

GENERAL INFORMATION ABOUT THIS GROUP MANAGEMENT REPORT

In the following, we present a discussion and analysis of the Group Management Report of Fresenius Medical Care AG & CO. KGAA and its subsidiaries (together referred to as we, our, FMC AG & CO. KGAA, Fresenius Medical Care, the Group or the Company) prepared in accordance with sections 315 and 315e of the German Commercial Code and German Accounting Standards No. 17 and 20, as well as the consolidated financial statements and related notes contained elsewhere in this report. Some of the statements, including those concerning future revenue, costs and capital expenditures, possible changes in our industry as well as the competitive and financial conditions include forward-looking statements. We made these forward-looking statements based on the expectations and beliefs of the Management Board of the Company's General Partner (Management Board) pertaining to future events that may affect us, but which we cannot assure that such events will occur or that the results will be as anticipated. Because these statements involve opportunities, risks and uncertainties, the actual results may differ materially (positive as well as negative) from the results which the forward-looking statements express or imply. The statements cover the content of and are subject to the uncertainties described in the discussions in this report in the "Outlook" starting on [PAGE 58](#) and in the "Risks and Opportunities Report" as well as in [NOTES 2 AND 22](#) of the notes to the consolidated financial statements.

The Non-Financial Group Report is not part of the Group Management Report. It is part of a separate chapter of the Annual Report and will be disclosed together with the Group Management Report. The Non-Financial Group Report can be found starting on [PAGE 82](#).

Due to rounding, individual numbers and percentages presented in this report may not precisely reflect the absolute figures.

Our business is also subject to other opportunities, risks and uncertainties that we describe in our public filings. Developments in any of these areas could cause our results to differ materially to those that we or others have projected or may project.

OVERVIEW ABOUT THE GROUP

We provide high-quality health care solutions for patients with chronic kidney failure.

Our innovative products and therapies set high standards in dialysis treatment.

BUSINESS MODEL

OPERATIONS AND COMPANY STRUCTURE

Fresenius Medical Care is the world's largest dialysis company, based on publicly reported revenue and the number of patients treated. We provide dialysis care and related services to people with chronic kidney failure as well as offering other health care services. We also develop and manufacture a full range of dialysis machines, systems and disposable products, which we sell to customers in around 150 countries as well as using them in our internal health care service operations. Our dialysis business is therefore vertically integrated. Our other health care services are described by the term "Care Coordination". Together with dialysis services, these constitute our health care services.

We continue to generate most of our revenue with dialysis products and dialysis care services. In our 3,928 proprietary dialysis clinics in around 50 countries worldwide, we provide care for over 333,000 dialysis patients. We are continuously expanding this network of clinics, which is the largest and most international in the world, to accommodate the ever-rising number of dialysis patients. At the same time, we operate

42 production sites in more than 20 countries. The most important plants for dialyzer production are in St. Wendel (Germany), Ogden (u.s.), Changshu (China), L'Arbresle (France) and Buzen (Japan). Dialysis machines are manufactured in Schweinfurt (Germany) and in Concord (u.s.).

Fresenius Medical Care is organized on a decentralized basis and divided into the regions North America, Europe, Middle East and Africa (EMEA), Asia-Pacific and Latin America. Our operating segments correspond to this regional breakdown (the term "North America Segment" refers to our North America operating segment; the term "EMEA Segment" refers to the Europe, Middle East and Africa operating segment, the term "Asia-Pacific Segment" refers to our Asia-Pacific operating segment, and the term "Latin America Segment" refers to our Latin America operating segment).

Fresenius Medical Care's company headquarters is in Bad Homburg v. d. Höhe, Germany. The headquarters in North America, our most important region in terms of revenue, is in Waltham, Massachusetts (u.s.).

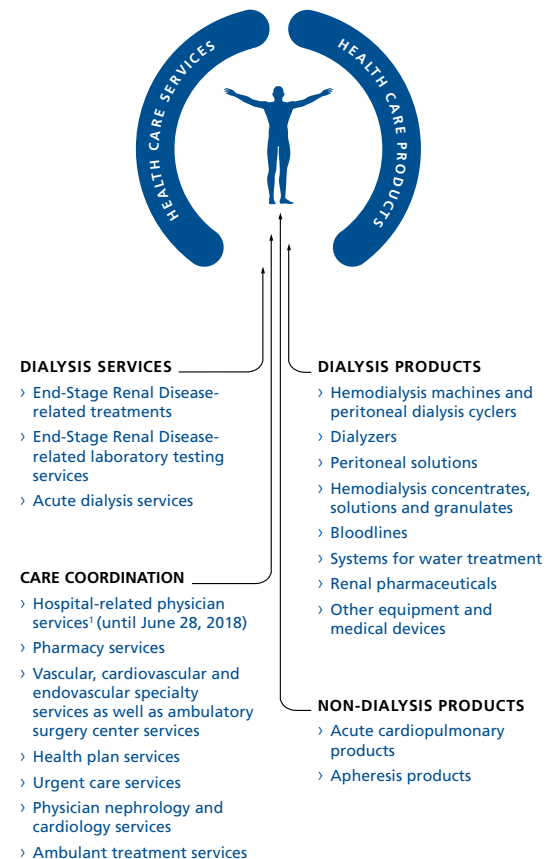
CHART 2.2 ON PAGE 19 provides an overview of our most important production sites and headquarters.

OUR PRODUCTS AND SERVICES

Fresenius Medical Care provides mainly dialysis products and services. We also offer non-dialysis services as part of Care Coordination, as well as non-dialysis products. Our services and products are shown in CHART 2.1.

Approximately 3.4 M patients worldwide regularly underwent dialysis treatment in 2018. Dialysis is a life-saving blood

CHART 2.1 OUR PRODUCTS AND SERVICES



¹ Includes the coordinated delivery of emergency, intensivist and hospitalist physician services as well as transitional care.

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C.2.2 MAJOR LOCATIONS

cleansing procedure that substitutes the function of the kidney in case of kidney failure. Healthy kidneys clean the blood of waste products, regulate water levels, and produce important hormones. If the kidneys are irreparably damaged and are therefore no longer able to function adequately over a longer period of time, this is known as chronic kidney failure or end-stage renal disease (ESRD). Many diseases can lead to chronic kidney failure, particularly diabetes, chronic nephritis or high blood pressure. There are currently two treatment options for ESRD: a kidney transplant and dialysis.

Our health care products

We develop and manufacture a wide variety of health care products, including both dialysis and non-dialysis products.

The dialysis products we offer in around 150 countries around the world focus on the following therapies:

- › Hemodialysis (HD) – HD is by far the most common type of therapy for chronic kidney failure. Fresenius Medical Care provides a wide range of HD products, in dialysis centers as well as for use at home. They include machines, dialyzers, bloodline systems, HD solutions and concentrates, water treatment systems, as well as data processing and analysis systems.
- › Peritoneal dialysis (PD) – In PD the peritoneum is used as a natural filter. We offer systems and solutions for continuous ambulatory peritoneal dialysis (CAPD) and automated peritoneal dialysis (APD) in dialysis centers as well as at home.
- › Acute dialysis – In case of a sudden loss of renal function continuous renal replacement therapy is used in intensive-care units. Fresenius Medical Care also provides products for this.

Additionally, we offer non-dialysis products including acute cardiopulmonary products and products for apheresis therapy, which involves the removal of excess blood fats or pathogenic antibodies.

Our health care services

Dialysis services

Dialysis patients receive life-saving dialysis treatment and other associated services such as laboratory tests in our 3,928 (2017: 3,752) dialysis clinics worldwide. Dialysis treatment at our clinics is usually performed three times a week over a period of several hours by trained medical staff. We also provide advice on medical support and training for home dialysis patients in our dialysis centers.

In 2018, we treated most of our patients (61 %) in the North America Segment, followed by 20 % in the EMEA Segment, 10 % in the Latin America Segment and 9 % in the Asia-Pacific Segment.

Fresenius Medical Care is able to operate its own dialysis clinics in countries where the health care system allows private-sector companies to provide medical services and an appropriate reimbursement system is in place.

Care Coordination

Care Coordination enables us to further enhance our business beyond dialysis, for example in markets where the privatized dialysis market is relatively well developed and we already have a high market share. Although our Care Coordination business is geared toward different geographical mar-

kets, we currently provide non-dialysis services mainly in North America and Asia-Pacific. In recent years, the health care system in the U.S. has started to move away from reimbursement of individual services toward holistic and coordinated care. Our Care Coordination activities and our experience in dialysis mean that we can participate in the development of the U.S. health care system and use this as a basis for additional growth. At the same time, patients benefit from coordinated care, and health care systems from lower costs. In fiscal year 2018, we sold our majority interest in Sound Inpatient Physicians Inc. (Sound) effective June 28, 2018, thereby sharpening our profile in the area of Care Coordination in the U.S.

MAJOR MARKETS AND COMPETITIVE POSITION

According to our estimates, the number of dialysis patients worldwide reached around 3.4 M in 2018 (2017: 3.2 M) – a 6 % growth rate. In the same period, 333,331 patients were treated in Fresenius Medical Care's network of dialysis centers (2017: 320,960). This means that Fresenius Medical Care holds the leading position worldwide in dialysis care. More information can be found in [CHART 2.3 ON PAGE 21](#).

Dialysis products made by Fresenius Medical Care for use in our own dialysis centers or for sale to third-party customers accounted for a market share of 35 % in 2018 (2017: 35 %). Fresenius Medical Care is therefore also the global market leader for dialysis products. In the case of hemodialysis products, we had a 39 % share of the global market (2017: 39 %) and are also the leader in this field.

Dialyzers for hemodialysis are the largest product group in the dialysis market with a worldwide sales volume of over 330 M units in 2018. Around 150 M (around 45 %) of these were made by Fresenius Medical Care, giving us by far the biggest market share. Hemodialysis machines constitute another key component of our product business. Here, too, we are the clear market leader. Of the 97,000 machines installed in 2018, according to estimates, around 50,000, or more than 50 % (2017: more than 50 %), were produced by Fresenius Medical Care.

Furthermore, we hold a strong position in the market for peritoneal dialysis products: Around 17 % (2017: around 17 %) of all peritoneal dialysis patients use products made by Fresenius Medical Care.

Fresenius Medical Care is also the global leader in dialysis care, serving about 10 % of all dialysis patients. The market

for dialysis care services in the U.S. is already highly consolidated. Fresenius Medical Care treats around 38 % of all dialysis patients here.

Outside the U.S., the dialysis services business is much more fragmented. With more than 1,400 dialysis centers and around 132,000 patients in around 50 countries, Fresenius Medical Care operates by far the largest and most international network of clinics.

PROCUREMENT AND PRODUCTION

The Global Manufacturing and Quality (GMQ) division centrally manages all of Fresenius Medical Care's activities worldwide in the procurement of raw materials and semi-finished goods, production including quality management, and distribution in North America. Some smaller production sites are under local responsibility. The centralized approach enables us to:

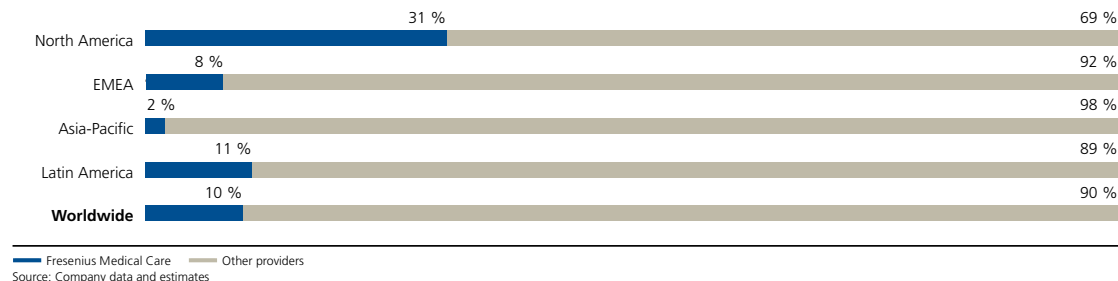
- › continuously enhance the efficiency of our processes,
- › optimize cost structures,
- › improve returns on our capital invested in manufacturing,
- › respond more flexibly and
- › fulfill our commitment to meeting high-quality and safety standards.

The objective of our production strategy is to manufacture top-quality products in the right place at the right time on the best possible terms. We are able to successfully implement this strategy thanks to a network of large production sites, where we make technically sophisticated products for sale worldwide, as well as smaller production sites that primarily supply products regionally.

Strategic purchasing at Fresenius Medical Care is geared toward ensuring the availability, safety and quality of the materials used in production with the aim of further expanding our competitive and internationally balanced supplier network.

At the end of 2018, GMQ had 16,100 employees (full-time equivalents) (2017: 16,186). In total, we operate 42 production sites in more than 20 countries.

C.2.3 PATIENTS TREATED



CORPORATE STRATEGY AND OBJECTIVES

Creating a future worth living. For patients. Worldwide. Every day. This vision guides us in our efforts to give our patients around the world a better life by offering them high-quality products and outstanding health care. It is based on our corporate values: collaborative, proactive, reliable, excellent.

STRATEGIC CORE COMPETENCIES

Fresenius Medical Care aims to further consolidate its expertise as the world's largest provider of top-quality dialysis treatments and health care products and to apply them as a basis for sustainable, profitable growth. Moreover, by expanding our range of medical services in the area of Care Coordination, our goal is to provide holistic care and improve outcomes for patients as well as payors while increasing Fresenius Medical Care's corporate value in the long term. Our strategy is based on four core competencies – [SEE CHART 2.4](#) – that will support us in the years to come.

› Innovating products

Developing innovative products to achieve even better outcomes for our patients is an inherent part of our strategy of sustainable, profitable growth and bolsters our technology leadership position in dialysis. In addition, we strive to identify new business opportunities in value-added technologies and approaches on an ongoing basis, for example through our venture capital company Fresenius Medical Care Ventures.

› Operating outpatient facilities

By leveraging our experience gained in currently 3,928 proprietary dialysis clinics in around 50 countries, we have the knowledge to operate and manage stand-alone outpatient clinics efficiently and capture economies of scale. We are continuously optimizing and modernizing our processes and administrative structures.

› Standardizing medical procedures

Our goal is to standardize medical treatments and clinical processes while continuing to ensure high-quality clinical outcomes. We provided over 50 m dialysis treatments worldwide in 2018. Consequently, we have one of the largest

renal patient databases in the world. We intend to use this information to standardize medical setups, open new clinics and integrate acquired clinics based on proven and efficient concepts.

› Coordinating patients efficiently

In an environment of growing patient numbers and changing health care systems, Fresenius Medical Care sees significant potential in providing value-based care – especially in the U.S. This approach focuses on selling solutions, providing holistic care and receiving outcome-based reimbursement rather than offering single products or services. Depending on the type of health care network in which we participate, we coordinate the care of our patients with other providers including physicians and other health care facilities. We then use the accumulated patient information to create predictive analytics.

GLOBAL EFFICIENCY PROGRAM

In 2017 we announced the second phase of our Global Efficiency Program (GEP II). The program's objectives are to identify and realize further efficiency potential and enhance the Company's overall competitiveness. In 2018, we achieved 15 % of the targeted sustained cost improvements, which is well ahead of the anticipated contribution of 10 % for the year. Therefore, the Company increases the lower end of the expected range of sustained cost improvements to €150 m and now expects €150 m to €200 m per annum by 2020.

For further information on our goals, see the "Outlook" starting on [PAGE 58](#).

C.2.4 CORPORATE STRATEGY



**FRESENIUS
MEDICAL CARE**

CREATING A FUTURE WORTH LIVING. FOR PATIENTS. WORLDWIDE. EVERY DAY.

INNOVATING
PRODUCTS

OPERATING
OUTPATIENT FACILITIES

STANDARDIZING
MEDICAL PROCEDURES

COORDINATING
PATIENTS EFFICIENTLY

PERFORMANCE MANAGEMENT SYSTEM

The Management Board oversees our Company by setting strategic and operational targets and measuring various financial key performance indicators used for internal management determined in euro based upon IFRS.

The key performance indicators used for internal management are the same in all the individual operating segments.

Each operating segment is evaluated based on target figures that reflect the revenue and expenses they control. The effects of certain transactions and income taxes are not included as we believe these items to be outside the operating segments' control. Financing is a corporate function, which the operating segments do not control. Therefore, we do not include interest expense relating to financing as an operating segment measurement. Similarly, we do not allocate certain costs which relate primarily to certain headquarters' overhead charges, including accounting and finance, global research and development, etc. because we believe that these costs are also not within the control of the individual operating segments.

Certain of the following key performance indicators and other financial information as well as discussions and analyses set out in this report include measures that are not defined by IFRS (Non-IFRS Measure). We believe this information, along with comparable IFRS measurements, is useful to our investors as it provides a basis for assessing our performance, payment obligations related to performance-based compen-

sation as well as our compliance with financial covenants. Non-IFRS financial measures should not be viewed or interpreted as a substitute for financial information presented in accordance with IFRS.

REVENUE

The management of our operating segments is based on revenue as a key performance indicator. We believe that the key to continue growing our revenue is to attract new patients and increase the number of treatments performed each year. The number of treatments performed each year is therefore an indicator of continued revenue growth. Revenue is also benchmarked based on movement at constant exchange rates. See the "Constant currency information" section starting on [PAGE 26](#).

OPERATING INCOME

Operating income is the most appropriate measure for evaluating the profitability of the operating segments and therefore is also a key performance indicator. Operating income is also benchmarked based on movement at constant exchange rates. See the "Constant currency information" section starting on [PAGE 26](#).

OPERATING INCOME MARGIN

Operating income margin represents the ratio of operating income to revenue. We believe operating income margin shows the profitability of each of our operating segments or our consolidated Company.

DELIVERED EBIT (NON-IFRS MEASURE)

As a result of the significance of noncontrolling interest holders in our operations, we believe a measure that is meaningful to investors is operating income less noncontrolling interests (Delivered EBIT). Delivered EBIT approximates the operating income attributable to the shareholders of FMC AG & CO. KGAA. As such, we believe that operating income, or EBIT, is the closest comparable IFRS measure. Delivered EBIT is also benchmarked based on movement at constant exchange rates. See the "Constant currency information" section starting on [PAGE 26](#).

NET INCOME GROWTH AT CONSTANT CURRENCY (NON-IFRS MEASURE)

On a consolidated level, percentage growth in net income (net income attributable to shareholders of FMC AG & CO. KGAA) at constant currency is an additional key performance indicator used for internal management. Please see "Constant currency information" section starting on [PAGE 26](#) for more information on the use and calculation of financial measures at constant currency.

BASIC EARNINGS PER SHARE GROWTH AT CONSTANT CURRENCY (NON-IFRS MEASURE)

Percentage growth in basic earnings per share at constant currency is a key performance indicator to evaluate our profitability. This indicator helps to manage our overall performance. Basic earnings per share is calculated by dividing net income attributable to shareholders by the weighted-average number of outstanding shares over the course of the year.

T 2.5 DELIVERED EBIT RECONCILIATION

IN € M

| | 2018 | 2017 | | 2018 | 2017 |
|-------------------------------|-------|-------|-------------------------------|--------------|--------------|
| North America | | | Asia-Pacific | | |
| Operating income (EBIT) | 2,665 | 2,086 | Operating income (EBIT) | 304 | 313 |
| less noncontrolling interests | (231) | (263) | less noncontrolling interests | (9) | (7) |
| Delivered EBIT | 2,434 | 1,823 | Delivered EBIT | 295 | 306 |
| Dialysis | | | Dialysis | | |
| Operating income (EBIT) | 1,752 | 1,942 | Operating income (EBIT) | 270 | 286 |
| less noncontrolling interests | (212) | (229) | less noncontrolling interests | (7) | (6) |
| Delivered EBIT | 1,540 | 1,713 | Delivered EBIT | 263 | 280 |
| Care Coordination | | | Care Coordination | | |
| Operating income (EBIT) | 913 | 144 | Operating income (EBIT) | 34 | 27 |
| less noncontrolling interests | (19) | (34) | less noncontrolling interests | (2) | (1) |
| Delivered EBIT | 894 | 110 | Delivered EBIT | 32 | 26 |
| EMEA | | | Latin America | | |
| Operating income (EBIT) | 399 | 444 | Operating income (EBIT) | 29 | 58 |
| less noncontrolling interests | (4) | (4) | less noncontrolling interests | 0 | 0 |
| Delivered EBIT | 395 | 440 | Delivered EBIT | 29 | 58 |
| | | | Total | | |
| | | | Operating income (EBIT) | 3,038 | 2,362 |
| | | | less noncontrolling interests | (244) | (274) |
| | | | DELIVERED EBIT | 2,794 | 2,088 |

Please see "Constant currency information" section starting on [PAGE 26](#) for more information on the use and calculation of financial measures at constant currency.

CAPITAL EXPENDITURES

We manage our investments using a detailed coordination and evaluation process. The Management Board sets our complete investment budget as well as the investment targets. Before realizing specific investment projects or acquisitions, our internal Acquisition & Investment Committee examines the individual projects and measures the expected return on investment and potential yield. Investment projects are evaluated using common methods such as net present value, internal interest rate methods and payback periods. We utilize this evaluation methodology to ensure that we only make and implement investments and acquisitions that increase shareholder value. Capital expenditures for property, plant and equipment is an indicator used for internal management. It influences the capital invested for replacement and expansion.

CASH FLOW MEASURES

Net cash provided by (used in) operating activities in % of revenue

Our consolidated statement of cash flows indicates how we generated and used cash and cash equivalents. In conjunction with our other primary financial statements, it provides information that helps us evaluate changes to our net assets and our financial structure (including liquidity and solvency). Net cash provided by (used in) operating activities is applied to assess whether a business can generate the cash required

to make the necessary replacement and expansion of investments. This indicator is impacted by the profitability of our business and the development of working capital, mainly receivables. Net cash provided by (used in) operating activities in percent of revenue shows the percentage of our revenue that is available in terms of financial resources. It is an indicator of our operating financial strength.

Free cash flow in % of revenue (Non-IFRS Measure)

Free cash flow (net cash provided by (used in) operating activities after capital expenditures, before acquisitions and investments) refers to the cash flow we have at our disposal. This indicator shows the percentage of revenue available for acquisitions and investments, dividends to shareholders, reducing debt financing or for repurchasing shares.

T 2.6 CASH FLOW MEASURES IN € M

| | 2018 | 2017 |
|---|---------|--------|
| Revenue | 16,547 | 17,784 |
| Net cash provided by (used in) operating activities | 2,062 | 2,192 |
| Capital expenditures | (1,057) | (944) |
| Proceeds from sale of property, plant and equipment | 54 | 103 |
| Capital expenditures, net | (1,003) | (841) |
| Free cash flow | 1,059 | 1,351 |
| Net cash provided by (used in) operating activities in % of revenue | 12.5 | 12.3 |
| Free cash flow in % of revenue | 6.4 | 7.6 |

TABLE 2.6 shows the cash flow measures and reconciles free cash flow and free cash flow in percent of revenue to net cash provided by (used in) operating activities and net cash provided by (used in) operating activities in percent of revenue, respectively.

NET LEVERAGE RATIO (NON-IFRS MEASURE)

The net leverage ratio is a key performance indicator used for internal management. To determine the net leverage ratio, debt less cash and cash equivalents (net debt) is compared to EBITDA (earnings before interest, taxes, depreciation and amortization) (adjusted for acquisitions and divestitures made during the year with a purchase price above a €50 M threshold as defined in the Amended 2012 Credit Agreement and non-cash charges). The ratio is an indicator of the length of time the Company needs to service the net debt out of its

T 2.7 RECONCILIATION OF NET LEVERAGE RATIO IN € M, EXCEPT FOR NET LEVERAGE RATIO

| | 2018 | 2017 |
|--|--------------|--------------|
| Debt | 7,546 | 7,448 |
| Cash and cash equivalents | 2,146 | 978 |
| Net debt | 5,400 | 6,470 |
| Operating income ^{1, 2} | 2,215 | 2,372 |
| Depreciation and amortization ¹ | 716 | 731 |
| Non-cash charges | 45 | 51 |
| EBITDA ^{1, 2} | 2,976 | 3,154 |
| NET LEVERAGE RATIO ^{1, 2} | 1.8 | 2.1 |

¹ Including adjustments for acquisitions and divestitures made within the reporting period with a purchase price above a €50 M threshold as defined in the Amended 2012 Credit Agreement.

² 2018 excluding the gain related to divestitures of Care Coordination activities (SEE NOTE 4 C) of the notes to the consolidated financial statements).

own resources. We believe that the net leverage ratio provides more reliable information about the extent to which we are able to meet our payment obligations rather than considering only the absolute amount of our debt. We have a strong market position in a growing, global and mainly non-cyclical market. Furthermore, most of our customers have a high credit rating as the dialysis industry is characterized by stable and sustained cash flows. We believe this enables us to work with a relatively large share of debt capital compared with companies in other industries.

TABLE 2.7 shows the reconciliation of the net leverage ratio at December 31, 2018 and 2017.

RETURN ON INVESTED CAPITAL (NON-IFRS MEASURE)

Return on invested capital (ROIC) is the ratio of operating income after tax (net operating profit after tax, NOPAT) to the average invested capital of the last five quarter closing dates and expresses how efficiently we allocate the capital under our control or how well we employ our capital with regard to a specific investment project.

TABLE 2.9 ON PAGE 27 shows the reconciliation of average invested capital to total assets, which we believe to be the most directly comparable IFRS financial measure, and how ROIC is calculated.

TABLE 2.8 ON PAGE 26 provides an overview of our key performance indicators.

T 2.8 KEY PERFORMANCE INDICATORS

| | 2018 | 2017 |
|---|-----------|-----------|
| Revenue ¹ | €16,547 M | €17,298 M |
| Operating income | €3,038 M | €2,362 M |
| Operating income margin ¹ | 18.4 % | 13.7 % |
| Delivered EBIT | €2,794 M | €2,088 M |
| Net income growth at Constant Currency ² | 60 % | 14 % |
| Basic earnings per share growth at Constant Currency ² | 60 % | 14 % |
| Capital expenditures | €1.0 BN | €0.8 BN |
| Acquisitions and investments ³ | €0.4 BN | €0.6 BN |
| Net cash provided by (used in) operating activities in % of revenue | 12.5 | 12.3 |
| Free cash flow in % of revenue | 6.4 | 7.6 |
| Net leverage ratio | 1.8 | 2.1 |
| ROIC in % | 12.4 | 8.6 |

¹ 2017: Revenue adjusted for impacts from IFRS 15 Implementation of €486 M.

² Net income attributable to shareholders of FMC AG & Co. KGaA.

³ Excluding investments in securities.

CONSTANT CURRENCY INFORMATION (NON-IFRS MEASURE)

Some key performance indicators and other financial measures used in this report such as changes in revenue, operating income and net income attributable to shareholders of FMC AG & Co. KGaA include the impact of translating local currencies to our reporting currency for financial reporting purposes. We calculate these Non-IFRS financial measures at

constant exchange rates in our filings to show changes in our revenue, operating income, net income attributable to shareholders of FMC AG & Co. KGaA and other items without giving effect to period-to-period currency fluctuations. Under IFRS, amounts received in local (non-euro) currency are translated into euro at the average exchange rate for the period presented. Once we translate the local currency for the constant currency, we then calculate the change, as a percentage, of the current period calculated using the prior period exchange rates versus the prior period. This resulting percentage is a Non-IFRS Measure referring to a change as a percentage at constant currency. These currency-adjusted financial measures are identifiable by the designated terms "Constant Exchange Rates" or "Constant Currency".

We believe that the measures at Constant Currency (Non-IFRS Measure) are useful to investors, lenders and other creditors because such information enables them to gauge the impact of currency fluctuations on our revenue, operating income, net income attributable to shareholders of FMC AG & Co. KGaA and other items from period to period. However, we limit our use of Constant Currency period-over-period changes to a measure for the impact of currency fluctuations on the translation of local currency into euro. We do not evaluate our results and performance without considering both Constant Currency period-over-period changes in Non-IFRS revenue, operating income, net income attributable to shareholders of FMC AG & Co. KGaA and other items and changes in revenue, operating income, net income attributable to shareholders of FMC AG & Co. KGaA and other items prepared in accordance with IFRS. We caution the readers of this report to follow a similar approach by considering data on Constant Currency period-over-period changes only in addition to, and not as a

substitute for or superior to, changes in revenue, operating income, net income attributable to shareholders of FMC AG & Co. KGaA and other items prepared in accordance with IFRS. We present the growth rate derived from IFRS measures next to the growth rate derived from Non-IFRS measures such as revenue, operating income, net income attributable to shareholders of FMC AG & Co. KGaA and other items. As the reconciliation is inherent in the disclosure, we believe that a separate reconciliation would not provide any additional benefit.

RESEARCH AND DEVELOPMENT

Developing innovative products and continuously improving our dialysis treatments are intrinsic elements of our growth strategy. Our worldwide research and development activities, which are centrally managed by the Global Research and Development division (GRD), enable us to develop products efficiently and systematically promote the exchange of knowledge and technology between regions.

GLOBAL RESEARCH AND DEVELOPMENT STRATEGY

Health care systems face major financial challenges now and in the long term. This confirms our intention to gear our research and development activities toward developing innovative products that are not only of high quality, but are also affordable. As an operator of proprietary dialysis clinics and a provider of home treatment for patients, we know that these are by no means incompatible aims.

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T.2.9 RECONCILIATION OF AVERAGE INVESTED CAPITAL AND ROIC

IN € M, EXCEPT WHERE OTHERWISE SPECIFIED

| | Dec. 31, 2018 | Sept. 30, 2018 ² | June 30, 2018 ² | March 31, 2018 ² | Dec. 31, 2017 ² |
|--|------------------|--------------------------------|-------------------------------|--------------------------------|-------------------------------|
| 2018 | | | | | |
| Total assets | 26,242 | 25,587 | 25,045 | 23,091 | 22,930 |
| Plus: Cumulative goodwill amortization | 413 | 407 | 405 | 385 | 395 |
| Minus: Cash and cash equivalents | (2,146) | (1,754) | (1,657) | (800) | (931) |
| Minus: Loans to related parties | (81) | (112) | (118) | (109) | (92) |
| Minus: Deferred tax assets | (345) | (328) | (334) | (325) | (315) |
| Minus: Accounts payable | (641) | (611) | (559) | (496) | (577) |
| Minus: Accounts payable to related parties | (154) | (194) | (183) | (236) | (147) |
| Minus: Provisions and other current liabilities ¹ | (2,728) | (2,748) | (2,689) | (2,406) | (2,565) |
| Minus: Income tax payable | (165) | (209) | (330) | (239) | (194) |
| Invested capital | 20,395 | 20,038 | 19,580 | 18,865 | 18,504 |
| Average invested capital as of December 31, 2018 | 19,476 | | | | |
| Operating income ² | 3,024 | | | | |
| Income tax expense ^{2,3} | (617) | | | | |
| NOPAT | 2,407 | | | | |
| ROIC IN % | 12.4 | | | | |

| | Dec. 31, 2017 | Sept. 30, 2017 ² | June 30, 2017 ² | March 31, 2017 ² | Dec. 31, 2016 ² |
|--|------------------|--------------------------------|-------------------------------|--------------------------------|-------------------------------|
| 2017 | | | | | |
| Total assets | 24,025 | 24,156 | 24,617 | 26,016 | 25,825 |
| Plus: Cumulative goodwill amortization | 394 | 400 | 413 | 439 | 444 |
| Minus: Cash and cash equivalents | (978) | (729) | (721) | (678) | (716) |
| Minus: Loans to related parties | (92) | (146) | (169) | (220) | (220) |
| Minus: Deferred tax assets | (315) | (334) | (308) | (311) | (292) |
| Minus: Accounts payable | (590) | (518) | (484) | (505) | (584) |
| Minus: Accounts payable to related parties | (147) | (224) | (216) | (271) | (264) |
| Minus: Provisions and other current liabilities ¹ | (2,791) | (2,763) | (2,822) | (2,791) | (2,866) |
| Minus: Income tax payable | (194) | (251) | (234) | (277) | (242) |
| Invested capital | 19,312 | 19,591 | 20,076 | 21,402 | 21,085 |
| Average invested capital as of December 31, 2017 | 20,293 | | | | |
| Operating income ² | 2,372 | | | | |
| Income tax expense ^{2,4} | (617) | | | | |
| NOPAT | 1,755 | | | | |
| ROIC IN % | 8.6 | | | | |

¹ Including non-current provisions, non-current labor expenses and variable payments outstanding for acquisitions and excluding pension liabilities and noncontrolling interests subject to put provisions.

² Including adjustments for acquisitions and divestitures made within the reporting period with a purchase price above a € 50 M threshold as defined in the Amended 2012 Credit Agreement.

³ Adjusted for noncontrolling partnership interests.

⁴ Includes the remeasurement of deferred tax balances as a result of U.S. tax reform (U.S. Tax Reform) of approximately €236 M.

Our research and development strategy is globally oriented, enabling us to respond even better to the worldwide rise in demand for high-quality yet cost-efficient treatment methods. In doing so, we also take regional market conditions into account and offer a differentiated product range. In the future, we intend to deliver innovative, competitive products even more efficiently and strengthen our focus on developing countries.

In addition to research and development activities within our Company, we collaborate with external partners with the aim of building a comprehensive innovation and technology network. These partners include numerous academic institutions, such as research institutes at renowned universities in the U.S. Another partner is the Renal Research Institute (RRI) in New York. This subsidiary of Fresenius Medical Care North America is a leading institution in the field of clinical research into all aspects of chronic kidney failure. Together, we are working on fundamental issues relating to dialysis treatment. We are also increasingly collaborating with start-ups with the objective of promoting an open culture of innovation and enabling access to the latest technologies.

INNOVATIONS IN 2018

To be able to continuously improve our patients' quality of life and the outcomes of their treatment and to ensure our growth in the medium to long term, we not only work on new products that are close to market launch, but also have an extensive portfolio of innovation projects. These focus on technologies in our core business as well as related areas of strategic interest.

Launch of a new hemodialysis machine

Many dialysis patients in emerging economies still do not have access to adequate treatment. The market potential in these countries is high. We are therefore developing a targeted portfolio specifically for these markets. For example, we launched the 4008A dialysis machine on the Asian market in 2018. It incorporates the most important core functions of a dialysis machine and is adapted to local conditions. Like the rest of our portfolio, the 4008A is also subject to the strict quality and patient safety standards specified by Fresenius Medical Care.

Innovative products for home dialysis

We are also currently developing an entire portfolio of state-of-the-art technologies for peritoneal dialysis in conjunction with our partners. Peritoneal dialysis is the most common form of home treatment for chronic kidney failure. A large number of these patients are treated using cyclers. The new cyclers have been optimized to meet our patients' needs: They are small, light and compact, making them ideal for use at home. This new generation of PD cyclers gives dialysis patients a high degree of flexibility. They also take into account the specific treatment requirements of children.

Research in the field of regenerative medicine

In 2018, Fresenius Medical Care's subsidiary Unicyte AG reached a pre-clinical milestone in the area of regenerative medicine for chronic kidney disease. In a second pre-clinical model, the company demonstrated that its patented

nanoscale extracellular vesicles (nEVs) can restore the kidney function of patients with chronic kidney disease. nEVs are particles derived from stem cells that help to transport neurotransmitters between cells. Unicyte will continue to carry out intensive research into the potential of nEVs in the treatment of chronic and acute kidney diseases in the coming years to develop new and improved treatment options for seriously and chronically ill patients.

In 2018, Fresenius Medical Care also announced a strategic global partnership and an equity investment for a payment of \$150 M with the U.S. medical company Humacyte, Inc.; for details, see "Highlights" in the "Overall business development" section on [PAGE 35](#). Humacyte carries out medical research and development on clinical and pre-clinical investigational products and has developed the human acellular blood vessel HUMACYL, which is currently being tested for use as a vascular access for hemodialysis patients and may prove more effective than conventional synthetic grafts and fistulas. Following product approval, Fresenius Medical Care will receive exclusive global rights to commercialize HUMACYL, allowing it to offer patients with chronic kidney disease around the world a safer and more effective vascular access option including shorter catheter contact time.

Ventures

Our venture capital company Fresenius Medical Care Ventures is increasingly collaborating with start-ups with the aim of promoting an open culture of innovation and gaining access to the latest technologies. In 2018, Fresenius Medical Care Ventures invested in the Israeli medical technology com-

pany Vectorious Medical Technologies, the biotech company Corvidia Therapeutics Inc. and the digital health companies Tridium and SafeRide. Vectorious has developed an implantable, microcomputer-based system that optimizes the management of heart failure patients using direct, daily left-atrial pressure (LAP) measurements. Corvidia is pioneering the next generation of cardiovascular and cardiorenal treatments. Tridium has developed an engine for behavioral medicine based on predictive analytics, while SafeRide organizes patient transportation, e.g. to ensure that dialysis patients get to dialysis clinics regularly and reliably.

RESEARCH AND DEVELOPMENT RESOURCES

In fiscal year 2018, Fresenius Medical Care spent a total of around €134 M on research and development (2017: €131 M), corresponding to around 4 % (2017: 4 %) of our health care product revenue. At the end of 2018, our patent portfolio comprised some 9,152 property rights in approximately 1,340 patent families, i.e. groups of patents linked to the same invention. Our research and development work in fiscal year 2018 produced around 126 additional patent families. Our broad portfolio of patents will provide us with a wide range of treatment options in this competitive area in the future.

In 2018, 933 highly qualified employees (full-time equivalents) worked for Fresenius Medical Care in research and development worldwide (2017: 825). They come from various backgrounds: Physicians work side by side with software specialists, business economists and engineers in interdisciplinary teams. Around 590 employees – the majority of our research and development staff – are based in Europe. Most research and development activities are carried out at our

facilities in Schweinfurt and Bad Homburg v. d. Höhe (Germany). Other development sites are located in St. Wendel (Germany), Bucharest (Romania) and Krems (Austria). In the U.S., the Company maintains centers of excellence for the development of devices in Concord (California) and for dialyzers and other disposable products in Ogden (Utah). Development activities in Shanghai and Changshu (China) are focused on the growing demand for cost-effective dialysis systems in Asia and emerging markets. The global research and development organization coordinates collaboration and technology exchange among the various sites. Carrying out research and development responsibly is an intrinsic element of our innovation culture. More information can be found in [TABLE 2.10 ON PAGE 30](#).

EMPLOYEES

Fresenius Medical Care owes its business success to the commitment of its employees. At a functional level, our human resources management is conducted globally to ensure a uniform strategic approach in line with the overriding corporate objectives.

As at December 31, 2018, Fresenius Medical Care employed a total of 112,658 members of staff (full-time equivalents) in 64 countries. Our workforce therefore decreased by 1 % year-on-year, or 1,342 employees in absolute terms. This was primarily the result of the divestment of Sound since the related decrease of employees was higher than the increase in employees from organic growth in our business and acquisitions.

[TABLE 2.11 ON PAGE 30](#) shows the breakdown of employees by operating segment as well as by services and products.

Staff costs at Fresenius Medical Care decreased to €6,440 M in 2018 (2017: €6,900 M), corresponding to 39 % (2017: 39 %) of revenue. Average staff costs per employee (average full-time equivalents) amounted to €57,129 (2017: €61,287).

More information about our employees can be found in the Non-Financial Group Report starting on [PAGE 82](#). For more information on diversity, see the Corporate Governance Report starting on [PAGE 111](#).

QUALITY MANAGEMENT

At Fresenius Medical Care, we believe in supplying high-quality and reliable products and therapies to ensure the best possible medical care for our patients and customers.

QUALITY MANAGEMENT AT OUR PRODUCTION SITES

With a focus on quality, costs and availability, GMQ has introduced a state-of-the-art infrastructure with corresponding efficient processes and systems in the last few years, as well as bundling and optimizing existing structures. All production sites follow the “Lean Manufacturing” approach and our Schweinfurt plant includes the “Lean Six Sigma” management system. The focus of Lean Manufacturing and Six Sigma is continuous improvement of all manufacturing processes to achieve a very low error rate resulting in better quality production while shortening manufacturing time.

QUALITY MANAGEMENT IN OUR DIALYSIS CLINICS

Our clinics work in conformance with the generally accepted quality standards of the industry, particularly the Kidney Disease Outcomes Quality Initiative (KDOQI) guidelines from the U.S., the European Renal Best Practice standard (ERBP) and increasingly, the Kidney Disease: Improving Global Outcomes (KDIGO), an industry initiative for global clinical practice guidelines.

We have established special quality management systems in our dialysis clinics. We regularly check whether they are applied, but transfer some of the tasks involved to third parties, for instance the technical inspection association TÜV in Europe. Its experts inspect our clinics in standardized annual audits to monitor compliance with the ISO 9001 norm for quality management and the ISO 14001 norm for environmental management. In the U.S., our clinics are inspected by the Centers for Medicare and Medicaid Services (CMS), a public health care authority.

More information about our quality management including our quality data can be found in the Non-Financial Group Report starting on [PAGE 82](#).

QUALITY-BASED REIMBURSEMENT SYSTEMS

We participate in quality-based reimbursement models, which we describe in the section "Health care and reimbursement systems vary from country to country" starting on [PAGE 33](#).

T 2.10 RESEARCH AND DEVELOPMENT

| | 2018 | 2017 | 2016 | 2015 | 2014 |
|--|-------|-------|-------|-------|-------|
| Expenditures for research and development in € M | 134 | 131 | 147 | 128 | 94 |
| Number of patents | 9,152 | 8,396 | 7,748 | 6,643 | 6,133 |
| Employees ¹ | 933 | 825 | 794 | 649 | 599 |

¹ Full-time equivalents.

T 2.11 EMPLOYEES BY OPERATING SEGMENT FULL-TIME EQUIVALENTS

| | 2018 | 2017 | Change | Share |
|------------------------|----------------|----------------|----------------|--------------|
| NORTH AMERICA | 55,591 | 58,265 | (2,674) | 50 % |
| Health care services | 54,374 | 57,098 | | |
| Health care products | 1,217 | 1,167 | | |
| EMEA | 19,658 | 18,903 | 755 | 17 % |
| Health care services | 15,895 | 15,214 | | |
| Health care products | 3,763 | 3,689 | | |
| ASIA-PACIFIC | 10,827 | 10,117 | 710 | 10 % |
| Health care services | 8,444 | 7,910 | | |
| Health care products | 2,383 | 2,207 | | |
| LATIN AMERICA | 9,287 | 9,516 | (229) | 8 % |
| Health care services | 8,255 | 8,581 | | |
| Health care products | 1,032 | 935 | | |
| WORLDWIDE | 112,658 | 114,000 | (1,342) | 100 % |
| Health care services | 86,968 | 88,803 | | |
| Health care products | 8,395 | 7,998 | | |
| Corporate ¹ | 17,295 | 17,199 | 96 | 15 % |

¹ Including the divisions Global Manufacturing and Quality as well as Global Research and Development.

RESPONSIBILITY, ENVIRONMENTAL MANAGEMENT AND SUSTAINABILITY

For Fresenius Medical Care, sustainability means acting responsibly to achieve business success as well as environmental and social progress to secure our future as a Company in the health care industry.

After the entry into force of the CSR Directive Implementation Act in April 2017, Fresenius Medical Care further developed the sustainability reporting in a Company-wide project and has integrated a Non-Financial Group Report as a separate chapter in the Annual Report since fiscal year 2017.

We established a global sustainability governance structure, to further improve the coordination and management of sustainability topics across all regions.

Further information can be found in the Non-Financial Group Report starting on [PAGE 82](#).

ECONOMIC REPORT

The dialysis market is a sustainable growth market with steadily rising demand for products and services to treat patients with chronic kidney disease.

MACROECONOMIC AND SECTOR-SPECIFIC ENVIRONMENT

MACROECONOMIC ENVIRONMENT

Dependency on economic cycles

Our business is exposed to economic cycles only to a relatively small extent. This sets us apart from manufacturers of consumer goods, for instance, whose products are subject to more cyclical demand.

Our business is impacted more by government reimbursement rates and remuneration systems. Dialysis is a vital medical service, which is why it is usually paid for by the responsible health care system.

Exchange rate developments

Exchange rate developments in fiscal year 2018 were characterized by strong fluctuations, with the currencies of some emerging economies in particular depreciating sharply against the euro and the u.s. dollar. As Fresenius Medical Care has a worldwide presence, the results of its operations

are impacted by exchange rate developments. Movements in the u.s. dollar and the euro are especially crucial as we generate a major part of our revenues in the u.s. After gaining compared to the u.s. dollar in the first half of 2018, the euro declined again in the second half of the year. On average over the course of the year, the euro traded higher against the u.s. dollar in fiscal year 2018.

In addition, Fresenius Medical Care's operating results are influenced by changes in the exchange rate between the euro and local currencies. This is partly due to intra-Group sales from large production sites in the euro zone to Group companies with different functional currencies, but also because the euro is the currency we use for financial reporting. Regarding intra-Group sales, individual subsidiaries are exposed to fluctuations in the exchange rate between the invoicing currencies and the currencies in which they conduct their local operations. Fresenius Medical Care reduces transaction risks, i.e. risks from foreign currency exposures or exchange rate fluctuations, through a global network of production facilities, which is geared toward demand in the Company's dialysis product business. As the production facilities are often

based in the markets they serve, costs are incurred in the same currency in which revenue is generated. The risk of exchange rate fluctuations is relatively low for health care services because they are provided locally and are therefore invoiced in the respective currency.

SECTOR-SPECIFIC ENVIRONMENT

Chronic kidney failure (end-stage renal disease, ESRD) is a global disease. The number of patients requiring renal replacement therapy is increasing worldwide: At the end of 2018, approximately 4.1 M patients underwent dialysis treatment or received a donor organ.

Further information can be found in [TABLE 2.12](#).

For many years now, the number of donated organs worldwide has been significantly lower than the number of patients on transplant waiting lists. Despite extensive efforts by regional initiatives to increase awareness of kidney donation and the willingness to donate, the share of patients receiving kidney transplantation compared with other treatment methods has remained relatively unchanged over the past ten years.

The prevalence of chronic kidney failure varies between regions. There are several reasons for this:

- › The countries differ demographically, as age structures in the population vary worldwide.
- › The prevalence of risk factors for kidney disease, such as diabetes and high blood pressure, varies widely.
- › The genetic predisposition for kidney disease also differs significantly around the world.

T 2.12 PATIENTS WITH CHRONIC KIDNEY FAILURE

| | 2018 | Share |
|---|------------------|--------------|
| Patients with chronic kidney failure | 4,148,000 | 100 % |
| Of which patients with transplants | 786,000 | 19 % |
| Of which dialysis patients | 3,362,000 | 81 % |
| Hemodialysis (HD) | 2,993,000 | 72 % |
| Peritoneal dialysis (PD) | 369,000 | 9 % |

Source: Company information and estimates

- › Access to dialysis is still restricted in many countries, meaning that many patients suffering from chronic kidney failure are not treated and therefore do not appear in prevalence statistics.
- › Cultural factors such as nutrition play a role.

The number of dialysis patients rose by around 6 % in 2018. The growth rate was lower in countries such as the U.S., Japan, and Western and Central Europe than in economically weaker regions, where it is generally above 6 %.

Comparison of dialysis treatment methods

In 2018, most dialysis patients were treated in one of approximately 43,200 dialysis centers worldwide, with an average of more than 75 patients per center. However, this figure varies considerably from country to country.

Hemodialysis is by far the most common form of therapy for chronic kidney failure. A total of 89 % of dialysis patients were treated in this way in 2018, mostly in a dialysis center. Home hemodialysis is an alternative to treatment at a dialysis center. Although take-up has been limited to date, the number of home hemodialysis patients is rising continuously. A total of 1 % of all patients are currently treated in this way. In the year under review, 11 % of all dialysis patients were treated with peritoneal dialysis, usually at home.

CHART 2.13 shows a comparison of in-center and home dialysis.

Volume of the dialysis market

According to our estimates, the volume of the global dialysis market increased to around €71 BN in 2018 (2017: €70 BN). The

market grew by 4 % over the past year at Constant Currency. We expect the following approximate breakdown for this market volume: around €13 BN for dialysis products and approximately €58 BN for dialysis services (including dialysis drugs).

Care Coordination

Chronic conditions such as diabetes and cardiovascular diseases are becoming increasingly common and are responsible for almost two out of three deaths worldwide. In many countries, a large proportion of health care spending goes toward treating chronic diseases. To counteract the resultant increase in cost pressure, more and more health care systems, such as that in our largest market, the U.S., are starting to promote coordinated, holistic care rather than reimbursing individual services.

Due to the large number of different services offered in the area of Care Coordination, we cannot provide a meaningful estimate of the market volume. We currently offer medical services in Care Coordination primarily in the North America and Asia-Pacific Segments and have adapted our services in this area to these markets. The extent to which we roll out our Care Coordination services outside the U.S. may vary in individual countries and regions depending on the respective reimbursement system and market environment.

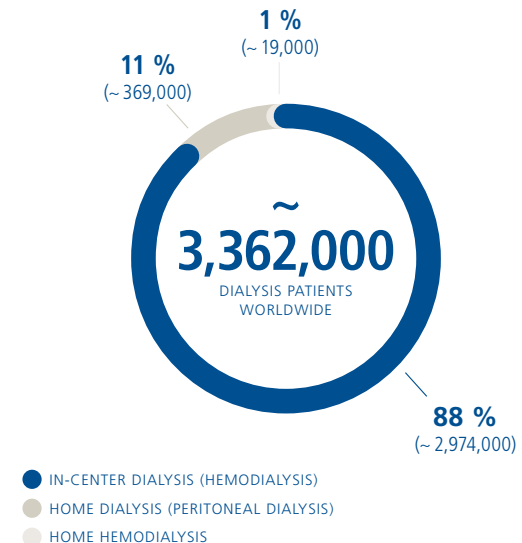
Our customers are mostly health insurers and companies

Fresenius Medical Care's most important customers are state-owned or public health insurers, private health insurers, and companies.

Health care and reimbursement systems vary from country to country

As renal replacement therapy is a life-saving medical service, patients often do not have to pay for dialysis themselves. Instead, the costs are borne by the responsible health care system. The reimbursement systems for dialysis treatment – in other words, the structures used by health care systems to regulate reimbursement for dialysis services – differ from

CHART 2.13 IN-CENTER VS. HOME DIALYSIS



country to country and sometimes even within countries. The business activities and the reimbursement of dialysis therapy are affected by various factors including regional conditions, the treatment method, regulatory issues, and the type of dialysis service provider (public or private).

Our ability to influence the reimbursement of our services is limited.

The reimbursement system in the U.S.

Our business is significantly impacted by the environment for reimbursement and ancillary services. In the U.S. – our biggest market – most of our patients are covered by the governmental health authority, the so-called Centers for Medicare and Medicaid (CMS). In fiscal year 2018, around 33 % of our revenue was attributable to reimbursements by CMS, which also determines the reimbursement rates for its patients (Medicare/Medicaid patients).

Due to pressure to reduce health care costs, the U.S. has limited increases in the reimbursement rate in the past. As a consequence, the reimbursement rate set by CMS as part of its prospective payment system (PPS) for chronic kidney failure treatments (known as the ESRD PPS rate) barely changed year-on-year. The ESRD PPS rate for 2018 was \$232.37, just 0.3 % above the 2017 base rate. A reimbursement rate of \$235.27 has been determined for 2019. This represents a 1.3 % increase on the 2018 base rate including the adjustment for the wage index budget-neutrality factor.

Any significant reduction in Medicare reimbursement rates could have a material adverse effect on our health care services business. As demand for dialysis products is affected by

Medicare reimbursement rates, this could have consequences for the development of our product business. To the extent that inflation, for example in the form of higher costs for personnel and disposables, is not fully compensated by an increase in reimbursement rates, our business and results of operations may also be adversely affected.

More information can be found in the section “Results of operations, financial position and net assets” starting on [PAGE 37](#).

In the U.S., reimbursement by government institutions is lower than reimbursement by private insurers and managed care organizations. The payments we receive from private insurers constitute a substantial portion of our profits. In fiscal year 2018, 34 % of the Group's health care revenue was related to private insurers in the North America Segment. Our business is therefore directly influenced by changes in the share of reimbursements by private insurers in North America.

Quality-based reimbursement

The health care debate in some countries is currently focused on establishing reimbursement structures based on treatment quality (“pay for performance”). In this case, more responsibility is transferred to the medical service provider. The goal of reimbursement models of this kind is to maintain a high quality of care while reducing overall costs for the health care system.

The reimbursement system in the U.S. is also an example of a model based on qualitative criteria. For example, CMS defines quality standards for dialysis centers as part of its quality incentive program (QIP). A failure to reach these stan-

dards can lead to a reduction in annual reimbursements of up to 2 %.

CMS included calcimimetics in the PPS rate effective January 1, 2018, following the FDA's announcement that it had approved the intravenous calcimimetic Parsabiv for adult dialysis patients. Calcimimetics had previously only been available in oral form. CMS will continue to pay for another calcimimetic, Sensipar, based on the average sales price plus 6 % (4.3 % after giving effect to the U.S. Sequestration).

The introduction of Parsabiv also affects the way in which some insurers distribute calcimimetics to their patients. While some patients still obtain calcimimetics from their pharmacy, others receive them from their dialysis provider as a medical service. We expect to receive additional reimbursements from insurers for the calcimimetics administered at our dialysis clinics. However, as this is the first time there has been a move away from an exclusively oral drug to an intravenous one, the type of reimbursement from insurers is yet to be defined.

Reimbursement in Care Coordination in the U.S.

We are also working closely with CMS in the area of Care Coordination. For example, we are participating in a CMS ESRD care model: Dialysis providers and physicians can form entities known as ESRD Seamless Care Organizations (ESCOS) with the aim of improving the health of patients with chronic kidney failure while reducing costs for CMS. We are currently involved in 24 ESCOS. ESCOS that fulfill the minimum quality standards specified by the program while saving costs in caring for dialysis patients covered by the model that are above a certain threshold receive a portion of the cost savings as reimbursement. ESCOS that involve dialysis chains with more

than 200 clinics are required to share in the risk of cost increases and reimburse part of any such increases to CMS if the actual costs exceed the agreed thresholds. The number of patients participating in our ESCOs increased from approximately 41,000 as of January 1, 2018 to approximately 46,000 as of January 1, 2019.

We participated in the Bundled Payments for Care Improvement (BPCI) initiative with our subsidiary Sound Physicians from April 2015 until the sale of the company in June 2018. BPCI is a CMS initiative that offers bundled payments for individual services, including inpatient care, physician services, and follow-up treatment. The initiative has been extended until September 30, 2018.

Effective January 1, 2019, we will no longer offer Medicare Advantage ESRD Chronic Conditions Special Needs Plans, as patients with chronic kidney failure will have the right to register for any Medicare Advantage Plan from 2021 and will no longer need to be registered for a Special Needs Plan.

We have also concluded agreements on per capita reimbursements (known as subcapitations) as well as risk-based and value-based agreements with certain insurers. These form the basis for the health care services we offer Medicare Advantage patients with chronic kidney failure and allow for a basic amount per patient per month. If we provide complete care at a cost that is below the basic amount, we retain the difference. However, if the cost of complete care exceeds the basic amount, we may be obligated to pay the difference to the insurer.

OVERALL BUSINESS DEVELOPMENT

HIGHLIGHTS

Acquisitions and divestitures

Divestitures of Care Coordination activities

On June 28, 2018 the Company successfully divested its controlling interest in Sound to an investment consortium led by Summit Partners, L.P., as announced in April. The total transaction proceeds were \$1,771 M (€1,531 M). This sale is an important step for us in our efforts to focus more on our activities in the area of Care Coordination in the U.S. The pre-tax gain related to divestitures of Care Coordination activities was €809 M, which primarily related to this divestiture ((Gain) loss related to divestitures of Care Coordination activities). For further information, [SEE NOTE 4 C](#) of the notes to the consolidated financial statements.

Strategic Investments

In the second quarter of 2018, Fresenius Medical Care and the U.S. medical company Humacyte agreed on a strategic, global partnership and a 19 % ownership stake in Humacyte for a payment in the amount of \$150 M. Under the terms of the agreement, Fresenius Medical Care will also obtain exclusive global rights to commercialize HUMACYL, the human acellular vessel developed by Humacyte, following approval of the product. The aim is to make HUMACYL available to as many patients as possible.

Financing

On July 4, 2018, Fresenius Medical Care placed notes with an aggregate principal amount of €500 M. The notes have a maturity of seven years and an annual coupon of 1.5 %. The issue price is 99.704 % and the resulting yield amounts to 1.545 %. The proceeds will be used for general corporate purposes, including the refinancing of upcoming maturities. This is the first issuance since the Company was upgraded to investment grade by the three leading rating agencies Standard & Poor's, Moody's and Fitch. The notes were drawn under the newly established European Medium Term Note Program (EMTN) set up by Fresenius Medical Care AG & CO. KGAA.

The Company increased the accounts receivable facility to \$900 M on December 20, 2018, and extended it until December 20, 2021.

Tax reform in the U.S. (U.S. Tax Reform)

As a result of the U.S. Tax Reform that became effective on January 1, 2018, the corporate income tax rate in the U.S. decreased from 35 to 21 %. This resulted in a positive effect for Fresenius Medical Care of around €192 M in 2018, which increased net income accordingly.

Foreign Corrupt Practices Act (FCPA) related charge

The Company recorded charges of €200 M in 2017 (2017 FCPA Related Charge) and €77 M in 2018 (2018 FCPA Related Charge) encompassing estimates for the government's claims for profit disgorgement, penalties, certain legal expenses, and other related costs or asset impairments believed likely to be

necessary for full and final resolution, by litigation or settlement, of the claims and issues arising from the investigation. The increase recorded in 2018 took into consideration preliminary understandings with the government on the financial terms of a potential settlement. Following this increase, which takes into account incurred and anticipated legal expenses, impairments and other costs, the provision totals €224 M as of December 31, 2018. For further information on these investigations [SEE NOTE 22](#) of the notes to the consolidated financial statements.

Information campaigns on U.S. ballot initiatives

In 2018, there were initiatives in three states in the U.S. to place dialysis-related draft legislation or regulations in upcoming ballot initiatives. These required us to commit material unforeseeable resources to participate in public discourse regarding the proposed new legislation, which in 2018 led to costs in the amount of €40 M.

Hyperinflation in Argentina

Due to the development of inflation in Argentina, the Company recorded a loss on its net monetary position of €12 M for 2018.

COMPARISON OF ACTUAL BUSINESS RESULTS WITH THE OUTLOOK

The environment for our core business of dialysis partially developed different than expected in 2018. Therefore, the outlook we set for 2018 at the beginning of the year has been adjusted during 2018.

During the first quarter we adjusted the expected revenue growth for 2018 at Constant Currency, as a result of our recent reassessment of dosing of calcimimetic drugs in the dialysis service business in the U.S. The reduction in dosing was faster than assumed and resulted in a lower than expected revenue contribution. During the second quarter we adjusted our expectations for acquisitions and investments to reflect management's updated forecast of expected investing activities for the year. In addition, the full-time equivalents target was adjusted due to the divestiture of Sound. During the third quarter we adjusted the outlook due to weaker than expected growth in the health care services business in the North America Segment and the difficult economic environment in certain emerging countries. We met this adjusted outlook.

Our 2018 outlook did not include the effects from the (gain) loss related to divestitures of Care Coordination activities, the contributions to the opposition to the ballot initiatives in the U.S. (U.S. Ballot Initiatives) and the impact of the 2018 FCPA Related Charge. We have therefore adjusted the actual results for 2018 accordingly to make them comparable with the 2018 outlook. The basis 2017 for the outlook 2018 was adjusted for the inclusion of implicit price concessions related to the IFRS 15 Implementation and for the impact of Sound (divestiture on June 28, 2018) on the second half of 2017 (Sound H2 2017). A reconciliation of the results 2018 and 2017 to the respective on a comparable basis and the results 2018 and 2017 adjusted is given in [TABLES 2.15 AND 2.16 ON PAGE 39](#).

The outlook for the 2018 financial year was based on the prevailing exchange rates at the beginning of the year 2018. We expected revenue growth of around 8 % at Constant

Currency at the beginning of the year. During the first quarter of 2018 we adjusted this outlook to 5 to 7 % and in the third quarter to 2 to 3 %. We generated revenue of €16.5 BN, a decrease of 7 % compared to prior year. At Constant Currency, revenue increased by 4 % on a comparable basis. We therefore met our adjusted expectations.

All operating segments, but above all the North America Segment contributed to the expansion of our business. Further details on the development of revenue can be found in the section "Results of operations, financial position and net assets" starting on [PAGE 37](#).

We expected the growth of our operating income in the range of 12 to 14 % at Constant Currency in the 2018 financial year. During the third quarter 2018 we adjusted this range to 5 to 6 %. The operating income for 2018 was €3.0 BN. Adjusted for the effects from the (gain) loss related to divestitures of Care Coordination activities, the U.S. Ballot Initiatives and the impact of the 2018 FCPA Related Charge the operating income for 2018 was up by 6 % at Constant Currency on a comparable basis to €2.3 BN. We therefore met our adjusted expectations.

We expected Delivered EBIT growth in the range of 13 to 15 % at Constant Currency in 2018. During the third quarter 2018 we adjusted this range to 6 to 7 %. Delivered EBIT for 2018 was €2.8 BN. Adjusted for the effects from the (gain) loss related to divestitures of Care Coordination activities, the U.S. Ballot Initiatives and the impact of the 2018 FCPA Related Charge the Delivered EBIT for 2018 increased by 8 % at Constant Currency on a comparable basis to €2.1 BN. We therefore met our adjusted expectations.

At the beginning of the year, we set a target range for net income growth of 13 to 15 % at Constant Currency for the 2018 financial year. On an adjusted basis we set a target range of 7 to 9 %. The effects related to the prior year revenue impact from the recognition of revenue related to the agreement with the United States Departments of Veterans Affairs and Justice for reimbursement for services performed during the period of January 2009 through February 15, 2011 ("VA Agreement"), the prior year impact from cost effects net of anticipated recoveries from natural disasters ("Natural Disaster Costs"), the impact of the FCPA Related Charge in 2017 and the effects of the U.S. Tax Reform have not been included in this range on an adjusted basis. We adjusted these target ranges during the third quarter 2018 to 11 to 12 % on a comparable basis and to 2 to 3 % on an adjusted basis. Net income for 2018 increased by 14 % at Constant Currency on a comparable basis to €1.4 BN, which is within the range of our original expectations. Adjusted net income for 2018 increased by 4 % at Constant Currency to €1.2 BN, which is within the range of our adjusted expectations.

Earnings per share increased by 14 % at Constant Currency on a comparable basis and 4 % at Constant Currency on an adjusted basis. This increase is in line with the development of net income, as we expected.

We earmarked €0.9 BN to €1.0 BN for capital expenditures. With an outlay of €1.0 BN, we remained within our outlook. We expected to spend around €1.0 BN to €1.2 BN on acquisitions and investments. This number was adjusted during the second quarter to €0.6 to €0.8 BN and during the third quarter to €0.4 to €0.5 BN, excluding investments in securities. The actual figure was €0.4 BN with respect to acquisitions and investments (excluding investments in securities) and we therefore met our

adjusted expectations. For further information, see the section "Results of operations, financial position and net assets".

Driven by earnings development and lower tax payments as a result of the U.S. Tax reform, net cash provided by (used in) operating activities in percent of revenue was high at 12.5 %, meeting our expectation of greater than 10 %.

Free cash flow in percent of revenue was 6.4 % in 2018, which is also in line with our expectation of greater than 4 %.

According to our forecast, the net leverage ratio should have been below 2.5 at the end of 2018. The actual net leverage ratio was down to 1.8 at the balance sheet date and is therefore as expected.

The ROIC increased to 12.4 % thus meeting our expectation of at least 8.0 %.

The proposed dividend per share of €1.17 to be approved by the Annual General Meeting on May 16, 2019 is within our expectation.

The number of employees at Fresenius Medical Care (full-time equivalents) decreased from 114,000 at the end of 2017 to 112,658 at the end of 2018 due to the divestiture of Sound. At the beginning of the year we forecasted more than 117,000 full-time equivalents, which was then adjusted during the year to more than 113,000 due to the divestiture of Sound. The number of employees was therefore slightly below our adjusted expectations.

Research and development expenditures aimed at boosting Fresenius Medical Care's ability to adapt to future require-

ments amounted to €134 M, so that we did achieve our adjusted expected range of €130 M to €140 M. At the beginning of the year we forecasted a range of €140 to €150 M, which was then adjusted during the year to €130 M to €140 M. Our research and development activities are focused on further developing existing product groups.

TABLE 2.14 ON PAGE 38 shows the actual results and our outlook for 2018.

TABLES 2.15 AND 2.16 ON PAGE 39 provide a reconciliation of the results 2018 and 2017 to the respective results on a comparable basis and results 2018 and 2017 adjusted. For further information see also the "Consolidated operating performance on a comparable basis and adjusted" section starting on PAGE 42.

RESULTS OF OPERATIONS, FINANCIAL POSITION AND NET ASSETS

The following sections summarize our results of operations, financial position and net assets as well as key performance indicators by reporting segment, as well as Corporate, for the periods indicated.

We prepared the information using a management approach, consistent with the manner in which management internally disaggregates financial information to assist in making operating decisions and evaluating management performance.

RESULTS OF OPERATIONS

Revenue and operating income generated in countries outside the eurozone are subject to currency fluctuations. The years ended December 31, 2018 and 2017 were negatively impacted by the development of the euro against the U.S. dollar. In the twelve-month period ended December 31, 2018 approximately 70 % of revenue and approximately 88 % of operating income were generated in U.S. dollars.

Consolidated financial statements

Health care services revenue decreased by 9 % including a 5 % negative impact from foreign currency translation. At Constant Exchange Rates, health care services revenue decreased by 4 % driven by the effect of closed or sold clinics including the effect from divestitures of Care Coordination activities (5 %), the inclusion of implicit price concessions related to the IFRS 15 Implementation (3 %) and the prior year revenue impact from the VA Agreement (1 %), partially offset by growth in same market treatments (3 %), contributions from acquisitions (1 %) and increases in organic revenue per treatment (1 %). For further information on the IFRS 15 Implementation, [SEE NOTE 1 X](#) of the notes to the consolidated financial statements.

Dialysis treatments increased by 4 % as a result of growth in same market treatments (3 %) and contributions from acquisitions (1 %).

At December 31, 2018, we owned, operated or managed 3,928 dialysis clinics (excluding those managed but not consolidated in the U.S.) compared to 3,752 dialysis clinics at December 31, 2017. In the year ended December 31, 2018, we

T 2.14 RESULTS AND OUTLOOK FOR 2018

| | Results 2018 | Results 2018 on a comparable basis ¹ | Outlook 2018 adjusted ¹ | Outlook 2018 (as reported) ¹ |
|---|--------------|---|---|---|
| Revenue growth at Constant Currency ^{2,3} | (2 %) | 4 % | 2–3 % | ~ 8 % |
| Operating income growth at Constant Currency ^{3,4} | 33 % | 6 % | 5–6 % | 12–14 % |
| Delivered EBIT growth at Constant Currency ^{3,4} | 38 % | 8 % | 6–7 % | 13–15 % |
| Net income growth at Constant Currency ^{3,4,5} | 60 % | 14 % | 11–12 % | 13–15 % |
| Net income growth at Constant Currency ^{3,4,5,6} | 60 % | 4 % | 2–3 % | 7–9 % |
| Basic earnings per share growth at Constant Currency ^{3,4,5} | 60 % | 14 % | based on expected development of net income | based on expected development of net income |
| Basic earnings per share growth at Constant Currency ^{3,4,5,6} | 60 % | 4 % | | |
| Capital expenditures | €1.0 BN | – | €0.9–1.0 BN | €0.9–1.0 BN |
| Acquisitions and investments ⁷ | €0.4 BN | – | €0.4–0.5 BN | €1.0–1.2 BN |
| Net cash provided by (used in) operating activities in % of revenue | 12.5 | – | > 10 | > 10 |
| Free cash flow in % of revenue | 6.4 | – | > 4 | > 4 |
| Net leverage ratio | 1.8 | – | < 2.5 | < 2.5 |
| ROIC in % | 12.4 | – | ≥ 8.0 | ≥ 8.0 |
| Dividend per share ⁸ | €1.17 | – | based on expected development of net income | based on expected development of net income |
| Employees ⁹ | 112,658 | – | > 113,000 | > 117,000 |
| Research and development expenses | €134 M | – | €130–140 M | €140–150 M |

¹ Outlook 2018 (adjusted) and Results 2018 on a comparable basis: excluding the effects from the (gain) loss related to divestitures of Care Coordination activities, U.S. Ballot Initiatives and the 2018 FCPA Related Charge.

² Outlook 2018 (adjusted) and Results 2018 on a comparable basis: basis 2017 adjusted for IFRS 15 Implementation.

³ Results 2018 on a comparable basis: basis 2017 adjusted for Sound H2 2017.

⁴ Outlook 2018 (adjusted) and Results 2018 on a comparable basis: excluding the (gain) loss related to divestitures of Care Coordination activities.

⁵ Net income attributable to shareholders of FMC AG & Co. KGaA.

⁶ Outlook 2018 (adjusted) and Results 2018 on a comparable basis: in addition excluding the 2017 impacts from the VA Agreement, Natural Disaster Costs, 2017 FCPA Related Charge, as well as from the U.S. Tax Reform.

⁷ Excluding investments in securities.

⁸ Results 2018: Proposal to be approved by the Annual General Meeting on May 16, 2019.

⁹ Full-time equivalents.

acquired 55 dialysis clinics, opened 178 dialysis clinics and combined or closed 57 clinics. The number of patients treated in dialysis clinics that we own, operate or manage (excluding patients of dialysis clinics managed but not consolidated in the U.S.) increased by 4 % to 333,331 at December 31, 2018 (December 31, 2017: 320,960).

Health care product revenue increased by 1 % including a 4 % negative impact from foreign currency translation. At Constant Exchange Rates, health care product revenue increased

by 5 %. Dialysis product revenue increased by 1 %, including a 4 % negative impact from foreign currency translation. At Constant Exchange Rates, dialysis product revenues increased by 5 % due to higher sales of chronic hemodialysis products, renal pharmaceuticals, products for acute care treatments and peritoneal dialysis products. Non-dialysis product revenue decreased by 7 % to €74 M from €79 M, including a 1 % negative impact from foreign currency translation. At Constant Exchange Rates non-dialysis product revenue decreased by 6 % largely due to lower sales volumes.

The decrease period over period in the gross profit margin was 2.6 percentage points. Foreign currency translation effects represented a 0.4 percentage point increase in the current period. The decrease primarily reflects decreases in the North America Segment, the EMEA Segment, the Latin America Segment and the Asia-Pacific Segment. The decrease in the North America Segment gross profit margin was primarily due to the IFRS 15 Implementation, the prior year impact of the VA Agreement, prior year impact from the BPCI initiative driven by the initial recognition in the calendar year 2017 of

T 2.15 RECONCILIATION OF RESULTS 2018 TO RESULTS 2018 ADJUSTED IN € M

| | Results 2018 | (Gain) loss related to divestitures of Care Coordination activities | 2018 FCPA Related Charge | U.S. Ballot Initiatives | Results 2018 on a comparable basis | U.S. Tax Reform | Results 2018 adjusted |
|-------------------------|--------------|---|--------------------------|-------------------------|---------------------------------------|-----------------|--------------------------|
| Revenue | 16,547 | | | | 16,547 | | 16,547 |
| Operating income | 3,038 | (809) | 77 | 40 | 2,346 | | 2,346 |
| Delivered EBIT | 2,794 | (809) | 77 | 40 | 2,102 | | 2,102 |
| Net income ¹ | 1,982 | (673) | 28 | 40 | 1,377 | (192) | 1,185 |

¹ Net income attributable to shareholders of FMC AG & Co. KGaA.

T 2.16 RECONCILIATION OF RESULTS 2017 TO RESULTS 2017 ADJUSTED AS BASIS FOR TARGETS 2018 IN € M

| | Results 2017 | IFRS 15 Implementation | Sound H2 2017 | Results 2017 on a comparable basis (basis for Targets 2018) | VA Agreement | Natural Disaster Costs | U.S. Tax Reform (excl. Sound H2 2017) | 2017 FCPA Related Charge | Results 2017 adjusted (basis for Targets 2018) |
|-------------------------|--------------|---------------------------|---------------|--|--------------|---------------------------|---|-----------------------------|--|
| Revenue | 17,784 | (486) | (559) | 16,739 | (94) | | | | 16,645 |
| Operating income | 2,362 | | (84) | 2,278 | (87) | 18 | | 200 | 2,409 |
| Delivered EBIT | 2,088 | | (80) | 2,008 | (85) | 18 | | 200 | 2,141 |
| Net income ¹ | 1,280 | | (38) | 1,242 | (51) | 11 | (240) | 200 | 1,162 |

¹ Net income attributable to shareholders of FMC AG & Co. KGaA.

earnings (including earnings from prior periods), lower revenue per treatment from commercial payors, higher implicit price concessions, other small cost increases and lower earnings related to ESCOs, partially offset by favorable pricing for certain pharmaceuticals due to delays for rebasing of reimbursement, lower personnel expense and decreased costs for health care supplies. The decrease in the EMEA Segment was driven by unfavorable foreign currency transaction effects, higher personnel costs in certain countries, an unfavorable impact from acquisitions and an adverse mix effect from higher product sales albeit with lower margins in certain countries, as well as other smaller cost increases. The decrease in the Latin America Segment was largely due to the impact from hyperinflation and various other cost increases. The decrease in the Asia-Pacific Segment was driven by unfavorable foreign currency transaction effects and an adverse mix effect from acquisitions with lower margins, partially offset by a favorable impact from business growth in certain countries within the region.

The decrease period over period in the selling, general and administrative ("SG&A") expenses as a percentage of revenue was 3.0 percentage points. Foreign currency translation effects represented a 0.1 percentage point negative impact in the current period. The decrease was primarily driven by decreases in the North America Segment and at Corporate, partially offset by unfavorable impacts from the Latin America Segment and the Asia-Pacific Segment as well as an unfavorable impact from the varying margins across our four reporting segments. The decrease in the North America Segment was mainly due to the IFRS 15 Implementation, lower accruals for compensation, the positive impact from income attributable to a consent agreement on certain pharmaceuticals, favorable personnel expense, lower bad debt expense

and the prior year change in fair value of subsidiary share based compensation, partially offset by prior year gains from the sale of fixed assets and investments, the impact from contributions to the opposition to the ballot initiatives in the U.S. ("U.S. Ballot Initiatives") and a discontinuation of a non-IFRS policy with no associated cash flow effect. The favorable impact from Corporate was primarily driven by lower additions to provisions related to FCPA in 2018 ("2018 FCPA Related Charge"). The increase in the Latin America Segment was driven by the impact from hyperinflation in Argentina and unfavorable foreign currency transaction effects. The increase in the Asia-Pacific Segment was largely due to unfavorable foreign currency transaction effects, partially offset by a favorable impact from acquisitions and lower accruals for compensation.

Research and development expenses increased by 2 % to €134 M from €131 M. The period over period increase, as a percentage of revenue, was 0.1 percentage points driven by an increased project portfolio.

Income from equity method investees increased by 9 % to €73 M from €67 M. The increase was driven by higher income from Vifor Fresenius Medical Care Renal Pharma Ltd., an entity in which we have ownership of 45 %, mainly due to increased sales of renal pharmaceuticals, partially offset by increased costs to support the launch and development of new projects as well as the initial consolidation from purchasing additional shares of a Care Coordination investment previously consolidated at equity.

The increase period over period in the operating income margin was 5.1 percentage points. Foreign currency translation effects represented a 0.3 percentage point increase in the

T 2.17 SEGMENT DATA (INCLUDING CORPORATE) IN € M

| | 2018 | 2017 |
|---|---------------|---------------|
| Total revenue | | |
| North America | 11,570 | 12,879 |
| EMEA | 2,587 | 2,547 |
| Asia-Pacific | 1,689 | 1,623 |
| Latin America | 686 | 720 |
| Corporate | 15 | 15 |
| TOTAL | 16,547 | 17,784 |
| Operating income | | |
| North America | 2,665 | 2,086 |
| EMEA | 399 | 444 |
| Asia-Pacific | 304 | 313 |
| Latin America | 29 | 58 |
| Corporate | (359) | (539) |
| TOTAL | 3,038 | 2,362 |
| Interest income | 147 | 51 |
| Interest expense | (448) | (416) |
| Income tax expense | (511) | (443) |
| NET INCOME | 2,226 | 1,554 |
| LESS: NET INCOME ATTRIBUTABLE TO NONCONTROLLING INTERESTS | (244) | (274) |
| NET INCOME ATTRIBUTABLE TO SHAREHOLDERS OF FMC AG & CO. KGAA | 1,982 | 1,280 |

T 2.18 KEY INDICATORS FOR THE CONSOLIDATED FINANCIAL STATEMENTS

| | 2018 | 2017 | Change in % | |
|---|------------|------------|-------------|--------------------------------|
| | | | As reported | Constant Currency ¹ |
| Revenue in € M | 16,547 | 17,784 | (7) | (2) |
| Health care services | 13,264 | 14,532 | (9) | (4) |
| Health care products | 3,283 | 3,252 | 1 | 5 |
| Number of dialysis treatments | 50,027,579 | 48,269,144 | 4 | |
| Same market treatment growth in % | 2.8 | 2.7 | | |
| Gross profit as a % of revenue | 31.2 | 33.8 | | |
| Selling, general and administrative costs as a % of revenue | 17.3 | 20.3 | | |
| Operating income in € M | 3,038 | 2,362 | 29 | 33 |
| Operating income margin in % | 18.4 | 13.3 | | |
| Delivered EBIT in € M ² | 2,794 | 2,088 | 34 | 38 |
| Net income attributable to shareholders of FMC AG & Co. KGaA in € M | 1,982 | 1,280 | 55 | 60 |
| Basic earnings per share in € | 6.47 | 4.17 | 55 | 60 |

¹ For further information on Constant Currency, see the "Performance management system" section starting on PAGE 23.

² For further information on Delivered EBIT, including a reconciliation of Delivered EBIT to operating income on a consolidated basis and for each of our operating segments, see chapter "Overview about the Group" section "Performance management system" starting on PAGE 23.

current period. The increase was largely driven by the gain related to divestitures of Care Coordination activities (SEE NOTE 4 C of the notes to the consolidated financial statements) of approximately €809 M, decreases in SG&A, as a percentage of revenue, partially offset by decreased gross profit margin.

Delivered EBIT increased by 34 % including a 4 % negative impact from foreign currency translation. At Constant Exchange Rates, the increase of 38 % was primarily due to increased operating income largely driven by the gain related to divestitures of Care Coordination activities of approximately €809 M coupled with a decrease in noncontrolling

interests driven by lower performance in entities in which we have less than 100 % ownership in the U.S.

Net interest expense decreased by 17 % to €301 M from €365 M including a 3 % positive impact resulting from foreign currency translation. At Constant Exchange Rates, net interest expense decreased by 14 % largely due to the replacement of interest bearing senior notes repaid in 2017 and 2018 by debt instruments at lower interest rates, a decreased debt level and interest income from investing the proceeds from the divestiture of Sound as well as lower interest on taxes.

Income tax expense increased by 15 % to €511 M from €443 M. The effective tax rate decreased to 18.7 % from 22.2 % for the same period of 2017 largely driven by the gain related to divestitures of Care Coordination activities with a lower tax basis, the effect of U.S. Tax Reform on current tax expense and favorable prior year tax effects. These impacts were partially offset by the prior year effect of the remeasurement of deferred tax balances as a result of U.S. Tax Reform as well as non-tax deductible expenses primarily related to the U.S. Ballot Initiatives.

Net income attributable to noncontrolling interests decreased by 11 % to €244 M from €274 M. Foreign currency translation effects represented a 4 % positive impact. At Constant Exchange Rates, net income attributable to noncontrolling interests decreased by 7 % largely due to lower performance in entities in which we have less than 100 % ownership in the U.S.

Net income attributable to shareholders of FMC AG & CO. KGAA increased by 55 % to €1,982 M from €1,280 M, including a 5 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, the increase of 60 % was driven by the combined effects of the items discussed above.

Basic earnings per share increased by 55 %. Foreign currency translation effects represented a 5 % negative impact on the increase. At Constant Exchange Rates, basic earnings per share increased by 60 % primarily due to the increase in net income attributable to shareholders of FMC AG & CO. KGAA described above. The average weighted number of shares outstanding for the period was approximately 306.5 M in 2018 (2017: 306.6 M).

We employed 112,658 people (full-time equivalents) as of December 31, 2018 (December 31, 2017: 114,000). This 1 % decrease was primarily due to the divestiture of Sound.

Consolidated operating performance on a comparable basis and adjusted

Management believes that there are certain distinct transactions or events for which the operating results should be adjusted to enhance transparency and comparability. The following results (adjusted to exclude these items) should be analyzed in connection with the results presented above. For the year ended December 31, 2018 and 2017, the following transactions were identified that, when excluded from the results disclosed above, may provide a reader with further useful information in assessing our performance:

- › IFRS 15 Implementation,
- › Sound H2 2017,
- › VA Agreement,
- › U.S. Ballot Initiatives,
- › (Gain) loss related to divestitures of Care Coordination activities,
- › 2018 FCPA Related Charge (SEE NOTE 22 of the notes to the consolidated financial statements),
- › 2017 FCPA Related Charge (SEE NOTE 22 of the notes to the consolidated financial statements),
- › Natural Disaster Costs,
- › U.S. Tax Reform
 - › the 2017 impact from the remeasurement of deferred tax balances as a result of the tax reform,
 - › the 2018 impact from the lower corporate income tax rate of 21 % (as compared to 35 %) as a result of the tax reform.

TABLE 2.19 ON PAGE 43 reconciles the key indicators for the consolidated financial statements in accordance with IFRS to the adjusted key indicators as described. Included within the reconciliation are comparable basis line items which provide the effect of exclusions which result in the recasting of the line items for comparability year over year. While we believe these adjustments provide additional clarity to the discussion of our operating results, TABLE 2.19 ON PAGE 43 should only be viewed as a supplement to our results disclosed in accordance with IFRS above.

Segment reporting

The following discussions pertain to the North America Segment, the EMEA Segment, the Asia-Pacific Segment and the Latin America Segment and the measures we use to manage these segments.

In regards to our Care Coordination services we use additional business metrics, which will be defined below.

Business metrics for Care Coordination

The measures for the North America Segment and the Asia-Pacific Segment discussed below include prior programs in which we participated and current and future programs that we will be participating in and will be reflected in the discussion of our business. Currently, in our North America Segment, sub-capitation, BPCI (until June 28, 2018 – SEE NOTE 4 C of the notes to the consolidated financial statements), ESCO programs, MA-CSNPS and other shared savings programs are included within the member months and medical cost under management calculations below. In the future, other programs may be included in the metrics below. Note that

due to the timing required by CMS to review the BPCI and ESCO program data that we provide, estimates have been used to report these metrics in a timely manner. The Asia-Pacific Segment Care Coordination metric currently used for discussion purposes is patient encounters.

These metrics may be developed further in future periods. These metrics are neither IFRS measures nor non-IFRS measures, and are therefore not accompanied by or reconciled to IFRS measures.

Member months under medical cost management

In our North America Segment, member months under medical cost management is calculated by multiplying the number of members included in value-based reimbursement programs, such as Medicare Advantage plans or other value-based programs in the U.S., by the corresponding number of months these members participate in those programs (Member Months). In the aforementioned programs, we assume the risk of generating savings. The financial results are recorded in earnings as our performance is determined. The membership offerings within Care Coordination are sub-capitation arrangements, MA-CSNPS, ESCO and BPCI (until June 28, 2018 – SEE NOTE 4 C) of the notes to the consolidated financial statements) programs as well as other shared savings programs. An increase in patient membership may indicate future earnings or losses as our performance is determined through these managed care programs.

Medical cost under management

In our North America Segment, medical cost under management represents the management of medical costs associated

T 2.19 OPERATING PERFORMANCE ON A COMPARABLE BASIS AND ADJUSTED
 IN € M, EXCEPT WHERE OTHERWISE SPECIFIED

| | Change in % | | | |
|---|---------------|---------------|-------------|--------------------------------|
| | 2018 | 2017 | As reported | Constant Currency ¹ |
| REVENUE | 16,547 | 17,784 | (7) | (2) |
| IFRS 15 Implementation | – | (486) | | |
| Sound H2 2017 | – | (559) | | |
| Revenue on a comparable basis | 16,547 | 16,739 | (1) | 4 |
| HEALTH CARE SERVICES REVENUE | 13,264 | 14,532 | (9) | (4) |
| IFRS 15 Implementation | – | (486) | | |
| Sound H2 2017 | – | (559) | | |
| Health care services revenue on a comparable basis | 13,264 | 13,487 | (2) | 4 |
| OPERATING INCOME | 3,038 | 2,362 | 29 | 33 |
| (Gain) loss related to divestitures of Care Coordination activities | (809) | – | | |
| Sound H2 2017 | – | (84) | | |
| 2018 FCPA Related Charge | 77 | – | | |
| U.S. Ballot Initiatives | 40 | – | | |
| Operating income on a comparable basis | 2,346 | 2,278 | 3 | 6 |
| VA Agreement | – | (87) | | |
| Natural Disaster Costs | – | 18 | | |
| 2017 FCPA Related Charge | – | 200 | | |
| Operating income adjusted | 2,346 | 2,409 | (3) | 1 |
| INCOME TAX EXPENSE | (511) | (443) | 15 | 21 |
| (Gain) loss related to divestitures of Care Coordination activities | 136 | – | | |
| Sound H2 2017 | – | 20 | | |
| 2018 FCPA Related Charge | (49) | – | | |

| | Change in % | | | |
|---|--------------|--------------|-------------|--------------------------------|
| | 2018 | 2017 | As reported | Constant Currency ¹ |
| Income tax expense on a comparable basis | (424) | (423) | 0 | 5 |
| VA Agreement | – | 34 | | |
| Natural Disaster Costs | – | (7) | | |
| U.S. Tax Reform (excl. Sound H2 2017) | (192) | (240) | | |
| Income tax expense adjusted | (616) | (636) | (3) | 1 |
| NET INCOME² | 1,982 | 1,280 | 55 | 60 |
| (Gain) loss related to divestitures of Care Coordination activities | (673) | – | | |
| Sound H2 2017 | – | (38) | | |
| 2018 FCPA Related Charge | 28 | – | | |
| U.S. Ballot Initiatives | 40 | – | | |
| Net income on a comparable basis ² | 1,377 | 1,242 | 11 | 14 |
| VA Agreement | – | (51) | | |
| Natural Disaster Costs | – | 11 | | |
| 2017 FCPA Related Charge | – | 200 | | |
| U.S. Tax Reform (excl. Sound H2 2017) | (192) | (240) | | |
| Net income adjusted ² | 1,185 | 1,162 | 2 | 4 |
| IN % OF REVENUE | | | | |
| Gross profit | 31.2 | 33.8 | | |
| Gross profit – adjusted | 31.2 | 31.9 | | |
| SG&A expenses | 17.3 | 20.3 | | |
| SG&A expenses – adjusted | 16.6 | 17.2 | | |
| Operating income margin | 18.4 | 13.3 | | |
| Operating income margin – adjusted | 14.2 | 14.5 | | |

¹ For further information on Constant Currency, see the "Performance management system" section starting on [PAGE 23](#).

² Attributable to shareholders of FMC AG & Co. KGaA.

with our patient membership in value-based programs. For ESCO, BPCI (until June 28, 2018 – SEE NOTE 4 C of the notes to the consolidated financial statements), and other shared savings programs, this is calculated by multiplying the Member Months in each program by the benchmark of expected medical costs per member per month. The sub-capitation and MA-CSNPs calculation multiplies the premium per member of the program per month by the number of member months associated with the plan, as noted above.

Care Coordination patient encounters

Care Coordination patient encounters represents the total patient encounters and procedures conducted by certain of our Care Coordination activities and, we believe, is an indicator of the revenue generated. Care Coordination patient encounters in the North America Segment is the sum of all encounters and procedures completed during the period by Sound until June 28, 2018 (SEE NOTE 4 C of the notes to the consolidated financial statements), MedSpring Urgent Care Centers, Azura Vascular Care, and National Cardiovascular Partners, the trade name of Laurus Healthcare L.P., as well as patients in our Fresenius Medical Care Rx Bone Mineral Metabolism (Rx BMM) program.

Care Coordination patient encounters in the Asia-Pacific Segment is the sum of all encounters for the following services: ambulant treatment services in day care hospitals, comprehensive and specialized health check-ups, inpatient and outpatient services, vascular access and other chronic treatment services.

T2.20 KEY INDICATORS AND BUSINESS METRICS FOR THE NORTH AMERICA SEGMENT

| | Change in % | | | |
|--|-------------|------------|----------------|--------------------------------|
| | 2018 | 2017 | As reported | Constant Currency ¹ |
| Total North America Segment | | | | |
| Revenue in € M | 11,570 | 12,879 | (10) | (6) |
| Health care services | 10,725 | 12,036 | (11) | (7) |
| Health care products | 845 | 843 | 0 | 5 |
| Operating income in € M | 2,665 | 2,086 | 28 | 33 |
| Operating income margin in % | 23.0 | 16.2 | | |
| Delivered EBIT in € M ² | 2,434 | 1,823 | 34 | 39 |
| Dialysis | | | | |
| Revenue in € M | 9,934 | 10,070 | (1) | 3 |
| Number of dialysis treatments | 30,843,876 | 29,804,196 | 3 | |
| Same market treatment growth in % | 2.5 | 2.5 | | |
| Operating income in € M | 1,752 | 1,942 | (10) | (6) |
| Operating income margin in % | 17.6 | 19.3 | | |
| Delivered EBIT in € M ² | 1,540 | 1,713 | (10) | (6) |
| Care Coordination | | | | |
| Revenue in € M | 1,636 | 2,809 | (42) | (39) |
| Operating income in € M | 913 | 144 | not applicable | |
| Operating income margin in % | 55.8 | 5.1 | | |
| Delivered EBIT in € M ² | 894 | 110 | not applicable | |
| Member months under medical cost management ^{3,4} | 639,329 | 594,962 | 7 | |
| Medical cost under management in € M ^{3,4} | 4,196 | 3,905 | 7 | 12 |
| Care Coordination patient encounters ^{3,4} | 4,407,598 | 6,934,300 | (36) | |

¹ For further information on Constant Currency, see the "Performance management system" section starting on PAGE 23.

² For further information on Delivered EBIT, including a reconciliation of Delivered EBIT to operating income for each of our operating segments, see chapter "Overview about the Group" section

"Performance management system" starting on PAGE 23.

³ For further information on these metrics, please refer to the discussion above of our Care Coordination measures under "Segment reporting – Business metrics for Care Coordination" section starting on PAGE 42.

⁴ The metrics may be understated due to a physician mapping issue related to the BPCI program within a CMS system which has not yet been resolved. Additionally, data presented for the BPCI and ESCO metrics are subject to finalization by CMS, which may result in changes from previously reported metrics.

North America Segment

Information about key indicators and business metrics for the North America Segment can be found in [TABLE 2.20 ON PAGE 44](#).

Dialysis

Revenue

Dialysis revenue, which comprises dialysis care revenue and health care product revenue, decreased by 1 % including a 4 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, dialysis revenue increased by 3 %.

Dialysis care revenue decreased by 2 % to €9,089 M from €9,227 M. Foreign currency translation represented a 5 % negative impact in the current period. At Constant Exchange Rates, dialysis care revenue increased by 3 % mainly due to increases in organic revenue per treatment (3 %), growth in same market treatments (3 %) and contributions from acquisitions (1 %), partially offset by the negative effects of the IFRS 15 Implementation (3 %) and the prior year impact from the VA Agreement (1 %).

Dialysis treatments increased by 3 % primarily due to same market treatment growth (3 %) and contributions from acquisitions (1 %), partially offset by the effect of closed or sold clinics (1 %). At December 31, 2018, 204,107 patients, an increase of 3 % (December 31, 2017: 197,356), were treated in the 2,529 dialysis clinics (December 31, 2017: 2,393) that we own or operate in the North America Segment.

In the U.S., the average revenue per treatment, restated for the IFRS 15 Implementation, increased to \$354 (€313 at Con-

stant Exchange Rates) from \$345 (€306). Excluding the 2017 impact from the VA Agreement, the average revenue per treatment increased to \$354 (€313 at Constant Exchange Rates) from \$342 (€303). The development was mainly attributable to the implementation of the PAMA oral-only provision, partially offset by lower revenue from commercial payors and higher implicit price concessions.

Cost per treatment in the U.S., restated for the IFRS 15 Implementation and the impact from Natural Disaster Costs, increased to \$289 (€256 at Constant Exchange Rates) from \$271 (€240). This development was largely a result of the implementation of the PAMA oral-only provision as well as increased property and other occupancy related costs, partially offset by lower costs for health care supplies.

Health care product revenue remained stable including a 5 % negative impact from foreign currency translation effects. At Constant Exchange Rates, health care product revenue increased by 5 % driven by higher sales of renal pharmaceuticals, peritoneal dialysis products and chronic hemodialysis products.

Operating income margin

The decrease period over period in the dialysis operating income margin was 1.7 percentage points with virtually no foreign currency translation effects in the current period. The decrease was largely driven by the prior year impact of the VA Agreement, the implementation of the PAMA oral-only provision, lower revenue per treatment from commercial payors, higher implicit price concessions, the impact from U.S. Ballot Initiatives, prior year gains from the sale of fixed assets and investments as well as the discontinuation of a non-IFRS policy with no associated cash flow effect, partially offset by

decreased personnel expense, the IFRS 15 Implementation and lower accruals for compensation.

Delivered EBIT

Dialysis Delivered EBIT decreased by 10 %, including a 4 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, dialysis Delivered EBIT decreased by 6 % mainly as the result of decreased operating income, partially offset by lower income attributable to noncontrolling interests driven by lower performance in entities in which we have less than 100 % ownership.

Care Coordination

Revenue

Care Coordination revenue decreased by 42 % including a 3 % negative impact from foreign currency translation. At Constant Exchange Rates, Care Coordination revenue decreased by 39 % largely driven by decreases in organic revenue growth due to the implementation of the PAMA oral-only provision which moved certain pharmaceuticals into the bundled rate (22 %), decreases attributable to divestitures of Care Coordination activities (13 %) and the IFRS 15 Implementation (5 %), partially offset by contributions from acquisitions (1 %).

Operating income margin

The increase period over period in the Care Coordination operating income margin was 50.7 percentage points. Foreign currency translation effects represented a 0.2 percentage point increase in the current period. The increase was primarily driven by the (gain) loss related to divestitures of Care Coordination activities. The increase also relates to a favorable impact from pharmacy services driven by favorable pricing for certain pharmaceuticals due to delays for rebasing of

reimbursement, the implementation of the PAMA oral-only provision (as the historical dispensation of calcimimetics through pharmacy services had low margins as a result of higher costs for external services), lower bad debt expense and the prior year change in fair value of subsidiary stock based compensation, partially offset by prior year impact from the BPCI initiative driven by the initial recognition in the calendar year 2017 of earnings (including earnings from prior periods), lower earnings related to ESCOs, an unfavorable mix effect related to the switch to lower margin ambulatory surgery centers for National Cardiovascular Partners and the prior year gain from the sale of Shiel.

Delivered EBIT

Care Coordination Delivered EBIT increased to €894 M from €110 M mainly a result of increased operating income largely driven by the gain related to divestitures of Care Coordination activities of approximately €809 M coupled with decreased noncontrolling interests attributable to noncontrolling interest holders of National Cardiovascular Partners.

Care Coordination business metrics

The increase in member months under medical cost management was primarily attributable to the expansion of our existing ESCOs through the addition of new physician practice partners and dialysis facilities, partially offset by the divestment of our controlling interest in Sound on June 28, 2018 and, as a result, the conclusion of our participation in BPCI. [SEE NOTE 4 C](#) of the notes to the consolidated financial statements and [NOTE 4 TO THE TABLE 2.20 ON PAGE 44](#).

Care Coordination's medical cost under management increased by 7 %, including a 5 % negative impact from for-

eign currency translation in the current period. At Constant Exchange Rates, Care Coordination's medical cost under management increased by 12 % primarily attributable to the expansion of our existing ESCOs through the addition of new physician practice partners and dialysis facilities, partially offset by the divestment of our controlling interest in Sound on June 28, 2018 and, as a result, the conclusion of our participation in BPCI. [SEE NOTE 4 C](#) of the notes to the consolidated financial statements and [NOTE 4 TO THE TABLE 2.20 ON PAGE 44](#).

The decrease in patient encounters was primarily driven by decreased encounters for hospital related physician services as a result of our divesting our controlling interest in Sound on June 28, 2018. [SEE NOTE 4 C](#) of the notes to the consolidated financial statements and [NOTE 4 TO THE TABLE 2.20 ON PAGE 44](#).

The North America Segment operating performance on a comparable basis and adjusted

Management believes that there are certain distinct transactions or events for which the operating results should be adjusted to enhance transparency and comparability. The following results (adjusted to exclude these items) should be analyzed in connection with the results presented above. For the year ended December 31, 2018 and 2017, the following transactions were identified that, when excluded from the results disclosed above, may provide a reader with further useful information in assessing our performance:

- › IFRS 15 Implementation,
- › Sound H2 2017,
- › VA Agreement,
- › U.S. Ballot Initiatives,

- › (Gain) loss related to divestitures of Care Coordination activities,
- › Natural Disaster Costs.

[TABLE 2.21 ON PAGE 47](#) reconciles the key indicators for the North America Segment in accordance with IFRS to the adjusted key indicators as described. Included within the reconciliation are comparable basis line items which provide the effect of exclusions which result in the recasting of the line items for comparability year over year. While we believe these adjustments provide additional clarity to the discussion of our operating results, [TABLE 2.21 ON PAGE 47](#) should only be viewed as a supplement to our results disclosed in accordance with IFRS above.

EMEA Segment

Information about key indicators for the EMEA Segment can be found in [TABLE 2.22 ON PAGE 48](#).

Revenue

Health care service revenue increased by 3 %, including a 3 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, health care service revenue increased by 6 % as a result of growth in same market treatments (3 %) and contributions from acquisitions (3 %).

Dialysis treatments increased by 4 % mainly due to growth in same market treatments (3 %) and contributions from acquisitions (1 %). As of December 31, 2018, 65,061 patients, an increase of 4 % (December 31, 2017: 62,490), were treated at the 776 dialysis clinics (December 31, 2017: 746) that we own, operate or manage in the EMEA Segment.

General information
 Overview about the Group
[Economic Report](#)
 Subsequent events
 Outlook
 Risks and Opportunities Report
 Corporate Governance fundamentals

T 2.21 NORTH AMERICA OPERATING PERFORMANCE ON A COMPARABLE BASIS AND ADJUSTED
 IN € M, EXCEPT AS OTHERWISE SPECIFIED

| | | Change in % | |
|---|---------------|---------------|--------------------------------|
| | 2018 | 2017 | Constant Currency ¹ |
| | | As reported | |
| REVENUE | 11,570 | 12,879 | (10) |
| IFRS 15 Implementation | – | (486) | |
| Sound H2 2017 | – | (559) | |
| Revenue on a comparable basis | 11,570 | 11,834 | (2) |
| HEALTH CARE SERVICES REVENUE | 10,725 | 12,036 | (11) |
| IFRS 15 Implementation | – | (486) | |
| Sound H2 2017 | – | (559) | |
| Health care services revenue on a comparable basis | 10,725 | 10,991 | (2) |
| DIALYSIS CARE SERVICES REVENUE | 9,089 | 9,227 | (2) |
| IFRS 15 Implementation | – | (284) | |
| Dialysis Care Services revenue on a comparable basis | 9,089 | 8,943 | 2 |
| CARE COORDINATION REVENUE | 1,636 | 2,809 | (42) |
| IFRS 15 Implementation | – | (202) | |
| Sound H2 2017 | – | (559) | |
| Care Coordination revenue on a comparable basis | 1,636 | 2,048 | (20) |
| OPERATING INCOME (EBIT) | 2,665 | 2,086 | 28 |
| (Gain) loss related to divestitures of Care Coordination activities | (809) | – | |
| Sound H2 2017 | – | (84) | |
| U.S. Ballot Initiatives | 40 | – | |
| Operating income on a comparable basis | 1,896 | 2,002 | (5) |
| VA Agreement | – | (94) | |
| Natural Disaster Costs | – | 18 | |
| Operating income adjusted | 1,896 | 1,926 | (2) |

| | | Change in % | |
|---|--------------|--------------|--------------------------------|
| | 2018 | 2017 | Constant Currency ¹ |
| | | As reported | |
| DIALYSIS OPERATING INCOME | 1,752 | 1,942 | (10) |
| U.S. Ballot Initiatives | 40 | – | |
| Dialysis operating income (EBIT) on a comparable basis | 1,792 | 1,942 | (8) |
| VA Agreement | – | (94) | |
| Natural Disaster Costs | – | 17 | |
| Dialysis operating income adjusted | 1,792 | 1,865 | (4) |
| CARE COORDINATION OPERATING INCOME | 913 | 144 | not applicable |
| (Gain) loss related to divestitures of Care Coordination activities | (809) | – | |
| Sound H2 2017 | – | (84) | |
| Care Coordination operating income (EBIT) on a comparable basis | 104 | 60 | 74 |
| Natural Disaster Costs | – | 1 | |
| Care Coordination operating income adjusted | 104 | 61 | 72 |
| IN % OF REVENUE | | | |
| North America operating income margin | 23.0 | 16.2 | |
| North America operating income margin – adjusted | 16.4 | 16.4 | |
| Dialysis operating income margin | 17.6 | 19.3 | |
| Dialysis operating income margin – adjusted | 18.0 | 19.3 | |
| Care Coordination operating income margin | 55.8 | 5.1 | |
| Care Coordination operating income margin – adjusted | 6.3 | 2.9 | |

¹ For further information on Constant Currency, see the "Performance management system" section starting on [PAGE 23](#).

T 2.22 KEY INDICATORS FOR THE EMEA SEGMENT

| | 2018 | 2017 | Change in % | |
|------------------------------------|-----------|-----------|-------------|--------------------------------|
| | | | As reported | Constant Currency ¹ |
| Revenue in € M | 2,587 | 2,547 | 2 | 4 |
| Health care services | 1,274 | 1,237 | 3 | 6 |
| Health care products | 1,313 | 1,310 | 0 | 2 |
| Number of dialysis treatments | 9,731,941 | 9,350,024 | 4 | |
| Same market treatment growth in % | 3.0 | 3.5 | | |
| Operating income in € M | 399 | 444 | (10) | (10) |
| Operating income margin in % | 15.4 | 17.4 | | |
| Delivered EBIT in € M ² | 395 | 440 | (10) | (10) |

¹ For further information on Constant Currency, see the "Performance management system" section starting on [PAGE 23](#).

² For further information on Delivered EBIT, including a reconciliation of Delivered EBIT to operating income for each of our operating segments, see the "Performance management system" section starting on [PAGE 23](#).

Health care product revenue remained stable, including a 2 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, health care product revenue increased by 2 %. Dialysis product revenue increased by 1 % including a 2 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, the increase of 3 % in dialysis product revenue was due to higher sales of machines, products for acute care treatments, renal pharmaceuticals, bloodlines, hemodialysis solutions and concentrates as well as peritoneal dialysis products, partially offset by lower sales of dialyzers. Non-Dialysis product revenue decreased by 7 % to €74 M from €79 M including a 1 % negative impact from foreign currency translation. At Constant Exchange Rates non-dialysis product revenue decreased by 6 % largely due to lower sales volumes.

Operating income margin

The decrease period over period in the operating income margin was 2.0 percentage points. Foreign currency translation effects represented a 0.2 percentage point increase in the operating income margin. The decrease was mainly driven by an impairment of intangible assets related to Xenios, higher personnel costs in certain countries, the release of accruals as a result of favorable court settlements related to value added tax in 2017, the favorable prior year impact from a legal settlement and unfavorable foreign currency transaction effects, partially offset by the costs related to the change in the Management Board in 2017.

Delivered EBIT

Delivered EBIT decreased by 10 %, with virtually no impact from foreign currency translation effects. The decrease was primarily due to decreased operating income.

Asia-Pacific Segment

Information about key indicators and business metrics for the Asia-Pacific Segment can be found in [TABLE 2.23 ON PAGE 49](#).

Dialysis**Revenue**

Dialysis revenue, which comprises dialysis care revenue and health care product revenue, increased by 2 % including a 4 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, dialysis revenue increased by 6 %.

Dialysis care service revenue decreased by 1 % to €568 M from €576 M, including a 3 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, dialysis care service revenue increased by 2 % as a result of growth in same market treatments (6 %), partially offset by the effect of closed or sold clinics (4 %).

Dialysis treatments increased by 3 % mainly due to growth in same market treatments (6 %), partially offset by the effect of closed or sold clinics (3 %). As of December 31, 2018, 31,476 patients, an increase of 6 % (December 31, 2017: 29,739), were treated at the 394 dialysis clinics (December 31, 2017: 381) that we own, operate or manage in the Asia-Pacific Segment.

Health care product revenue increased by 4 %, including a 4 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, health care product revenue increased by 8 % as a result of increased sales of chronic hemodialysis products and products for acute care treatments.

Operating income margin

The decrease period over period in the operating income margin was 1.5 percentage points. Foreign currency translation effects represented a 0.4 percentage point increase in the operating income margin. At Constant Exchange Rates, the operating income margin decreased due to unfavorable impacts from foreign currency transaction effects, partially offset by a favorable impact from business growth in certain countries within the region.

Delivered EBIT

Delivered EBIT decreased by 6 %, including a 1 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, Delivered EBIT decreased by 5 % mainly due to decreased operating income.

Care Coordination

Revenue

Care Coordination revenue increased by 24 %, including a 6 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, Care Coordination revenue increased by 30 % driven by contributions from acquisitions (25 %) and organic revenue growth (5 %).

T 2.23 KEY INDICATORS AND BUSINESS METRICS FOR THE ASIA-PACIFIC SEGMENT

| | | | Change in % | |
|---|-----------|-----------|-------------|--------------------------------|
| | 2018 | 2017 | As reported | Constant Currency ¹ |
| Total Asia-Pacific Segment | | | | |
| Revenue in € M | 1,689 | 1,623 | 4 | 8 |
| Health care services | 776 | 744 | 4 | 8 |
| Health care products | 913 | 879 | 4 | 8 |
| Operating income in € M | 304 | 313 | (3) | (1) |
| Operating income margin in % | 18.0 | 19.3 | | |
| Delivered EBIT in € M ² | 295 | 306 | (3) | (2) |
| Dialysis | | | | |
| Revenue in € M | 1,481 | 1,455 | 2 | 6 |
| Number of dialysis treatments | 4,371,742 | 4,249,878 | 3 | |
| Same market treatment growth in % | 6.4 | 3.3 | | |
| Operating income in € M | 270 | 286 | (6) | (4) |
| Operating income margin in % | 18.2 | 19.7 | | |
| Delivered EBIT in € M ² | 263 | 280 | (6) | (5) |
| Care Coordination | | | | |
| Revenue in € M | 208 | 168 | 24 | 30 |
| Operating income in € M | 34 | 27 | 27 | 34 |
| Operating income margin in % | 16.2 | 15.8 | | |
| Delivered EBIT in € M ² | 32 | 26 | 24 | 31 |
| Care Coordination Patient Encounters ³ | 982,169 | 784,054 | 25 | |

¹ For further information on Constant Currency, see the "Performance management system" section starting on PAGE 23.

² For further information on Delivered EBIT, including a reconciliation of Delivered EBIT to operating income for each of our operating segments, see chapter "Overview about the Group" section "Performance management system" starting on PAGE 23.

³ For further information on patient encounters, please refer to the discussion above of our Care Coordination measures under "Segment reporting – Business metrics for Care Coordination".

Operating income margin

The increase period over period in the Care Coordination operating income margin was 0.4 percentage points. Foreign currency translation effects represented a 0.1 percentage point decrease in the operating income margin. The increase was driven by a favorable impact from acquisitions.

Delivered EBIT

Care Coordination Delivered EBIT increased by 24 %, including a 7 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, Care Coordination Delivered EBIT increased by 31 % mainly as the result of increased operating income.

Care Coordination business metrics

The number of patient encounters increased due to increased encounters for comprehensive and specialized health check-ups as well as ambulant treatment services, inpatient and outpatient services, vascular access and other chronic treatment services.

Latin America Segment

Information about key indicators for the Latin America Segment can be found in [TABLE 2.24](#).

Revenue

Health care service revenue decreased by 5 %, including a 32 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, health care service revenue increased by 27 % as a result of increases in organic revenue per treatment largely driven by hyperinflation in Argentina

(24 %), contributions from acquisitions (2 %) and growth in same market treatments (1 %).

Dialysis treatments increased by 4 % mainly due to contributions from acquisitions (3 %) and growth in same market treatments (1 %). As of December 31, 2018 32,687 patients, an increase of 4 % (December 31, 2017: 31,375), were treated at the 229 dialysis clinics (December 31, 2017: 232) that we own, operate or manage in the Latin America Segment.

Health care product revenue decreased by 4 % including a 15 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, health care product revenue increased by 11 % driven by higher sales of machines, products for acute care treatments and peritoneal dialysis products, partially offset by lower sales of dialyzers.

Operating income margin

The decrease period over period in the operating income margin was 3.9 percentage points, including a positive foreign currency translation effect of 1.8 percentage points in the current period. The decrease was mainly due to the impact from hyperinflation in Argentina and unfavorable foreign currency transaction effects.

Delivered EBIT

Delivered EBIT decreased by 51 %, including a 14 % positive impact resulting from foreign currency translation. At Constant Exchange Rates, Delivered EBIT decreased by 65 % due to decreased operating income.

T2.24 KEY INDICATORS FOR THE LATIN AMERICA SEGMENT

| | | | Change in % | |
|------------------------------------|-------------|-------------|-------------|--------------------------------|
| | | | As reported | Constant Currency ¹ |
| | 2018 | 2017 | | |
| Revenue in € M | 686 | 720 | (5) | 22 |
| Health care services | 489 | 515 | (5) | 27 |
| Health care products | 197 | 205 | (4) | 11 |
| Number of dialysis treatments | 5,080,020 | 4,865,046 | 4 | |
| Same market treatment growth in % | 1.3 | 1.5 | | |
| Operating income in € M | 29 | 58 | (51) | (65) |
| Operating income margin in % | 4.2 | 8.1 | | |
| Delivered EBIT in € M ² | 29 | 58 | (51) | (65) |

¹ For further information on Constant Currency, see chapter "Overview about the Group" section "Performance management system" starting on [PAGE 23](#).

² For further information on Delivered EBIT, including a reconciliation of Delivered EBIT to operating income for each of our operating segments, see chapter "Overview about the Group" section "Performance management system" starting on [PAGE 23](#).

FINANCIAL POSITION

Our investment and financing strategy did not change substantially in the past fiscal year as our business model, which is based on stable and high cash flows, allows for a more consistent and higher level of debt than might be the case in other industries. We still regard our refinancing options as being very stable and flexible. During the fiscal year, the focus of our investing activities was on our health care services business.

Financial management policies and goals

Besides optimizing our financial costs, financial flexibility takes top priority within our financing strategy. We ensure this flexibility by using a wide range of financial instruments and securing a high level of diversification with regard to our investors and banks. Our financing profile is characterized by a wide range of maturities up to 2025.

The main financing instrument is the syndicated credit agreement with revolving credit facilities as well as long-term loans in U.S. dollar and euro. In addition, we use other mid and long-term financing instruments, mainly bonds in U.S. dollar and euro and Convertible Bonds. Short-term financing needs are covered by issuances under our commercial paper program in euro and the Accounts Receivable Facility.

In our long-term financial planning, we focus primarily on the net leverage ratio, a non-IFRS Measure, see the "Net leverage ratio (Non-IFRS Measure)" section on [PAGE 25](#). At December 31, 2018 and 2017, the net leverage ratio was 1.8 and 2.1, respectively.

The key financial risks we are exposed to include foreign exchange risk and interest rate risk. In order to manage these risks, we enter into various hedging transactions with banks that have been authorized by the Management Board and which generally have ratings in the "A" category or better. We do not use financial instruments for trading or other speculative purposes (for financial risks, see the "Risks and Opportunities Report" starting on [PAGE 63 AND NOTE 23](#) of the notes to the consolidated financial statements).

Fresenius SE, under a service agreement, conducts financial instrument activities for us under the control of a single centralized department. We have established guidelines for risk management procedures and controls including the use of financial instruments. These guidelines include a clear segregation of duties with regards to execution on one side and administration, accounting and controlling on the other.

We also utilize Fresenius SE's cash management system for the settlement of certain intercompany receivables and payables with its subsidiaries and other related parties.

T.2.25 RATING¹

| | Standard & Poor's | Moody's | Fitch |
|-------------------------|----------------------|---------|--------|
| Corporate credit rating | BBB- | Baa3 | BBB- |
| Outlook | positive | stable | stable |

¹ A rating is not a recommendation to buy, sell or hold securities of the Company, and may be subject to suspension, change or withdrawal at any time by the assigning rating agency.

Rating

We are rated investment grade by the three leading rating agencies, Moody's, Standard & Poor's and Fitch.

Effect of off-balance-sheet financing instruments on our financial position and assets and liabilities

We are not involved in off-balance-sheet transactions that are likely to materially affect our financial position, results of operations, liquidity, capital expenditures, assets or capitalization.

Sources of liquidity

Our primary sources of liquidity are typically cash provided by operating activities, cash provided by short-term debt from third parties and related parties, as well as proceeds from the issuance of long-term debt (including the issuance of bonds under a newly established debt issuance program) and equity securities as well as divestitures. We require this capital primarily to finance working capital needs, fund acquisitions and clinics in which we have ownership of less than 100 %, develop free-standing renal dialysis clinics and other health care facilities, purchase equipment for existing or new renal dialysis clinics and production sites, repay debt, pay dividends and repurchase shares. For more information, see the "Net cash provided by (used in) investing activities" section starting on [PAGE 53](#) and the "Net cash provided by (used in) financing activities" section starting on [PAGE 54](#).

At December 31, 2018, we had cash and cash equivalents of €2,146 M (December 31, 2017: €978 M).

Free cash flow (net cash provided by (used in) operating activities, after capital expenditures, before acquisitions and investments) in 2018 amounted to €1,059 M (2017: €1,351 M). Free cash flow is a Non-IFRS Measure and is reconciled to net cash provided by (used in) operating activities, the most directly comparable IFRS measure in the “Performance management system” section starting on [PAGE 23](#). Free cash flow in percent of revenue was 6.4 % in 2018 (2017: 7.6 %).

Net cash provided by (used in) operating activities

During 2018 we generated net cash provided by operating activities of €2,062 M (2017: €2,192 M). Net cash provided by operating activities in percent of revenue remained stable at 12 % for 2018, the same as in prior year. Cash provided by (used in) operating activities is impacted by the profitability of our business, the development of our working capital, principally inventories, receivables and cash outflows that occur due to a number of specific items as discussed below. The decrease in net cash provided by operating activities was largely driven by the impact from the 2017 payment related to the VA Agreement, increased inventory levels and the impact from a discretionary contribution of €43 M to pension plan assets in the United States, partially offset by lower income tax payments in the US driven by the lower US tax rate effective January 1, 2018 as well as payments for 2016 that had been deferred to the beginning of 2017.

The profitability of our business depends significantly on reimbursement rates. Approximately 80 % of our revenue is generated by providing health care services, a major portion of which is reimbursed by either public health care organizations or private insurers. In 2018, approximately 33 % of our consolidated revenue was attributable to U.S. federal health

care benefit programs, such as Medicare and Medicaid reimbursement. Legislative changes could affect Medicare reimbursement rates for a significant portion of the services we provide, as well as the scope of Medicare coverage. A decrease in reimbursement rates or the scope of coverage could have a material adverse effect on our business, financial condition and results of operations and thus on our capacity to generate cash flow.

The stability of reimbursement in the U.S. has been affected by (i) the implementation of the ESRD PPS in January 2011, (ii) the U.S. federal government across the board spending cuts in payments to Medicare providers commonly referred to as “U.S. Sequestration”, (iii) the phased reduction to the ESRD PPS rate to account for the decline in utilization of certain drugs and biologicals associated with dialysis pursuant to the American Taxpayer Relief Act of 2012 (ATRA) as subsequently modified under the Protecting Access to Medicare Act of 2014 (PAMA) and (iv) CMS’s 2017 final rule on the Physician Fee Schedule, which partially corrected reimbursement for certain procedures that were materially undervalued in 2016.

We intend to continue to address our current cash and financing requirements using cash provided by operating activities, our existing and future credit agreements, issuances under the commercial paper program ([SEE NOTE 13](#) of the notes to the consolidated financial statements) as well as the utilization of the Accounts Receivable Facility. In addition, when funds are required for acquisitions or to meet other needs, we expect to successfully complete long-term financing arrangements, such as the issuance of bonds. We aim to preserve financial resources with a minimum of €500 M of committed and unutilized credit facilities.

Net cash provided by (used in) operating activities depends on the collection of accounts receivable. Commercial customers and governments generally have different payment cycles. Lengthening their payment cycles could have a material adverse effect on our capacity to generate cash flow. In addition, we could face difficulties in enforcing and collecting accounts receivable under some countries’ legal systems and due to the economic conditions in some countries. Accounts receivable balances, net of valuation allowances, represented Days Sales Outstanding (DSO) of 75 days at both December 31, 2018 and 2017.

DSO by segment is calculated by dividing the segment’s accounts and other receivable and contract liabilities, converted to euro using the average exchange rate for the period presented, less any sales or value added tax included in the receivables, by the average daily sales for the last twelve months of that segment, converted to euro using the average exchange rate for the period. Receivables and sales are adjusted for amounts related to acquisitions and divestitures made within the reporting period with a purchase price above a €50 M threshold as defined in the Amended 2012 Credit Agreement. DSO amounts reported in the prior year have been adjusted to conform to the current year’s presentation.

The development of DSO by reporting segment is shown in [TABLE 2.26 ON PAGE 53](#).

The DSO increase in the North America Segment was largely due to the build-up of annually settled receivables, partially offset by a decrease due to the divestment of Sound which carried a higher than average DSO. The decreases in the DSO for the EMEA Segment and the Latin America Segment primarily relate to the improved collection efforts from health

**T 2.26 DEVELOPMENT OF DAYS SALES OUTSTANDING
 IN DAYS, DECEMBER 31**

| | 2018 | 2017 |
|---|-----------|-----------|
| North America Segment | 60 | 59 |
| EMEA Segment | 98 | 102 |
| Asia-Pacific Segment | 116 | 123 |
| Latin America Segment | 119 | 127 |
| FMC AG & CO. KGAA AVERAGE DAYS SALES OUTSTANDING | 75 | 75 |

care organizations in the respective regions. The decrease in the Asia-Pacific Segment was driven by an improvement of payment collections in China.

Due to the fact that a large portion of our reimbursement is provided by public health care organizations and private insurers, we expect that most of our accounts receivable will be collectible.

We are subject to ongoing and future tax audits in the U.S., Germany and other jurisdictions. With respect to these potential adjustments and disallowances of tax matters currently under review, we do not anticipate that an unfavorable ruling could have a material impact on our results of operations. We are not currently able to determine the timing of these potential additional tax payments.

Net cash provided by (used in) investing activities

Net cash used in investing activities was €245 M for 2018 (2017: €992 M). **TABLE 2.27** shows our capital expenditures for prop-

erty, plant and equipment, net of proceeds from sales of property, plant and equipment as well as acquisitions, investments and purchases of intangible assets for 2018 and 2017.

The majority of our capital expenditures were used for maintaining existing clinics, equipping new clinics, maintaining and expanding production facilities (primarily in the North America Segment, France, Germany and China), capitalization of machines provided to our customers and for Care Coordination as well as capitalization of certain development costs. Capital expenditures were approximately 6 % of total revenue in 2018 (2017: 5 %).

Investments in 2018 were primarily driven by securities and an equity investment in Humacyte, a medical research, discovery and development company, to gain a 19 % fully diluted ownership stake as well as a related exclusive global distribution right to Humacyte's bioengineered human acellular vessels

within the North America Segment. The remaining investments in the North America Segment, the EMEA Segment and the Latin America Segment were largely in acquisitions of dialysis clinics as well as license agreements and distribution rights in the North America Segment. In 2018, we received €1,683 M from divestitures mainly related to the divestment of Sound on June 28, 2018 (**SEE NOTE 4 C** of the notes to the consolidated financial statements), as well as the sale of securities in the amount of €150 M.

Investments in 2017 were mainly driven by acquisitions of clinics in the North America Segment and a Care Coordination acquisition in the Asia-Pacific Segment. In 2017, we also received €415 M from divestitures mainly related to the sale of securities of €256 M and the divestment of our non-dialysis laboratory testing services business in December 2017.

**T 2.27 CAPITAL EXPENDITURES (NET), ACQUISITIONS, INVESTMENTS AND PURCHASES OF INTANGIBLE ASSETS
 IN € M**

| | Capital expenditures, net | | Acquisitions, investments and purchases of intangible assets | |
|-----------------------------------|------------------------------|------------|---|------------|
| | 2018 | 2017 | 2018 | 2017 |
| North America Segment | 495 | 437 | 768 | 328 |
| Thereof investments in securities | | | 480 | 10 |
| EMEA Segment | 140 | 107 | 77 | 66 |
| Asia-Pacific Segment | 43 | 38 | 21 | 156 |
| Latin America Segment | 24 | 35 | 36 | 7 |
| Corporate | 301 | 224 | 23 | 9 |
| TOTAL | 1,003 | 841 | 925 | 566 |

In 2019 we anticipate capital expenditures of €1.0 to €1.2 BN and expect to make acquisitions and investments, excluding investments in securities, of approximately €0.4 to €0.6 BN, see the "Outlook" starting on [PAGE 58](#).

Net cash provided by (used in) financing activities

Net cash used in financing activities was €682 M in 2018 (2017: €799 M).

In 2018, cash was mainly used in the repayments of long-term debt and capital lease obligations including the repayment of Bonds due in September 2018, the payment of dividends, the complete repayment of amounts drawn under the accounts receivable facility, distributions to noncontrolling interests and repayments of short-term debt, partially offset by proceeds from short-term debt (including drawings under the commercial paper program), long-term debt and capital lease obligations through an issuance under the newly established debt issuance program and short-term debt from related parties.

In 2017, cash was mainly used to repay long-term debt and capital lease obligations including the repayment of Bonds due in July 2017 and partial repayment of a USD term loan under the Amended 2012 Credit Agreement, distributions to noncontrolling interests, the payment of dividends as well as the repayment of short-term debt, partially offset by proceeds from long-term debt and capital lease obligations including the issuance of a euro term loan under the Amended 2012 Credit Agreement, proceeds from short-term debt including issuances of commercial papers as well as drawings under the Accounts Receivable Facility.

On May 23, 2018, we paid a dividend of €1.06 for 2017 (€0.96 for 2016 paid in 2017). The total dividend payment was €325 M in 2018 (2017: €294 M).

CHART 2.28 summarizes our significant long-term financing instruments as well as their maturity structure at December 31, 2018.

For a description of our short-term debt including the commercial paper program, [SEE NOTE 13](#) of the notes to the consolidated financial statements. For a description of our long-term sources of liquidity, including the Amended 2012 Credit Agreement, bonds, equity-neutral convertible bonds and the Accounts Receivable Facility, [SEE NOTE 14](#) of the notes to the consolidated financial statements.

TABLE 2.29 ON PAGE 55 summarizes our available sources of liquidity at December 31, 2018.

An additional source of liquidity is our commercial paper program under which up to €1,000 M of short-term notes can be issued on a flexible and continuous basis. As of December 31, 2018 we fully utilized the commercial paper program. As of December 31, 2017 €680 M, was outstanding under the commercial paper program.

The amount of guarantees and other commercial commitments at December 31, 2018 was not significant.

At December 31, 2018, we had short-term debt (excluding the current portion of long-term debt) and short-term debt from related parties in the total amount of €1,394 M.

**C 2.28 MATURITY STRUCTURE OF OUR SIGNIFICANT LONG-TERM FINANCING INSTRUMENTS
 (BASED ON NOMINAL AMOUNTS OUTSTANDING)
 IN € M**

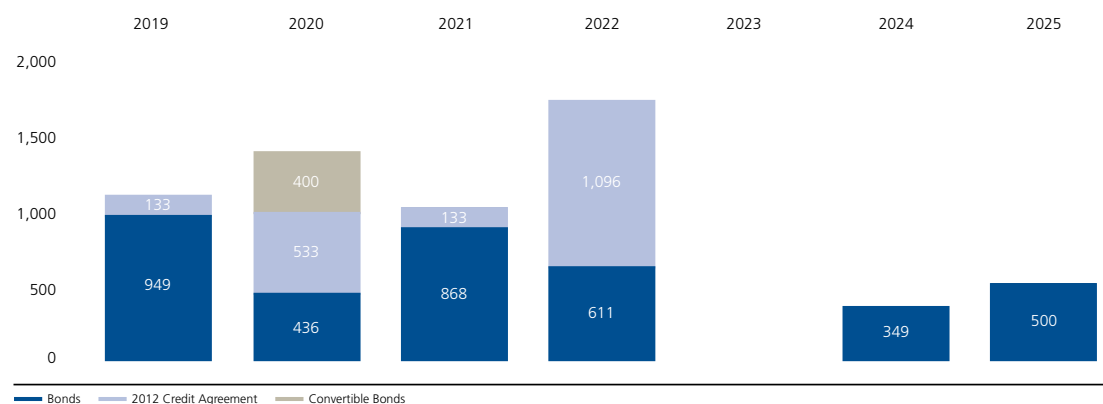


TABLE 2.30 summarizes our obligations and commitments to make future payments under our long-term debt and other long-term obligations, and our commitments and obligations under lines of credit and letters of credit as of December 31, 2018.

Our debt instruments, including the Amended 2012 Credit Agreement, outstanding bonds and the Accounts Receivable Facility contain covenants restricting or limiting our ability to dispose of assets, incur additional debt, create liens or engage in sale and lease backs. However, these are subject to a number of exceptions and qualifications or may be suspended based on a ratings trigger. In addition, under our Amended 2012 Credit Agreement and Accounts Receivable Facility, we are obligated to not exceed a maximum consolidated leverage ratio (ratio of consolidated funded debt less cash and cash equivalents to consolidated EBITDA) as these terms are defined in these financing agreements.

A breach of any of the covenants in any of the instruments or agreements governing our long-term debt could, in turn, create additional defaults under one or more of the other instruments or agreements. In default, the outstanding balance under the Amended 2012 Credit Agreement becomes due at the option of the lenders under that agreement and the “cross default” provisions in our other long-term debt permit the lenders to accelerate the maturity of other debt upon such a default. As of December 31, 2018, we were in compliance with all covenants under the Amended 2012 Credit Agreement and our other financing agreements. For information regarding our Amended 2012 Credit Agreement, bonds and the Accounts Receivable Facility, [SEE NOTE 14](#) of the notes to consolidated financial statements.

T2.29 AVAILABLE SOURCES OF LIQUIDITY
 IN € M

| | Total | Expiration per period of | | | |
|--|--------------|--------------------------|------------|--------------|--------------|
| | | Less than 1 year | 1–3 years | 3–5 years | Over 5 years |
| Accounts Receivable Facility ¹ | 763 | – | 763 | – | – |
| Amended 2012 Credit Agreement ² | 1,385 | – | – | 1,385 | – |
| Other unused lines of credit | 387 | 387 | – | – | – |
| TOTAL | 2,535 | 387 | 763 | 1,385 | – |

¹ Subject to availability of sufficient accounts receivable that meet funding criteria. At December 31, 2018, the Company had letters of credit outstanding in the amount of \$27 M (€23 M) which reduces the availability under the Accounts Receivable Facility to the amount shown in this table.

² At December 31, 2018, the Company had letters of credit outstanding in the amount of \$2 M (€1 M) which reduces the availability under the revolving credit facility to the amount shown in this table.

T2.30 CONTRACTUAL OBLIGATIONS AND COMMITMENTS¹
 IN € M

| | Total | Payments due by period of | | | |
|--|---------------|---------------------------|--------------|--------------|--------------|
| | | Less than 1 year | 1–3 years | 3–5 years | Over 5 years |
| Long-term debt ² | 6,789 | 1,327 | 2,710 | 1,820 | 932 |
| Capital lease obligations | 44 | 10 | 16 | 5 | 13 |
| Operating leases | 5,528 | 822 | 1,451 | 1,097 | 2,158 |
| Unconditional purchase obligations for inventory | 492 | 263 | 166 | 60 | 3 |
| Other long-term obligations ³ | 229 | 171 | 58 | – | – |
| Letters of credit | 25 | 13 | 12 | – | – |
| TOTAL | 13,107 | 2,606 | 4,413 | 2,982 | 3,106 |

¹ Our pension liabilities are not included in the table of contractual obligations and commitments. The regular or special funding of our pension plans may adversely affect our liquidity in the future periods. The liability recognized in our consolidated financial statements may fluctuate significantly in future periods due to changes in assumptions, in particular the discount rate, rate of future compensation increases and pension progression. Actual results could differ from assumptions due to changing market, economic and governmental regulatory conditions, thereby resulting in an increase or decrease of the liability. Employer contributions expected to be paid to the defined benefit plans during fiscal year 2019 are €1 M. For additional information regarding our pension plans and expected payments for the next ten years, [SEE NOTE 16](#) of the notes to the consolidated financial statements. Further unconditional purchase agreements exist with an equity method investee of the Company. For further information on these agreements, [SEE NOTE 5](#) of the notes to the consolidated financial statements.

² Includes expected interest payments which are based upon the principal repayment schedules and fixed interest rates or estimated variable interest rates considering the applicable interest rates (e.g. Libor, Euribor), the applicable margins, and the effects of related interest rate swaps.

³ Other long-term obligations consist mainly of production asset acquisition commitments.

Although current and future economic conditions could adversely affect our business and our profitability, we believe that we are well positioned to continue to grow our business while meeting our financial obligations as they come due. Due to the non-discretionary nature of the health care services we provide, the need for health care products utilized to provide such services and the availability of government reimbursement for a substantial portion of our health care services, our business is generally not cyclical. A substantial portion of our accounts receivable are generated by governmental payors. While payment and collection practices vary significantly between countries and even between agencies within one country, government payors usually represent low to moderate, credit risks. However, limited or expensive access to capital could make it more difficult for our customers to do business with us, or to do business generally, which could adversely affect our business by causing our customers to reduce or delay their purchases of our health care products. See the "Results of operations" section starting on [PAGE 38](#). If the conditions in the capital markets worsen, they could also increase our financing costs and limit our financial flexibility.

At our Annual General Meeting on May 16, 2019, our General Partner and our Supervisory Board will propose to the shareholders a dividend of €1.17 per share for 2018, payable in 2019 (for 2017 paid in 2018: €1.06). The total expected dividend payment is approximately €359 M compared to dividends of €325 M for 2017 paid in 2018.

Our 2019 principal financing needs are the payments outstanding for the planned acquisition of NxStage, repayment of bonds in July 2019, the share repurchase program as well as quarterly payments under our Amended 2012 Credit Agree-

ment Term Loans. These payments as well as our dividend payment of approximately €359 M in May 2019, and the anticipated capital expenditures, and further acquisition payments are expected to be covered by our cash flows, using existing credit facilities and, if required, additional debt financing. We currently have sufficient flexibility under our debt covenants to meet our financing needs in the near future. Generally, we believe that we will have sufficient financing to achieve our goals in the future and to continue to promote our growth.

NET ASSETS

Our total assets were €26,242 M, an increase of €2,217 M (9 %) over the prior year. At Constant Exchange Rates, total assets would have increased by €1,608 M (7 %) to €25,634 M.

Non-current assets increased by €744 M (4 %) to €18,395 M in 2018 and decreased to 70 % of total assets from 73 % of total assets in 2017. At Constant Exchange Rates, they would have increased by 1 % to €17,915 M compared to the prior year. This was primarily a result of higher capital expenditures, an increase in other non-current assets due to investments in debt securities, and an equity investment in Humacyte to gain a 19 % fully diluted ownership stake. It was partially offset by a decrease in goodwill mainly due to the divestiture of Sound on June 28, 2018.

Current assets increased by 23 % to €7,847 M (an increase of 21 % at Constant Exchange Rates). This increase at Constant Exchange Rates was mainly the result of an increase in cash and cash equivalents, primarily due to the short-term investment of the cash proceeds from the divestiture of Sound, other current assets due to investments in debt securities and increased income tax refundables as well as higher invento-

ries due to increased finished goods. This was partially offset by a decrease in trade accounts and other receivables.

On the liability side of the balance sheet, our total liabilities were €13,340 M at December 31, 2018, an increase of €142 M (1 %) from €13,198 M in 2017. At Constant Exchange Rates, total liabilities decreased by 1 %. The decrease in long-term debt at Constant Exchange Rates was partially offset by higher short-term debt and an increase in the current portion of long-term debt. Additionally, deferred tax liabilities increased. In addition non-current provisions and other non-current liabilities decreased at Constant Exchange Rates due to the revaluation of milestone payments and earn-out agreements and of the embedded derivative related to the convertible debt.

Current liabilities account for €2,501 M of our debt, an increase of €848 M (€812 M at Constant Exchange Rates) as compared to €1,653 M in the prior year. This was mainly a result of the reclassification of bonds denominated in euro and U.S. dollar to the current portion of long-term debt, as these bonds will mature in 2019, as well as the additional issuance of commercial papers. It was partially offset by the repayment of euro- and U.S. dollar-denominated bonds that matured in the third quarter of 2018 and a reduction of the quarterly repayments of the Amended 2012 Credit Agreement. Long-term debt fell to €5,046 M from €5,795 M in the prior year, a decrease of €749 M (€891 M at Constant Exchange Rates). This was mainly a result of the reclassification of bonds denominated in euro and U.S. dollar to the current portion of long-term debt as well as the complete repayment of amounts drawn under the accounts receivable facility. It was partially offset by the issuance of new bonds. [SEE ALSO NOTE 14](#) of the notes to the consolidated financial statements.

Shareholders' equity increased by 19 % to €12,902 M. At Constant Exchange Rates equity increased by €1,766 M. This was mainly due to net income, proceeds from exercised stock options, the valuation of noncontrolling interests subject to put provisions at fair value and effects from the purchase/sale of noncontrolling interests. The increase was partially offset by dividend payments, contributions to noncontrolling interests and the purchase of treasury stock. The equity to assets ratio increased to 49 % at December 31, 2018 from 45 % at December 31, 2017.

At Group level, the ROIC increased from 8.6 % as at December 31, 2017 to 12.4 % as at December 31, 2018. Goodwill under the item "invested capital" had a significant impact on the calculation of the ROIC. In 2018, the ROIC at Group level substantially exceeded our cost of capital. The Weighted Average Cost of Capital (WACC) was 6.3 %.

For supplementary information on capital management and capital structure, [SEE ALSO NOTE 18](#) of the notes to the consolidated financial statements.

THE MANAGEMENT'S GENERAL ASSESSMENT

We continued to grow in 2018. Fresenius Medical Care generated a very solid cash flow that we use to accelerate further investments in future growth. In addition, we want our shareholders to benefit as well. We achieved a strong increase in net income, continuously strengthened our core competencies, and further positioned the Company to meet the challenges of a rapidly developing health care market. Our Global Efficiency Program is also picking up speed. In the future, we want to further optimize our cost base and take advantage of growth opportunities such as the expansion of home care in

the U.S. and the increasing number of patients in emerging economies.

At the time this Management Report was prepared, the Management Board continued to assess the development of Fresenius Medical Care as positive. Demand for our products and services continue to grow steadily around the world.

SUBSEQUENT EVENTS

Refer to [NOTE 27](#) of the notes to the consolidated financial statements.

OUTLOOK

The outlook describes how Fresenius Medical Care expects to perform in fiscal year 2019. These statements take into account all events known at the time the financial statements were prepared which could affect the development of our business in 2019.

BUSINESS POLICY

Fresenius Medical Care is the world's leading dialysis company. We aim to further expand this position in the years ahead. As always, the basic principle of our corporate strategy is to fully capture the potential of being a vertically integrated company. This means consistently making use of the advantages that arise from covering the complete value chain of dialysis. Fresenius Medical Care intends to make steady progress in the provision of holistic care to dialysis patients and dialysis-related treatments. In addition to our products and dialysis treatment itself, we will continue to offer supple-

mentary medical services for the treatment of our patients in the area of Care Coordination in the future.

We have no plans to make significant changes to our business policy.

SECTOR-SPECIFIC ENVIRONMENT – DIALYSIS MARKET

The Company expects the number of dialysis patients worldwide to grow by about 6 % in 2019. Some significant regional differences are likely to remain: The Company anticipates an increase in the U.S., Japan and Western and Central Europe of 4 %. The number of patients with chronic kidney disease is already relatively high in these countries and regions and patients generally have reliable access to treatment, normally dialysis. In economically weaker regions, the growth rates will be higher. We expect patient numbers to continue growing in the coming years – [SEE TABLE 2.31](#).

Our growth strategy is based on an in-depth analysis of the major trends affecting Fresenius Medical Care:

› **Demographic change:** Demographic factors are one of the main reasons for the continued growth of dialysis markets. As average life expectancy rises worldwide, the share of older people in the population is also growing. However, kidney function deteriorates with age. Therefore, demographic change is an important indicator for the future number of dialysis patients, which is expected to increase from around 3.4 M worldwide in 2018 to about 4.9 M in 2025.

- › **Increase in lifestyle diseases:** Diseases such as high blood pressure and diabetes are on the rise around the world. They can cause damage to the entire organism and also often impair kidney function in the long-term.
- › **Improved access to medical care:** Thanks to ongoing efforts to establish and expand balanced and sustainable health care systems in many countries around the globe, a growing number of patients are gaining access to suitable dialysis treatments for the first time. We expect this trend to continue and drive demand for high-quality products and treatments.
- › **Changes in the health care industry:** The health care industry is constantly changing. We believe that demand for the holistic care of chronic patients will continue to rise. In future, the focus when treating kidney patients will no longer be simply on offering individual dialysis products or services, but also on combining all fields of application related to dialysis and coordinating them more effectively.

Hemodialysis will remain the treatment of choice, accounting for about 89 % of all dialysis therapies. Peritoneal dialysis will continue to be the preferred treatment for about 11 % of all dialysis patients.

The volume of the worldwide dialysis market, which amounted to about €71 BN last year according to preliminary estimates, is expected to increase by around 4 % per year. This is based on the assumption that exchange rates will remain stable in the forecasting period. The overall volume of the dialysis market could thus reach around €74 BN by 2019.

In addition, the reimbursement and ancillary services utilization environment significantly influences our business. In the U.S., our biggest sales market, the reimbursements of govern-

T 2.31 EXPECTED GROWTH IN PATIENT NUMBERS

| | Growth 2019 |
|------------------|--------------|
| North America | ~ 4 % |
| EMEA | ~ 4 % |
| Asia-Pacific | ~ 8 % |
| Latin America | ~ 3 % |
| WORLDWIDE | ~ 6 % |

Source: Internal estimates

mental institutions are lower than the reimbursements of private insurers. Therefore, a change in the portion of reimbursements by private insurers in the U.S. influences our business.

THE COMPANY'S BUSINESS PERFORMANCE IN 2019 AND 2020

Fresenius Medical Care's outlook for 2019 and 2020 is based on the prevailing exchange rates at the beginning of the year. Outlook 2019 and 2020 as well as the basis 2018 for Outlook 2019 are and will be adjusted in order to make the business performance in the respective periods comparable for items such as: FCPA Related Charges, the IFRS 16 Implementation, the contributions from Sound in the first half year of 2018, the gain (loss) related to divestitures of Care Coordination activities and expenses for the cost optimization program. All effects from the pending acquisition of NxStage are excluded from the Outlook 2019 and 2020. For a reconciliation of the results 2018 to the results 2018 adjusted as a basis for the targets 2019, [SEE TABLE 2.33 ON PAGE 61](#).

REVENUE

We aim to further increase our revenue at Constant Currency between 3 to 7 % in 2019. This growth rate is based on 2018 revenue excluding the contributions from Sound in the first half year 2018. For 2020 we aim to reach a mid to high single digit revenue growth rate at Constant Currency.

RESULT OF OPERATIONS

Operating income

We expect operating income and Delivered EBIT to develop in the range of -1 to 3 % at Constant Currency in 2019. The growth rate is based on 2018 operating income and Delivered EBIT excluding the contributions from Sound in the first half year 2018, the effects from the (gain) loss related to divestitures of Care Coordination activities and the 2018 FCPA Related Charge. For 2020 we aim to reach a mid to high single digit growth rate for EBIT and Delivered EBIT at Constant Currency.

Net income

We aim to achieve a development in net income (net income attributable to shareholders of FMC AG & CO. KGAA) in the range of -2 to 2 % in 2019 at Constant Currency. This growth rate is based on 2018 net income excluding the contributions from Sound in the first half year 2018, the effects from the (gain) loss related to divestitures of Care Coordination activities and the 2018 FCPA Related Charge. For 2020 we aim to reach a mid to high single digit growth rate for net income at Constant Currency.

Earnings per share

Basic earnings per share are expected to develop in the same way as net income in 2019 compared to 2018 assessed based on expected development of net income and shares outstanding.

CAPITAL EXPENDITURES AND ACQUISITIONS AND INVESTMENTS

In 2019, we intend to spend around €1.4 to €1.8 BN on capital expenditures, acquisitions and investments (excluding investments in securities). Capital expenditures should account for €1.0 to €1.2 BN. Around 40 % of this amount is earmarked for expansion investments. Approximately €0.4 to €0.6 BN is to be used for mainly bolt-on acquisitions and equity investments in health care.

Capital expenditures will primarily be used to expand our worldwide production capacities and rationalize production processes, to equip new dialysis clinics and distributors as well as for maintenance.

LIQUIDITY

Cash flow

In 2019, net cash provided by operating activities in percent of revenue is again expected to account for more than 10 %.

In 2019, free cash flow in percent of revenue is again expected to account for more than 4 % of revenue.

Net leverage ratio

Fresenius Medical Care uses the net leverage ratio as a guideline in its long-term financial planning. The ratio was 1.8 at the end of 2018. The target figure is expected to be better than 2.5 at the end of 2019.

PROFITABILITY

We expect ROIC to be at least 8.0 % compared to 12.4 % in 2018.

DIVIDEND

Fresenius Medical Care intends to continue its profit-oriented dividend policy in principle. Information on the proposed dividend increase can be found in the “Net cash provided by (used in) financing activities” section starting on [PAGE 54](#).

NON-FINANCIAL PERFORMANCE INDICATORS

Employees

Due to the anticipated expansion of our business, we expect the number of employees to grow in all regions in 2019, particularly in the area of health care. By the end of 2019, the number of employees working for Fresenius Medical Care is estimated to increase to more than 117,000 (full-time equivalents).

Research and development

We aim to spend €160 M to €170 M on research and development in 2019. The number of employees (currently 933 full-time equivalents) should not change significantly.

The expected developments might be influenced by developments described in the “Risks and Opportunities Report” starting on [PAGE 63](#).

Our outlook for the financial years 2019 and 2020 is summarized in [TABLE 2.32](#).

T 2.32 OUTLOOK 2019 AND 2020

| | Results 2018 adjusted | Outlook 2019 (at Constant Currency) ¹ | Outlook 2020 (at Constant Currency) ¹ |
|---|--------------------------|---|---|
| Revenue ² | €16.0 BN | Growth 3–7 % | mid to high single digit growth rate |
| Operating income ² | €2.3 BN | Growth (1) to 3 % | mid to high single digit growth rate |
| Delivered EBIT ² | €2.0 BN | Growth (1) to 3 % | mid to high single digit growth rate |
| Net income ^{2,3} | €1.3 BN | n.a. | n.a. |
| Net income growth at Constant Currency ^{2,3} | n.a. | Growth (2) to 2 % | mid to high single digit growth rate |
| Basic earnings per share growth at Constant Currency ^{2,3} | n.a. | assessed based on expected development of net income and shares outstanding | assessed based on expected development of net income and shares outstanding |
| Capital expenditures | €1.0 BN | €1.0–€1.2 BN | n.a. |
| Acquisitions and investments ⁴ | €0.4 BN | €0.4–€0.6 BN | n.a. |
| Net cash provided by (used in) operating activities in % of revenue | 12.5 | > 10 | n.a. |
| Free cash flow in % of revenue | 6.4 | > 4 | n.a. |
| Net leverage ratio | 1.8 | < 2.5 | n.a. |
| ROIC in % | 12.4 | ≥ 8.0 | n.a. |
| Dividend per share ⁵ | €1.17 | assessed based on expected development of net income and shares outstanding | n.a. |
| Employees ⁶ | 112,658 | > 117,000 | n.a. |
| Research and development expenses | €134 M | €160–€170 M | n.a. |

¹ Outlook 2019 and 2020 are and will be adjusted in order to make the business performance comparable to results 2018 adjusted for items such as: FCPA Related Charges, the IFRS 16 implementation, the gain (loss) related to divestitures of Care Coordination activities and expenses for the cost optimization program. All effects from the pending acquisition of NxStage are excluded from the Outlook 2019 and 2020.

² Results 2018 adjusted: For a reconciliation of Results 2018 to Results 2018 adjusted see [TABLE 2.33 ON PAGE 61](#).

³ Net income attributable to shareholders of FMC AG & Co. KGaA.

⁴ Excluding investments in securities.

⁵ Results 2018: Proposal to be approved by the Annual General Meeting on May 16, 2019.

⁶ Full-time equivalents.

T 2.33 RECONCILIATION OF RESULTS 2018 TO RESULTS 2018 ADJUSTED AS BASIS FOR TARGETS 2019
 IN € M

| | Results 2018 | (Gain) loss related to divestitures of Care Coordination activities | 2018 FCPA Related Charge | Sound H1 2018 | Results 2018 adjusted |
|-------------------------|--------------|---|-----------------------------|---------------|--------------------------|
| Revenue | 16,547 | | | (521) | 16,026 |
| Operating income | 3,038 | (809) | 77 | (14) | 2,292 |
| Delivered EBIT | 2,794 | (809) | 77 | (14) | 2,048 |
| Net income ¹ | 1,982 | (673) | 28 | 4 | 1,341 |

¹ Net income attributable to shareholders of FMC AG & Co. KGaA.

For a reconciliation of the results 2018 to the results 2018 adjusted as a basis for the targets 2019, [SEE TABLE 2.33](#). For further details on the consolidated operating performance on a comparable basis and adjusted, see the “Results of operations, financial position and net assets” section starting on [PAGE 37](#).

GLOBAL EFFICIENCY PROGRAM

In 2017 we announced the second phase of our Global Efficiency Program (GEP II). The program's objectives are to identify and realize further efficiency potential and enhance our overall competitiveness. In 2018, we achieved 15 % of the targeted sustained cost improvements, which is well ahead of the anticipated contribution of 10 % for the year. Therefore, we increased the lower end of the expected range of sustained cost improvements to €150 M and now expect €150 M to €200 M per annum by 2020.

2019 COST OPTIMIZATION PROGRAM

We remain committed to a continuous optimization of our business. In 2019, we will invest around €100 M in order to sustainably improve our cost base in addition to the GEP II program. Based on enhancements in the products and services business, the 2019 cost optimization program is expected to be accretive to net income already from 2020 onwards.

Based on the ramp-up of the 2019 cost optimization program, the phasing of contributions from the GEP II and other measures initiated, we anticipate a back-end loaded acceleration of adjusted net income growth.

IMPACTS FROM THE IMPLEMENTATION OF IFRS 16

Based on a preliminary impact analysis as of December 31, 2018, applying the options and exemptions detailed in [NOTE 1 X](#) in the notes to consolidated financial statements as well as using certain assumptions, especially with regards to lease agreements newly concluded in 2019, we expect that right-of-use assets, increased by lease agreements expected to be newly concluded in 2019 and reduced by depreciation as detailed below, of approximately €3.9 BN will be presented on the consolidated balance sheet at the end of the upcoming fiscal year. Additional lease liabilities, reduced by principal payments and increased by compounding interest as well as lease liabilities on lease agreements expected to be newly concluded in 2019, are expected to be approximately €4.2 BN at the end of the upcoming fiscal year. Furthermore, we expect an increase of approximately €120 M on “machinery and equipment” within property, plant and equipment at the end of the upcoming fiscal year, as a result of new dialysis machines used in our own clinics for which sale-leaseback accounting is no longer applicable. As such, we expect an increase in other financial debt of approximately €120 M at the end of the upcoming fiscal year.

Referring to the consolidated statement of income, in the fiscal year 2019 we expect lower rental expenses of approximately €810 M as well as an increase in depreciation expense of approximately €680 M. In addition, we expect a reduction in revenues of approximately €100 M and a related operating income effect of approximately €40 M due to changes in the accounting treatment of sale-leaseback transactions. Combined, we expect an operating income improvement of

approximately €90 M. The expected lower rental expenses as well as the expected decrease in income due to changes in the accounting treatment of sale-leaseback transactions would increase Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA) by approximately €770 M. In addition, we expect an increase in net interest expenses of approximately €160 M. Overall, we expect a reduction in net income of approximately €50 M.

We expect no changes to total cash outflows but there will be a shift between the cash flow categories. Cash provided by operating activities is expected to increase by approximately €600 M and Cash used in investing activities by approximately €80 M. Cash used in financing activities is expected to decrease by approximately €520 M.

We also expect that our net leverage ratio (debt less cash and cash equivalents (net debt) as compared to EBITDA, adjusted for acquisitions and divestitures made during the year with a purchase price above a €50 M threshold as defined in the Amended 2012 Credit Agreement and non-cash charges) will increase by about approximately 0.6 by the end of 2019.

For additional information [SEE NOTE 1 X](#) in the notes to consolidated financial statements.

MANAGEMENT'S GENERAL ASSESSMENT

In the financial year 2019 and beyond, we intend to continue the profitable growth track of Fresenius Medical Care. Our focus in 2019 will be on investments which improve our cost base as well as growth investments, such as in the area of home dialysis in North America, supported by the pending NxStage acquisition or developing economies with an increasing number of patients. By implementing the second phase of our Global Efficiency Program, we will also continue to improve our profitability in the coming years.

RISKS AND OPPORTUNITIES REPORT

As an enterprise with global operations, the Company is naturally exposed to risks associated with its business activities. Ultimately, the Company can only leverage opportunities for its business if it is willing to take certain risks. Many years of expertise and the Company's extensive knowledge of the markets enable it to uncover and assess risks and opportunities for its business.

RISKS AND OPPORTUNITIES MANAGEMENT

The Company sees risk management as the ongoing task of determining, analyzing and evaluating the spectrum of actual and potential risks within the Company's operations and its environment, and, where possible, taking pre-emptive and corrective measures. The risk management system provides the Company with a basis for these activities. It enables management to identify risks that could jeopardize the Company's growth or going concern, and to take steps to minimize any negative impact. As such, it is an important component of the Company's management and governance.

Long-term success for the Company is secured by actively managing opportunities. The aim here is to identify and assess opportunities as early as possible, and to initiate appro-

priate measures so that opportunities can be turned into business successes for the Company. Identified long-term and medium-term opportunities are taken into account in our strategy and budget planning. Short-term opportunities, provided that they are aligned with business interests and targets, are seized by on-going business operations.

RISK MANAGEMENT

RISK MANAGEMENT SYSTEM

The main objective of the risk management system is to identify potential risks as early as possible to assess their impact on the business activities and, where necessary, to take appropriate countermeasures. Due to constantly changing external as well as internal requirements and conditions, risk management at Fresenius Medical Care is continuously evolving. In the past financial year, the Company's risk management approach was strengthened regarding the completeness and validity of risk information by the implementation of risk committees on regional, functional and corporate level.

The structure of the internal risk management system is based on the internationally recognized framework for Company-wide risk management, the "Enterprise Risk Management – Integrated Framework" of the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Opportunities are not covered by the implemented risk management system.

As part of the risk management system, regional risk coordinators assume the task of coordinating risk management

activities within the regions and selected functions with the help of risk management software. These activities relate to existing and potential emerging short-term as well as medium-term risks. Semiannually, identified risk information is processed by the risk coordinators and discussed in risk committees. Subsequently the central risk management function collects risk management reports from the regions and functions, analyses and discusses them in the corporate risk committee and communicates the compiled results to the executive management board. The focus during this process is on significant risks, which are above a defined threshold.

The executive management board and central risk management are promptly informed of risks that are estimated to be high or develop into high risks in order to ensure appropriate responses. The effectiveness of the risk management system is monitored by the Audit and Corporate Governance Committee of the Supervisory Board.

The organizational structure of risk management at Fresenius Medical Care as well as the previously described processes are shown in [CHART 2.34 ON PAGE 64](#).

In addition to risk reporting, standard reporting to management is an important tool for managing and controlling risks, as well as for taking preventive measures in a timely manner. Therefore, the Management Board of the Company is informed on a monthly basis about the industry situation, the Company's operating and non-operating business, and the outcome of analyses of the Company's earnings and financial position, as well as of the assets position on a quarterly basis.

Part of the risk management system is the Global Internal Audit department, which is regularly informed about the

results of the risk management system. This department determines risk focus areas and audits a selected number of Company departments, subsidiaries and IT applications worldwide each year. The department works according to the internationally accepted standards of the Institute of Internal Auditors (IIA), which was confirmed by a quality assessment in 2017. The scope of internal auditing is widespread and involves, among other activities, periodic assessment of the effectiveness of controls (including legal compliance controls) over business processes, IT security, the reliability of financial

reporting and compliance with accounting regulations and internal policies. The Company's locations and units to be audited are determined annually on the basis of a selection model taking various risks into consideration. This annual audit plan is reviewed and approved by the Management Board and the Audit and Corporate Governance Committee of the Supervisory Board. All audit reports with material observations are presented to the Management Board. The Global Internal Audit department is also responsible for monitoring the implementation of measures documented in the

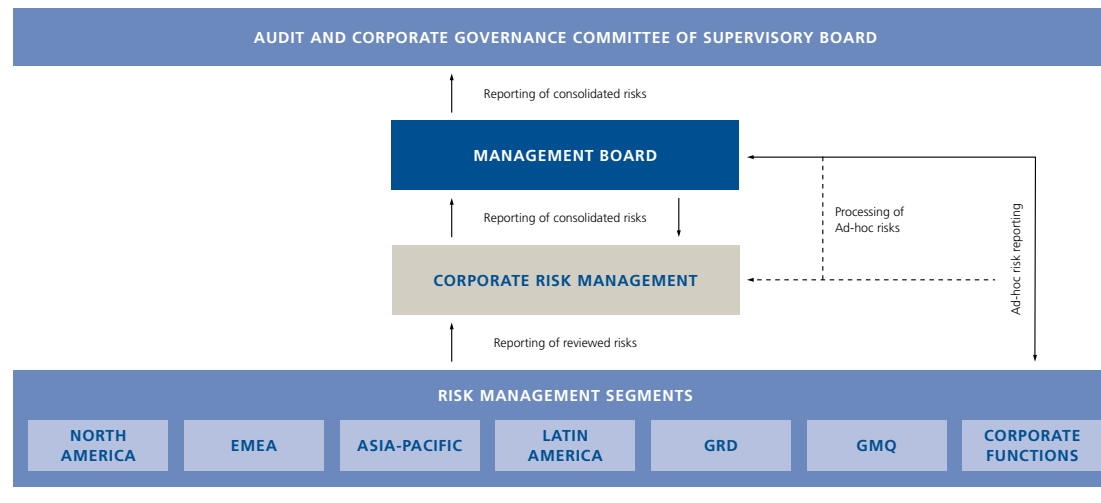
reports. The Management Board is informed about the implementation status on a quarterly basis. The Audit and Corporate Governance Committee of the Supervisory Board is also informed of the audit results. In 2018, a total of 45 audits were carried out.

Nevertheless, it is important to note that even a functioning and adequate risk management system like the Company's cannot guarantee that all risks are fully identified and controlled.

INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM FOR THE GROUP'S ACCOUNTING PROCESS

The Company's internal control system over financial reporting ensures compliance with applicable accounting standards. The goal is to provide reasonable assurance that the Group financial statements are issued in accordance with appropriate accounting principles. The Company's internal reporting process is generally carried out at four levels and ensures that financial data and key figures are reliably recorded, processed and controlled. At each of these four reporting levels – the local entity, the region, the segment and the entire Group – the figures and data are compared regularly on a monthly and quarterly basis with the previous year's values, budget targets, and the latest projections. In addition, the Management Board and the departments responsible for preparing the annual and consolidated Group financial statements discuss all parameters, assumptions and estimates that substantially affect the Group and segment results reported externally. The Audit and Corporate Governance Committee of the Supervisory Board also reviews current quarterly results and compares them with budgets and projections.

C 2.34 RISK REPORTING



The internal control system contains guidelines and instructions that ensure that all Company transactions are recorded appropriately and presented accurately.

Further control mechanisms to ensure reliable financial reporting and correct recording of transactions within the accounting and the consolidation process include automated and manual reconciliations, as well as the separation of certain personnel functions to prevent potential conflicts of interest. The fact that all process owners assess the risks of their respective processes in terms of their implications for accounting also ensures that risks with a direct impact on financial reporting are identified and that controls are in place to minimize these risks. Changes to accounting standards are discussed on an ongoing basis and considered in the preparation of the financial statements. Employees responsible for financial reporting are given regular training to be up to date with changes regarding accounting standards. The consolidation is performed centrally by the department which is responsible for the group accounting. The basis for the consolidation is derived from reporting packages and sub-group consolidated financial statements prepared and submitted by the local group entities. The preparation of the reporting packages and the sub-group consolidated financial statements is performed according to central requirements and guidelines.

As the Company is also listed on the New York Stock Exchange, it is required to adhere to the requirements of the u.s. Sarbanes-Oxley Act ("sox"). Section 404 of this federal law stipulates that the management boards of companies listed in the u.s. must take responsibility for implementing and adhering to an appropriate internal control system to produce reliable financial reporting. Based on this requirement, the design and operating effectiveness of the internal

control system over financial reporting are routinely tested and considered in regular internal audits. These criteria are also included in the review by the Company's independent auditors.

The internal control system over financial reporting follows the criteria of the coso model. This was developed by the Committee of Sponsoring Organizations of the Treadway Commission and is recognized as a standard by the Securities and Exchange Commission ("sec"). In accordance with the coso model, the internal control system over financial reporting is divided into the five components: control environment, risk assessment, control activities, information and communication, as well as the monitoring of the internal control system. Each of these components is regularly documented, tested and assessed. The Company aligned its internal controls to fulfil the requirements of the coso model.

The Company's review of the internal control system over financial reporting complies with a specific sec guideline (Guidance Regarding Management's Report on Internal Control Over Financial Reporting) and is conducted with software support. In a first step, regional project teams coordinate the assessment of the internal control system in each region, after which the results are consolidated for the whole Group. Based on this, management then evaluates the effectiveness of the internal control system for the current fiscal year. External advisers are consulted as needed. A corporate steering committee meets several times a year to review changes and new requirements of sox, to discuss possible control deficiencies, and derive further measures. In addition, in its meetings, the Audit and Corporate Governance Committee of the Supervisory Board is informed regularly of the results of management's assessment.

As of December 31, 2018, management assessed the Company's internal control system over financial reporting and deemed it effective.

Internal control systems over financial reporting are subject to inherent limitations, no matter how carefully they are designed. As a result, there is no absolute assurance that financial reporting objectives can be met, nor that misstatements will always be prevented or detected.

RISKS

The following section describes significant risks which could have an impact on our business operations. In the course of the risk assessment an estimation of the risks takes place regarding the likelihood of occurrence and the potential impact in the respective assessment period, allowing a prioritization of the risks into the classifications "low" "medium" and "high". Besides quantitative factors, especially qualitative factors are applied. For the identification of strategic developments, besides the short-term consideration (one year), risks can also be assessed in terms of a medium-term impact within the subsequent five years.

The scales for classification of potential impact and likelihood as well as the localization of the risks within the risk matrix are depicted in [CHART 2.35 ON PAGE 66](#).

Sector-specific risks

Regulatory environment, quality

The Company's operations in both its health care services business and products business are subject to extensive governmental regulation in virtually every country in which the Company operates. The Company is also subject to other laws of general applicability, including anti-trust laws. The applicable regulations, which differ from country to country, cover areas that include:

- › the quality, safety and efficacy of medical and pharmaceutical products and supplies,
- › regulatory approvals and oversight of clinical and certain non-clinical research and development activities,
- › product approvals and regulatory approvals for new products or product improvements,
- › the operation and licensure of manufacturing facilities, laboratories, dialysis clinics and other health care facilities,
- › audits and reviews by enforcement authorities, including the FDA, for compliance with applicable drug regulations,
- › product labeling, advertising and other promotion,
- › accurate reporting and billing for government and third-party reimbursement including accurate and complete medical records to support such billing,
- › the discounting of reimbursed drug and medical device products and the reporting of drug prices to government authorities,
- › the collection, dissemination, access, use, security and privacy of protected health information and other protected data,
- › compliance with due diligence, warranty obligations and product liability rules and

C2.35 RISKS WITH POTENTIAL SHORT-TERM EFFECT (ONE YEAR) AND MID-TERM EFFECT (FIVE YEARS)

| Risks with potential short-term effect (one year) ² | | | | | Risks with potential mid-term effect (five years) ² | | | | |
|--|-------------|--------------------|--------|--------|--|---------------------|--------------|-------|--------|
| Likelihood ¹ | low | medium | major | severe | Likelihood ¹ | low | medium | major | severe |
| | | | | | | | | | |
| | 12 | 17 | | | | | 6 | | |
| | 2, 4, 7, 20 | 1, 3, 5, 6, 13, 18 | 14, 15 | 22 | | 4, 7, 8, 18, 19, 20 | 3, 9, 13, 15 | 5 | |
| unlikely | | 16, 21 | | | unlikely | 2, 11, 21, 22 | 1, 10 | 14 | |

| RISK AREA | |
|-----------|---|
| 1 | Regulatory environment |
| 2 | Quality |
| 3 | U.S. federal health care programs |
| 4 | Composition of our customer base |
| 5 | Reimbursement by private insurers |
| 6 | Health care reforms |
| 7 | Growth |
| 8 | Competitors |
| 9 | Research and development |
| 10 | Patents |
| 11 | Referral practices |
| 12 | Procurement |
| 13 | Personnel |
| 14 | Corruption and fraud |
| 15 | Information systems and business processes |
| 16 | Liquidity and financing |
| 17 | Currencies and interests |
| 18 | Litigation and potential exposures |
| 19 | Taxes |
| 20 | International operations |
| 21 | Unpredictable events |
| 22 | Global economic conditions and disruptions in financial markets |

low risk medium risk high risk

¹ Likelihood: **unlikely**: 0 to 10 %, **possible**: > 10 to 50 %, **likely**: > 50 to 90 %, **almost certain**: > 90 to 100 %.

² Potential impact: **low**: small negative impact, **medium**: moderate negative impact, **major**: significant negative impact, **severe**: material negative impact.

- › compensation of medical directors and other financial arrangements with physicians and other referral sources.

If the Company fails to comply with one or more of these laws or regulations, this may give rise to a number of adverse legal consequences. These include, in particular, loss or suspension of governmental certifications, loss or suspension of licenses under the laws of governmental authority from which we generate substantial revenues, monetary and administrative penalties, recall actions and claims for damages, increased costs for compliance with government orders, complete or partial exclusion from government reimbursement programs, refunds of payments received from government payors and government health care program beneficiaries due to any failures to meet applicable requirements or complete or partial curtailment of the Company's authority to conduct business. In the end, these types of risks could no longer be insured. Including the considerable costs of legal defense, all the consequences mentioned above could have a material adverse effect on the Company's business, results of operations and financial condition.

A number of the health care businesses in the U.S., that the Company operates is owned, or managed, by joint ventures in which one or more hospitals, physicians or physician practice groups hold an interest. While the Company has structured its joint venture arrangements with physicians to comply with many of the criteria for safe harbor protection under the federal and state Anti-Kickback Statutes, its investments in these joint venture arrangements do not satisfy all elements of such safe harbor. If one or more of its joint ventures were found to be in violation of the Anti-Kickback Statute or the Stark Law, the Company could be required to restructure or terminate them. The Company also could be required to

repay to Medicare, Medicaid as well as other federal health care amounts pursuant to any prohibited referrals, and the Company could be subject to monetary penalties and exclusion from federal and state health care programs. Imposition of any of these penalties could have a material adverse impact on its business, results of operations and financial condition.

To ensure that our products and services comply with the quality requirements, we implemented quality management systems in the different regions. The employees have access to procedures and work instructions to ensure that the applicable quality requirements are met. In addition, we conduct internal reviews of the production sites and clinics to monitor compliance with quality standards of our products and services. Furthermore, our plants and hospitals are also subject to external reviews by the relevant supervisory authorities. Compliance programs implemented in the regions reduce the risk of legal violations by providing general and specific rules of conduct and procedures as well as regular training of the employees according to the specifications.

U.S. federal health care programs

As stated in the "Macroeconomic and sector-specific environment" section starting on [PAGE 32](#), our dialysis clinics in the U.S. participate in the Quality Incentive Program (QIP) within the ESRD prospective payment system (PPS). Payment reductions of up to 2 % of Medicare reimbursements based on previous year's performance can be made if the quality standards of the QIP are not met in the clinics. Should Fresenius Medical Care fail to meet the QIP's minimum requirements to a greater extent, this could have a material adverse effect on our business, financial condition and results of operations.

Through our value-based agreements and health insurance products, we assume the risk of both medical and administrative costs for certain patients in return for fixed periodic payments from governmental and commercial insurers. The Company currently participates in the "Comprehensive ESRD Care initiative" of the CMS as well as remuneration agreements with insurers under which the Company receives a fixed remuneration to cover all, or a defined amount of treatment costs, for a defined quantity of patients. Detailed descriptions of the above mentioned and other programs in which the Company participates can be found in the "Macroeconomic and sector-specific environment" section starting on [PAGE 32](#).

Under CMS's Comprehensive ESRD Care Model, dialysis providers and physicians can form entities known as ESRD Seamless Care Organizations (ESCOS). ESCOs that achieve the program's minimum quality thresholds and generate reductions in CMS's cost of care above certain thresholds for the ESRD patients covered by the ESCO will receive a share of the cost savings. However, ESCOs that include dialysis chains with more than 200 facilities are required to share in the risk of cost increases and reimburse CMS a share of any such increases.

Although efforts to repeal the Affordable Care Act (ACA) have been unsuccessful, further efforts to repeal or revise the ACA the posture of CMS in the current administration toward projects of this sort and litigation seeking the termination of the ACA may affect the project's future prospects in ways we currently cannot quantify or predict.

The reserves that we establish for health insurance policy benefits and other contractual rights and benefits as well as estimations of the amount of revenues from health care

services that we recognize in a reporting period are based upon assumptions and judgments concerning a number of factors which are subject to uncertainties. Those factors include trends in health care costs, expenses, general economic conditions, the complicated billing and collection process, complex and changing laws and regulations subject to interpretation, determination of primary and secondary coverage and other factors. Additionally, collections, refunds and payor retractions typically continue to occur for up to three years or longer after services are provided. To the extent the actual claims experience is less favorable than estimated based on our underlying assumptions, the timing and amount of our recognition of revenues as well as future earnings could be adversely affected or incurred losses could increase.

The profitability of our value based agreements and insurance products is dependent in part upon our ability to contract on favorable terms with hospitals, physicians and other health care providers. The failure to maintain or to secure cost-effective health care provider contracts may result in a loss of beneficiaries or higher medical costs, which could adversely affect our business.

We cannot give any assurance that we will achieve the cost savings required or contemplated by these programs, which could have a material adverse effect on our operating results. In addition, we may experience higher write-offs of Medicare deductibles and other amounts due to uninsured and underinsured patients, resulting in an increase in uncollectible accounts.

The Company mitigated the impact of the ESRD PPS and the other legislative initiatives referenced above with two broad measures. First, it works with medical directors and treating

physicians to make clinical protocol changes used in treating patients consistent with the QIP and good clinical practices, and it negotiates pharmaceutical acquisition cost savings. In addition, the Company achieved greater efficiencies and better patient outcomes by introducing new initiatives to improve patient care upon initiation of dialysis, increase the percentage of patients using home therapies and achieve additional cost reductions in its clinics.

Composition of our customer base

Our health care product business, as well as our dialysis services business outside the U.S. differs across the regions in which we operate. In many cases, our products and services are paid, either directly or indirectly, by government institutions. We believe the risk of default from a government payor is lower in comparison to the commercial payors worldwide. On a country level, the payor base is characterized by distinct customer or payor groups which can range in volume from a few customers to a considerable amount of customer types which have varying levels of risk associated with default or non-payment of receivables as well as risks for dependencies based upon the competition within low volume customer base environments. In certain cases, a resulting dependency on the payment behavior and decision-making of our business partners can affect the collectability of accounts receivable and can adversely affect our business, results of operations and financial condition.

We continuously seek to mitigate these risks by actively negotiating long-term contracts with major customers, targeted marketing activities, developing new product and pricing models as well as improving the quality of our services and products.

Reimbursement by private insurers

In the U.S. a portion of the dialysis treatments is reimbursed by private insurers and integrated care organizations; these reimbursements are in general higher than the reimbursements of the public health care systems. As a result, the payments we receive from private payors contribute a substantial portion of our profit. In 2018, approximately 34 % of our consolidated health care revenues were attributable to private payors in the North America Segment. If these payors succeed in lowering reimbursement rates in the U.S., change the extent or conditions of their networks or if the portion of reimbursements by private insurers in general drops, this could result in a significant reduction in Company revenue and operating profit. In addition, consolidation among private insurers and pharmacy benefit managers may have any adverse impact on our ability to negotiate favorable coverage terms and commercially reasonable rates with such insurers.

We monitor the relationships with private health insurance companies continuously and try to hedge the business through long-term contracts to maintain profitability.

A portion of our patients who are currently covered by private insurers may elect to transition to government funded reimbursement programs that reimburse us at lower rates for our services if efforts to restrict or eliminate the charitable funding of patient insurance premiums are successful.

Health care reforms

A number of governments have been considering proposals to modify their current health care systems to improve quality of and access to health care and to control costs. Policy-

makers in several countries are also considering reforms that could change the methodology used to reimburse providers of health care services. Also standards and regulations compulsory for providing dialysis service can be subject to extensive changes.

In fiscal year 2018, the Company derived approximately 33 % of its worldwide revenue from Medicare and Medicaid reimbursements in the U.S. Consequently, changes in legislation or reimbursement practices regarding e.g. the End-Stage Renal Disease Prospective Payment System (ESRD PPS), the Physician Fee Schedule, the Clinical Laboratory Fee Schedule, and the Ambulatory Surgical Center Payment System could influence the volume of Medicare and Medicaid reimbursements for services provided and the insurance coverage.

A decrease in reimbursement rates, covered services or changes to standards, regulations or state funding in countries in which the Group operates, especially significant changes in the U.S. Medicare and Medicaid programs could reduce the Company's revenue and profitability and have a material adverse effect on its business, financial condition and results of operations.

In this context it might happen that the annually adjusted ESRD PPS rates may not provide fully compensating reimbursement for the services or products consumed during service. This especially refers to the reimbursement of pharmaceuticals depending on their status as outside of or as part of the bundled rate. Pharmaceuticals included within the bundled rate are subjected to increased reimbursement pressure. If we are unable to secure appropriate reimbursement arrangements for the pharmaceuticals we provide in our dialysis clin-

ics, we could experience a material adverse effect on our operating results. Further, an increased utilization of bundled pharmaceuticals or decreases in reimbursement for pharmaceuticals outside the bundled rate may result in a material adverse impact on our results of operations.

The U.S. administration has publicly announced its intention to pursue significant changes to existing health care insurance programs, especially programs in connection with the ACA. In addition, options to restructure the Medicare program in the direction of a defined-contribution, "premium support" model and to shift Medicaid funding to a block grant or per capita arrangement, with greater flexibility for the states, are also likely to be considered.

While in 2017, the U.S. administration announced its decision to end subsidies, known as cost-sharing reduction (CSR) payments under the insurance exchanges created under the ACA, the Administration eventually did fund CSRs in 2018 and has requested funding for CSRs in 2019. If CSR funding ceases at any point, commercial insurers have indicated that premium rates would need to increase and that they may withdraw from the insurance exchanges created under the ACA. So far average premiums for 2019 appear to be only moderately higher compared to 2018, though there is large variation between states with some states having significant increases. In addition, there is ongoing litigation over the Federal Government's obligation to pay the CSRs and over the constitutionality of provisions of the ACA. It is not predictable, whether the U.S. administration will agree to the CSRs in 2019, continue to dismantle the insurance exchanges through other means, or how the ongoing litigation might be determined. As a result, a reduction in the availability of insurance through

such exchanges could reduce the number of our commercially insured patients and shift such patients to Medicare and Medicaid.

Changes of this nature could have significant effects on our businesses, both positive and negative, but the outcomes are impossible to predict.

Risks relating to the Company's business

Growth

The health care industry experiences continuing consolidation particularly among health care providers. This development could adversely affect the Company's ability to find suitable acquisition targets and to increase future growth and product sales. Additionally, the ability to make future acquisitions as well as to develop de novo dialysis clinics and health care centers depends, in part, on the availability of financial resources and the current restrictions imposed by competition laws as well as existing credit agreements. The integration of acquired businesses may cause problems e.g. by assuming unknown liabilities, underperformance subsequent to integration, associated requirements from competition authorities or non-compliant business practices not disclosed by the seller or not uncovered during due diligence. We also compete with other health care companies in seeking suitable acquisition targets and developing de novo clinics. Any or all of these factors generally could adversely affect future growth, including growth of our product sales.

Competitors

The Company faces numerous competitors in both its health care services business and dialysis products business, some of which may possess substantial financial, marketing or research and development resources. Competition from new and existing competitors and especially new competitive developments such as increasing disruption in the health care industry as well as innovations in technology and care delivery models could materially adversely affect the future pricing and sale of our products and services. In particular, technological innovation has historically been a significant competitive factor in the dialysis products business. The introduction of new products or services by competitors could render one or more of the Company's products or services less competitive or even obsolete, which could also affect the Company's sales and distribution of pharmaceuticals for which, to some extent, the Company is obligated to make certain minimum annual royalty payments.

To ensure our permanent competitiveness, we work closely together with physicians and scientists. Important technological and pharmaceutical innovations are intended to be quickly identified and further developed, if necessary also by adapting our business strategy. Moreover, we secure our competitiveness by ongoing analyzes of our market environment as well as the regulatory framework. The market activity, especially our competitors' products and newly launched dialysis-related products are thoroughly monitored. The cooperation between the various technical, medical and academic institutions within our Company also ensures our competitiveness, which is finally further enhanced by our consequent conduction of programs devoted to cost saving and efficiency increase.

Research and development

The development of new products and therapies proposes a risk that the desired development goal will not be achieved or achieved significantly later than planned. Costly and extensive preclinical and clinical examinations are necessary until admission. All products, packaging, applications and technologies are constantly and systematically monitored, tested and improved. We address potential risks in the area of research and development by continually analyzing, evaluating and assessing whether the research and development projects fit into the overall strategy of Fresenius Medical Care. As a vertically integrated company, we also benefit from direct contact with our patients and medical professionals. Due to this close proximity to the market, we have the potential to gather important information to develop and offer products and therapies that meet the needs of our customers.

Referral practices

In providing services within our health care business, we depend upon patients choosing our health care facilities as the location for their care. Patients may select a facility based, in whole or in part, on the recommendation of their physician. Physicians and other clinicians typically consider a number of factors when recommending a particular dialysis facility, pharmacy, physician practice, vascular surgery center or urgent care center to an ESRD patient, including, the quality of care, the competency of staff, convenient scheduling, location and physical condition. Physicians may change their recommendations, which may result in the movement of new or existing patients to competing facilities, including facilities established by the physicians themselves. At most of our dialysis clinics, a relatively small number of physicians often

account for the referral of all or a significant portion of the patient base. We have no ability to control these recommendations and referrals. If a significant number of physicians or other referral sources cease referring their patients to our facilities or stop purchasing or prescribing our dialysis products, this would reduce our health care revenue and could materially adversely affect our overall operations.

Patents

One of the typical patent risks faced by the Company is inadequate protection in the form of patents for technologies and products developed by the Company. This means that competitors could copy the Company's products without incurring comparable development costs. In addition, the Company could infringe the patent of a competitor and thus be liable for damages; this could result in a ban on the Company further selling the affected product. An inadequate protection of the Company's patents could have an adverse impact on the Company's financial condition and results of operations.

Procurement

The Company's business is dependent on the reliable supply of several raw materials for production and service purposes. If the Company is unable to counteract the risk of bottleneck situations at times of limited availability of goods and other materials in spite of our purchasing strategy in combination with ongoing monitoring of market developments, this could result in delays in production and hence have an adverse effect on the Company's results of operations. Similarly, price increases by suppliers and the inability to access new products or technology could also adversely affect the Company's results of operations.

Our purchasing strategy is aimed at developing partnerships with strategic suppliers through long-term contracts and at the same time ensuring, where reasonably practicable, that we have at least two sources for all supply and price-critical primary products (dual sourcing, multiple sourcing). To prevent loss of suppliers, we monitor our supplier relationships on a regular basis. Suppliers which are integral to our procurement functions are also subject to performance and risk analyses as well as continuous supply chain monitoring. Through constant market analyses, a demands-based design of supplier-relationships and -contracts, as well as the use of financial instruments, we seek to mitigate disruptive goods shortages and potential price increases and to provide access to new product and technology developments.

Personnel

The Company's continued growth in the health care business will depend upon the ability to attract and retain skilled workforce, including highly skilled nurses and other medical personnel. Competition for those employees is intense and shortages for these sought-after employees, such as nurses, or skilled engineers and research and development personnel, may increase the Company's personnel and recruiting costs and/or impair our reputation for production of technologically advanced products. Moreover, the Company considers that future success in the provider business depends on the ability to attract and retain qualified physicians to serve as employees of or consultants to the Company's health care services businesses. The Company's health care products business depends on the development of new products, technologies and treatment concepts to be competitive. Additionally, in recruiting, employing and retaining personnel we may be exposed to risks relating to various labor laws, legis-

lative, union or other labor-related activities or changes. Further, these factors could preclude us from integrating acquired companies into our operations, which could increase our costs, decrease our productivity and prevent us from realizing synergies from acquisitions. If we are unable to manage the risks mentioned, then our growth and results of operations could be adversely impacted.

Corruption and fraud

The Company operates many facilities and engages with other business associates to help it carry out its health care activities. In such a decentralized system, it is difficult to maintain the desired level of oversight and control over the thousands of persons employed by many affiliated companies and its business associates. Training, oversight and compliance programs cannot assure protection from deliberate, reckless or inadvertent acts of employees that violate the Company's compliance policies or anti-corruption laws. Such violations could disrupt the Company's business and result in a material adverse effect on results of operations or financial condition.

Beginning in 2012, the Company received certain communications alleging conduct in countries outside the United States that might violate the Foreign Corrupt Practices Act or other anti-bribery laws. The Company's Supervisory Board, through its Audit and Corporate Governance Committee, conducted investigations with the assistance of independent counsel. In a continuing dialogue, the Company voluntarily advised the Securities and Exchange Commission and the United States Department of Justice (collectively and interchangeably the "government") about these investigations. The government also conducted its own investigations, in which the Company cooperated.

In the course of this dialogue, the Company identified and reported to the government, and took remedial actions including employee disciplinary actions with respect to, conduct that resulted in the government seeking monetary penalties and other remedies against the Company and disgorgement of related profits revolving principally around conduct in the Company's products business in a limited number of countries outside the United States.

The Company recorded charges of €200 M in 2017 and €77 M in 2018 encompassing estimates for the government's claims for profit disgorgement, penalties, certain legal expenses, and other related costs or asset impairments believed likely to be necessary for full and final resolution, by litigation or settlement, of the claims and issues arising from the investigation. The increase recorded in 2018 took into consideration preliminary understandings with the government on the financial terms of a potential settlement. Following this increase, which takes into account incurred and anticipated legal expenses, impairments and other costs, the provision totals €224 M as of December 31, 2018. The Company has reached an agreement in principle with the government agencies encompassing the terms understood to be necessary for settlement.

The Company believes that the previously-recorded charge appropriately accounts for the consequences of the resolution as related to its financial statements. The agreement in principle remains subject to memorialization in fully integrated documents and final approval by authorized officials of the government and the Company.

The Company continues to implement enhancements to its anti-corruption compliance program, including internal con-

trols related to compliance with international anti-bribery laws. The Company continues to be fully committed to compliance with the Foreign Corrupt Practices Act and other applicable anti-bribery laws.

Information systems and business processes

As the Company continues to grow and introduces more international operations, the processes within the Company are increasingly complex. Accordingly, it is more and more dependent on information and communication technologies and -systems to structure its processes and harmonize them between different regions. An insufficient design of those systems and business processes as well as insufficient resources could lead to non-availability of certain information, causing inefficient workflows, deficient internal and external communication and intransparencies regarding operations. A breakdown of these systems could temporarily lead to standstill of parts of our business and consequently cause heavy damages.

Additionally, cyber-attacks or privacy and data breaches regarding both our internal systems as well as systems of third-party service providers could result in the misappropriation or compromise of sensitive information. We gather and handle personal information of our patients in many regions of the world and thus need to adhere to various data protection and privacy regulations. Any loss, impermissible use, access or disclosure of this sensitive information or non-compliance with data protection and privacy related laws, regulations and standards could threaten our position in competition, our reputation as well as our whole business.

Using its Information Security Management System (ISMS), which is based on the internationally recognized security standard ISO 27002, the security guidelines and processes within the Company are enhanced continuously. Business data is backed up regularly and disaster recovery plans, which are regularly tested and improved, are in place. The Company operates three data centers at geo-graphically separate locations to maximize the availability and data security of IT systems. A mirrored infrastructure that creates a copy of critical systems is in use. In general, we continue to enhance our internal information and reporting systems to ensure that their structure meets evolving needs.

Furthermore, among others, company guidelines relating to data protection and privacy, which also regulate the assignment of access rights and third-party collaboration, must be considered, trainings for employees are conducted and governance structures are continuously adapted. Compliance is monitored with controls including those relating to Section 404 of SOX. Operational and security audits are carried out every year both internally and by external auditors. The existing IT security architecture with different layers of security measures protects the systems in our data centers. The access to sensitive or critical data from outside of the secured data center networks is protected by the usage of secure protocols and cryptographic measures. Besides that, annual penetration tests for applications with critical data (e.g. patient or personnel data) are conducted.

Other risks

Liquidity and financing

The liquidity risk is defined as the risk that a company is potentially unable to meet its financial obligations. The Management Board of the Company manages the liquidity of the Group by means of effective working capital and cash management as well as an anticipatory evaluation of refinancing alternatives. The Management of the Company believes that existing credit facilities, cash flow from operating activities and additional short-term borrowings are sufficient to meet the Company's foreseeable demand for liquidity.

At December 31, 2018 respectively December 31, 2017, the Group had financial debt of €7.55 BN respectively €7.45 BN. The Company's credit agreements and notes include covenants that require maintaining certain financial ratios or meeting other financial tests. The covenants also restrict the Company's ability to dispose of assets, incur debt, pay dividends and other restricted payments, create liens or make investments or acquisitions. The breach of any of the covenants could result in a default and acceleration of payments of the indebtedness, which would have an adverse effect on the Company's business, financial condition and results of operations. The Company considers itself able to maintain the required financial ratios at present and in the near future.

Currencies and interests

The Company actively manages foreign currency and interest rate exposures that are part of its normal business activities.

Risk management procedures for foreign currencies and interest rate exposures are based on strategies defined and, if necessary, adapted in close cooperation with the Management Board, including, for example, guidelines that cover all steps and levels of the risk management process. They define responsibilities for the determination of risks, the careful use of financial instruments for hedging purposes and for accurate financial reporting. The use of derivative instruments is restricted to micro hedges which are used in order to hedge exposures that arise in the ordinary course of business. The Company does not enter into transactions for trading or other speculative purposes. The Company enters into transactions with banks, which generally have ratings in the "A" Category or better, as approved by the Management Board. The effectiveness of the hedging relationships of the hedging instruments and the hedged items is tested on a quarterly basis.

The Company enters into derivatives, particularly interest rate swaps and to a certain extent, interest rate options to protect against the risk of rising interest rates. These interest rate derivatives are designated as cash flow hedges and have been entered into in order to effectively convert payments based on variable interest rates into payments at a fixed interest rate. The euro-denominated interest rate swaps expire in 2019 and have an interest rate of 0.32 %. As of December 31, 2018 respectively December 31, 2017, the notional amount of the euro-denominated interest rate swaps in place was €204 M respectively €228 M.

Derivative foreign currency contracts are entered into for the purpose of limiting the exchange rate exposure from sales and purchases as well as lendings and borrowings between the Company's subsidiaries located in different countries and reporting in different currencies. A large portion of the trans-

action exposures arise from sales of products from the Company's subsidiaries in the euro region to other international business units. The aggregate notional amount of foreign currency hedge contracts as of December 31, 2018 was €1,043 M, primarily for hedging euro exposure to the U.S. dollar and various other currencies. Economic hedges, which are used by the Company, are accounted for as recognized hedges in the consolidated financial statements, when necessary.

The estimation and quantification of transaction risks from foreign currencies is determined according to the statistical model Cash Flow at Risk ("CFaR"). CFaR indicates the maximum amount of a potential loss of the forecasted foreign exchange cash flow of the next twelve months that occurs with a probability of 95 %. As of December 31, 2018, the Company's CFaR amounts to €52.3 M.

Further information on market, default and liquidity risks is included in [NOTE 23](#) of notes to the consolidated financial statements.

Litigation and other exposures

Risks associated with investigations and litigations are continuously identified, assessed and reported within the Company. The Company is involved in various legal proceedings and investigations resulting from its business operations. A negative outcome of these legal proceedings or investigations leading to legal proceedings could have an adverse impact on the Company's financial condition and results of operations.

External legal consulting support is always used to defend the Company against risks associated with litigations. If necessary accounting measures like accruals are used.

For the matters in which the Company believes a loss is both reasonably possible and assessable, an estimate of the loss or range of loss exposure is provided in [NOTE 22](#) of notes to the consolidated financial statements. For other proceedings the Company believes that the loss probability is remote and/or the loss or range of possible losses cannot be reasonably estimated at this time.

For details on ongoing proceedings and further information on material legal risks to which the Company is exposed, reference is made to [NOTE 22](#) of notes to the consolidated financial statements.

Taxes

The Company is subject to ongoing tax audits in the U.S., Germany and other jurisdictions. The Company could potentially receive notices of unfavorable adjustments and disallowances in connection with certain of these audits. If the Company is unsuccessful in contesting unfavorable determinations we could be required to make additional tax payments, which could have a material adverse impact on our business, financial condition and results of operations in the relevant reporting period.

In general, tax-relevant issues are, as necessary, coordinated with internal tax experts regarding compliance with applicable tax laws. If necessary, statements and opinions by external consultants are obtained to minimize tax risks.

International operations

The Company operates dialysis clinics in around 50 countries and sells a range of equipment, products and services to cus-

tomers in around 150 countries. The Company's international operations are subject to a number of risks, including but not limited to the following:

- › The economic situation in certain countries could deteriorate.
- › The Company could face difficulties in enforcing and collecting accounts receivable under some countries' legal systems.
- › Local regulations could restrict the Company's ability to obtain a direct ownership interest in dialysis clinics or other operations.
- › Some countries or economic unions may impose charges or restrictions, such as local content requirements, which restrict the importation of our products.
- › Potential increases in tariffs and trade barriers that could result from withdrawal by the United States or other countries from unions, including the exit from major multilateral trade agreements.
- › Transport delays or interruptions
- › International growth and expansion into emerging markets could cause us difficulty due to greater regulatory barriers than in the United States or Western Europe, the necessity of adapting to new regulatory systems, and problems related to entering new markets with different economic, social, legal and political systems and conditions.

Any one or more of these or other factors relevant to international operations could increase the Company's costs, reduce revenues, or disrupt operations, with possible material adverse effects on the Company's business and financial condition.

Developments of this nature are continuously monitored and analyzed and response measures like the extension of local

production capacities, the adaptation of product designs, organizational changes and various others are set in place based on case by case decisions.

Unpredictable events

Fresenius Medical Care operates dialysis facilities or manufacturing facilities in many regions of the world, with diverse geographic, societal and economic conditions. Unforeseeable events such as natural disasters, terrorist attacks or political instability, could affect our services and our ability to deliver in a limited time and place.

Through forward-looking planning and prevention programs, Fresenius Medical Care is trying to limit possible effects of such events already in advance. In addition, to maintain operations in the event of an onset and to reduce potential impact on our patients and the organization, we have spare capacity and safety stock of certain resources as well as emergency and recovery plans in place. Residual risks are eventually covered when necessary and expedient by taking out insurance.

Global economic conditions and disruptions in financial markets

The Company is dependent on the conditions of the financial markets and the global economy. In order to pursue its business, the Company is reliant on capital, as are its renal product customers and commercial health care insurers. Limited or more expensive access to capital in the financial markets could adversely affect the Company's business and profitability.

Among other things, the potential decline in federal and state revenues may create additional pressures to contain or reduce

reimbursements for the Company's services from public payors around the world, including Medicare, Medicaid in the United States and other government sponsored programs in the United States and other countries around the world.

Increasing job losses or changes in the unemployment rate in the U.S. may result in a smaller percentage of the Company's patients being covered by an employer group health plan and a larger percentage being covered by lower paying Medicare and Medicaid programs. To the extent that payors are negatively impacted by a decline in the economy, the Company may experience further pressure on commercial rates, a further slowdown in collections and a reduction in the amounts it expects to collect.

Devaluation of currencies and worsening economic conditions, including inflationary cost increases in various markets in connection with deteriorating country ratings also increase the risk of a goodwill impairment, which could lead to a partial or total goodwill write off in the affected cash generating units.

In addition, uncertainty in the financial markets could adversely affect the variable interest rates payable under certain of our credit facilities or could make it more difficult to obtain or renew such facilities or to obtain other forms of financing in the future. Any or all of these factors, or other consequences of the continuation, or worsening, of domestic and global economic conditions which cannot currently be predicted, could continue to adversely affect our businesses and results of operations.

Changes in the risk situation

Fresenius Medical Care operates in a constantly changing environment. Accordingly, the risk situation is also subject to constant change.

Regarding the classification of the risks in terms of probability and potential impact, the following significant changes occurred compared to the previous year:

With regard to the one-year forecast period, there were significant changes regarding several risks:

In consequence of increased regulatory requirements concerning production processes the risk regarding the regulatory environment (1) increased to a medium risk.

The risk regarding u.s. federal health care programs (3) has increased to medium due to proposed changes to payment methodologies in certain shared savings programs.

Furthermore, a reevaluation of the litigation and potential exposures risk (18) leads to a medium assessment of risks regarding this topic.

With regard to the five-year period, there were significant changes regarding one risk:

The expected increasing usage of IT in combination with growing threat potentials across industries, has increased the risk regarding information systems and business processes (15) to a medium risk.

OPPORTUNITIES MANAGEMENT

OPPORTUNITIES MANAGEMENT SYSTEM

As much of our business is organized on a decentralized basis, we are able to identify industry-specific trends and requirements as well as the resultant opportunities in the different regions at an early stage and gear our actions to them. We also perform comprehensive quantitative and qualitative analyses to enable us to capture business opportunities. This involves systematically evaluating relevant market data, closely examining research projects and taking general social trends into consideration. Our analyses focus on general economic, industry-specific, regional and local developments as well as regulatory changes. In addition, close cooperation between our Strategy and Planning departments and the managers of other divisions allows us to identify global opportunities as early as possible.

OPPORTUNITIES

As a vertically integrated dialysis company, Fresenius Medical Care can offer almost all of the products and services that a patient with chronic kidney failure requires for treatment. Our 3,928 dialysis clinics in around 50 countries constitute the largest and most international network of this kind in the world. As a result, we possess valuable dialysis expertise that is unique in the industry. Thanks to this wealth of experience, we know that high quality is not only the key to a better quality of life for patients, but can also contribute significantly to reducing the costs of health care. Based on this understanding and our business model, major opportunities arise that could have a positive impact on the results of operations, financial

position and net assets of Fresenius Medical Care as things stand today.

Industry-specific opportunities

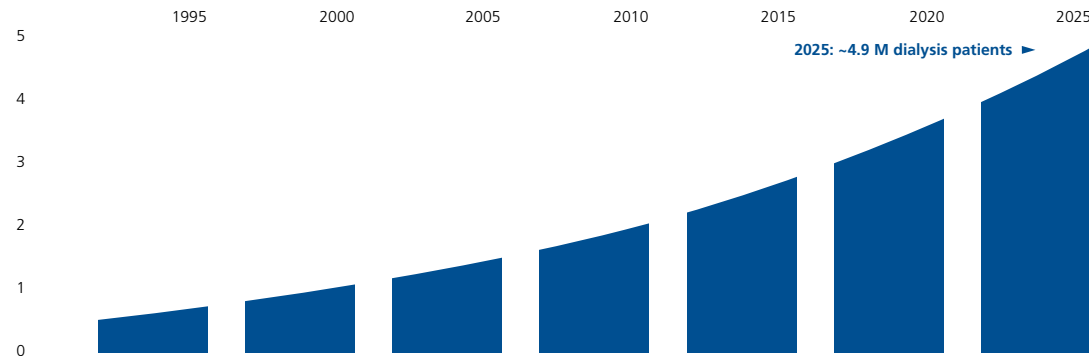
Patient growth and demographic development

The dialysis market is a growth market that is largely unaffected by macroeconomic influences. According to estimates, the number of people worldwide suffering from chronic kidney failure and requiring dialysis treatment is rising at a relatively constant rate of around 6 % annually and is expected to reach around 3.6 M patients in 2019 and approximately 4.9 M by 2025 – [SEE CHART 2.36 ON PAGE 76](#). Social trends are contributing to this rise in patient numbers. In Europe and the u.s. in particular, they include the aging population and the increasing incidence of diabetes and hypertension, two illnesses that frequently precede the onset of chronic kidney failure. In developing and emerging countries, the growing population and gradually improved access to dialysis as a result of increasing wealth are key factors that further boost demand for dialysis products and services. We want to continue making a significant contribution to meeting this demand in the future.

Changes in legal and political conditions

The extent to which private companies can offer dialysis treatment and in what form depends on the health care system of the respective country and its legal framework. For Fresenius Medical Care, opportunities to tap into new markets or to expand its market share arise if a country opens up to private dialysis providers. These decisions are also increasingly influenced by the following factors:

C 2.36 NUMBER OF DIALYSIS PATIENTS WORLDWIDE – FORECAST TO 2025
 IN M



Source: Internal estimates

- › Health care systems are under pressure to deliver ever more comprehensive medical care (longer life expectancy, increase in concomitant diseases, fully-functioning health care provision still being established).
- › Dialysis is a complex life-sustaining procedure, which places high demands on health care systems in terms of expertise and efficiency. Therefore, public health care providers are increasingly looking for solutions involving private providers.

One example is Germany, the eight-largest market worldwide in terms of the number of dialysis patients. We lead the market here with our products. Dialysis clinics in Germany are operated predominantly by physicians in private practice, hospitals, and non-profit organizations. For a number of years, Fresenius Medical Care has also been able to offer

dialysis services in outpatient medical care centers. At the end of 2018, we were involved in 47 care centers (2017: 40). As an experienced partner, we want to continue to support our customers in setting up new structures in the German health care system and take advantage of the opportunity to strengthen our business in the long term.

Public-private partnerships

In some countries, public-private partnerships (PPP) are an attractive business model for Fresenius Medical Care. These are contractually defined project alliances between the public sector and private companies in which both partners share the financing, tasks, risks and opportunities of a project. Our extensive dialysis expertise gives us a competitive

edge here, as it enables us to offer various levels of care flexibly for hospitals, health insurers, local or national authorities. Depending on the contract, we can set up new dialysis clinics and install the equipment, train medical personnel in quality, hygiene and nutrition, or manage the clinics ourselves on the terms agreed. This enables the public sector to care for more patients more effectively and less expensively. The PPP model allows Fresenius Medical Care to tap into new markets, grow its market share, and extend its range of products and services with new forms of health care.

Growing demand for integrated health care

As a result of increasing cost pressure and the growing number of patients, there is now greater global demand for a holistic (integrated) health care concept for patients with chronic kidney failure. This means combining all health care services and therapies associated with the treatment of a kidney patient to create a holistic program tailored to the patient's individual needs and the requirements of the health insurer. Depending on the contract and the structure of the health care system, dialysis can be supplemented by medical tests, drugs for kidney patients and vascular access management, for example. Comprehensive care from a single source is aimed at improving the way in which the different stages of treatment are coordinated and controlled, minimizing complications and thereby avoiding additional stays in hospital as far as possible. It increases the patient's quality of life and the quality of treatment, while reducing the overall costs of therapy.

Fresenius Medical Care is particularly well placed to offer integrated, high-quality treatment programs for chronically ill kidney patients for several reasons: As a manufacturer of

market-leading dialysis products and an operator of the largest global dialysis clinic network, we have long-standing experience in providing comprehensive care for dialysis patients. Thanks to the high quality and reliability of our products and services, we enjoy an excellent reputation in the industry. In addition, we use sophisticated internal feedback instruments to measure and compare the success of treatment at our clinics and to rapidly identify any potential for improvement.

Beyond our core business with dialysis products and the treatment of dialysis patients, we offer additional medical services that we combine under the term "Care Coordination". These include vascular care and medication management for patients with kidney disease, as well as our pharmacy business. This provides us with opportunities for the future.

Opportunities related to our business operations

New products and technologies

If patient numbers grow as strongly as anticipated, cost pressure continues to rise, and clinics reach full capacity, home therapies are expected to take on a more important role in dialysis. This scenario presents us with opportunities for growth. Home dialysis as well as the associated technologies and products will therefore continue to be a key focal point of our research and development activities. One major aim here is to give patients the greatest possible independence and mobility with a dialysis machine that is resource-efficient and can be used flexibly. We will continue to add innovative products and technologies to our range in the future to cap-

ture growth opportunities and meet the demand for integrated care as effectively as possible.

Internal organization and procedures

Fresenius Medical Care benefits from a number of long-term opportunities in the way it organizes and designs its business operations. For example, all production sites follow the "Lean Manufacturing" approach and our Schweinfurt plant includes the "Lean Six Sigma" management system. The focus of Lean Manufacturing and Six Sigma is continuous improvement of all manufacturing processes to achieve a very low error rate resulting in better quality production while shortening manufacturing time. In addition, we are systematically expanding environmental management at our production sites and clinics to improve our operating efficiency, for instance by saving resources.

Capital expenditure and acquisitions

We evaluate ideas for growth initiatives generated from market analyses as part of our annual budget planning, or more frequently if necessary. We manage the investments required for implementing projects using a detailed coordination and evaluation process. The Management Board sets the investment budget for the Group as well as the focus of investment. Before realizing investment projects, an internal committee examines the individual projects and measures, taking into account their yield requirements and potential return on investment. Projects are only undertaken if they help to increase the Company's value.

We are investing in our future growth by expanding our health care services business through acquisitions and purchasing expertise and relevant technologies in the area of research and development. Through close collaboration between our Strategy and Planning departments and the managers responsible for our acquisitions, we are able to identify suitable potential purchases worldwide at an early stage.

Fresenius Medical Care's business model

Our business model itself also provides opportunities for Fresenius Medical Care's future growth. As a vertically integrated dialysis company, we not only offer almost all of the products and services that a patient with chronic kidney failure requires for treatment, but also use these on a daily basis in our own clinics. As a result, we can incorporate the feedback from our patients, physicians and nurses worldwide in developing and manufacturing new products as well as in organizing our clinic management. This gives us a crucial competitive edge.

ASSESSMENT OF THE OVERALL RISK POSITION AND THE OPPORTUNITIES BY THE MANAGEMENT

The risk management system implemented at Fresenius Medical Care forms the basis for assessing the Group's overall risk. The Company's overall risk position is determined by the individual risks described above. Changes in the Group's risk situation compared to the previous reporting period occurred