global material streams are changing steadily on the market for recycling materials. Aurubis is actively adjusting to the changes in market circumstances and was able to supply the production facilities with recycling materials at good conditions in the reporting period.

## PRODUCTION

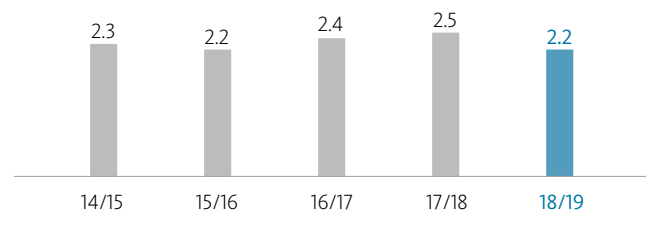
### Throughput significantly below the very good previous year due to shutdowns

Concentrate throughput was 2,225,000 t in fiscal year 2018/19 due to the smelters' restricted performance, which was 12% less than the very good previous year (2,522,000 t). Unplanned shutdowns due to boiler damage at our Hamburg and Pirdop sites affected production in Q1 2018/19. A scheduled maintenance shutdown carried out at our Pirdop site in May/June 2019 negatively impacted concentrate throughput as well.

Concentrate throughput in the previous year was negatively influenced by a scheduled repair shutdown in the anode furnace in Hamburg in Q3 2017/18 as well as unplanned shutdowns at the Hamburg and Lünen production site in Q4 2017/18.

### Concentrate throughput

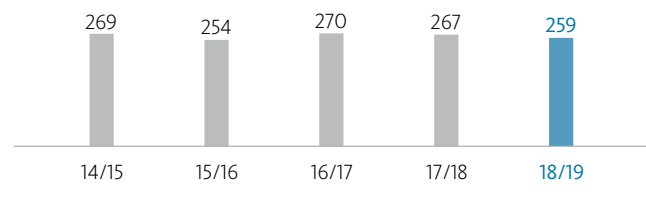
in million t



With 259,000 t, our recycling plant in Lünen was unable to achieve the good throughput level of the previous year in its Kayser Recycling System (KRS) due to various maintenance and repair shutdowns.

### KRS throughput

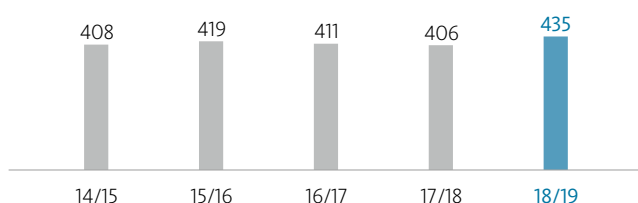
in thousand t



The Olen site also has recycling facilities and a tankhouse for the production of copper cathodes. During the reporting year, both recycling sites benefited from a good supply of copper scrap, blister copper [Q Glossary, page 194](#), and other recycling materials. Overall, the Group-wide input of copper scrap and blister copper in fiscal year 2018/19 was slightly above the good prior-year level.

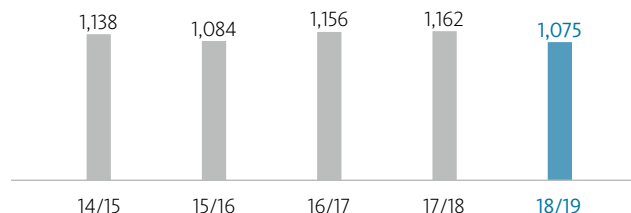
### Copper scrap and blister copper input in the Group

in thousand t



### Cathode output in the Group

in thousand t



### Sulfuric acid output considerably below prior-year level

Corresponding to the concentrate throughput, the sulfuric acid output was 2,101,000 t, considerably below the prior-year level. Consistently high demand on the global market for sulfuric acid led to correspondingly high prices until April 2019. The supply of sulfuric acid was limited, a situation that was reinforced by isolated smelter shutdowns, especially in South America and Asia. Toward the end of Q3, sulfuric acid demand from the chemical and fertilizer industries cooled off noticeably and led to a significant price decline on the spot market.

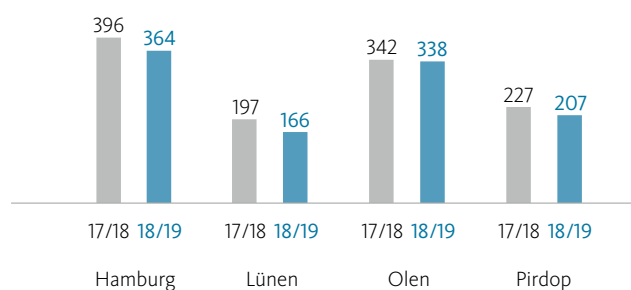
### Cathode output down on prior-year level due to shutdowns

The cathode markets recorded good ongoing demand in reporting year 2018/19. While spot premiums in Europe were relatively stable, the quotation in Shanghai remained substantially lower than the very high level of the previous year. At US\$ 96/t, the Aurubis copper premium for calendar year 2019 is US\$ 10/t higher than the previous year. We were generally able to implement this premium for our products in the reporting period.

Copper cathode output in Segment Metal Refining & Processing was 1,075,000 t in 2018/19, below the prior-year level (1,162,000 t).

### Cathode output in the Group by sites

in thousand t



### Processing of complex input materials rises again

Within the scope of our multi-metal strategy, we have been reporting sales volumes for lead, nickel, tin, minor metals, and platinum group metals since the start of fiscal year 2017/18, in addition to gold and silver.

The recovery of our metals depends on the metal contents in the processed copper concentrates and recycling materials. Lower concentrate throughputs due to shutdowns therefore impact the volumes that are recovered. A portion of the metals is sold in the form of intermediate products.

### Sales volumes of other metals

		2018/19	2017/18
Gold	t	51	48
Silver	t	861	877
Lead	t	19,038	19,527
Nickel	t	3,067	3,022
Tin	t	1,631	1,851
Minor metals	t	943	918
Platinum group metals (PGMs)	kg	9,771	8,821

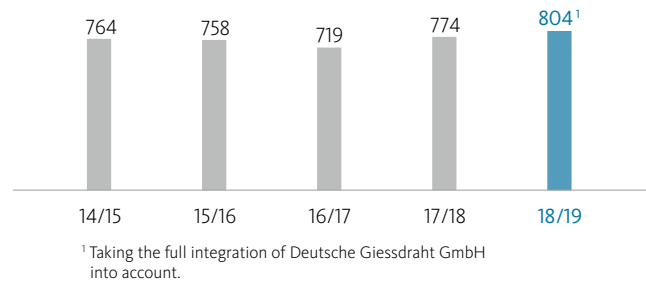
#### Rod output slightly above prior-year level

Continuous cast wire rod is used as a preliminary product for processing, especially in the cable and wire industry, as well as for special semi-finished products. Following robust demand for rod in the first half of 2018/19, the level cooled off considerably in the second half of the fiscal year. Rod demand in the individual sectors developed differently. Demand among magnet wire producers declined substantially in particular, while the decrease in demand in the automotive sector caused only a slight reduction for rod. In contrast, demand in both the construction industry and in energy cable was nearly stable.

Taking the full integration of Deutsche Giessdraht GmbH into account since January 1, 2019, rod output was 804,000 t and thus slightly above the prior-year level (774,000 t).

### Continuous cast rod output

in thousand t



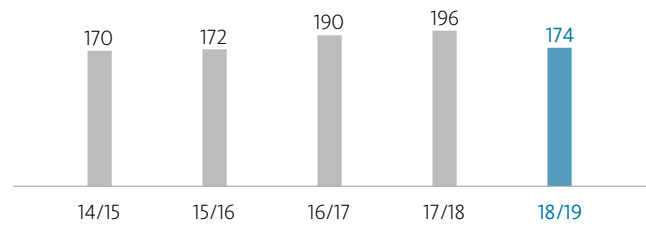
#### Shapes output considerably below prior-year level

Following stable demand for high-purity shapes at the start of the fiscal year, the situation dampened toward the end of Q2 in light of the general economic trend. Restrained demand from the automotive sector in particular influenced the flat rolled products sector, a key outlet for shapes.

At 174,000 t, continuous cast shapes output in fiscal year 2018/19 was significantly below the previous year (196,000 t).

### Continuous cast shapes output

in thousand t



### Bars and profiles output stable

The production volume for bars and profiles, which are produced exclusively at the Olen site, were at prior-year level at 14,800 t (previous year: 14,600 t).

### Capital expenditure

Capital expenditure in Segment MRP amounted to € 203 million (previous year: € 152 million). Significant individual investments included investments in connection with the maintenance shutdown carried out in Pirdop, investments to prepare for the scheduled maintenance shutdown in Hamburg (October 2019), and investments in the construction of the new Innovation and Training Center at the Hamburg site.

## SEGMENT FLAT ROLLED PRODUCTS

### Key figures

in € million	2018/19 operating	2017/18 operating
Revenues	1,300	1,452
EBIT	-39	18
EBT	-47	21
Capital expenditure	16	17
Depreciation and amortization	-26	-11
Operating ROCE <sup>1</sup>	-10.6	7.4
Capital employed <sup>1</sup>	363	398
Number of employees (average)	1,755	1,768

<sup>1</sup> The shares of Schwermetall Halbzeugwerk GmbH & Co. KG accounted for using the equity method have been included since this reporting year. This adjustment should improve the depiction of Segment FRP's profitability. Prior-year figures have been adjusted accordingly.

## BUSINESS PERFORMANCE AND EARNINGS TREND

In Segment Flat Rolled Products (FRP), copper and copper alloys – primarily brass, bronze, and high-performance alloys – are processed into flat rolled products and specialty wire. The main production sites are Stolberg (Germany), Pori (Finland), Zutphen (Netherlands), and Buffalo (USA). Furthermore, the segment also includes slitting and service centers in Birmingham (UK), Dolný Kubín (Slovakia), and Mortara (Italy), as well as sales offices worldwide.

The market situation for Segment FRP cooled off significantly in fiscal year 2018/19 compared to the previous year. This was true for all regions and most sales segments; demand for connector strip for the European automotive industry developed negatively in particular. Revenues in the segment declined considerably in the reporting period as a result, amounting to € 1,300 million (previous year: € 1,452 million).

Segment FRP generated operating earnings before taxes (EBT) of € -47 million (previous year: € 21 million).

Operating EBT was substantially strained due to the change in the definition of the operating result (refer to the explanation in the section "Corporate control"), which led to recognition of an impairment loss of € 31 million against copper inventories. Furthermore, a € 20 million impairment on Segment FRP's non-current assets had a negative impact.

Without these effects, operating earnings before taxes (EBT) would have been slightly positive (€ +4 million) but were instead substantially below the previous year. This was mainly due to a lower sales volume and less favorable conditions on the buying market compared to the very good previous year. We prevented a further drop in earnings with the ongoing efficiency improvement program.

Overall, at € -47 million, Segment FRP's operating result during the reporting year was significantly below the prior-year level (€ 21 million). Operating ROCE (taking the operating EBIT of the last four quarters into consideration) was also well below the previous year at -10.6% (previous year: 7.4%). The full-year forecast for operating EBT and operating ROCE from the Annual Report 2017/18 was reduced accordingly in the Interim Report published for the first half of 2018/19.

After the European Commission blocked the sale of Segment FRP in February 2019, we are now reviewing different strategic options for the sale of the segment.

#### PRODUCT MARKETS

The market for flat rolled products has cooled down distinctly since summer 2018, especially in Europe. Demand for connectors from the European automotive industry was impacted in particular. Individual sales segments in the US market also lagged behind expectations.

#### RAW MATERIALS

The availability of input materials was good in fiscal year 2018/19. Nevertheless, conditions weakened compared to the very good previous year.

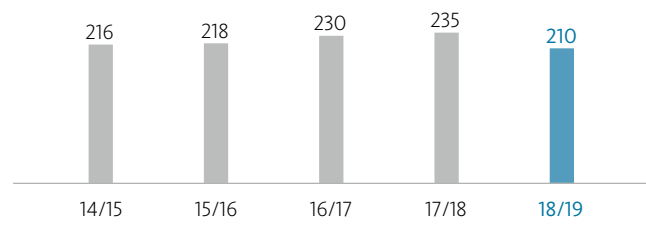
#### PRODUCTION

##### Flat rolled products output down due to demand

Output of flat rolled products and specialty wire decreased to 210,000 t due to demand (previous year: 235,000 t). All of the sites continued to work on implementing the programs to improve efficiency and to enhance productivity and quality.

##### Flat rolled products and specialty wire output

in thousand t



#### CAPITAL EXPENDITURE

Capital expenditure in Segment FRP amounted to € 16 million (previous year: € 17 million). This was primarily used for replacement investments.

## Executive Board assessment of the Aurubis Group during fiscal year 2018/19

Operating earnings before taxes amounted to € 192 million in fiscal year 2018/19. This result is significantly below that of the particularly successful previous year (€ 329 million), in which we achieved one of the best results in the history of the Aurubis Group. By the end of the reporting year, operating ROCE reached a value of 8.6% (previous year: 15.0%).

In the Annual Report 2017/18, we published the following forecast: in total, we expected the Aurubis Group to report operating EBT at a level moderately below that of the previous year, and operating ROCE slightly below that of the previous year. On April 26, 2019, we adjusted this forecast: accordingly, from that point on, Aurubis AG expected significantly lower operating EBT compared with the previous year (reduction: > 15.0%), and significantly lower ROCE (reduction: > 4.0 percentage points). This result means that both operating consolidated EBT and operating ROCE were within the adjusted forecast.

The development of operating EBT was influenced considerably by planned and unplanned shutdowns at our smelter sites. Most notably, these led to substantially lower concentrate throughputs, and consequently to lower refining charges. In addition to this, a redefinition of our operating result led to recognition of an ongoing impairment loss of € 31 million against copper inventories. A € 20 million impairment loss recognized against Segment FRP's non-current assets, as well as the discontinuation of our investment project Future Complex Metallurgy, also had a negative effect on the operating result. Furthermore, increased energy costs and weaker demand for continuous cast and flat rolled products had a detrimental influence on the outcome of the result in the reporting year.

The operating result in fiscal year 2018/19 was affected favorably by increased metal output in Q4 and sales of precious metals, which took advantage of high prices for precious metals. Added to this, significantly higher prices for sulfuric acid resulted in higher sulfuric acid revenues, despite a diminished output due to production shutdowns. Positive contributions from our efficiency improvement program, as well as a receivable from Wieland-Werke AG arising from the prohibited sale of Segment FRP also had a beneficial influence.

At € 304 million, the operating EBT for Segment Metal Refining & Processing (MRP) in the reporting period remained below that of the particularly successful previous year (previous year: € 353 million). The description of the Group business performance also largely applies to that of Segment MRP.

Operating EBT for Segment FRP amounted to € -47 million for the reporting period (previous year: € 21 million). Operating EBT was detrimentally affected both by the redefinition of operating EBT, as previously mentioned in the observations on the Group, and by an impairment loss recognized against Segment FRP's non-current assets. Without these factors, the operating result before taxes would have been marginally positive (€ +4 million).

At € 272 million, the operating net cash flow as at September 30, 2019 exceeded that of the previous year (previous year: € 203 million). This was primarily due to the sales of precious metals at increased prices.

The equity ratio (operating) was 55.0% as at September 30, 2019 (previous year: 55.5%). Net surplus financial funds as at September 30, 2019 were at € 139 million (previous year: € 165 million). The Aurubis Group's balance sheet structure thus continues to be very robust.

## Results of operations, net assets, and financial position of Aurubis AG

### GENERAL INFORMATION

In order to supplement our Aurubis Group reporting, we explain the development of Aurubis AG in the following section.

Aurubis AG is the parent company of the Aurubis Group and is based in Hamburg with production sites in Hamburg and Lünen. Apart from managing the Aurubis Group, the business activities of Aurubis AG also particularly include primary copper production and recycling, as well as copper product and precious metal production. The separate financial statements of Aurubis AG have been prepared in accordance with the requirements of the German Commercial Code (Handelsgesetzbuch, HGB) and the German Stock Corporation Act (Aktiengesetz, AktG). The primary differences from the Group financial statements prepared in accordance with IFRS principles are in the accounting treatment of fixed assets, the measurement of inventories, the measurement of financial instruments, and the accounting treatment of pension provisions.

The Aurubis Group is managed across all companies at Group level through Segments, using operating EBT and operating ROCE as the financial performance indicators. These indicators are also used for Aurubis AG's operating activities, which are a significant component of the Group. To this extent, the development and forecast of the financial performance indicators at the Segment and Group levels at the same time represent the development and forecast for Aurubis AG as an individual company.

The analysis of the development for the financial performance indicators outlined above during the fiscal year and the related forecast for the following year are provided in the Economic Report and the Forecast Report for the entire Group. Statements regarding the risk situation and opportunities can be found in the Group's Risk and Opportunity Report [Q pages 96–103](#).

### RESULTS OF OPERATIONS

#### Income statement

in € million	2018/19	2017/18
<b>Revenues</b>	<b>8,200</b>	<b>7,968</b>
Changes in inventories/ own work capitalized	79	30
Other operating income	52	82
Cost of materials	-7,774	-7,474
<b>Gross profit</b>	<b>557</b>	<b>606</b>
Personnel expenses	-265	-245
Depreciation of property, plant, and equipment and amortization of intangible assets	-53	-51
Other operating expenses	-132	-163
<b>Operational result (EBIT)</b>	<b>107</b>	<b>147</b>
Financial result	50	24
<b>Result of normal business activities (EBT)</b>	<b>157</b>	<b>171</b>
Taxes	-32	-51
<b>Net income for the year</b>	<b>125</b>	<b>120</b>

Compared to the previous year, Aurubis AG's business performance in fiscal year 2018/19 was negatively impacted by a lower concentrate throughput accompanied by reduced treatment and refining charges, as well as substantially lower refining charges on the copper scrap markets, for which the supply situation was good. Furthermore, maintenance and repair shutdowns and non-recurring special charges deriving from termination of the Future Complex Metallurgy (FCM) internal investment project had a negative impact on the result. In contrast, a higher metal gain, higher sulfuric acid revenues due to increased sales prices, and robust sales volumes for copper wire rod had a positive influence on the result.

Revenues increased by € 232 million to € 8,200 million during the reporting year (previous year: € 7,968 million). This development was primarily driven by higher sales revenues for copper products due to pricing.

With a higher cost of materials ratio (cost of materials/(revenues + changes in inventories)) due to price factors, and taking into account own work capitalized and other operating income, the gross profit decreased by € 49 million to € 557 million (previous year: € 606 million). Other operating income decreased by € 30 million, from € 82 million to € 52 million, due in particular to lower currency gains. Income of € 20 million, deriving from the prohibited sale of Segment FRP, counteracted this decrease.

Personnel expenses increased in the past fiscal year by € 20 million to € 265 million (previous year: € 245 million). As was the case in the previous year, the increase was especially attributable to wage tariff agreement increases and an increased number of employees.

At € 53 million, depreciation and amortization of fixed assets remained at the prior-year level (previous year: € 51 million). Other operating expenses decreased by € 31 million, from € 163 million to € 132 million, due in particular to the decrease in currency gains. Additionally, impacts of € 23 million were recognized during the fiscal year, which resulted from the discontinuation of the internal investment project Future Complex Metallurgy (FCM). Taking personnel expenses, depreciation and amortization, and other operating expenses into account, the operational result (EBIT) amounted to € 107 million (previous year: € 147 million).

The financial result for the reporting year was € 50 million (previous year: € 24 million). In addition to dividends of € 96 million from subsidiaries (previous year: € 52 million), this included a € 3 million write-up of the carrying amount of the investment in Aurubis Italia, the net interest result of € -30 million (previous year: € -28 million), and write-downs of securities classified as fixed assets amounting to € -19 million as at the reporting date (previous year: write-ups of € 2 million).

After taking a tax expense of € 32 million (previous year: € 51 million) into account, net income for the year amounted to € 125 million (previous year: € 120 million). The decrease in the tax expense resulted primarily from the non-deductible portion of the higher income from participatory investments, which nearly doubled compared to the previous year.

### NET ASSETS

Fixed assets increased in the fiscal year by € 32 million to € 2,152 million (previous year: € 2,120 million), especially due to investments in property, plant, and equipment. The investments amounted to € 126 million in total and primarily related to the planned shutdown of primary copper production in Hamburg, to the construction of the new Innovation and Training Center in Hamburg, and to the overhaul of the electrolytic refining facility (tankhouse) at the Lünen site. Investment in the FCM project, amounting to € 14 million in the fiscal year, was derecognized together with the amounts invested in the previous year (€ 23 million in total) after an announcement was made to terminate the project.

Inventories decreased marginally by € 7 million to € 815 million (previous year: € 822 million). Whereas raw material inventories decreased by € 70 million due mainly to a decline in copper-bearing concentrates, inventories of finished goods and work in process increased by € 63 million as at the closing date. This was particularly due to the planned shutdown of primary copper production in Hamburg.

Trade accounts receivable increased by € 77 million compared to the previous year, primarily due to higher receivables in the product areas for precious metals and rod, due to both increases in volumes and prices.

Overall, total assets increased by € 201 million to € 4,010 million compared to the previous year. Therefore, the comparative share attributable to fixed assets was 54% (previous year: 56%), while inventories accounted for 20% (previous year: 22%) and receivables and other assets accounted for 16% of total assets (previous year: 12%).



Equity increased by € 125 million due to the earnings generated for the fiscal year reported. The dividend paid, amounting to € 69 million, had a counteracting effect. Equity therefore amounted to € 1,566 million (previous year: € 1,510 million). The equity ratio was nearly unchanged at a level of 39% (previous year: 40%).

Provisions increased in total by € 26 million to € 284 million. The growth was due to higher pension provisions, personnel-related provisions, and accruals for outstanding invoices. The tax provision that had been set up in respect of a completed tax field audit was utilized when the related tax arrears were paid.

Bank borrowings decreased by € 11 million to € 267 million (previous year: € 278 million).

Trade accounts payable increased by € 61 million to € 530 million as at the closing date, primarily due to concentrate deliveries whose due dates for payment were after the closing date. Payables to affiliated companies primarily comprise borrowings, which increased within the context of normal financial transactions, from € 1,129 million to € 1,206 million. Other payables amounted to € 16 million.

#### Balance sheet structure of Aurubis AG

in %	9/30/2019	9/30/2018
Fixed assets	54	56
Inventories	20	22
Receivables, etc.	16	12
Cash and cash equivalents	10	10
	<b>100</b>	<b>100</b>
Equity	39	40
Provisions	8	7
Liabilities	53	53
	<b>100</b>	<b>100</b>

Aurubis uses assets under the terms of leasing agreements that are not recognized as assets in the balance sheet. Financial commitments deriving from leases amounted to € 16 million.

#### FINANCIAL POSITION

Net borrowings were at € 737 million as at September 30, 2019 (previous year: € 744 million). They resulted from bank borrowings of € 267 million (previous year: € 278 million), receivables from and payables to subsidiaries of € 882 million deriving from refinancing (previous year: € 890 million), after deducting cash and cash equivalents of € 412 million (previous year: € 424 million).

Cash pooling arrangements exist between Aurubis AG and its subsidiaries. For a further analysis of Aurubis AG's liquidity situation, refer to the explanations concerning the financial position that are included in the Combined Management Report [Q pages 84–85](#). Aurubis AG's financing was secured at all times.

In addition to cash and cash equivalents, Aurubis AG had access to unutilized credit line facilities and thus has adequate liquidity reserves. Furthermore, within the context of factoring agreements, Aurubis AG sold receivables without recourse as a financing instrument.

#### Capital expenditure

In the past fiscal year, investments of € 126 million were made at the Hamburg and Lünen sites (previous year: € 111 million). Investments were primarily related to the shutdown of primary copper production in Hamburg, the FCM project, the construction of the new Innovation and Training Center in Hamburg, and the overhaul of the electrolytic refining facility (tankhouse) at the Lünen site. Furthermore, investments were made in various infrastructure and improvement measures at the Hamburg and Lünen plants.

# Risk and Opportunity Report

## Integrated risk and opportunity management

Risks and opportunities are elements of our business activities and are essential to the company's success. As part of our operating business and our strategic management, we weigh opportunities and risks against one another and ensure that they remain balanced. We aim to identify and evaluate risks and opportunities as early as possible.

Aurubis AG's risk and opportunity situation is inherently closely linked to the Aurubis Group's risk and opportunity situation. In this respect, the statements of the company's management on the overall assessment of risks and opportunities also serve as a summary of Aurubis AG's risks and opportunities.

## Risk management system

Our objective in risk management is to manage and monitor the risks associated with our business with the help of a risk management system (RMS) suited to our activities. Identifying and observing risk development early on is of major importance. Furthermore, we strive to limit negative effects on earnings caused by risks by implementing appropriate and economically sound countermeasures.

Risk management is an integral component of the centralized and decentralized planning, management, and monitoring processes and covers all of the Aurubis Group's main sites, business sectors, and central functions. The planning and management system, risk reporting, open communication culture, and risk reviews at the sites create risk awareness and transparency with regard to our risk situation.

Risk management officers have been appointed for all sites, business sectors, and central functions, and they form a network within the Group. The Group headquarters manages the network. The RMS is documented in a corporate policy.

Standard risk reporting takes place bottom-up each quarter using a uniform, Group-wide reporting format. Within this format, the identified risks and risks beyond a defined threshold are explained and evaluated on the basis of their probability of occurrence and their business significance. Measures to manage them are then

outlined. The risks registered with Group headquarters are qualitatively aggregated into significant risk clusters by Corporate Risk Management and reported to the entire Executive Board. The report also establishes the basis for the report to the Audit Committee as well as external risk reporting.

## Potential effect on earnings

in € million	> 1	> 5	> 20	> 50
<b>Likelihood</b>				
high	medium	medium	high	high
medium	low	medium	medium	high
low	low	low	medium	medium
unlikely	low	low	low	medium

In the report to the Executive Board and the Audit Committee, the qualitatively aggregated risk clusters are assessed with due regard to risk management measures (net perspective) based on their probability of occurrence and the potential effect on earnings pursuant to the spreads included in the table, and are classified as low, medium, or high.

## Independent monitoring

The RMS is subject to routine monitoring and review. Internal Audit monitors risk management and compliance with the internal control system using systematic audits. As a process-independent authority, it contributes to the correctness and improvement of the business processes, and to the effectiveness of the installed systems and controls.

In addition, the auditors review our early risk detection system to ensure that it adheres to legal requirements. They report the audit results to the Executive Board and the Supervisory Board (Audit Committee).

Furthermore, the Audit Committee deals intensively with risk management issues. The Group risk management officer regularly informs the committee and the Executive Board about current developments.

## Explanation of relevant risks

In the following sections, the risks associated with our business are explained according to our risk clusters. The main measures and instruments we use to counter these risks are also described here. We have separately indicated risks and risk-relevant issues that we currently classify as potentially medium to high.

### SUPPLY AND PRODUCTION

The ability to keep the production facilities supplied with raw materials and the availability of these facilities are of central importance for the Aurubis Group. We limit the associated risks by implementing a range of specific measures.

To ensure the supply of copper concentrates for our facilities, we have entered into long-term agreements with a number of concentrate suppliers from various countries. In this way, we are able to reduce the risk of production interruptions caused by possible delivery failures. We were able to fully supply our primary smelters with concentrates during the past fiscal year. The risk of volatile treatment and refining charges on the spot market is also limited by the long-term nature of the agreements.

The recycling facilities were fully supplied during the past fiscal year, thanks to our extensive international supplier network. From today's standpoint, we also expect a very good supply situation and full utilization of the facilities for fiscal year 2019/20. There are ongoing refining charge volatilities due to the general metal price trend, the collecting behavior and inventory management of the metal trade, the international economic situation and competition for the secondary raw materials relevant for Aurubis.

A key means of countering supplier-specific risks within the supply chain is Business Partner Screening. This instrument analyzes existing and potential business partners to assess their integrity in relation to social and ecological criteria, among other factors. The focus of our interest is on topics such as compliance, corruption, human rights violations, and environmental aspects. The decision to enter into a contract with business partners with increased risk is only made after extensive review, and in consultation with the Sustainability and Compliance departments.

The material for the facilities producing copper products mainly comes in the form of copper cathodes manufactured within the Group. This allows us to simultaneously generate higher added value and control the quality of copper products during the entire process. We also procured a sufficient volume of copper-bearing raw materials for the production plants belonging to Segment Flat Rolled Products. In this case, we also expect a similar situation for the coming fiscal year.

Overall, plant availability was unsatisfactory. There were multiple unscheduled shutdowns in the course of the fiscal year, especially in Hamburg, Pirdop, and Lünen. We formed an interdepartmental team with the objective of developing a deeper understanding about why the leaks occurred and how we can avoid them in the future. During the reporting year, this team worked on identifying the reasons and developing solutions to significantly reduce the frequency of these leaks.

We also took organizational measures to handle potential incidents that could result from events such as flooding or fire. Among these were emergency plans or regular exercises for the purpose of training our employees. We also addressed the risk of malfunctions by carrying out regular maintenance work and by keeping critical replacement parts on hand.

Taking into account the measures described above, we regard the risk of insufficient supply as “medium.” We adjusted the risk of strongly limited availability of our production facilities from “low” to “medium” due to the unscheduled shutdowns.

We deal with logistics risks by implementing a thorough, multi-step selection and evaluation process for service providers, by avoiding single sourcing as far as possible, and by preventively developing backup solutions. We also have an international network of qualified service providers at our disposal. This helps us to prevent weather-related risks in the transport chain, for example, by contractually arranging a selection of appropriate transport alternatives.

## SALES

In addition to supply and production risks, the Aurubis Group also faces sales risks, which we classify as “medium.”

Generally speaking, risks can arise from negative deviations from our predictions of the markets' economic development, which we have outlined in the Forecast Report. In particular, a weakening of the overall economy in Europe can negatively impact demand for our products. This applies to our sales of copper products such as wire rod, shapes, and the portfolio of Segment Flat Rolled Products, as well as sulfuric acid.

Thanks to economic analyses and estimates regarding economic trends, we are in a position to adjust our individual sales strategies to changing conditions as needed, thus countering any risks that arise.

Cathodes that are not processed further internally by Aurubis are sold on the international copper cathode market.

We are closely monitoring the current discussions about the possibility of additional trade restrictions or tariffs resulting from the trade conflict between the US and China as well as between the US and Europe. The same is true for the Brexit talks, though the possible impacts of that particular issue on the Aurubis Group are of minor importance from the current perspective.

Business partners on the sales side are also assessed using Business Partner Screening. The statements made in the previous section (Supply and production) can be referenced in this regard.

## ENERGY AND CLIMATE

Energy prices increased in the past fiscal year. Through an energy supply contract that has been in place since 2010, we have secured most of the electricity our main German sites need at an internationally competitive price. We also deal with fundamental supply security, as well as the potential and limitations of more flexible energy sourcing (for instance, as part of the northern German joint project NEW 4.0), which is becoming increasingly necessary due to the rising, volatile feed-in of renewable energies.

Burdens resulting from changes in potential cost drivers such as the German Renewable Energy Sources Act (EEG), the emissions trade, grid charges, and the eco-tax are generally difficult to quantify reliably because of the ongoing uncertainty of the legal situation and the changing political conditions. We expect costs to rise in the medium term due to the German Energy Collection Act (December 2018) and the Energy Line Extension Act.

The copper production and processing industry is expected to continue receiving free allocations of emission trading allowances for direct CO<sub>2</sub> emissions between 2021 and 2030 due to its carbon leakage status. However, taking into account the political goals of the Paris Agreement, we expect a decline in the free allocation of allowances. The CO<sub>2</sub> price increased substantially again in the past year. The supply of CO<sub>2</sub> certificates is set to be significantly reduced in the coming trading period, which should raise prices considerably. The political decision-making process regarding the form and amount of compensation for indirect CO<sub>2</sub> costs in electricity as of 2021 has started. The copper sector needs to remain eligible for compensation as a matter of principle.

Currently (as of November 12, 2019), the European Commission's Directorate-General for Competition is striving to reduce the number of sectors with carbon leakage status. We are monitoring the process of redefining the state aid guidelines and are advocating for the copper sector to continue receiving electricity

price compensation. On the whole, we see a risk of cost increases as a result of the EU emissions trading system.

On the customer side, increasing demands for transparent goals and strategies related to effective production processes, energy, and CO<sub>2</sub> efficiency could influence future copper product sales, particularly when it comes to customer acquisition and retention. We are countering this with steps such as annual climate reporting and evaluations of such reporting conducted by the CDP (formerly the Carbon Disclosure Project).

Aurubis takes the protection of the climate seriously. The company highlights the significance of this issue by publishing Scope 1 and Scope 2 emissions (CO<sub>2</sub>) as part of the separate Non-Financial Report [Q CO<sub>2</sub> emissions, page 47](#). Aurubis counters the risks of climate change with an energy management system at all of the main sites, among other things. The different energy efficiency and CO<sub>2</sub> reduction projects outlined in the Non-Financial Report [Q page 46](#) have prevented about 74,000 t of CO<sub>2</sub> per year since 2013, contributing to the achievement of climate protection goals, the general shift in heating methods, and the internal CO<sub>2</sub> reduction target of the current Sustainability Strategy. As mentioned previously in the “Supply and production” section, Aurubis is also subject to risks in the transport chain due to extreme weather. The company counters these risks through geographic diversification in the supply chain, the storage of emergency reserves to maintain production, and the availability of alternative logistics service providers, among other things. Furthermore, water levels (flooding/low water) are observed in the key waterways to be able to initiate countermeasures in good time if needed.

In the future, the topic of energy and the associated risks, currently classified as “medium,” will continue to be very important for Aurubis as an energy-intensive company.

## FINANCE AND FINANCING

Metal price and exchange rate fluctuations represent a potential risk in the buying and selling of metals. Foreign exchange and metal price hedging substantially reduce this risk. Metal backlogs

are hedged daily with financial instruments such as spot and forward contracts. Similarly, spot and forward exchange contracts are used to hedge foreign currencies and, on a daily basis, to minimize foreign exchange risks arising from exchange rate fluctuations affecting foreign currency metal transactions. We only select creditworthy firms as counterparties for hedging transactions to minimize the credit risk.

We hedge expected receipts from foreign currencies, especially the US dollar, with options and forward exchange transactions in some cases. We will continue this in the future as well and expect that we can reduce the risks from metal price and exchange rate fluctuations to a reasonable level with these measures.

Credit risks from trade accounts receivable are largely hedged by commercial credit insurances. Internal risks are only permitted to a very limited extent and after review. The development of the outstanding receivables is monitored closely. During the reporting period, there were no significant bad debts. We also do not foresee any increased risks for the future.

The liquidity supply, which is very important for the Aurubis Group, was secured during the past fiscal year. The credit lines at the banks were also sufficient. The Aurubis Group has a stable financial situation in the new fiscal year as well and can finance possible fluctuations from operating business through its credit lines. Overall, we classify the finance and financing risks as “medium.”

## INFORMATION TECHNOLOGY

Aurubis is additionally subject to IT risks that can impact areas such as supply, production, and sales. These risks were taken into consideration in the company’s risk assessment. From the current perspective, however, the risks are classified as “low” due to the risk minimization measures described in the following.

We handle risks related to the availability of our IT systems with continuous monitoring, redundant infrastructure, and ongoing adjustments to the state of the art in IT. We counter the risks of possible incidents or disasters with the redundant design of our IT

infrastructure, as well as data recovery and continuity plans. We limit the risks that can result from unauthorized access to company data, as well as cybercrime, by restricting access rights, carrying out security reviews, and using modern security technologies.

### **ENVIRONMENTAL PROTECTION AND OTHER ASPECTS**

There is always a risk that environmental or regulatory provisions could become more stringent, leading to added costs or limitations in product fabrication and marketing. For example, there is a risk that increasingly strict environmental legislation will restrict the marketing of iron silicate stone in certain sales sectors. The German Substitute Building Materials Ordinance, which is intended to create uniform national regulations for the use of substitute building materials, is currently in the planning stage and has a strong influence on the future use of iron silicate in road construction. We want to achieve greater flexibility in marketing iron silicate by expanding our granulation capacities, among other things.

In addition, environmental risks resulting from the possible failure to comply with thresholds and from violations of requirements can have legal consequences. Ensuring the environmentally sound operation of our production facilities helps prevent these situations. We are an international leader in environmental protection, which is confirmed by annual certifications in accordance with DIN EN ISO 14001 and EMAS, for example. We consider ourselves to be well positioned for the future in this regard. Nevertheless, operational incidents that could have an adverse impact on the environment cannot be completely ruled out. Due to the higher level of uncertainty regarding the marketing of iron silicate, we are increasing the risk assessment for environmental protection from "medium" to "high."

In a plant with complex processes, employees' specialist knowledge is an important factor for ensuring performance quality. We have established different measures that are intertwined with each other so that Aurubis can continue to count on employees' knowledge. Among these are partnerships with universities, through which we establish ties with qualified young people, and qualification measures, through which we foster the development of professionals and managers within the company.

Occupational safety and health protection are high-priority areas for us. Responsibility for these issues rests with the management, the supervisors, and each individual in the company. Detailed risk assessments, audits, cross-site checks, training, and campaigns to strengthen employees' safety awareness support our Vision Zero goal, which means zero work-related accidents, injuries, and illnesses.

The violation of laws can have serious consequences for both Aurubis as a group and for its employees and business partners. We therefore consistently follow all legal requirements. Significant compliance risks are identified, analyzed, and addressed by compliance management. We counter legal and tax risks with organizational procedures and clear management structures. We closely follow political discussions on tax issues, for example on the financial transaction tax and capital tax, as well as their possible effects.

Furthermore, selected risks are largely covered by insurance policies. We rely on the expertise of an external insurance broker for this purpose.

### **NON-FINANCIAL RISKS WITHIN THE SCOPE OF THE SEPARATE NON-FINANCIAL REPORT**

Non-financial risks were assessed in accordance with the CSR Directive Implementation Act. In the process, no non-financial risks were identified that were very likely to cause serious negative impacts on employee and environmental matters, on respect for human rights, on the prevention of corruption and bribery, or on social matters within the meaning of Section 289c (3) and Section 315c (2) of the German Commercial Code (HGB). Nevertheless, it is important to us to handle non-financial risks even if they are evaluated as non-material according to the strict definition of the CSR Directive Implementation Act.

We have developed and implemented related management approaches to address these non-financial risks.

## Internal control and risk management system relating to the consolidated accounting process

(Report pursuant to Section 289 (4) and Section 315 (4) of the German Commercial Code (HGB))

The objective of the internal control system (ICS) for the accounting process is to ensure that financial statements are prepared in compliance with regulations. Aurubis has an internal control and risk management system in which structures and processes related to the accounting process are defined and implemented in the organization. This ensures that the Group accounting procedures are reliable and performed correctly, that business transactions are thoroughly reported in a timely manner as prescribed by law and the Articles of Association, and that legal norms and internal guidelines on accounting are observed. Amendments to laws and accounting standards are continuously analyzed to establish their relevance for the consolidated financial statements, and resulting changes are incorporated into the Group's internal processes and systems.

### PRINCIPLES OF THE INTERNAL CONTROL SYSTEM AS RELATED TO ACCOUNTING POLICIES

As the parent company, Aurubis AG prepares the Aurubis Group's consolidated financial statements. The financial reporting of the consolidated Group companies that are included in the consolidated financial statements takes place prior to this process. These Group companies prepare their financial statements locally and transfer them to the Corporate Accounting department via a defined uniform Group-wide data model. The Group companies are responsible for compliance with the valid Group-wide guidelines and procedures, as well as for the correct and timely execution of the accounting-relevant processes and systems.

The internal control system includes the following main principles:

- » Ensuring standardized accounting procedures in the preparation of the separate financial statements of Aurubis AG by systematically implemented controls, which are supported by manual accounting controls and other authorization and approval procedures (separation of functions, access regulations and limitations, the use of the dual control principle, guidelines on payment transactions)

- » Ensuring uniform Group accounting procedures in accordance with IFRS through the application of uniform accounting regulations and policies, central audit of reporting packages, analysis of deviations from the budget, and quarterly reporting as part of centralized discussions on earnings
- » Compiling external accounting and internal reporting by all Group companies in a uniform consolidation and reporting system
- » Overall consolidation of the consolidated financial statements by Corporate Accounting, which is responsible for the centralized consolidation, coordination, and monitoring of the standards related to the schedule and the process
- » Giving the Group companies support in accounting procedures by having a central contact person in Corporate Accounting
- » Clarifying special technical questions and complex issues related to specific cases with an external consultant

### INTERNAL AUDIT AS A PROCESS-INDEPENDENT OBSERVER

Internal Audit examines the reliability of the accounting practices at local and Group level, among other things. In particular, it assesses existing internal process policies and the degree to which they are adhered to in practice. In its audits, Internal Audit provides information about risks that arise from identified deviations, as well as recommendations with regard to the adjustments to be made.

## Opportunity management system

In addition to risk management, opportunity assessment is an important element of the Aurubis Group's planning, management, and control processes. Its objective is the early identification of internal and external opportunities that could positively impact our economic success. These opportunities are assessed and weighed against the risks associated with them. The next step is to define initiatives and measures to help tap this potential. The process of identifying and assessing opportunities is part of our annual integrated strategy and planning process.

In order to promptly recognize opportunities that arise, we continually monitor and analyze the supply and demand aspects of our markets, the competitive landscape, and global trends. Identifying potential opportunities is a daily management responsibility – on the level of both the operational areas and the Group.

## Explanation of relevant opportunities

### **RISING GLOBAL DEMAND FOR COPPER AND METALS FOR TECHNOLOGY**

Copper is one of the most important metallic raw materials. Demand for copper is aligned with global economic growth, especially in the electrical, electronics, construction, and automotive industries. Global trends such as increasing energy scarcity, rising urbanization, the growth of the world's middle class, digitalization, and electric vehicles will continue to increase not only copper demand in the long term, but also the demand for other metals such as tellurium, nickel, platinum, and palladium. If the economy and the demand for our products develop more favorably than currently expected in the markets relevant to us, this could have a positive influence on the Aurubis Group's earnings.

### **CHANGES IN TREATMENT AND REFINING CHARGES AND MARKET PRICES FOR OUR PRODUCTS**

The Aurubis Group's earnings situation is largely determined by the treatment and refining charges for copper concentrates, copper scrap, and recycling materials, as well as by the market prices for our products, such as wire rod, copper cathodes, and sulfuric acid. If treatment and refining charges and market prices for our products develop more positively than currently forecasted, this could positively impact the Aurubis Group's earnings.

### **INCREASING SIGNIFICANCE OF SUSTAINABILITY AND RESOURCE EFFICIENCY**

Aurubis is the world's leading recycler of copper and complex secondary raw materials. In light of the rising importance of resource efficiency with regard to sustainability, we expect demand for recycling solutions to continue growing. This is also supported and promoted by increasingly strict national and international legislation. Thanks to our multi-metal recycling activities and proximity to our copper product customers, we consider ourselves to be in a position to offer expanded closing-the-loop solutions. Should the acquisition of Metallo be approved by the EU Commission for Competition, Aurubis will be able to extend its recycling capabilities even further. If national and international recycling regulations broaden and demand for recycling solutions in our markets grows more strongly than expected, this could positively affect the Aurubis Group's procurement situation and therefore its earnings.

### **FURTHER DEVELOPMENT OF EXPERTISE IN COMPLEX RAW MATERIAL PROCESSING**

Both primary and secondary raw materials are becoming increasingly complex in that their copper content is decreasing and the concentrations of accompanying elements and impurities in them are rising. One of Aurubis' particular strengths is in processing complex primary and secondary raw materials. Going forward, Aurubis will continue to build on this strength and thereby contribute to achieving efficient and resource-friendly production processes for the raw materials of the future. If we build up additional expertise in this area, this could positively influence the Aurubis Group's earnings.

### **CONTINUOUSLY IMPROVING PROCESSES AND COST POSITION AND ACHIEVING SYNERGIES**

Our markets are globally competitive. Operating excellence is therefore exceedingly important for us. We continuously work on optimizing our processes and improving our cost position. Furthermore, we are always identifying and implementing means to increase the synergy potential within the network of Aurubis plants. If we go beyond the targets connected to initiated improvement measures, this could have a positive impact on the Aurubis Group's earnings.



### **CAPACITY EXPANSION LINKED WITH INTERNATIONALIZATION**

We see additional growth potential in an expansion of our processing capacities in regions with favorable conditions and in proximity to our procurement and sales markets. We will continue investing in our existing sites but will also strive to expand our supplier and production networks further. If we are in a position to expand our capacities even more and, better still, do so with lower capital expenditure than expected, this could positively affect the Aurubis Group's earnings.

### **DEVELOPMENT OF SOLUTIONS FOR INDUSTRIAL CUSTOMERS AND SUPPLIERS**

We work closely with our suppliers and customers at all levels of our value chain. This includes developing products for individual customers, providing additional services, processing specific raw materials, and offering additional closing-the-loop solutions. If the demand of our customers and suppliers for our solutions is stronger than forecast, this could have a positive effect on the Aurubis Group's earnings.

### **INNOVATIONS FROM FUTURE RESEARCH AND DEVELOPMENT ACTIVITIES**

Within the scope of our research and development activities, we work on innovations to create a competitive advantage for ourselves in the future. For example, we are working on more resource-efficient processing of complex material streams in our smelters and refineries.

## **Assessment of the Aurubis Group's risk and opportunity situation**

No risks threatening the company's continued existence arose in the reporting year. There were no particular structural changes in the Group's risks. According to our current assessment, there are no risks that endanger the company's continued existence.

Both the Audit Committee and the auditors ascertained that the Executive Board and Supervisory Board have taken the measures prescribed by Section 91 (2) of the German Stock Corporation Act (AktG) in an appropriate manner and that the legally required early risk detection system fulfills all requirements.

For a complete overview of company activities, the opportunities of the Group have to be considered in addition to the risks. We are confident that we will be able to utilize the opportunities presented by our business portfolio, our expertise, and our ability to innovate. At the same time, these factors put us in a position to counter existing risks successfully. Furthermore, we are convinced that we have the appropriate processes, measures, and instruments in place to identify important opportunities and manage relevant risks.

# Forecast Report

The statements made in the Forecast Report are based on our assessments of the overall economic conditions, of global copper market trends, and of Aurubis' raw material and product markets. These assessments are based on analyses by economic research institutes, organizations, and industry associations, as well as on internal market analyses. The forecasts for the future business performance shown here take into account the segment targets, as well as the opportunities and risks posed by the expected market conditions and competitive situations in the forecast period of October 1, 2019 to September 30, 2020. The opportunities and risks affecting the Aurubis Group are explained in detail in the Risk and Opportunity Report. Our forecasts are regularly adjusted. The following statements are based on our knowledge in December 2019.

From our current perspective, there are numerous factors with the potential to influence the Aurubis Group's markets. These include the slowdown in global economic growth and the political situation in the US, where the fiscal policies being pursued and tense trade relations with China could especially affect the markets. In China, this impacts ongoing economic growth in particular. Likewise, in Europe, monetary policy, the fiscal policy of different member states, and Brexit and its side effects could register an effect as well. Increasing protectionism around the world and the political crises in the MENA region (Middle East and North Africa) could also have a bearing on the market situation.

## Overall economic development

The IMF estimates that the global economy will grow by 3.4% in 2020. The organization at the same time suggests that there are continued risks related to the uncertainty of political developments – especially the trade conflict between the US and China. Other factors include increasing protectionism, as well as trends moving away from multilateral trade relations based on fixed rules.

Newly industrialized and developing countries will once again record the strongest growth in 2020. The IMF forecasts a 4.6% growth rate for this group of countries. The IMF attributes the decline in growth expectations compared to earlier forecasts to

the structural decline in Chinese growth in connection with the negative impacts of the trade dispute with the US. Moreover, growth is weaker in Russia and India. The economic outlooks for larger Latin American economies such as Argentina, Brazil, and Chile have also recently dampened. The upward trend in Asian countries may be slightly below the prior-year level in 2020, with 6.0%, according to the IMF. This trend includes China, which is important for the copper market.

The outlook for developed countries is more subdued overall, which can be seen in a reduced growth forecast of 1.7%. At 2.1%, economic growth in the US in 2020 is predicted to be lower than the previous year, due in part to the uncertain outcome of the trade conflicts and the weakening effect of corporate tax breaks from 2017. In the eurozone, the IMF sees 2020 economic growth at prior-year level, forecasting 1.4%. The IMF estimates that the German economy will grow by 1.2% in 2020, stronger than the previous year. The concrete impacts of Brexit continue to be a risk factor for economic development in the European Union.

Individual sectors such as the electrotechnical industry, the automotive industry, and the construction sector are important consumers of copper products. The economic developments expected here are as follows:

In its last forecast for the global electrical and electronic products market dated mid-2019, the German Electrical and Electronics Manufacturers' Association predicts 3% growth for the sector in 2020. This forecast was based on 53 countries, which together comprise approximately 96% of the global market. Europe accounts for 17% of the global market. Slight growth of 2% is expected there for 2020. A somewhat lower growth rate of about 1% is expected for Germany.

According to the European Automobile Manufacturers' Association, demand for automobiles in the EU decreased by 1.6% in the first nine months of 2019, with about 11.8 million new car registrations. An initial recovery of the market was evident in fall 2019, as registration figures rose by roughly 15%. The substantial increase is also related to the lower comparative figure from the same month of the previous year, as car manufacturing declined distinctly in fall 2018 due to the switch to the new WLTP (Worldwide Harmonized Light Vehicle Test Procedure) for cars.

We anticipate recovery in the demand and sales situation for fiscal year 2019/20. We also expect positive growth momentum from the intensifying discussion regarding electric vehicles.

According to the main association of the German construction industry, the economic situation in the sector developed better than expected in 2019. The industry association expects an increase of 5 to 6% for 2020. All construction categories and regions are supposed to contribute to the positive trend.

Based on these forecasts, we expect fairly stable economic development in 2020 in the three most important sectors for copper applications compared to the previous year. However, political and economic developments may decisively influence the respective market situations.

The effects of European and German energy and environmental policy are important for us but difficult to forecast in detail.

## Sector development

The fundamental situation on the copper market offers analysts good reason to assume that a high copper price level similar to 2019 can also be expected for 2020. According to a survey of market experts carried out by Thomson Reuters, the average copper price in 2020 should be at a level of US\$ 6,030/t (October 2019).

Much will again depend on the developments in copper smelter production. China is still the central focus. According to the news service CRU, 2020 will see further ramp-ups of smelter projects in China, though some of them will replace older smelting capacities that can't fulfill the rising environmental standards in China. These stricter standards and increasing financing barriers in China also make it more difficult to implement planned local smelter projects. The construction of smelters with a total capacity of over 100,000 t per year for 2020, which CRU expects, is significantly beneath the 2019 level. It should also be noted that the ramp-up phase generally takes a long time before full capacity utilization is achieved.

The International Copper Study Group (ICSG) anticipates a higher increase of 4.0% in the global output of refined copper for 2020 (2019: 0.5%). Among other factors, the organization attributes this to the fact that global output was restricted in 2019 due to various smelter shutdowns and points to the capacity expansions in China during the reporting year.

Good demand for refined copper can be expected again for 2020, as the metal is an essential material for economic development in key sectors such as the electrical and automotive industries and construction. Solid economic growth in countries with the strongest demand, among them China, the US, and European countries, sets the agenda in this respect.

China will account for about half of global copper demand in 2020 (50.6%) (CRU). The majority of this demand will come from investments in infrastructure projects, among them energy grid projects requiring copper. The Chinese government's Belt and Road Initiative (BRI) should be emphasized especially. In the development of the Chinese machinery and transport sector, there is also growth potential for copper applications. CRU expects China's copper demand to increase by around 1.8% in 2020.

According to the CRU, the global market for refined copper is expected to have a slight production surplus overall in 2020. This should amount to 95,000 t and, against the backdrop of a roughly 24-million-ton market, amounts to a largely balanced situation. As in the past, unforeseen developments can lead to major changes. From today's perspective, however, the expectation of a balanced market appears to be justified in light of foreseeable developments on the production and demand side. Other market experts, such as the ICSG and the research company Wood Mackenzie, also view the 2020 copper market as largely balanced or expect a slight production surplus.

## Raw material markets

### COPPER CONCENTRATES

On the concentrate markets, new projects are expected to some extent in 2020. Mines will likely continue to utilize their full production capacities, especially on the basis of the forecasts for the average copper price in 2020. Accordingly, we anticipate a good supply of copper concentrates on the global market. There could be uncertainties, however, due to local political tensions and unrest in countries with larger copper deposits.

For 2019 annual contracts, the benchmark treatment and refining charge (TC/RC) for processing standard copper concentrates was US\$ 80.8/t and 8.08 cents/lb. Despite a balanced copper concentrate market in 2019 overall, we have anticipated a possible tightening of the market in connection with declining TC/RCS in 2020.

In late November 2019, the first benchmark between a large mining company and several Chinese smelter operators was agreed at US\$ 62/t and 6.2 cents/lb for processing standard copper concentrates in 2020. This confirmed our assumption that the market would tighten, in connection with higher pressure on copper concentrate TC/RCS.

Nevertheless, due to our position on the market, our contract structure, and our supplier diversification, we are confident that we will once again secure a good supply.

### RECYCLING

The copper scrap market was once again stable at a high level in the course of fiscal year 2018/19. With the same conditions as the last fiscal year, we expect a good supply situation with similar refining charges.

Business in this area, particularly for copper scrap, is conducted with short timelines and is therefore dependent on a variety of influences that are difficult to forecast. For instance, falling metal prices could lead to a market change with declining refining charges in the short term. Our broad market position absorbs supply risks in this case, however. The development of copper scrap and blister copper supply therefore remains difficult to gauge. In Q1 2019/20, we are already supplied with sufficient material with good refining charges.

## Product markets

### MARKETS FOR COPPER PRODUCTS

Adequate statements about the development of the copper product business in the new fiscal year are only possible to a limited extent since the negotiation season for 2020 sales contracts has not yet ended.

One factor that is already clear is the copper premium Aurubis has established for European wire rod and shapes customers for the coming calendar year. Aurubis kept this premium stable at US\$ 96/t for its European customers (2019: US\$ 96/t). The stable copper premium reflects positive expectations regarding demand from our European customers in 2020.

Despite the stable economic situation in the relevant sectors and economic growth expectations at prior-year level in Europe in 2020, we expect to conclude the negotiation season for copper products with contracts that are positive for us. Good customer relationships in our key markets support this. We will also continue expanding our business with new customers.

### CATHODES

Sales of free cathode volumes on the market are based on the planned processing of our cathode output in the Group.

### COPPER WIRE ROD

Wire rod business is generally somewhat weaker in the first quarter of a new fiscal year due to seasonal factors. For 2020, we expect demand in Europe to be at a level similar to 2019. This will depend considerably on the ongoing economic trend, which, from today's perspective, continues to be influenced by uncertainties in the key customer industries. Only from the construction and infrastructure sector do we still anticipate a good demand level in 2020.

### COPPER SHAPES

From the current perspective, demand for oxygen-free materials should remain robust. Demand for our higher-alloyed materials is still strong as well. The latest company mergers in the semifinished product sector in Europe provide market opportunities for higher sales, as do the changes in the trade flows in Asia and North America.

### SPECIALTIES

Like the other copper products, our specialties, which include bars and profiles, are dependent on further economic development. For 2020, we anticipate stable demand at prior-year level but continue to expect strong competitive pressure when it comes to standard products.

### FLAT ROLLED PRODUCTS

For flat rolled products, we see a few different trends. The US economy, whose development is crucial for our plant there, is expected to remain challenging in 2020.

In the European market for flat rolled products, we expect the tight demand situation of 2019 to continue. The production of connectors in particular is highly dependent on demand from the automotive sector, which has been weakening as of 2019. Although we expect further growth momentum from the increase in electric vehicles in the medium term, we don't anticipate a significant market recovery in the short term.

### SULFURIC ACID

Sulfuric acid sales are dependent on short-term developments, a fact that is reflected in the duration of the contracts. In addition, sales opportunities are very different from region to region, with varying conditions accordingly. Aurubis supplies the global sulfuric acid market, with a focus on Europe, North America, and North Africa. The relationship between local sales and exports fluctuates depending on market circumstances. Since fiscal year 2018/19, Aurubis has also had a sales office for sulfuric acid in Tampa, Florida.

Following a considerable tightening of the sulfuric acid market with correspondingly lower prices in fiscal year 2018/19, market observers such as ICIS and CRU expect a balanced market at the end of 2019. The current insights for Q1 2019/20 also signalize a stable situation for Europe, while demand on the international sulfuric acid markets is influenced by uncertainties.

## Business and earnings expectations for the Aurubis Group

### BUSINESS EXPECTATIONS

In fiscal year 2018/19, we kicked off different initiatives and individual measures within the Group to strengthen Aurubis. We bring them together under the strategy Growth, Efficiency & Responsibility, with which we want to achieve our Vision 2025. Aurubis currently holds leading market positions in many areas – in which we aim to continue developing over the long term.

With the acquisition of the Belgian/Spanish Metallo Group, which is still subject to approval by the European Commission, we want to continue driving external growth. The company specializes in processing non-organic recycling materials and materials with low metal contents. This acquisition would enable us to add to our metals portfolio in areas such as nickel, tin, zinc, and lead in particular. Following approval by the antitrust authority and the closing, we plan to push forward with the integration in fiscal year 2019/20.

The Metallo acquisition would support us on our path to becoming a multi-metal group. In this regard, we have been reporting the sales volumes of gold, silver, lead, nickel, tin, platinum group metals, and minor metals since 2017/18, in addition to information about our copper products. We plan to continue growing through internal and external projects in the future as well.

After the European Commission blocked the sale of Segment FRP in February 2019, we are now 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.

For fiscal year 2019/20, the following maintenance shutdowns are planned or have recently taken place:

At our site in Hamburg (Germany), we carried out a scheduled, legally mandatory maintenance shutdown in October and November 2019. According to our current plans, this will have a roughly € 34 million impact on our result.

At our Lünen site, we will carry out scheduled, legally mandatory maintenance shutdowns in April and September 2020. According to our current plans, this will have a roughly € 11 million impact on our result.

## EARNINGS EXPECTATIONS

Our earnings are subject to quarterly fluctuations because of the nature of our business model. This is due to seasonal factors but may also be caused by disruptions in equipment or operating processes. The first quarter of a fiscal year in particular is shaped by seasonal features, including subdued customer orders and changes in raw material deliveries.

The future development and forecast of Aurubis AG coincide with the general statement on the Aurubis Group.

The outlook for fiscal year 2019/20 is based on the following premises:

- » We expect stable copper demand based on industry forecasts. Product demand from the automotive sector is expected to remain subdued.
- » The level for 2020 annual contracts on the copper concentrate market will likely be substantially lower than in 2019 in light of the November 2019 benchmark.
- » In fiscal year 2019/20, the market trend for copper scrap and sulfuric acid is difficult to forecast due to the short-term nature of the business.
- » The Aurubis copper premium for 2020 has been set at US\$ 96/t (previous year: US\$ 96/t).
- » A significant portion of our revenues is based on the US dollar. We reduce the resulting risks with our hedging strategy.

- » We will transition our efficiency improvement program, which has focused on leveraging efficiency across the Group thus far, to a program with a clear focus on cost savings in 2019/20. The objective is to counteract both inflation and the weaker economic and market conditions that are expected.
- » We expect plant availability for fiscal year 2019/20 to be above that of the previous year overall, especially because of the investments made in our sites within the scope of planned shutdowns.

In fiscal year 2019/20, we are changing the type of our forecast from a qualified comparison to the prior year to an interval forecast. The interval forecast is a bandwidth between two limit values. With this change, we aim at providing a more comprehensive understanding of our expected future performance, while still making room for the inevitable uncertainties and opportunities that the Aurubis Group will face. In light of this new forecast type, we expect the following developments in fiscal year 2019/20:

In total, we expect an operating EBT between € 185 and 250 million and an operating ROCE between 8 and 11% for fiscal year 2019/20.

In Segment Metal Refining & Processing, we expect an operating EBT between € 230 and 310 million and an operating ROCE between 11 and 16% for fiscal year 2019/20. The development of the segment's result will be influenced in part by weaker market conditions, especially a tightening copper concentrate market, compared to the previous year.

In Segment Flat Rolled Products, we expect an operating EBT between € 11 and 15 million and an operating ROCE between 5 and 7% for fiscal year 2019/20. Operating EBT in the reporting period was negatively influenced by a change in the definition of the operating result and an impairment loss recognized against the segment's non-current assets (in total: € 51 million), but these effects aren't expected anymore for fiscal year 2019/20.

## Expected financial situation

At the end of fiscal year 2018/19, Aurubis had € 441 million in available cash (September 30, 2018: € 479 million). The company has additional liquidity through lines of credit amounting to € 350 million from a syndicated loan agreement running until 2023. Aurubis therefore has sufficient liquidity that is not at risk from today's perspective. There is also a credit line of € 380 million for the acquisition of Metallo (bridge financing).

We expect the stable financial situation from the operating business to continue in the coming fiscal year. We intend to settle the scheduled payments due during fiscal year 2019/20, including a bonded loan (Schuldscheindarlehen) of € 127 million, with the existing liquidity.

### GENERAL STATEMENT ON THE FUTURE DEVELOPMENT OF THE AURUBIS GROUP

The general state of affairs of the Aurubis Group will remain influenced by a number of factors in fiscal year 2019/20: from the specific demand of certain markets we serve, to the balance of supply and demand of our raw materials, to the state of global affairs and economic development. In this respect, the development of international trade relationships remains a significant factor of uncertainty.

Following the transitional year 2018/19, we expect to be able to demonstrate a higher operating EBT in fiscal year 2019/20. Operating ROCE is also expected to improve slightly compared to the previous year.

### Forward-looking statements

This document contains forward-looking statements about our current forecasts of future events. Words such as "anticipate," "assume," "believe," "predict," "expect," "intend," "can/could," "plan," "project," "should" and similar terms indicate such forward-looking statements. These statements are subject to a number of risks and uncertainties. Some examples include unfavorable developments in the global economic situation, especially political developments in the US, Europe, and China; a tightening of the raw material supply; and a decline in demand in the main copper sales markets. Further risks include a deterioration of our refinancing options on the credit and finance markets; unavoidable events beyond our control, such as natural disasters, acts of terror, political unrest, and industrial accidents, and their effects on our sales, purchasing, production, and financing activities; changes in exchange rates; a drop in acceptance for our products, resulting in impacts on the establishment of prices and the utilization of processing and production capacities; price increases for energy and raw materials; production interruptions due to material bottlenecks, employee strikes, or supplier bankruptcies; the successful implementation of measures to reduce costs and enhance efficiency; the business outlook for our significant holdings; the successful implementation of strategic cooperation and joint ventures; amendments to laws, ordinances, and official regulations; and the outcomes of legal proceedings and other risks and uncertainties, some of which are described in the Risk and Opportunity Report in this Annual Report. If one of these uncertainties or difficulties occurs, or if the assumptions underlying the forward-looking statements prove to be wrong, the actual results could deviate considerably from the results mentioned or implicitly expressed in these statements. We do not intend, nor do we assume the obligation, to update forward-looking statements continuously, as these statements are based solely on the circumstances on the day of publication.

# Legal Disclosures

## Declaration on corporate governance pursuant to Section 289f and Section 315d of the German Commercial Code (HGB<sup>1</sup>)

The declaration on corporate governance is part of the Combined Management Report [page 17](#), which is printed at the beginning of this Annual Report and is available on the company's website in the "About Aurubis" section under "Corporate Governance."

[www.aurubis.com/corporategovernance](http://www.aurubis.com/corporategovernance)

## Compensation of the Executive Board and Supervisory Board

We explain the basic principles of the compensation system for the Executive Board and Supervisory Board in the Compensation Report of the Corporate Governance Report [pages 24–35](#), which is part of the Combined Management Report. This information is printed in the Annual Report and is available on the company's website in the "About Aurubis" section under "The Group."

[www.aurubis.com/en/about-aurubis/distribution-page---group](http://www.aurubis.com/en/about-aurubis/distribution-page---group)

## Takeover-related disclosures and explanations

### Explanatory report by the Executive Board of Aurubis AG, Hamburg, in accordance with Section 176 (1) sentence 1 of the German Stock Corporation Act (AktG<sup>2</sup>) on disclosures of takeover provisions pursuant to Section 289a (1) and Section 315a (1) of the German Commercial Code (HGB) as at the balance sheet date of September 30, 2019.

The following disclosures as at September 30, 2019 are presented in accordance with Section 289a (1) and Section 315a (1) of the German Commercial Code (HGB).

### COMPOSITION OF THE SUBSCRIBED CAPITAL

The subscribed capital (share capital) of Aurubis AG amounted to € 115,089,210.88 as at the balance sheet date and was divided into 44,956,723 no-par-value bearer shares, each with a notional value of € 2.56 of the subscribed capital.

Each share grants the same rights and one vote at the Annual General Meeting. There are no different classes of shares.

The profit entitlement for any new shares that are issued can deviate from Section 60 of the German Stock Corporation Act (AktG).

### LIMITATIONS RELATED TO VOTING RIGHTS OR THE TRANSFER OF SHARES

According to the Executive Board's knowledge, shareholders' voting rights are not subject to any limitations, with the exception of possible legal prohibitions on voting. Pursuant to Section 71b of the German Stock Corporation Act (AktG), the company is not entitled to voting rights from any of its own shares that it holds.

### SHAREHOLDINGS EXCEEDING 10% OF THE VOTING RIGHTS

One indirect shareholding in Aurubis AG exceeds 10% of the voting rights as at the balance sheet date (September 30, 2019):

Salzgitter AG, Salzgitter, notified the company in accordance with Section 33 (1) of the German Securities Trading Act (WpHG) on December 12, 2018 that its voting interest in Aurubis AG had exceeded the threshold of 25% of the voting rights on December 12, 2018 and amounted to 25.0000006% of the voting rights (representing 11,239,181 votes). Of this total, 25.0000006% of the voting rights (representing 11,239,181 votes) are attributed to Salzgitter AG via Salzgitter Mannesmann GmbH, Salzgitter.

Accordingly, one direct shareholding in Aurubis AG exceeds 10% of the voting rights as at the balance sheet date (September 30, 2019). According to the notification of Salzgitter AG, Salzgitter, dated December 12, 2018, Salzgitter Mannesmann GmbH, Salzgitter, has held 25.0000006% of the voting rights (representing 11,239,181 votes) since December 12, 2018.

<sup>1</sup> Sections of the HGB referenced in the following refer to the version applicable as at September 30, 2019.

<sup>2</sup> Sections of the AktG referenced in the following refer to the version applicable as at September 30, 2019.



Since October 4, 2019, another indirect participation in Aurubis AG's capital exists, which exceeds 10 % of the voting rights: Silchester International Investors LLP, London, notified the company in accordance with Section 33 (1) of the German Securities Trading Act (WpHG) on October 8, 2019 that its voting interest in Aurubis AG had exceeded the threshold of 10 % of the voting rights on October 4, 2019 and amounted to 10.03 % of the voting rights (representing 4,508,268 votes). Of this total, 10.03 % of the voting rights (representing 4,508,268 votes) are attributed to Silchester International Investors LLP, London. Silchester International Investors LLP a) functions as an investment manager for five mixed funds, b) holds full voting rights and the full margin of discretion when investing in funds, and c) does not function as a depository bank, so fund shares are held in the name of the depository bank of each fund. The reported change in shareholdings is based on a series of transactions on multiple trading days.

#### **APPOINTMENT AND REMOVAL OF EXECUTIVE BOARD MEMBERS AND AMENDMENTS TO THE ARTICLES OF ASSOCIATION**

The appointment and removal of members of the Executive Board of Aurubis AG are covered by Sections 84 and 85 of the German Stock Corporation Act (AktG) and Section 31 of the German Codetermination Act (MitbestG) in conjunction with Section 6 (1) of the Articles of Association. Amendments to the Articles of Association are subject to the approval of the shareholders at the Annual General Meeting. The resolution at the Annual General Meeting requires, in addition to a simple majority of votes, a majority that must comprise at least three-quarters of the subscribed capital represented in the vote; Section 179 et seq. of the German Stock Corporation Act (AktG) applies. In accordance with Section 11 (9) of the Articles of Association, the Supervisory Board is authorized to pass amendments to the Articles of Association that only relate to their wording. Furthermore, the Supervisory Board is authorized to adjust Section 4 of the Articles of Association after the complete or partial execution of a subscribed capital increase in accordance with the respective claim to the authorized capital and after the authorization expires. It is also authorized to adjust the wording of Section 4 (1) and (3) of the Articles of Association in accordance with the respective

issuing of new no-par-value bearer shares to the holders or creditors of convertible bonds and/or bonds with warrants, profit participation rights, and/or participating bonds (or combinations of these instruments), which are issued by Aurubis or by companies in which it has an indirect or direct majority interest in return for a cash contribution and as a result of the authorization passed at the Annual General Meeting on March 2, 2017 under item 6 of the agenda. It is also authorized to grant a conversion or option right to new no-par-value bearer shares in the company or to establish a conversion obligation. The same applies if the authorization to issue bonds with warrants or convertible bonds is not exercised after the authorization period expires, or if the conditional capital is not utilized after the deadlines for exercising option or conversion rights or for fulfilling conversion or option obligations have expired.

#### **POWER OF THE EXECUTIVE BOARD TO ISSUE SHARES**

In accordance with Section 4 (2) of the Articles of Association, the Executive Board is authorized, with the approval of the Supervisory Board, to increase the company's subscribed capital in the period until February 23, 2021 by issuing up to 22,478,361 new no-par-value shares in exchange for a cash contribution and/or a contribution in kind, once or in several installments, by up to € 57,544,604.16. The shareholders shall always be granted a subscription right. The new shares can also be acquired by one or more credit institutions with the obligation of offering them to shareholders for subscription. However, the Executive Board is authorized, subject to the approval of the Supervisory Board, to exclude shareholder subscription rights once or on several occasions. Such exclusion is only possible

- a) inasmuch as it is necessary to exclude subscription rights for possible fractional amounts.
- b) up to an arithmetical face value totaling € 23,017,840.64 if the new shares are issued for a contribution in kind.

c) for capital increases against cash contributions up to an arithmetical nominal value totaling € 11,508,920.32 or, if this amount is lower, by a total of 10% of the subscribed capital (the “maximum amount”) existing when this authorization was exercised for the first time (in each case taking into account the possible use of other authorizations to exclude the subscription right in accordance with or in commensurate application of Section 186 (3) sentence 4 of the German Stock Corporation Act (AktG)), if the issuing price for the new shares is not significantly lower than the price of company shares with the same terms on the stock exchange at the time when the issuing price is ultimately fixed.

The subscribed capital allotted to the shares that are issued or have to be issued to fulfill convertible bonds and/or bonds with warrants that are issued after February 24, 2016 in commensurate application of Section 186 (3) sentence 4 of the German Stock Corporation Act (AktG), excluding the subscription rights, or that are sold after February 24, 2016 in commensurate application of Section 186 (3) sentence 4 of the German Stock Corporation Act (AktG) must be included in this maximum amount. It shall not be included if authorizations to issue convertible bonds and/or bonds with warrants pursuant to Section 221 (4) sentence 2 and Section 186 (3) sentence 4 of the German Stock Corporation Act or to sell own shares in accordance with Section 71 (1) No. 8 and Section 186 (3) sentence 4 of the German Stock Corporation Act are granted again at the Annual General Meeting after exercising such powers that have led to inclusion.

d) up to an arithmetical face value totaling € 23,017,840.64, inasmuch as it is necessary to grant holders or creditors of bonds with warrants or convertible bonds issued by the company relating to shares a subscription right for new shares to the same extent as they would be entitled after exercising their option or conversion rights.

In the resolution dated February 9, 2016, the Executive Board of Aurubis AG declared within the scope of a voluntary commitment that it would only make use of the authorizations to exclude shareholders' subscription rights for the duration of the authorization provided in Section 4 (2) of the Articles of Association insofar as the shares to be issued may not exceed 20% of the subscribed capital, neither at the point in time when the authorization becomes effective nor at the time of utilization. At the abovementioned 20% threshold, hypothetical own shares shall be taken into account until the issue of new stocks, which are sold under exclusion of subscription rights, as well as such shares which are to be issued with a conversion or option right or conversion obligation for the purpose of servicing bonds, provided the bonds are issued excluding the preemptive rights of shareholders. If and to the extent that the shareholders at the Annual General Meeting reissue this authorization to exclude subscription rights after an authorization to exclude subscription rights has been exercised, leading to offsetting against the 20% limit previously mentioned, the offsetting that has been carried out is no longer included.

This voluntary commitment was made accessible on Aurubis AG's website for the duration of the authorization. [www.aurubis.com](http://www.aurubis.com)

#### **POWER OF THE EXECUTIVE BOARD TO REPURCHASE SHARES**

With a resolution of the Annual General Meeting on March 1, 2018, the company was authorized until February 28, 2023 to repurchase its own shares up to a total of 10% of the current subscribed capital. Together with other own shares held by the company or attributable to it in accordance with Section 71a *et seq.* of the German Stock Corporation Act (AktG), the shares acquired by the company based on this authorization shall at no time exceed 10% of the company's current subscribed capital. The acquisition of shares for the purpose of trading with own shares is excluded. The Executive Board is empowered to use shares in the company that are purchased on account of this power for all legally permitted purposes, and in particular for the following purposes:

- a) Own shares that have been acquired can also be sold in a way other than a sale via the stock exchange or by means of an offer to all of the shareholders, if the shares are sold in return for a cash payment at a price that is not materially lower than the stock market price of the company's shares with the same terms at the time of the sale. The definitive trading price for the purpose of the arrangement previously mentioned shall be the average closing price of the company's shares with the same terms in Xetra trading (or a comparable successor system) over the last five trading days of the Frankfurt Stock Exchange before the commitment to sell the shares was entered into. The shareholders' subscription right is excluded. This authorization shall, however, only apply on the condition that the shares sold excluding the subscription right may not, in accordance with Section 186 (3) sentence 4 of the German Stock Corporation Act (AktG), exceed 10% of the subscribed capital, either at the time this becomes effective or at the time of exercise of this authorization (the "upper limit"). Shares that are issued during the term of this authorization from authorized capital pursuant to Section 186 (3) sentence 4 of the German Stock Corporation Act (AktG), excluding subscription rights, are to be credited towards this upper limit. Furthermore, this upper limit shall take into account those shares that are issued or are to be issued in order to service convertible bonds and/or bonds with warrants (or profit participation rights, or participating bonds with a conversion right, option right, or conversion obligation, or the company's right to offer), which were issued during the term of this authorization due to an authorization to issue convertible bonds and/or bonds with warrants (or profit participation rights, or participating bonds with a conversion right, option right, or conversion obligation, or the company's right to offer) in commensurate application of Section 186 (3) sentence 4 of the German Stock Corporation Act (AktG), excluding subscription rights. An inclusion that has been carried out is canceled if authorizations to issue new shares from authorized capital in accordance with Section 186 (3) sentence 4 of the German Stock Corporation Act (AktG) or to issue convertible bonds and/or bonds with warrants (or profit participation rights, or participating bonds with a conversion right, option right, or conversion obligation, or the company's right to offer) in commensurate application of Section 186 (3) sentence 4 of the German Stock Corporation Act (AktG) are granted again at the Annual General Meeting after exercising such authorizations that have led to inclusion.
- b) Own shares that have been acquired can also be sold in a way other than a sale via the stock exchange or by means of an offer to all of the shareholders. This is provided that such sale is carried out in return for a contribution in kind by a third party, especially in conjunction with the acquisition of business entities, parts of business entities, or participating interests in business entities by the company itself or by a business entity dependent on it or majority-owned by it, and in conjunction with business combinations, or to fulfill conversion rights or obligations of holders and/or creditors relating to conversion or option rights issued by the company or Group entities of the company (or profit participation rights, or participating bonds with a conversion right, option right, or conversion obligation, or the company's right to offer), especially – but not exclusively – due to the authorization to issue convertible bonds and/or bonds with warrants, profit participation rights, and/or participating bonds (or combinations of these instruments) decided under item 6 of the agenda for the Annual General Meeting on March 2, 2017. The shareholders' subscription right is excluded in each case.
- c) Own shares that have been acquired can be withdrawn entirely or in part without a further resolution at the Annual General Meeting. They can also be withdrawn in a simplified procedure without a reduction in capital by adjusting the proportionate notional share of the remaining no-par-value shares in the subscribed capital of the company. The withdrawal can be limited to a portion of the acquired shares. If the withdrawal takes place using the simplified procedure, the Executive Board is authorized to adjust the number of no-par-value shares in the Articles of Association.
- The own shares collectively sold under the authorization mentioned previously, pursuant to items a) and b) and excluding the subscription right, may not exceed 20% of the share capital, neither at the time the authorization becomes effective nor at the time it is exercised. The 20% limit must include (i) new shares that are issued, excluding the subscription right, during the term of this authorization up to the sale of the own shares from authorized capital, without subscription rights, and (ii) those shares that are issued in order to service convertible bonds and/or bonds with warrants (or profit participation rights, or participating bonds with a conversion right, option right, or conversion obligation, or the company's right to offer), if the bonds were

issued during the term of this authorization up to the sale of the own shares, excluding shareholder subscription rights. If and to the extent that the shareholders at the Annual General Meeting reissue the relevant authorization to exclude subscription rights after the authorization leading to offsetting against the 20% limit previously mentioned has been exercised, the offsetting that has already been carried out is no longer included.

The complete text of the resolution dated March 1, 2018 has been included under agenda item 8 in the invitation to the Annual General Meeting 2018 published in the German Federal Gazette on January 22, 2018.

#### **POWER OF THE EXECUTIVE BOARD TO ISSUE CONVERTIBLE BONDS AND SHARES FROM CONDITIONAL CAPITAL**

The company's subscribed capital shall be conditionally increased by up to € 57,544,604.16 by issuing up to 22,478,361 new bearer shares without a nominal amount (no-par-value shares), each with a notional interest in the subscribed capital of € 2.56 (Conditional Capital 2017). The conditional capital increase will only be carried out to the extent that the holders or creditors of conversion and/or option rights from convertible bonds, bonds with warrants, profit participation rights, or participating bonds (or a combination of these instruments) that are issued against cash by the company or by its affiliates until March 1, 2022 due to the authorization passed by the shareholders at the Annual General Meeting on March 2, 2017 exercise their conversion or option rights, or to the extent that holders or creditors of the convertible bonds (or profit participation rights or participating bonds with a conversion obligation) issued by the company or by its affiliates until March 1, 2022 due to the authorization passed by the shareholders at the Annual General Meeting on March 2, 2017 fulfill their conversion obligation or shares are offered, and to the extent that own shares or other forms of fulfillment are not utilized for this purpose.

The new no-par-value bearer shares shall be entitled to participate in the profits from the beginning of the fiscal year in which they come into existence through the exercise of conversion or option rights, through the fulfillment of conversion or option obligations, or through the exercise of rights to offer. To the extent legally permitted, the Executive Board can, subject to the approval of the Supervisory Board, establish the profit participation of new shares in a way that deviates from Section 60 (2) of the German Stock Corporation Act (AktG).

The complete text of the resolution dated March 2, 2017 has been included under agenda item 6 in the invitation to the Annual General Meeting 2017 published in the German Federal Gazette on January 17, 2017.

#### **SIGNIFICANT CONDITIONAL AGREEMENTS CONCLUDED BY THE COMPANY**

Within the scope of various bonds totaling € 229 million, every lender has an extraordinary right of cancellation if control over the borrower changes.

Aurubis intends to initially finance the possible Metallo acquisition through bridge financing of € 380 million. In the event that a single person or a group of persons acting together should acquire more than 50% of the shares or the voting rights in Aurubis AG, every lender from the agreement with a banking syndicate shall be entitled to cancel his or her participation in the bridge financing and to demand immediate repayment of the amounts owed to him or her.