

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 20-F

(Mark One)

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

or

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2019

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

or

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell company report

Commission file number 001-32749

FRESENIUS MEDICAL CARE AG & Co. KGaA

(Exact name of Registrant as specified in its charter)

FRESENIUS MEDICAL CARE AG & Co. KGaA

(Translation of Registrant's name into English)

Germany

(Jurisdiction of incorporation or organization)

Else-Kröner Strasse 1, 61352 Bad Homburg, Germany

(Address of principal executive offices)

Josef Dinger, +49 6172 608 2522, Josef.Dinger@FMC-AG.com,

Else-Kröner Strasse 1, 61352 Bad Homburg, Germany

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
American Depositary Shares representing Ordinary Shares	FMS	New York Stock Exchange
Ordinary Shares, no par value	N/A	New York Stock Exchange ⁽¹⁾

(1) Not for trading, but only in connection with the registration of American Depositary Shares representing such shares.

Securities registered or to be registered pursuant to Section 12(g) of the Act: **None**

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: **None**

Indicate the number of outstanding shares of each of the issuer's class in the period covered by the annual report:

Ordinary Shares, no par value: 298,329,247

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Security Act. Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

Note – Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or an emerging growth company. See definition of "large accelerated filer," "accelerated filer" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards[†] provided pursuant to Section 13(a) of the Exchange Act.

[†] The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP

International Financial Reporting Standards as issued by

Other

the International Accounting Standards Board

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow:

Item 17

Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes

No

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Certain defined terms

In this report, (1) the “Company” refers to both Fresenius Medical Care AG prior to the transformation of legal form discussed in Item 4.A, “Information on the Company – History and development of the Company – History” below and to Fresenius Medical Care AG & Co. KGaA after the transformation; (2) “we”, “us” and “our” refer either to the Company or the Company and its subsidiaries on a consolidated basis both before and after the transformation, as the context requires; (3) “Fresenius Medical Care AG” and “FMC-AG” refer to the Company as a German stock corporation before the transformation of legal form and “FMC-AG & Co. KGaA” refers to the Company as a German partnership limited by shares after the transformation and (4) “FMCH” and “D-GmbH” refer, respectively, to Fresenius Medical Care Holdings, Inc., the holding company for our North American operations and to Fresenius Medical Care Deutschland GmbH, one of our German subsidiaries. In addition, “Fresenius SE” and “Fresenius SE & Co. KGaA” refer to Fresenius SE & Co. KGaA. Fresenius SE owns 100% of the share capital of our general partner and 94,380,382 of our shares as of February 11, 2020, 31.65% based on 298,191,384 outstanding shares, as reported herein. In this report, we use Fresenius SE to refer to that company as a partnership limited by shares, effective on and after January 28, 2011, as well as both before and after the conversion of Fresenius AG from a stock corporation into a European Company on July 13, 2007. Unless the context otherwise requires, the phrase “Fresenius SE and its subsidiaries” refers to Fresenius SE and all of the companies of the Fresenius SE group, other than FMC-AG & Co. KGaA and the subsidiaries of FMC-AG & Co. KGaA. Each of “Management AG”, “FMC Management AG” and the “General Partner” refers to Fresenius Medical Care Management AG, FMC-AG & Co. KGaA’s general partner and a wholly owned subsidiary of Fresenius SE. “Management Board” and “our Management Board” refer to the members of the management board of Management AG and, except as otherwise specified, “Supervisory Board” and “our Supervisory Board” refer to the supervisory board of FMC-AG & Co. KGaA. “Ordinary shares” refers to the ordinary shares prior to the conversion in 2013 of our preference shares into ordinary shares. Following the conversion, we refer to our ordinary shares as “shares.” 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. The term “Corporate” includes certain headquarters’ overhead charges, including accounting and finance, centrally managed production, asset management, quality management and procurement within our Global Manufacturing, Quality & Supply and Global Research & Development departments. The abbreviation “THOUS” is used to denote the presentation of amounts in thousands. All references in this report to the notes to our financial statements are to the notes to consolidated financial statements included in this report.

Forward-looking statements

This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). When used in this report, the words “outlook,” “expects,” “anticipates,” “intends,” “plans,” “believes,” “seeks,” “estimates” and similar expressions are generally intended to identify forward looking statements. Although we believe that the expectations reflected in such forward-looking statements are reasonable, forward-looking statements are inherently subject to risks and uncertainties, many of which cannot be predicted with accuracy and some of which might not even be anticipated, and future events and actual results, financial and otherwise, could differ materially from those set forth in or contemplated by the forward-looking statements contained elsewhere in this report. We have based these forward-looking statements on current estimates and assumptions made to the best of our knowledge. By their nature, such forward-looking statements involve risks, uncertainties, assumptions and other factors which could cause actual results, including our financial condition and profitability, to differ materially, positively or negatively, relative to the results expressly or implicitly described in or suggested by these statements. Moreover, forward-looking estimates or predictions derived from third parties’ studies or information may prove to be inaccurate. Consequently, we cannot give any assurance regarding the future accuracy of the opinions set forth in this report or the actual occurrence of the projected developments described herein. In addition, even if our future results meet the expectations expressed here, those results may not be indicative of our performance in future periods.

These risks, uncertainties, assumptions, and other factors, including associated costs, could cause actual results to differ from our projected results include, among others, the following:

- changes in governmental and commercial insurer reimbursement for our complete products and services portfolio, including the United States (“U.S.”) Medicare reimbursement system for dialysis and other health care services, including potentially significant changes to the Patient Protection and Affordable Care Act of 2010 (Pub.L. 111-148), as amended by the Health Care and Education Reconciliation Act (Pub.L. 111-152) (collectively, “ACA”) that could be enacted due to the announced intention of the Trump administration to continue its efforts to repeal and replace the ACA or result from pending legal challenges to the ACA;
- the outcome of government and internal investigations as well as litigation;
- risks relating to compliance with current and future government regulations applicable to our business including sanctions and export control laws and regulations, in the U.S., the Anti-Kickback Statute, the False Claims Act, the Stark Law, the Health Insurance Portability and Accountability Act, the Health Information Technology for Economic and Clinical Health Act, the Foreign Corrupt Practices Act (“FCPA”) including the monitor agreement with the U.S. Department of Justice, the Food, Drug and Cosmetic Act, and outside the U.S., the European Union (“EU”) Medical Device Directive, the EU General Data Protection Regulation, the two invoice policy and the Tendering and Bidding Law in China and other related local legislation as well as other comparable regulatory regimes in many of the countries where we supply health care services and/or products;
- possible future disruptions in federal government agencies’ operations and funding that could negatively impact regulatory approvals for our pharmaceutical products, medical devices and regulatory guidance;
- the influence of commercial insurers and integrated care organizations, including efforts by these organizations to manage costs by limiting health care benefits, reducing provider reimbursement and/or restricting options for patient funding of health insurance premiums;
- the impact of health care, tax and trade law reforms and regulation, including, but not limited to, those proposed and enacted by the Trump administration in the U.S.;
- product liability risks;
- risks relating to our ability to continue to make acquisitions;
- risks relating to our ability to attract and retain skilled employees, including shortages of skilled clinical personnel, and risks that legislative, union, or other labor-related activities or changes will result in significant increases in our operating costs or decreases in productivity;
- the impact of currency and interest rate fluctuations;
- potential impairment loss on assets in the Latin America Segment due to decreases in the recoverable amount of those assets relative to their book value;
- our ability to protect our information technology systems against cyber security attacks or prevent other data privacy or security breaches;
- changes in our costs of purchasing and utilization patterns for pharmaceuticals;
- introduction of generic or new pharmaceuticals and medical devices that compete with our products or services or the development of pharmaceuticals that greatly reduce the progression of chronic kidney disease;
- launch of new technology, advances in medical therapies or new market entrants that compete with our medical businesses;
- changes in raw material and energy costs or the inability to procure raw materials;
- potential increases in tariffs and trade barriers that could result from withdrawal by single or multiple countries from multilateral trade agreements or the imposition of retaliatory tariffs and other countermeasures in the wake of trade disputes;
- collectability of our receivables, which depends primarily on the efficacy of our billing practices and the financial stability and liquidity of our governmental and commercial payors;

- our ability to achieve cost savings in various health care risk management programs in which we participate or intend to participate; and
- the greater size, market power, experience and product offerings of certain competitors in certain geographic regions and business lines.

Our business is also subject to the risks discussed in this report under “Risk Factors” in Item 3 below, “Key information” and other risks and uncertainties that we describe from time to time in our public filings. Developments in any of these areas could cause our results to differ materially from the results that we or others have projected or may project.

Our reported financial condition and results of operations are sensitive to accounting methods, assumptions and estimates that are the basis of our financial statements. The actual accounting policies, the judgments made in the selection and application of these policies, as well as the sensitivities of reported results to changes in accounting policies, assumptions and estimates, are factors to be considered along with our financial statements and the discussion under “Results of operations” in Item 5 below, “Operating and financial review and prospects.” For a discussion of our critical accounting policies, see note 2 of the notes to the consolidated financial statements included in this report.

Rounding adjustments applied to individual numbers and percentages shown in this and other reports may result in these figures differing immaterially from their absolute values.

Market and industry data

Except as otherwise specified herein, all patient and market data in this report have been derived using our internal information tool called “Market & Competitor Survey” (“MCS”). See Item 4.B, “Information on the Company – Business Overview – Major Markets and Competitive Position.”

Part I

Item 1. Identity of directors, senior management and advisors

Not applicable

Item 2. Other statistics and expected timetable

Not applicable

Item 3. Key information

A. Selected financial data

The following table summarizes the consolidated financial information for our business for each of the years in the five-year period ended December 31, 2019. We derived the selected financial information from our consolidated financial statements. As of January 1, 2017, the consolidated financial statements and other financial information included in the Company's quarterly reports on Form 6-K and its Annual Reports on Form 20-F are prepared solely in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"), using the euro as the Company's reporting currency. KPMG AG Wirtschaftsprüfungsgesellschaft ("KPMG"), an independent registered public accounting firm, audited these financial statements. You should read this information together with our consolidated financial statements and the notes to those statements appearing elsewhere in this report and the information under Item 5, "Operating and Financial Review and Prospects."

Selected financial data

	2019	2018	2017	2016	2015
	(in € millions ("M") except share and per share amounts)				
Statement of operations data:					
Revenue	17,477	16,547	17,784	16,570	15,455
Cost of revenues	12,081	11,392	11,765	10,954	10,277
Gross profit	5,396	5,155	6,018	5,616	5,178
Selling, general and administrative	3,061	2,885	3,638	3,146	2,961
(Gain) loss related to divestitures of Care Coordination ^(a)	(29)	(809)	(26)	(14)	—
Research and development	168	114	111	134	116
Income from equity method investees	(74)	(73)	(67)	(59)	(28)
Operating income	2,270	3,038	2,362	2,409	2,129
Interest expense, net ^(b)	429	301	365	364	353
Income before income taxes	1,841	2,737	1,997	2,045	1,776
Net income attributable to shareholders of FMC-AG & Co. KGaA	1,200	1,982	1,280	1,144	955
Weighted average shares outstanding	302,691,397	306,541,706	306,563,400	305,748,381	304,440,184
Basic earnings per share	3.96	6.47	4.17	3.74	3.14
Basic earnings per ADS	1.98	3.23	2.09	1.87	1.57
Diluted earnings per share	3.96	6.45	4.16	3.73	3.13
Diluted earnings per ADS	1.98	3.23	2.08	1.87	1.57
Dividends Paid (€) ^(c)	1.17	1.06	0.96	0.80	0.78

	2019	2018	2017	2016	2015
	(in € M except share and per share amounts)				
Balance sheet data at December 31:					
Working capital	158	1,579	1,074	1,585	2,033
Total assets	32,935	26,242	24,025	25,504	23,246
Total long-term debt (excluding current portion)	6,458	5,046	5,795	6,833	7,214
Shareholders' equity	13,227	12,902	10,828	11,051	9,806
Capital stock – nominal value	304	308	308	307	313

(a) On June 28, 2018, we divested our controlling interest in Sound Inpatient Physicians, Inc. See Note 3 of our notes to the consolidated financial statements included in this report.

(b) Information for 2015 is shown without effect from restatements associated with IAS 12, Income Taxes ("IAS 12") and IAS 37, Provisions, contingent liabilities and contingent assets ("IAS 37").

(c) Amounts shown for each year from 2019 to 2015 represent dividends paid in each such year with respect to our operations in the year preceding payment. Our General Partner's Management Board has proposed dividends with respect to operations in 2019 of €1.20 per share. These dividends are subject to approval by our shareholders at our Annual General Meeting ("AGM") to be held on May 19, 2020.

We conduct our business on a global basis in various currencies with major operations located in the U.S. and Germany. We prepare our consolidated financial statements, from which we derived the selected financial data above, utilizing the euro as our reporting currency. We have converted the balance sheets of our non-euro denominated operations into euro at the exchange rates prevailing at the balance sheet date. Revenues and expenses are translated at the average exchange rates for the respective period, as shown.

A summary of the spot and average exchange rates for the euro to U.S. dollars for the last three years is set forth below. The European Central Bank (“ECB”) determines such rates (“Reference Rates”) based on the regular daily averaging of rates between central banks within and outside the European banking system. The ECB normally publishes the Reference Rates daily around 4p.m. Central European Time (“CET”).

Exchange rates

	December 31, 2019 spot exchange rate in €	December 31, 2018 spot exchange rate in €	2019 average exchange rate in €	2018 average exchange rate in €	2017 average exchange rate in €
1 U.S. dollar	0.89015	0.87336	0.89328	0.84678	0.88519

B. Capitalization and indebtedness

Not applicable

C. Reasons for the offer and use of proceeds

Not applicable

D. Risk factors

Before you invest in our securities, you should be aware that the occurrence of any of the events described in the following risk factors or elsewhere in this report, and other events that we have not predicted or assessed could have a material adverse impact on our business, financial condition and results of operations. If the events described below or other unpredicted events occur, then the trading price of our securities could decline and you may lose all or part of your investment.

Risks relating to the Company:

Risks relating to legal and regulatory matters

We operate in a highly regulated industry such that the potential for legislative reform provides uncertainty and potential threats to our operating models and results.

The delivery of health care services and products is highly regulated in most of the countries in which we operate. Proposals for legislative reform in these countries are often introduced to improve access to care, address quality of care issues and manage costs of the health care system. In the U.S., the Trump administration has publicly announced its desire to pursue significant changes to existing health care programs, although the administration has recently stated that any efforts on its part to do so are likely to be deferred until after the 2020 elections in the U.S. Certain health insurance provisions of the Patient Protection and Affordable Care Act of 2010 (Pub.L. 111-148), as amended by the Health Care and Education Reconciliation Act (Pub.L. 111-152) are targets for change. Changes of such nature could have significant effects on our businesses, both positive and negative, but the outcomes are impossible to predict.

In October of 2017, the Trump administration discontinued making cost-sharing reduction (“CSR”) reimbursements to insurers, arguing that Congress had failed to appropriate funding for them. In response, many state departments of insurance (“DOIs”) either allowed or required insurers to mitigate their losses by increasing the 2018 premiums on their ACA plans. Many insurers also mitigated the impact to consumers by “silver loading,” a practice whereby the full premium increase attributable to the loss of CSR payments is applied to their silver-level plans. Silver loading mitigated the impact of premium increases to consumers. In 2019 and 2020, all states either permit or required silver loading. We cannot predict 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. Because Medicare and Medicaid reimbursement rates are generally lower than

the reimbursement rates paid by commercial insurers, a shift of commercially insured patients to Medicare and Medicaid could have a material adverse impact on our business, financial condition and results of operations. See “– Changes in reimbursement and/or governmental regulations for health care could materially decrease our revenues and operating profit.”

Changes in reimbursement and/or governmental regulations for health care could materially decrease our revenues and operating profit.

We receive reimbursement for our health care services from both public, government-sponsored payors and private, commercial payors. A large portion of our businesses is reimbursed by government payors, in particular the Medicare and Medicaid program in the U.S. For both years ended December 31, 2019 and 2018, approximately 33% of our consolidated revenues resulted from Medicare and Medicaid reimbursement. The Medicare and Medicaid programs change their payment methodologies and funding from time to time in ways that are driven by changes in statute, economic conditions, and policy. For example, the Budget Control Act of 2011 (“BCA”) effected a 2% reduction to Medicare payments and subsequent activity in Congress, a \$1.2 trillion sequester (across-the-board spending cuts) in discretionary programs, took effect on April 1, 2013, which continues in force. 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 being considered. Changes in payment methodologies and funding or payment requirements of (without limitation) the End-Stage Renal Disease Prospective Payment System, the Physician Fee Schedule, the Clinical Laboratory Fee Schedule, and the Ambulatory Surgical Center Payment System may have material effects on our operating results. We have very little opportunity to influence or predict the magnitude of those changes. For further information regarding Medicare and Medicaid reimbursement, see Item 4B, “Information on the Company – Business Overview – Regulatory and Legal Matters – Reimbursement” and Item 5, “Operating and Financial Review and Prospects – Overview.”

Government reimbursement programs generally pay less than private insurance. 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. As a result, the payments we receive from private payors generate a substantial portion of the profits we report. Please see the table “U.S. patient service revenue” detailing the percentage generated from government reimbursement and private payors in the U.S. in Item 4B, “Information on the Company – Business overview – U.S. patient service revenue.”

Any of the following events, among others, could have a material adverse impact on our business, financial condition and results of operations:

- we may be subject to reductions in reimbursement from private payors, including, for example, through their use of lower contract rates allowed charges rather than rates based on our billed charges;
- we may experience a reduction in our ability to obtain commercially insured patients to utilize our health care services relative to historical levels;
- efforts by private payors to continue to control the cost of and/or the eligibility for access to health care services, including relative to products on and off the health care exchanges established by the ACA;
- a portion of our business that is currently reimbursed by private insurers or hospitals may become reimbursed by integrated care organizations, which may use payment methodologies that reduce reimbursement for our services. There can be no assurance that we can achieve future price increases from private insurers and integrated care organizations offering private insurance coverage to our patients; or
- if efforts to restrict or eliminate the charitable funding of patient insurance premiums are successful, our patients with coverage under publicly funded programs like Medicare may be unable to continue to pay the premiums for that coverage and may become uninsured for dialysis services. In addition, a portion of our patients who are currently covered by private insurers may be unable to continue to pay the premiums for that coverage and may become uninsured for dialysis services or may elect to transition to government funded reimbursement programs that reimburse us at lower rates for our services. See Item 4B, “Information on the Company –

Business Overview – Regulatory and Legal Matters – Reimbursement – Potential changes impacting our private payors” for further information.

In addition to the foregoing factors, the health care insurance industry is experiencing continuing consolidation among insurers and pharmacy benefit managers, including increasing buyer power and impacts on referral streams. Such consolidation could have a material adverse effect on our ability to negotiate favorable coverage terms and reimbursement rates.

If we do not comply with the numerous governmental regulations applicable to our business, we could suffer adverse legal consequences, including exclusion from government health care reimbursement programs or termination of our authority to conduct business, any of which would result in a material decrease in our revenue; this regulatory environment also exposes us to claims and litigation, including “whistleblower” suits.

Our operations in both our health care services business and our products business are subject to extensive governmental regulation in virtually every country in which we operate. We are also subject to other laws of general applicability, including antitrust laws. The applicable regulations, which differ from country to country, cover areas that include:

- regulatory approvals for products or product improvements;
- regulatory approvals and oversight of clinical and certain non-clinical research and development activities;
- the quality, safety and efficacy of medical and pharmaceutical products and supplies;
- the operation and licensure of manufacturing facilities, laboratories, dialysis clinics and other health care facilities;
- 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 and, in the U.S., the obligation to report and return overpayments within 60 days of the time that the overpayment is identified and quantified;
- 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 or other protected data; and
- compensation of medical directors and other financial arrangements with physicians and other referral sources.

Failure to comply with one or more of these laws or regulations may give rise to a number of adverse legal consequences. These include, in particular, loss or suspension of federal certifications, loss or suspension of licenses under the laws of any state or governmental authority from which we generate substantial revenues, monetary and administrative penalties, product recalls, 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 failures to meet applicable requirements or complete or partial curtailment of our authority to conduct business. Any of these consequences could have a material adverse impact on our business, financial condition and results of operations.

Our medical devices and drug products are subject to detailed, rigorous and frequently changing regulation numerous by national, supranational, federal and state authorities. In addition, our facilities and procedures and those of our suppliers are subject to periodic inspection by various regulatory authorities which may suspend, revoke, or adversely amend the authority necessary for research, manufacture, marketing, or sale of our products and those of our suppliers. We and our suppliers must incur expense and spend time and effort to ensure compliance with these complex regulations, and if such compliance is not maintained, they could be subject to significant adverse administrative and judicial enforcement actions in the future. These possible enforcement actions could include warning letters, injunctions, civil penalties, seizures of our products, and criminal prosecutions as well as dissemination of information to the public about such enforcement actions. These actions could result in, among other things, substantial modifications to our business practices and operations; refunds; a total or partial shutdown of production

while the alleged violation is remedied; and withdrawals or suspensions of current products from the market. Any of these events, in combination or alone, could disrupt our business and have a material adverse impact on our business, financial condition and results of operations. For a discussion of our open U.S. Food and Drug Administration (“FDA”) warning letter, see “Item 4B. “Information on the Company – Business Overview -Regulatory and legal matters – FDA enforcement action.”

We operate many facilities and engage with other business associates to help carry out our health care activities. In such a decentralized system, it is often difficult to maintain the desired level of oversight and control over the thousands of individuals employed by many affiliated companies and their business associates. We rely on our management structure, regulatory and legal resources and the effective operation of our compliance programs to direct, manage and monitor our operations to comply with government regulations. If employees were to deliberately, recklessly or inadvertently fail to adhere to these regulations, then our authority to conduct business could be terminated and our operations could be significantly curtailed. Any such terminations or reductions could materially reduce our revenues. If we fail to identify in our diligence process or to promptly remediate any non-compliant business practices in companies that we acquire, we could be subject to penalties, claims for repayment or other sanctions. Any such terminations or reductions could materially reduce our revenues, with a resulting material adverse impact on our business, financial condition and results of operations.

By virtue of this regulatory environment, our business activities and practices are subject to extensive review by regulatory authorities and private parties, and continuing audits, subpoenas, other inquiries, claims and litigation relating to our compliance with applicable laws and regulations. We may not always be aware that an inquiry or action has begun, particularly in the case of “qui tam” or “whistleblower” actions brought by private plaintiffs under the False Claims Act, which are initially filed under seal. We are the subject of a number of governmental inquiries and civil suits by the federal government and private plaintiffs. For information about certain of these pending investigations and lawsuits, see note 22 of the notes to our consolidated financial statements included in this report.

In addition, future legislative or regulatory changes could affect procedures or decision making for approving medical device or drug products. Any such legislation or regulations, if enacted or promulgated, could result in a delay or denial of regulatory approval for our products. If any of our products do not receive regulatory approval, or there is a delay in obtaining approval, this also could have a material adverse impact on our business, financial condition and results of operations.

Cyber attacks or other privacy and data security incidents that result in privacy and data breaches could disrupt our operations or result in the unintended disclosure and access of sensitive personal information or proprietary or confidential information. If we are unable to protect our information technology security systems and rely on our third-party service providers to protect their systems against such attacks and other incidents, we could be exposed to significant regulatory fines or penalties, liability or reputational damage, or experience a material adverse impact on our business, financial condition and results of operations.

We routinely process, store and transmit large amounts of data in our operations, including sensitive personal information as well as proprietary or confidential information relating to our business or third-parties. We may be subject to breaches of the information technology security systems we use both internally and externally with third-party service providers.

A cyber attack may penetrate our security controls and result in the misappropriation or compromise of sensitive personal information or proprietary or confidential information, including such information which is stored or transmitted on the systems used by certain of our products, to create system disruptions, cause shutdowns, or deploy viruses, worms, and other malicious software programs that attack our systems. We handle the personal information of our patients and beneficiaries, Patient Personal Data (“PPD”), throughout the United States and other parts of the world. On occasion, we or our business associates may experience a breach under the U.S. Health Insurance Portability and Accountability Act Privacy and Security Rules, the EU’s General Data Protection Regulation and other similar laws (“Data Protection Laws”), including the following events:

- impermissible use, access, or disclosure of unsecured PPD,
- a breach under Data Protection Laws when we or our business associates neglect to implement the required administrative, technical and physical safeguards of its electronic systems and devices, or

- a data breach that results in impermissible use, access or disclosure of personal identifying information of our employees, patients and beneficiaries.

As we increase the amount of sensitive personal information that we store and share digitally, our exposure to these privacy and data breaches and cyber-attack risks increases, including the risk of undetected attacks, damage, loss or unauthorized disclosure or access, and the cost of attempting to protect against these risks also increases. There are no assurances that our security technologies, processes and procedures that we or our outside service providers have implemented to protect sensitive personal information and proprietary or confidential information and to build security into the design of our products will be effective against all types of breaches. Any failure to keep our information technology systems and our patients' and customers' sensitive information secure from attack, damage, loss or unauthorized disclosure or access, whether as a result of our action or inaction or that of our third-party business associates or vendors that utilize and store such personal information on our behalf, could adversely affect our reputation and operations and also expose us to mandatory public disclosure requirements, litigation and governmental enforcement proceedings, material fines, penalties and/or remediation costs, and compensatory, special, punitive and statutory damages, consent orders and other adverse actions, any of which could have a material adverse impact on our business, financial condition and results of operations.

If our joint ventures violate the law, our business could be adversely affected.

A number of the dialysis clinics and health care centers that we operate are owned, or managed, by joint ventures in which one or more hospitals, physicians or physician practice groups hold an interest. Physician owners, who are usually nephrologists, may also provide medical director services and physician owners may refer patients to those centers or other centers we own and operate or to other physicians who refer patients to those centers or other centers we own and operate. Because our relationships with physicians are governed by the federal and state anti-kickback statutes, we have structured our joint venture arrangements to comply with many of the criteria for safe harbor protection under the U.S. Federal Anti-Kickback Statute; however, our investments in these joint venture arrangements do not satisfy all elements of such safe harbor. While we have established comprehensive compliance policies, procedures and programs to ensure ethical and compliant joint venture business operations, if one or more of our joint ventures were found to be in violation of the Anti-Kickback Statute, the Stark Law or other similar laws worldwide, we could be required to restructure or terminate them. We also could be required to repay to Medicare, Medicaid as well as other federal health care program amounts pursuant to any prohibited referrals, and we could be subject to criminal and monetary penalties and exclusion from federal and state healthcare programs. Imposition of any of these penalties could have a material adverse impact on our business, financial condition and results of operations. See note 22 of the notes to our consolidated financial statements included in this report.

If we are unable to secure appropriate reimbursement arrangements for the pharmaceuticals we provide in our dialysis clinics, our business could be adversely affected.

We are subject to audits and reviews by enforcement authorities for compliance with applicable drug regulations. These audits or reviews may impact our participation in reimbursement programs globally, including Medicare and Medicaid programs in the U.S., the imposition of potential fines or penalties as well as oversight or recalibration of processes and procedures which may have a material adverse impact on our business and results of operations.

Additionally, within the U.S. reimbursement system, we receive reimbursement for the treatment of Medicare patients based upon the End-Stage Renal Disease Prospective Payment System ("ESRD PPS") rates as determined by the Centers for Medicare and Medicaid Services ("CMS"). CMS subjects a base ESRD PPS payment rate to case-mix adjustments that take into account individual patient characteristics. The annually adjusted rates may not provide fully compensating reimbursement for the services or products consumed during service. Pharmaceuticals included within the bundled rate are subjected to increased reimbursement pressure in comparison to the pharmaceuticals currently reimbursed outside the bundle. In some cases, pharmaceuticals that were reimbursed outside the bundle are transitioned for inclusion within the bundle. Recently, CMS clarified that once any non-oral ESRD-related drug in a category previously considered oral only is approved by the FDA, such category of drugs will cease to be considered oral only. As a result of this determination, reimbursement for calcimimetics is now included in the ESRD PPS, effective as of January 1, 2018, subject to CMS's payment of a "transitional drug add-on payment adjustment" for three years. During this transition period, CMS will not pay outlier payments for

these drugs. If we are unable to secure appropriate reimbursement arrangements for the pharmaceuticals we provide in our dialysis clinics, 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.

We are exposed to product liability, patent infringement and other claims which could result in significant costs and liability which we may not be able to insure on acceptable terms in the future.

Health care companies are typically subject to claims alleging negligence, product liability, breach of warranty, malpractice and other legal theories that may involve large claims and significant defense costs whether or not liability is ultimately imposed. Health care products may also be subject to recalls and patent infringement claims which, in addition to monetary penalties, may restrict our ability to sell or use our products. We cannot assure that such claims will not be asserted against us, or, for example, that significant adverse verdicts will not be reached against us for patent infringements or that large scale recalls of our products will not become necessary. In addition, the laws of some of the countries in which we operate provide legal rights to users of pharmaceutical products that could increase the risk of product liability claims. Product liability and patent infringement claims, other actions for negligence or breach of contract and product recalls or related sanctions could result in significant costs. These costs could have a material adverse impact on our business, financial condition and results of operations. While personal injury litigation involving our acid concentrate product was substantially resolved by settlement consummated in November 2017, we and certain of our insurers are in litigation against each other relating to such insurers' coverage obligations under applicable policies. See note 22 of the notes to consolidated financial statements included in this report.

While we have been able to obtain liability insurance in the past to partially cover our business risks, we cannot assure that such insurance will be available in the future either on acceptable terms or at all, or that our insurance carriers will not dispute their coverage obligations. In addition, FMCH, our largest subsidiary, is partially self-insured for professional, product and general liability, auto liability and worker's compensation claims, up to pre-determined levels above which our third-party insurance applies. A successful claim for which we are self-insured or in excess of the limits of our insurance coverage could have a material adverse impact on our business, financial condition and results of operations. Liability claims, regardless of their merit or eventual outcome, also may have a material adverse effect on our business and result in a loss of customer confidence in us or our products, which could have a material adverse impact on our business, financial condition and results of operations.

Risks relating to internal control and governance

We operate in many different jurisdictions and we could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act and similar worldwide anti-corruption laws.

The U.S. Foreign Corrupt Practices Act and similar worldwide anti-corruption laws generally prohibit companies and their intermediaries from making improper payments to public officials for the purpose of obtaining or retaining business. Our internal policies mandate compliance with these anti-corruption laws. We operate many facilities throughout the United States and other parts of the world. Our decentralized system has thousands of persons employed by many affiliated companies, and we rely on our management structure, regulatory and legal resources and effective operation of our compliance program to direct, manage and monitor the activities of these employees and their agents. We cannot assure you that our internal control policies and procedures always will protect us from deliberate, reckless or inadvertent acts of our employees or agents that contravene our compliance policies or violate applicable laws. Our continued expansion, including in developing countries, could increase the risk of such violations in the future. Violations of these laws, or allegations of such violations, could disrupt our business and result in a material adverse impact on our business, financial condition and results of operations.

Beginning in 2012, we received certain communications alleging conduct in countries outside the United States that might violate the Foreign Corrupt Practices Act or other anti-bribery laws. We conducted investigations with the assistance of outside counsel and, in a continuing dialogue, advised the Securities and Exchange Commission ("SEC") and the United States Department of Justice ("DOJ") about these investigations. The DOJ and the SEC also conducted their own investigations, in which we cooperated.

In the course of this dialogue, we identified and reported to the DOJ and the SEC, and took remedial actions with respect to, conduct that resulted in the DOJ and the SEC seeking monetary penalties including disgorgement of profits and other remedies. This conduct revolved principally around our products business in countries outside the United States.

In 2015, the Company self-reported to the German prosecutor conduct with a potential nexus to Germany and continues to cooperate with government authorities in Germany in their review of the conduct that prompted the Company's and government investigations.

Since 2012, the Company has made and continues to make further significant investments in its compliance and financial controls and in its compliance, legal and financial organizations. The Company's remedial actions included separation from those employees responsible for the above-mentioned conduct. The Company is dealing with post-FCPA review matters on various levels. The Company continues to be fully committed to compliance with the FCPA and other applicable anti-bribery laws.

For further information, see "Item 15D. Changes in internal control over financial reporting" and note 22 of the notes to our consolidated financial statements included in this report.

We have identified material weaknesses in our internal control over financial reporting that could, if not remediated, adversely affect our ability to accurately report our financial condition and results of operations.

In the third quarter of 2019, we concluded that a material weakness in our internal control over financial reporting existed and our management concluded that we did not maintain effective internal control over financial reporting as of December 31, 2018. We reported this determination in an amendment to our Annual Report on Form 20-F for the year ended December 31, 2018, in which we amended Management's Annual Report on Internal Control Over Financial Reporting and KPMG, the Company's independent registered public accounting firm for the fiscal year ended December 31, 2018, issued an Attestation report expressing an adverse opinion on the effectiveness of internal control over financial reporting.

A material weakness in internal control over financial reporting is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. Company's management did not design and maintain effective internal controls relating to revenue recognition, specifically for estimating the transaction price and constraining the variable consideration of the transaction price for certain fee-for-service revenue arrangements under legal consideration and timely adjusting the constraint of variable consideration when new information arose. Multiple sources of information are utilized in assessing the appropriateness of variable consideration and the related estimate of transaction price under IFRS 15, however the Company did not have effective oversight controls in assessing the weighting of such information as an input into revenue recognition. As such, the Company did not appropriately constrain certain fee-for-service revenue arrangements under IFRS 15 resulting in immaterial errors to accounts receivable and revenue from specific fee-for-service arrangements in our consolidated financial statements for the year ended December 31, 2018. These immaterial errors did not, individually or in the aggregate, result in a material misstatement of the Company's consolidated financial statements and disclosures for any periods through and including the fiscal year ended December 31, 2018. However, this control deficiency could have resulted in a material misstatement to our annual or interim consolidated financial statements that would not be prevented or detected.

Remediation efforts began in 2019 and are ongoing. The material weakness will not be considered remediated until the applicable controls operate for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively. For information regarding these remediation efforts, see Item 15D, "Changes in internal control over financial reporting." Any failure to implement or maintain required improved controls, or any difficulties we encounter in their implementation, could result in additional material weaknesses or misstatements in our consolidated financial statements.

Risks relating to our business activities and industry

If physicians and other referral sources cease referring patients to our health care service businesses and facilities or cease purchasing or prescribing our products, our revenues would decrease.

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 End-Stage Renal Disease patient, including the quality of care, the competency of staff, convenient scheduling, and 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 dictate 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.

We face specific risks from international operations.

We operate dialysis clinics in around 50 countries and sell a range of products and services to customers in approximately 150 countries. Our international operations are subject to a number of risks, including but not limited to the following:

- the economic and political situation in certain countries could deteriorate or become unstable;
- fluctuations in exchange rates could adversely affect profitability;
- we could face difficulties in enforcing and collecting accounts receivable under some countries' legal systems;
- local regulations could restrict our 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 multilateral trade agreements or the imposition of retaliatory tariffs and other countermeasures in the wake of trade disputes;
- transportation delays or interruptions;
- 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;
- failure to prevail in competitive contract tenders; and
- global epidemics and/or readily transmittable diseases, such as the coronavirus, may cause disruptions in our ability to provide health care services or produce dialysis products.

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

We conduct humanitarian-related business directly or indirectly in sanctioned countries. In case of a violation of applicable economic sanctions or export controls laws and regulations, we could be subject to enforcement actions. Possible enforcement actions vary between jurisdictions and depend on the factual circumstances of the given violation, but could include criminal penalties, imprisonment of responsible individuals, administrative or civil penalties, restricted access to certain markets and reputational harm, among others. Our internal control policies and procedures may not protect us from deliberate, reckless or inadvertent acts of our employees or agents that contravene our compliance policies or violate applicable laws.

If we fail to estimate, price for and manage medical costs in an effective manner, the profitability of our value-based products and services could decline and could materially and adversely affect our results of operations, financial position and cash flows.

The reserves that we establish in connection with the operation of our value-based arrangements and shared risk products are based upon assumptions and judgments concerning a number of factors, including trends in health care costs, expenses and other factors. To the extent the actual claims experience is less favorable than estimated based on our underlying assumptions, our incurred losses would increase, and future earnings could be adversely affected.

Through our value-based agreements and shared risk 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. Specifically in the U.S., our participation in various value-based programs includes the Centers for Medicare and Medicaid Services Comprehensive End-Stage Renal Disease (“ESRD”) Care initiative and capitation or shared savings agreements with commercial insurers in which FMCH receives a fixed fee to cover all or a defined portion of the medical costs of a defined population of patients. We previously participated in the CMS Bundled Payments for Care Improvement (“BPCI”) program until we divested our controlling interest in Sound Inpatient Physicians, Inc. (“Sound”) on June 28, 2018, and currently participate in the BPCI Advanced program through a physician practice, which is majority-owned by National Cardiovascular Partners. We also participated in Medicare Advantage chronic special needs plans, until December 31, 2018. For information on the value-based programs in which we participate, see Item 4B. “Information on the Company – Business overview – Care Coordination – Value and risk-based arrangements.”

Our profitability in our value-based agreements and shared risk products is dependent in part upon our ability to manage a patient’s care, to collaborate with our payer partners, to coordinate with other health care providers and to find cost efficient, medically appropriate sites of service for our patients. Any failure to do so would limit our ability to improve the quality of patient care and health outcomes and to reduce medically unnecessary costs, which could lead to poorer performance under value-based payment arrangements.

CMS relied on authority granted by the ACA to implement the Comprehensive ESRD Care Model, which seeks to deliver better health outcomes for ESRD patients while lowering CMS’ costs. Although Congress’ efforts to date to repeal the ACA have been unsuccessful, further efforts to repeal or revise the ACA, the posture of CMS in the Trump administration toward projects of this sort and litigation seeking the termination of the ACA may affect the project’s future prospects in ways which we currently cannot quantify or predict. In addition, while we have applied for participation in CMS’ Comprehensive Kidney Care Contracting (“CKCC”) model, we do not yet know whether or to what extent our applications will be accepted, whether the terms of such model will be developed by CMS in a manner acceptable to warrant our continued participation, and whether, if we do decide to participate, we and our partners will be able to deliver better health outcomes while lowering CMS’ costs.

Our growth depends, in part, on our ability to develop our core dialysis business.

The health care industry experiences continuing consolidation particularly among health care providers. This development could adversely affect our ability to find suitable acquisition targets and to increase future growth and product sales. Additionally, our ability to make future acquisitions as well as develop our core dialysis business, 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 our core dialysis business. Any or all of these factors generally could have a material adverse effect on our future growth, including growth of our product sales.

Our pharmaceutical product business could lose sales to generic drug manufacturers or new branded drugs.

Our branded pharmaceutical product business is subject to significant risk as a result of competition from manufacturers of generic drugs and other new competing medicines or therapies. The expiration or loss of patent protection for one of our products, the “at-risk” launch by a generic manufacturer of a generic version of one of our branded pharmaceutical products or the launch of new branded drugs that compete with one or more of our products could result in the loss of a major portion of sales of that branded pharmaceutical product in a very short time period, which could materially and adversely affect our business, financial condition and results of operations. See note 22 of the notes to consolidated financial statements included in this report.

Our competitors could develop superior technology or otherwise take advantage of new competitive developments that impact our sales.

We face numerous competitors in both our health care services business and our 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, and 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 our products or services less competitive or even obsolete, which could also affect our sales and distribution of pharmaceuticals for which, to some extent, we are obligated to make certain minimum annual royalty payments.

Global economic conditions as well as disruptions in financial markets may have an adverse effect on our businesses.

We are dependent on the conditions of the financial markets and the global economy. In order to pursue our business, we are reliant on capital, as are our renal product customers and commercial health care insurers. Limited or more expensive access to capital in the financial markets could adversely affect our business and profitability. Among other things, the potential decline in federal and state revenues may create additional pressures to contain or reduce reimbursements for our 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.

Job losses or increases in the unemployment rate in the United States may result in a smaller percentage of our 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, we may experience further pressure on commercial rates, a further slowdown in collections and a reduction in the amounts we expect to collect. 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 have a material adverse effect on our businesses and results of operations.

We could be adversely affected if we experience shortages of goods or material price increases from our suppliers, or an inability to access new and improved products and technology.

Our business is dependent on the reliable supply of several raw materials for production and service purposes. If we are 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 our results of operations. Similarly, price increases by suppliers and the inability to access new products or technology could also adversely affect our results of operations.

Our procurement strategy, which includes the development of partnerships with strategic suppliers through framework contracts and at the same time striving, where reasonably practicable, for at least two sources for all supply and price-critical primary products (dual sourcing, multiple sourcing), and our measures to prevent loss of suppliers, such as risk analyses as well as continuous supply chain monitoring, may not be sufficient or effective in maintaining cost-effective sources of supply. Any failure to mitigate disruptive goods shortages and potential price increases and to provide access to new product and technology developments could have an adverse impact on our business and financial condition, if we do not succeed in creating a demand-based design of supplier relationships and contracts, as well as the use of financial instruments.

Any material disruption in federal government operations and funding could have a material adverse impact on our business, financial condition and results of operations.

A substantial portion of our revenues is dependent on health care program reimbursement, and any disruptions in government operations could have a material adverse impact on our business, financial condition and results of operations. If the governments with which we do business default on their debts, there could be broad macroeconomic effects that could raise our cost of borrowing funds, and delay or prevent our future growth and expansion. Any future government shutdown, government default on debt and/or failure of governments to enact annual appropriations could have a material adverse impact on our business, financial condition and results of operations. Additionally, material disruptions in government operations may negatively impact regulatory approvals and guidance that are important to our operations, and create uncertainty about the pace of upcoming health care regulatory developments.

If we are unable to attract and retain skilled medical, technical and engineering personnel, or if legislative, union, or other labor-related activities or changes result in significant increases in our operating costs or decreases in productivity, we may be unable to manage our growth or continue our technological development.

Our continued growth in the health care business will depend upon our 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 our personnel and recruiting costs and/or impair our reputation for production of technologically advanced products. Moreover, we believe that future success in the provider business will be significantly dependent on our ability to attract and retain qualified physicians to serve as employees of or consultants to our health care services businesses.

Our health care products business depends on the development of new products, technologies and treatment concepts to be competitive, and for that we need to attract the best and most talented people, especially in research and development. Additionally, in recruiting, employing and retaining personnel, we may be exposed to increasing risks relating to various labor and staffing laws, legislative, union, or other labor-related activities or changes. Further, these factors could impact the integration of 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 above, then our growth and results of operations could be adversely impacted.

Risks relating to our financial situation:

Risks relating to taxation and accounting

There are significant risks associated with estimating the amount of health care service revenues that we recognize that could impact the timing of our recognition of revenues or have a significant impact on our operating results and financial condition.

There are significant risks associated with estimating the amount of revenues from health care services that we recognize in a reporting period.

- The billing and collection process is complicated due to a number of factors including insurance coverage changes, geographic coverage differences, differing interpretations of plan benefits and managed care contracts, and uncertainty about reimbursement from payers with whom we are not contracted.
- Laws and regulations governing Medicare, Medicaid and other federal programs are extremely complex, changing and subject to interpretation.
- Determining applicable primary and secondary coverage for an extensive number of patients at any point in time, together with the changes in patient coverage that occur each month or changes in plan benefits, requires complex, resource-intensive processes. Errors in determining the correct coordination of benefits may result in refunds to payors.
- The complexity of estimating revenues from a primary payor also brings complexity to estimating revenues from secondary payors and patients.
- Collections, refunds and payor retractions may continue to occur for up to three years or longer after services are provided.

If our estimates of revenues are materially inaccurate, it could impact the timing and amount of our recognition of revenues and have a significant impact on our operating results and financial condition. For further information, see “Risks Relating to internal control and governance – We have identified material weaknesses in our internal control over financial reporting that could, if not remediated, adversely affect our ability to accurately report our financial condition and results of operations” as well as “Item 15B. Management’s annual report on internal control over financial reporting” below.

Diverging views of fiscal authorities could require us to make additional tax payments.

We are subject to ongoing tax audits in Germany, the U.S. and other jurisdictions. We could potentially receive notices of unfavorable adjustments and disallowances in connection with certain of these audits. If we are 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. See Item 5, “Operating and financial review and prospects – IV. Financial position.”

A dependency on the payment behavior and decision-making of our business partners can affect the collectability of accounts receivable.

Our health care product business and our dialysis services business differ 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 generally low to moderate worldwide which could, however, prove to be wrong. 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. Our measures aiming 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, could be insufficient or ineffective.

Risks relating to our securities

Our indebtedness may limit our ability to pay dividends or implement certain elements of our business strategy.

At December 31, 2019, we had consolidated debt (including lease liabilities) of €13,782 M and consolidated total shareholders' equity of €13,227 M. Our debt could have significant consequences to our operations and our financial condition. For example, it could require us to dedicate a substantial portion of our cash flow from operations, as well as the proceeds of certain financings and asset dispositions, to payments on our indebtedness, thereby reducing the availability of our cash flow and such proceeds to fund working capital, capital expenditures and for other general corporate purposes.

In October 2012, we entered into a syndicated Credit Agreement, which was amended in November 2014 as well as in July 2017 (the “Amended 2012 Credit Agreement”). Our Amended 2012 Credit Agreement, the indentures relating to our senior notes (generally referred to as “Bonds” in this report and in our consolidated financial statements) and our accounts receivable securitization program (the “A/R Facility” or the “Accounts Receivable Facility”) include covenants that require us to maintain certain financial ratios or meet other financial tests. Under our Amended 2012 Credit Agreement and the A/R Facility, we are obligated to maintain our consolidated leverage at or below an established maximum ratio of consolidated net funded debt to consolidated EBITDA, as these terms are defined in the respective financing agreements.

Our Amended 2012 Credit Agreement and the indentures related to our Bonds include other covenants which, among other things, restrict or could have the effect of restricting our ability to dispose of assets, incur debt, pay dividends and other restricted payments, create liens or make investments or acquisitions. These covenants may otherwise limit our activities. The breach of any of the covenants could result in a default and acceleration of the indebtedness under the credit agreement or the indentures, which could, in turn, create additional defaults and acceleration of the indebtedness under the agreements relating to our other long-term indebtedness which would have an adverse effect on our business, financial condition and results of operations.

Fresenius SE owns 100% of the shares in the General Partner of our Company and is able to exercise management control of FMC-AG & Co. KGaA.

Fresenius SE owns 31.65% of our outstanding shares, excluding treasury shares that we held, as of February 11, 2020. Fresenius SE also owns 100% of the outstanding shares of Management AG, the General Partner of the Company. As the sole shareholder of the General Partner, Fresenius SE has the sole right to elect the supervisory board of the General Partner which, in turn, appoints the General Partner's Management Board. The Management Board of the General Partner is responsible for the management of the Company. Through its ownership of the General Partner, Fresenius SE is able to exercise de facto management control of FMC-AG & Co. KGaA, even though it owns less than a majority of our outstanding voting shares. Such de facto control limits public shareholder influence on management of the Company and precludes a takeover or change of control of the Company without Fresenius SE's

consent, either or both of which could adversely affect the price of our shares. Our Articles of Association require that the General Partner or a parent company of the General Partner hold more than 25% of our share capital. The Articles of Association also provide that the General Partner ceases to be the general partner if the shares of the General Partner are acquired by a person who does not make an offer to acquire the shares of the Company's other shareholders within three months of the acquisition of the General Partner. In either case, the necessity for such a significant investment in connection with an acquisition of the General Partner could also discourage or preclude a change of control through acquisition of the General Partner, which also could adversely affect the price of our shares.

Because we are not organized under U.S. law, we are subject to certain less detailed disclosure requirements under U.S. federal securities laws, and we are exempt from most of the governance rules of the New York Stock Exchange.

Under the pooling agreement that we have entered into for the benefit of public holders of our shares (including, in each case, holders of American Depositary Receipts representing beneficial ownership of such shares), we have agreed to file quarterly reports with the SEC and to file information with the SEC with respect to annual and general meetings of our shareholders. As of June 2016, the pooling agreement provides that we may prepare such financial statements in accordance with U.S. Generally Accepted Accounting Principles ("U.S. GAAP") or IFRS and, commencing with our report for the first quarter of 2017, we prepare our quarterly and annual financial statements in accordance with IFRS with the euro as our reporting currency. The pooling agreement also requires that the supervisory board of Management AG, our General Partner, include at least two members who do not have any substantial business or professional relationship with Fresenius SE, Management AG or FMC-AG & Co. KGaA and its affiliates and requires the consent of those independent directors (currently, Mr. Rolf A. Classon and Mr. William P. Johnston), to certain transactions between us and Fresenius SE and its affiliates.

We are a "foreign private issuer," as defined in the SEC's regulations, and consequently we are not subject to all of the same disclosure requirements applicable to domestic companies. We are exempt from the SEC's proxy rules, and our annual reports contain less detailed disclosure than reports of domestic issuers regarding such matters as management, executive compensation and outstanding options, beneficial ownership of our securities and certain related party transactions. Also, our officers, directors and beneficial owners of more than 10% of our equity securities are exempt from the reporting requirements and short – swing profit recovery provisions of Section 16 of the Exchange Act. We are also generally exempt from most of the governance rules applicable to companies listed on the New York Stock Exchange ("NYSE"), including the requirement that our board have a majority of independent directors (as defined in those rules) and the obligation to maintain a compensation committee of independent directors. We are required to maintain an audit committee in accordance with Rule 10A – 3 under the Exchange Act and to provide annual (and, if required, quarterly) affirmations of our compliance. We must also disclose the significant ways in which the governance standards that we follow differ from those applicable to U.S. companies under the NYSE governance rules. Exemptions from many governance rules applicable to U.S. domestic issuers may adversely affect the market prices for our securities. See Item 16G, "Corporate governance."

Item 4. Information on the Company

A. History and development of the Company

General

Fresenius Medical Care AG & Co. KGaA, is a partnership limited by shares (*Kommanditgesellschaft auf Aktien* or "*KGaA*"), formerly known as Fresenius Medical Care AG, a German stock corporation (*Aktiengesellschaft* or "*AG*") organized under the laws of Germany.

The Company was originally incorporated on August 5, 1996 as a stock corporation and transformed into a partnership limited by shares upon registration on February 10, 2006. FMC-AG & Co. KGaA is registered with the commercial register of the local court (*Amtsgericht*) of Hof an der Saale, Germany, under the registration number HRB 4019. Our registered office (*Sitz*) is Hof an der Saale, Germany. Our registered business address is Else-Kröner-Strasse 1, 61352 Bad Homburg, Germany, telephone +49-6172-609-0.

History

On September 30, 1996, we completed a series of transactions to consummate an Agreement and Plan of Reorganization entered into on February 4, 1996 by Fresenius SE (then Fresenius AG) and

W.R. Grace & Co. which we refer to as the “Merger” elsewhere in this report. Pursuant to that agreement, Fresenius SE contributed Fresenius Worldwide Dialysis, its global dialysis business, including its controlling interest in Fresenius USA, Inc., in exchange for 105,630,000 FMC-AG Ordinary Shares. Thereafter, we acquired:

- all of the outstanding common stock of W.R. Grace & Co., whose sole business at the time of the transaction consisted of National Medical Care, Inc., its global dialysis business, in exchange for 94,080,000 Ordinary Shares; and
- the publicly-held minority interest in Fresenius USA, Inc., in exchange for 10,290,000 Ordinary Shares.

On February 10, 2006, the Company completed the transformation of its legal form under German law as approved by its shareholders during the Extraordinary General Meeting (“EGM”) held on August 30, 2005. Upon registration of the transformation of legal form in the commercial register of the local court in Hof an der Saale, on February 10, 2006, Fresenius Medical Care AG’s legal form was changed from a German AG to a KGaA with the name Fresenius Medical Care AG & Co. KGaA. The Company as a KGaA is the same legal entity under German law, rather than a successor to the stock corporation. Management AG, a subsidiary of Fresenius SE, which was the majority voting shareholder of FMC-AG prior to the transformation, is the general partner of FMC-AG & Co. KGaA. Upon effectiveness of the transformation of legal form, the share capital of FMC-AG became the share capital of FMC-AG & Co. KGaA, and persons who were shareholders of FMC-AG became shareholders of the Company in its new legal form.

In March 2006, we completed the acquisition of Renal Care Group, Inc. (“RCG”), a Delaware corporation with principal offices in Nashville, Tennessee. RCG was the fourth largest dialysis care provider in the U.S. at the time of acquisition. RCG added additional clinics and services to our operations and continues to operate as a subsidiary. Please see Item 4C, “Information on the Company – Organizational structure.”

In 2008, we entered into two separate and independent license and distribution agreements, one for certain countries in Europe and the Middle East (with Vifor Pharma Ltd (formerly known as Galenica AG until 2017)) and one for the U.S. (with American Regent, Inc. (formerly Luitpold Pharmaceuticals Inc.)), to market and distribute intravenous iron products, such as Venofer® (iron sucrose) and Ferinject® (ferric carboxymaltose) outside of the U.S. In December 2010, we announced the expansion of our agreements with Vifor Pharma by forming a new renal pharmaceutical company, Vifor Fresenius Medical Care Renal Pharma Ltd., (“VFMCRP”), with the intention to develop and distribute products to treat iron deficiency anemia and hyperphosphatemia for pre-dialysis and dialysis patients. FMC-AG & Co. KGaA owns 45% of the company, which is headquartered in St. Gallen, Switzerland. In 2017, an initial public offering took place for Galenica’s pharmacy and logistics division. The remainder of Galenica, its pharmaceutical division, has changed its name into Vifor Pharma Ltd (St. Gallen, Switzerland), and continues to be our partner and 55% shareholder in VFMCRP. With VFMCRP, we have distribution arrangements for:

Venofer®	Ferinject®	Velphoro®
OsvaRen®	Phosphosorb®	Mircera®
Retacrit®	Vadadustat	Veltassa®
Avacopan (CCX-168)	CCX-140	

For more information on our primary pharmaceutical licenses and distribution agreements. Please see Item 4B, “Information on the Company – Business overview – Renal pharmaceuticals.”

In 2012, we acquired 100% of the equity of Liberty Dialysis Holdings, Inc. (“Liberty Dialysis”), a Delaware corporation with principal offices in Mercer Island, Washington. Liberty Dialysis mainly provided dialysis services in the United States through the 263 clinics it operated.

In July 2014, we made an investment for a majority interest in Sound, a physician services organization focused on hospitalist, emergency, intensivist and post-acute care services, furthering our strategic investments and expanding the health care services we offer. In November 2014, Sound acquired Cogent Health care, expanding Sound to serve over 180 hospitals in 35 states with more than 1,750 providers, and in 2017, we increased our interest in Sound raising our majority interest to almost 100% during the first half of 2017. The investments broadened our experience in value-based care programs of those businesses and, following the successful application of this knowledge relevant for value-based programs and efficient

patient coordination, on June 28, 2018, we divested our controlling interest in Sound to an investment consortium led by Summit Partners, L.P. The total transaction proceeds were \$1.771 billion (€1.531 billion), net of related tax payments. The pre-tax gain related to divestitures for Care Coordination activities was €809 M, which primarily related to this divestiture, the effect of the six-month impact from the increase in valuation of Sound's share based payment program, incentive compensation expense and other costs caused by the divestment of Sound.

In November 2016, we acquired Xenios AG, a medical technology company focusing on minimally invasive treatment of lung and cardiac failure. Xenios AG's products are not approved for sale in the U.S.

In 2017, we acquired a majority stake in Cura Group ("Cura"), a leading operator of 19 private, day hospitals across Australia. We intend to strengthen our portfolio by scaling up to around 40 outpatient facilities in the Australian market.

In 2018, we announced a strategic global partnership and an equity investment for a payment of \$150 M with the U.S. medical company Humacyte, Inc. ("Humacyte"). 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, we will receive exclusive global rights to commercialize HUMACYL, allowing us to offer patients with chronic kidney disease around the world a safer and more effective vascular access option including shorter catheter contact time.

In February 2019, we acquired all of the outstanding shares of NxStage Medical, Inc. ("NxStage"), a leading medical technology company that develops, manufactures and markets an innovative product portfolio of medical devices for use in home dialysis and in the critical care setting. As a condition to the closing of the acquisition set by the U.S. Federal Trade Commission ("FTC"), we divested the NxStage bloodlines business to B. Braun Medical.

During 2019, we continued to utilize the authorization granted by our AGM on May 12, 2016 to conduct a share buy-back program. For a reconciliation of our treasury share purchases, repurchases and retirements, see Note 17 of the notes to consolidated financial statements included in this report.

For information regarding our principal capital expenditures and divestitures since the beginning of our last financial year, and information concerning our principal capital expenditures and divestitures currently in progress, see Item 4, "Information on the Company – B. Business overview – Capital expenditures and – Acquisitions and investments" as well as Item 5, "Operating and financial review and prospects – III. Financial position – Net cash provided by (used in) investing activities."

The U.S. Securities and Exchange Commission internet site contains reports, proxy and information statements and other information regarding registrants that file electronically with the Securities and Exchange Commission. The Securities and Exchange Commission's World Wide Web address is <http://www.sec.gov>. Our internet address is www.freseniusmedicalcare.com. In furnishing our website address in this report, however, we do not intend to incorporate any information on our website into this report, and any information on our website should not be considered to be part of this report, except as expressly set forth herein. For additional information regarding the availability of periodic reports and other information concerning us, see Item 10.H, "Documents on Display."

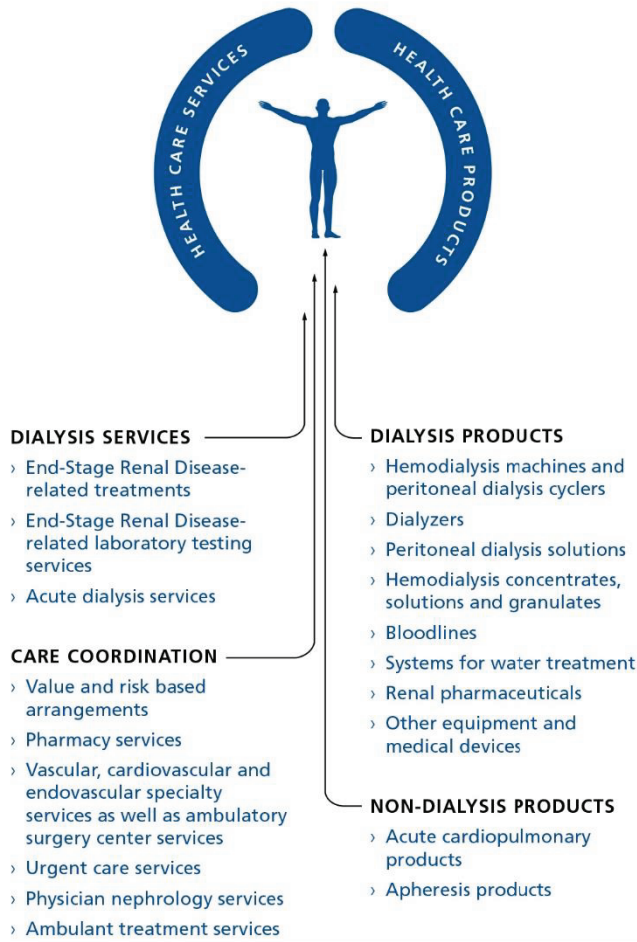
B. Business overview

Our business

We are the world's largest kidney dialysis company, based on publicly reported revenue and number of patients treated. We provide dialysis care and related services to persons who suffer from ESRD as well as other health care services. We also develop, manufacture and distribute a wide variety of health care products, which includes dialysis and non-dialysis products. Our dialysis products include hemodialysis machines, peritoneal cyclers, dialyzers, peritoneal solutions, hemodialysis concentrates, solutions and granulates, bloodlines, renal pharmaceuticals and systems for water treatment. Our non-dialysis products include acute cardiopulmonary and apheresis products. We supply dialysis clinics we own, operate or manage with a broad range of products and also sell dialysis products to other dialysis service providers. We describe certain of our other health care services as "Care Coordination." Care Coordination currently includes, but is not limited to, value and risk-based arrangements, pharmacy services, vascular, cardiovascular and endovascular specialty services as well as ambulatory surgery center services, physician

nephrology and cardiology services, urgent care services and ambulant treatment services. Until June 28, 2018, Care Coordination also included the coordinated delivery of emergency, intensivist and hospitalist physician services as well as transitional care which we refer to as “hospital related physician services.” All of these Care Coordination services together with dialysis care and related services represent our health care services. A summary representation of our services and products for 2019 is as follows:

OUR PRODUCTS AND SERVICES



The following table summarizes revenues for our North America Segment, EMEA Segment, Asia-Pacific Segment and our Latin America Segment in our major categories of activity, health care services and health care products for the three years ended December 31, 2019, 2018 and 2017.

Major categories of revenue

	<u>2019</u>	<u>2018</u>	<u>2017</u>
		(in € M)	
Total			
Health Care Services	13,872	13,264	14,532
Health Care Products	<u>3,605</u>	<u>3,283</u>	<u>3,252</u>
	17,477	16,547	17,784
North America Segment			
Health Care Services	11,157	10,725	12,036
Health Care Products	<u>1,038</u>	<u>845</u>	<u>843</u>
	12,195	11,570	12,879
EMEA Segment			
Health Care Services	1,354	1,274	1,237
Health Care Products	<u>1,339</u>	<u>1,313</u>	<u>1,310</u>
	2,693	2,587	2,547
Asia-Pacific Segment			
Health Care Services	862	776	744
Health Care Products	<u>997</u>	<u>913</u>	<u>879</u>
	1,859	1,689	1,623
Latin America Segment			
Health Care Services	499	489	515
Health Care Products	<u>210</u>	<u>197</u>	<u>205</u>
	709	686	720

We receive a substantial portion of our North America segment revenue from the U.S. Medicare program and other government sources. The following table provides information for the years ended December 31, 2019, 2018 and 2017 regarding the percentage of our U.S. patient service revenue included in our health care service revenue from: (a) the Medicare program, (b) private/alternative payors, such as commercial insurance and private funds, (c) Medicaid and other government sources and (d) hospitals.

U.S. patient service revenue

	<u>Year ended December 31,</u>		
	<u>2019</u>	<u>2018</u>	<u>2017</u>
Medicare program	47.5%	45.9%	43.6%
Private / alternative payors	42.2%	41.8%	41.8%
Medicaid and other government sources	5.0%	5.3%	6.2%
Hospitals	<u>5.3%</u>	<u>7.0%</u>	<u>8.4%</u>
Total	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

Under the Medicare program, Medicare reimburses dialysis providers for the treatment of certain individuals who are diagnosed as having ESRD, regardless of age or financial circumstances. See “Regulatory and legal matters – Reimbursement.”

Our services, products and business processes

ESRD is the stage of advanced chronic kidney disease characterized by the irreversible loss of kidney function and requires regular dialysis treatment or kidney transplantation to sustain life. A normally functioning human kidney removes waste products and excess water from the blood, which prevents toxin buildup, water overload and the eventual poisoning of the body. Most patients suffering from ESRD must rely on dialysis, which is the removal of toxic waste products and excess fluids from the body by artificial means. A number of conditions – diabetes, hypertension, glomerulonephritis and inherited diseases – can cause chronic kidney disease. The majority of people with ESRD acquire the disease as a complication of one or more of these primary conditions.

As a leading global health care company, we offer health care services and products in around 150 countries with a focus on the following areas:

- Hemodialysis – treatment in specialized clinics
- Peritoneal dialysis – treatments largely administered by patients primarily at home
- Home hemodialysis – treatment administered by patients at home
- Acute dialysis – in case of a sudden loss of renal function, typically in a hospital inpatient setting
- Dialysis drugs – expanding our product range
- Additional services under Care Coordination

Dialysis treatment options for ESRD

There are currently only two methods for treating ESRD: dialysis and kidney transplantation. At the end of 2019, about 4.3 M patients regularly underwent dialysis treatment or received an organ donation. For dialysis treatment, we distinguish between two types: hemodialysis (“HD”) and peritoneal dialysis (“PD”). In HD, a hemodialysis machine controls the flow of blood from the patient, the blood is cleansed by means of a specially designed filter known as a dialyzer and then pumped back into the body. With PD, the patient introduces a dialysis solution into his or her abdominal cavity and the patient’s peritoneum is used as a dialyzing membrane. We provide dialysis services and products for both therapy methods.

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. (See “– Regulatory and legal matters – Reimbursement – Executive order-based models” for a discussion of recent proposed changes to the U.S. organ donation system.)

Due to the scarcity of compatible kidneys for transplant, most patients suffering from ESRD rely on dialysis, as demonstrated in the following table:

Patients with chronic kidney failure

	December 31, 2019	% of
Patients with chronic kidney failure	4,348,000	100%
of which patients with transplants	815,000	19%
Of which dialysis patients	3,533,000	81%
Hemodialysis	3,143,000	72%
Peritoneal dialysis	390,000	9%

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

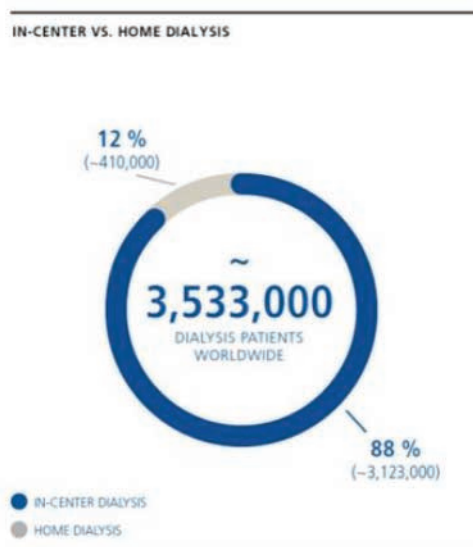
- The countries differ demographically, as age structures in the population vary worldwide.
- The prevalence of risk factors for kidney disease, such as diabetes and high blood pressure, varies widely.
- The genetic predisposition for kidney disease also differs significantly around the world.
- Access to dialysis remains 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 2019. 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%.

In 2019, most dialysis patients were treated in one of approximately 45,600 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 88% of dialysis patients were treated in this way at dialysis centers in 2019. Home hemodialysis is an alternative to treatment at a dialysis center. Although adoption has been limited to date, the number of home hemodialysis patients is rising continuously. A total of around 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. Accordingly, 12% of our dialysis patients were treated with home dialysis.

The following chart shows a comparison of in-center and home dialysis:



Hemodialysis. Hemodialysis removes toxins and excess fluids from the blood in a process in which the blood flows outside the body through plastic tubes known as bloodlines into a specially designed filter, called a dialyzer. The dialyzer separates waste products and excess water from the blood. Dialysis solution flowing through the dialyzer carries away the waste products and excess water, and supplements the blood with solutes which must be added due to renal failure. The treated blood is returned to the patient. The hemodialysis machine pumps blood, adds anti-coagulants, regulates the purification process and controls the mixing of dialysis solution and the rate of its flow through the system. This machine can also monitor and record the patient’s vital signs.

The majority of hemodialysis patients receive treatment at outpatient dialysis clinics, such as ours, where hemodialysis treatments are administered with the assistance of a nurse or dialysis technician under the general supervision of a physician. Hemodialysis patients generally receive treatment three times per week, typically for three to five hours per treatment.

Peritoneal dialysis. Peritoneal dialysis removes toxins from the blood using the peritoneum, the membrane lining covering the internal organs located in the abdominal area, as a filter. Most peritoneal dialysis patients administer their own treatments in their own homes and workplaces, either by a treatment known as continuous ambulatory peritoneal dialysis (“CAPD”), or by a treatment known as continuous cycling peritoneal dialysis (“CCPD”), also called automated peritoneal dialysis (“APD”). In both of these treatments, a surgically implanted catheter provides access to the peritoneal cavity. Using this catheter, the patient introduces a sterile dialysis solution from a solution bag through a tube into the peritoneal cavity. The peritoneum operates as the filtering membrane and, after a specified dwell time, the solution is drained and disposed. A typical CAPD peritoneal dialysis program involves the introduction and disposal of dialysis solution four times a day. With CCPD, a machine pumps or “cycles” solution to and from the patient’s peritoneal cavity while the patient sleeps. During the day, one and a half to two liters of dialysis solution remain in the abdominal cavity of the patient. The human peritoneum can be used as a dialyzer only for a limited period of time, ideally only if the kidneys are still functioning to some extent.

Dialysis services

We provide dialysis treatment and related laboratory and diagnostic services through our global network of 3,994 outpatient dialysis clinics in 2019 (3,928 outpatient dialysis clinics in 2018). At our clinics, we provide hemodialysis treatments at individual stations through the use of dialysis machines and disposable

products. In hemodialysis treatment, a nurse connects the patient to the dialysis machine via bloodlines and monitors the dialysis equipment and the patient’s vital signs. The capacity of a clinic is a function of the number of stations and additional factors such as type of treatment, patient requirements, length of time per treatment, and local operating practices and ordinances regulating hours of operation.

As part of the dialysis therapy, we provide a variety of services to ESRD patients at our dialysis clinics in the U.S. These services include administering erythropoietin stimulating agents (“ESAs”), which are synthetic engineered hormones that stimulate the production of red blood cells. ESAs are used to treat anemia, a medical complication that ESRD patients frequently experience. We administer ESAs to most of our patients in the U.S. ESAs have historically constituted a material portion of our overall costs of treating our ESRD patients.

Our clinics also offer services for home dialysis patients, the majority of whom receive PD dialysis treatment. For these patients, we provide materials, training and patient support services, including clinical monitoring, follow-up assistance and arranging for delivery of the supplies to the patient’s residence. (See “– Regulatory and legal matters – Reimbursement – U.S.” for a discussion of the ESRD PPS and billing for these products and services.)

We also provide dialysis services under contract to hospitals in the U.S. on an “as needed” basis for hospitalized ESRD patients and for patients suffering from acute kidney failure. Acute kidney failure can result from trauma, or similar causes, and requires dialysis until the patient’s kidneys recover their normal function. We provide services to these patients either at their bedside, using portable dialysis equipment, or at the hospital’s dialysis site. Contracts with hospitals provide for payment at negotiated rates that are generally higher than the Medicare reimbursement rates for chronic in-clinic outpatient treatments.

Dialysis products

Based on internal estimates prepared using our MCS (see “Major markets and competitive position,” below), publicly available market data and our data of significant competitors, we are the world’s largest manufacturer and distributor of equipment and related products for hemodialysis and the second largest manufacturer and distributor of peritoneal dialysis products, measured by publicly reported revenues. We sell our health care products to customers in around 150 countries and we also use them in our own health care service operations. Most of our customers are dialysis clinics. For the year 2019, dialysis products accounted for 21% of our consolidated total revenue.

We produce and distribute a wide range of machines and disposables for HD, PD and acute dialysis. The following table shows the breakdown of our dialysis product revenues into sales of HD products, PD dialysis products and other dialysis products. The following amounts exclude intercompany product sales:

Dialysis product revenue

	Year ended December 31,					
	2019		2018		2017	
	Total product revenues	% of total	Total product revenues	% of total	Total product revenues	% of total
	(in € M)					
Hemodialysis products	2,941	82%	2,670	81%	2,649	81%
Peritoneal dialysis products	375	10%	353	11%	368	11%
Other	289	8%	260	8%	235	8%
Total	3,605	100%	3,283	100%	3,252	100%

Hemodialysis machines

Our advanced line of hemodialysis machines includes four series: 2008, 4008, 5008 and 6008. We developed the 4008 and 5008 series for our markets outside of North America and the 2008 series for the North American market. In 2016, we introduced the 6008 series with the launch of our 6008 CAREsystem.

We also produce the 2008K@home in North America and 4008S and 5008S outside of EMEA for patients to perform the dialysis treatment in the comfort of their home. In 2019, we completed our acquisition of NxStage, which broadens our offerings of home hemodialysis treatment options.

In January 2019, we launched the 4008A dialysis machine which was designed to meet the needs of emerging markets. With the launch of the 4008A, we aim to improve the accessibility to life-sustaining

dialysis treatment for ESRD patients in these countries. The 4008A dialysis machine incorporates our high-quality therapy standards while minimizing costs for health care systems and has been deployed primarily in India with further access in other countries across the Asia-Pacific region to follow.

The machines produced within these four series are set forth below:



Our various models of these machine series utilize our latest research and development efforts to improve the dialysis process. Examples of these improvements include the addition of Clinical Data eXchange™ (“CDX”), which allows the clinician to access Medical Information System (“MIS”) data directly from the dialysis station. In addition, the 2008K@home Wet Alert option provides a wireless wetness detector for the identification of blood leakage during dialysis.

Other features of our range of dialysis machines include:

- Volumetric dialysate balancing and ultrafiltration control system
- Modular design
- Sophisticated microprocessor controls, touch screen interfaces, displays and/or readout panels that are adaptable to local language requirements
- Compatibility with all manufacturers’ dialyzers and a variety of bloodlines and dialysis solutions
- *bibag*® Online Dry Bicarbonate Concentrate system, which produces bicarbonate concentrate directly in the machine eliminating the need for liquid bicarbonate jugs or a central bicarbonate system
- Auto Flow, Eco Flow, Adapted Flow and Idle mode enable dialysate savings
- Battery backup which continues operations of the blood circuit and all protective systems up to 20 minutes following a power failure
- Online Clearance Monitoring with the measurement of dialyzer clearance for quality assurance
- CDX, which eliminates the loss of valuable treatment space allocated to MIS systems and carts
- Online data collection capabilities and computer interfacing with our Therapy Data Management System (TDMS) and/or medical information systems
- Monitoring and assessment of prescribed therapy
- Capability to connect a large number of hemodialysis machines and peripheral devices, such as patient scales, blood chemistry analyzers and blood pressure monitors, to a computer network
- Entry of nursing records automatically at bedside
- Adaptability to new data processing devices and trends
- Recording and analysis of trends in medical outcome factors in hemodialysis patients
- Performance of home hemodialysis with remote monitoring by a staff caregiver.

Dialyzers

Dialyzers are specialized filters that remove waste products, toxins and excess water from the blood during dialysis. We estimate that we are the leading worldwide producer of polysulfone dialyzers. We manufacture our F-Series and premium FX class® series of dialyzers including our Hemoflow and Optiflux® Series, the leading dialyzer brand in the US. Our Fresenius Polysulfone® and Helixone® membranes are produced from highly biocompatible synthetic materials. For example, the Helixone®*plus* membrane used in our FX CorDiax dialyzer selectively filters out toxins such as phosphates to reduce the risk of cardiovascular diseases.

We offer a full line of home dialysis therapy, products, services and solutions for CAPD and APD treatments.

CAPD Therapy: The stay•safe® system has been specifically designed to help patients with their daily self-care CAPD treatment in a safe and convenient way.

Our PD fluid portfolio has a wide range of advantages for patients including:

- *Fewer possibilities for touch contamination.* Our unique PIN and DISC technology simplifies the fluid exchange and minimizes the risk of infection, particularly in the disconnection step in which the stay•safe® patient connector is closed automatically without any direct touch intervention.
- *Optimal biocompatibility.* Outside of the North America Segment, our PD stay•safe® balance and stay•safe® bicaVera® solutions are pH neutral and have ultra-low glucose degradation product contents reducing the advanced glycation end-product (“AGE”) formation and aiming for better preservation of the peritoneal membrane and allowing for the protection of residual renal function of PD patients.
- *Environmentally friendly material:* Outside of the North America Segment, our stay•safe® system is made of Biofine®, a material developed by Fresenius, which is PVC free and requires less energy to manufacture, generates less waste and is easy to recycle.

APD therapy: The effectiveness of APD therapy depends on the solution dwell time in the abdomen, the composition of the solution used, the volume of solution and the duration of the treatment, usually 8 - 10 hours. APD using our product line, which includes our sleep•safe cyclers, sleep•safe harmony cycler and Liberty® cycler, offers many benefits to PD patients:

- *Improved quality of life.* The patient is treated at night which can enable a more normal life during the day without fluid exchange every few hours.
- *Improved adequacy of dialysis.* By adjusting the parameters of treatment, it is possible to provide more dialysis to the patient compared to CAPD therapy. This therapy offers important options to physicians such as improving the delivered dose of dialysis for certain patients.
- *Personalized APD.* Adapted APD with the sleep•safe cycler and sleep•safe harmony cyclers allow patients to be treated using a modified version of APD where short dwell times with small fill volumes are used first to promote ultrafiltration and subsequently longer dwell times and larger fill volumes promote the removal of uremic toxins from the blood. In addition, our newest upgrade to the Liberty cycler, Liberty Select, offers many enhancements for a better patient experience, including the ability to customize the therapy to individual patient needs.
- *Patient management software:* We have developed specific patient management software tools to support both CAPD and APD therapies in the different regions of the world. These include: PatientOnLine, IQsystem® and Pack-PD®. In the North America Segment, the Liberty® cycler now offers a modem to our clinics, which allows clinicians to review the home patient’s treatment daily in their electronic medical record system. In the EMEA Segment, a connectivity bridge can be provided with a patient card reader and in the clinic PatientOnLine. These tools can be used by physicians and nurses to design and monitor treatment protocols thus ensuring that therapy is optimized and that patient care is maximized. In addition, a new easy to navigate Prescription Calculator is now available as an educational tool to assist nephrologists in designing prescriptions for their patients.

Acute dialysis products

Acute dialysis is intended to provide a full portfolio of proven blood purification therapies for critically ill patients with Acute Kidney Injury (“AKI”). Our goal is to provide therapies supporting the native dysfunction organ, easy to operate and with a high degree of safety. Our technology and services are based on long experience and know-how gained in providing dialysis products and services to chronic end-stage renal disease patients.

Other Dialysis Products

We manufacture and/or distribute arterial, venous, single needle and pediatric bloodlines. We produce both liquid and dry dialysate concentrates. Liquid dialysate concentrate is mixed with purified water by the hemodialysis machine to produce dialysis solution, which removes the toxins and excess water from the

patient's blood during dialysis. Dry concentrate, developed more recently, is less labor-intensive to use, requires less storage space and may be less prone to bacterial growth than liquid solutions. We also produce dialysis solutions in bags, including solutions for priming and rinsing hemodialysis bloodlines, as well as connection systems for central concentrate supplies and devices for mixing dialysis solutions and supplying them to hemodialysis machines. Other products include solutions for disinfecting and decalcifying hemodialysis machines, fistula needles, hemodialysis catheters, and products for acute renal treatment.

Non-dialysis products

Therapeutic apheresis: Within our portfolio of therapeutic apheresis products, we offer extracorporeal therapy options for patients who cannot be sufficiently treated through conventional pharmaceutical regimens, including the removal of metabolic products, toxins, autoantibodies and immunocomplexes. This therapy uses selective adsorbers and filters for the cleaning of blood or plasma compartments.

Liver support therapy: With Prometheus®, we offer a combinational system of dialysis modality and plasma apheresis to clean the blood from soluble and non-soluble toxins arising in the context of acute liver failure.

Extracorporeal lung and heart assist therapies: In December 2016, we acquired Xenios AG, a company which focuses on research and innovation of products and therapies for the indicators of acute respiratory distress syndrome, chronic obstructive pulmonary disease and cardiogenic shock. The products and therapies using extracorporeal gas exchange allow the lung time to rest and heal. This is accomplished through the interventional lung assist, which provides a range of support from partial CO₂ removal to full oxygenation and supports, prevents or replaces the need for mechanical ventilation.

Renal pharmaceuticals

We continue to acquire and in-license renal pharmaceuticals to improve dialysis treatment for our patients. Below are the primary renal pharmaceuticals we have acquired or for which we have obtained licenses for use:

PhosLo®

In November 2006, we acquired PhosLo®, a calcium-based phosphate binder. Phosphate binders keep phosphorus levels in ESRD patients in a healthy range by preventing the body from absorbing phosphorus from foods and assisting the passing of excess phosphorous out of the body. We have received approval of PhosLo® in selected European countries. In October 2008, a competitive generic phosphate binder was introduced in the U.S. market, which reduced our PhosLo® sales in 2009. In October 2009, we launched an authorized generic version of PhosLo® to compete in the generic calcium acetate market. In April 2011, the FDA approved our New Drug Application (NDA) for Phoslyra®, a liquid formulation of PhosLo®. We continue to commercialize the authorized generic version of calcium acetate as well as Phoslyra® in the U.S. market.

Venofer® and Ferinject®

In 2008, we entered into two separate and independent license and distribution agreements, one for certain countries in Europe and the Middle East (with Vifor (International) Ltd. (a subsidiary of Swiss-based Vifor Pharma Ltd.)) and one for the U.S. (with American Regent, Inc. (formerly Luitpold Pharmaceuticals Inc.)), to market and distribute intravenous iron products, such as Venofer® (iron sucrose) and Ferinject® (ferric carboxymaltose) outside of the U.S. Both drugs are used to treat iron deficiency anemia experienced by non-dialysis CKD (chronic kidney disease) patients as well as dialysis patients. Venofer® is the leading intravenous iron product worldwide. The first agreement concerns all commercialization activities for these intravenous iron products in the field of dialysis and became effective on January 1, 2009. In North America, a separate license agreement effective November 1, 2008, provides our subsidiary Fresenius USA Manufacturing Inc. ("FUSA") with exclusive rights to manufacture and distribute Venofer® to freestanding (non-hospital based) U.S. dialysis facilities and, in addition, grants FUSA similar rights for certain new formulations of the drug. The U.S. license agreement has a term of ten years and includes FUSA extension options. The North American agreement with American Regent was renegotiated in 2018 and the new agreement is effective through December 2023. The international agreement which had a term of 20 years was terminated in 2010 as a consequence of the establishment of VFMCPRP.

In December 2010, we announced the expansion of our agreements with Vifor Pharma by forming a new renal pharmaceutical company, VFMCRRP, with the intention to develop and distribute products focused on addressing distinct complications and areas of chronic kidney disease; renal anemia management, mineral and bone management, kidney function preservation and improvement, conditions associated with kidney impairment and its treatment; and cardio-renal management. FMC-AG & Co. KGaA owns 45% of the company, which is headquartered in Switzerland. Vifor Pharma contributed licenses (or the commercial benefit in the U.S.) to its Venofer® and Ferinject® products for use in the dialysis and pre-dialysis market (CKD stages III to V). Vifor Pharma and its existing key affiliates or partners retain the responsibility for commercialization of both products outside the renal field.

Velphoro®

As part of the agreement to create VFMCRRP, Vifor Pharma also contributed to the new company the asset (excluding Japan) Velphoro®, a novel iron-based phosphate binder. Fresenius Medical Care North America (“FMCNA”) markets the product on behalf of VFMCRRP in the U.S. and commercial sales of Velphoro® commenced in the first quarter of 2014 in the U.S. market. The product for the U.S. market is supplied by an FDA-approved Vifor Pharma manufacturing facility in Switzerland and an FDA-approved contract manufacturer also located in Switzerland. Velphoro® has been approved and commercially launched in 27 countries worldwide and the VFMCRRP partner Kissei also received approval from the Ministry of Health, Labour and Welfare in Japan during 2015 for the product which is marketed in Japan under the brand name P-TOL.

OsvaRen® and Phosphosorb®

In June 2015, we further developed our joint company, VFMCRRP, with Vifor Pharma. In addition to the iron replacement products Ferinject® and Venofer® for use in nephrology indications as well as the phosphate binder Velphoro® in our shared product portfolio, VFMCRRP acquired nephrology medicines commercialized by us, including the phosphate binders OsvaRen® and Phosphosorb®. The transfer of the marketing rights was largely completed during the fourth quarter of 2015, allowing the joint company to further develop its sales and marketing in key European markets. For more information on the transfer please see note 5 in the notes to the consolidated financial statements included in this report.

Shared product portfolio

The core of the VFMCRRP model is to in-license products to address complications associated with CKD. VFMCRRP in-licensed Mircera, Retacrit and pipeline products vadadustat, Rayaldee, avacopan, CCX140 and CR845 to address the needs of CKD patients, both in pre-dialysis and on dialysis.

VFMCRRP also own the rights to Veltassa® (patiromer), a treatment for hyperkalaemia or elevated potassium levels, outside of the U.S. and Japan.

Care Coordination

Care Coordination activities within in the United States include (or, where described below, included until the specified dates), but are not limited to, the following services:

Pharmacy Services

We offer pharmacy services, mainly in the U.S. These services include providing renal medications and supplies to the homes of patients or to their dialysis clinics directly from renal pharmacists who are specially trained in treating and counseling patients living with kidney disease.

Vascular, cardiovascular and endovascular specialty services as well as ambulatory surgery center services

We operate physician office-based vascular access centers, mainly in the U.S. We also develop, own and manage specialty outpatient surgery centers for vascular care. A patient receiving hemodialysis must have a vascular access site to enable blood to flow to a dialysis machine for cleansing and to return the newly cleaned blood to the body. Our centers create and coordinate the maintenance of these vascular access sites, helping to ensure maturation before use and good flow of blood. Additionally, our vascular access services provide both cardiovascular and endovascular specialty services. Cardiovascular procedures are similar to the setting of care and scope of services for vascular access procedures discussed above with a focus on treatment for heart disease, while endovascular surgical procedures are minimally invasive and

designed to access many regions of the body via major and peripheral blood vessels and assist in both the maintenance of hemodialysis accesses and treatment of peripheral artery disease.

Hospitalist, emergency and intensivist services (divested)

Prior to June 28, 2018, when we divested our interest in Sound, we employed physicians providing care in hospitals and post-acute care centers. These services utilized a consistent, patient-centered approach that relied on experienced physician leadership and a web-based workflow platform. We also provided intensivist services, which focused on the general medical care of hospitalized patients and the care of critically ill patients, usually in the intensive care unit, and the care of patients in post-acute centers.

Value and risk-based arrangements

We are continuing to expand our activities in value-based health care contracting. Value-based contracting includes shared savings arrangements in which private payors or government programs share the savings from reductions in the overall medical spend of a population under management assuming that certain quality thresholds are also met. Such contracting also includes capitated arrangements in which private payors or government programs pay us a fixed amount per member under management to fund beneficiary medical expenses. Since capitation arrangements often can be recognized as premium revenue and the full medical premium for ESRD beneficiaries generally is very large, capitation programs can drive significant revenue and, when costs are effectively managed, profit opportunities. We have participated recently in the following value-based programs:

- Under CMS's Comprehensive ESRD Care Model (the "Model"), dialysis providers and physicians have formed entities known as ESRD Seamless Care Organizations, or "ESCOs," as part of a payment and care delivery pilot program that seeks to deliver better health outcomes for Medicare ESRD patients while lowering CMS' costs. Following our initial participation in six ESCOs, we are presently participating in the Model through 23 ESCOs formed at our dialysis facilities. ESCOs that achieve the program's minimum quality thresholds and generate reductions in CMS' cost of care above certain thresholds for the ESRD patients covered by the ESCO will receive a share of the cost savings, which is adjusted based on the ESCO's performance on certain quality metrics. ESCOs that include dialysis chains with more than 200 facilities are required to share in the risk of cost increases and to reimburse CMS a share of any such increases if actual costs rise above set thresholds. Approximately 45,000 patients participated in our ESCOs as of January 1, 2020.

In November 2017, we announced the results from the first performance year from our ESCOs. The results, which cover the period from October 2015 through December 2016, show improved health outcomes for patients receiving coordinated care through the ESCOs. This success was validated by an independent report, which showed a nearly 9 percent decrease in hospitalization rates for these patients during the same time. In the second performance year (calendar year ("CY") 2017), the Company's ESCOs together generated more than \$66.7M in gross savings, an average of 3.4% reduction in expenditures per patient. CMS has not yet published the final settlement reports for the third performance year (CY 2018). The ESCO pilot program will run until the end of 2020.

- In October 2019, CMS released a request for applications to participate in its new CKCC model. Applications were due in January 2020. Under the CKCC model, renal health care providers participate by forming an entity known as a Kidney Care Entity ("KCE"). Through the KCE, renal health care providers take responsibility for the total cost and quality of care for Medicare beneficiaries with CKD stages 4 and 5 as well as Medicare beneficiaries with ESRD. In order to participate, KCEs must include nephrologists and transplant providers. Dialysis providers are not required to participate. We submitted 25 CKCC applications and are also included in four other CKCC applications submitted by nephrologists. CMS has not provided a timeline for when acceptance decisions will be made.
- BPCI is a CMS pilot initiative, ended September 30, 2018, with bundled payments for the individual services furnished to Medicare beneficiaries during a single episode of illness or course of treatment, including acute inpatient hospital services, physician services, and post-acute services. BPCI Advanced is a similar follow-on initiative that began October 1, 2018 and is scheduled to extend through December 31, 2023. We commenced participation in several markets under the BPCI in April 2015 through our majority-owned subsidiary, Sound. On June 28, 2018,

we divested our controlling interest in Sound. See note 4 c) of the notes to consolidated financial statements included in this report. We commenced participation under the BPCI Advanced in January 2020 through a physician practice, which is majority-owned by National Cardiovascular Partners. Under the BPCI, we had the ability to receive additional payments if we were able to deliver quality care at a cost that was lower than certain established benchmarks, but also had the risk of incurring financial penalties if we were unsuccessful in doing so. The same is true for the BPCI Advanced program going forward.

- We provided Medicare Advantage ESRD Chronic Condition Special Needs Plan (“MA-CSNP”) products in five states until December 31, 2018. MA-CSNPs are Medicare health plans offered by private companies that contract with Medicare to provide Medicare benefits to special needs individuals with specific severe or disabling chronic conditions such as ESRD, with a focus on improving the coordination of care. As a MA-CSNP, we provided health care services and Part D prescription drug coverage as well as received set payments from CMS for the complete care of ESRD patients who enrolled in our MA-CSNP. For each MA-CSNP, we managed medical costs through underwriting criteria, product design, negotiation of favorable provider contracts and care management programs. Total medical costs were affected by the number of individual services rendered, the cost of each service and the type of service rendered. Our revenue on Medicare advantage policies was based on CMS’ premiums set for ESRD beneficiaries, based on the average cost of similar beneficiaries in the Medicare program. The benefits, and projected medical costs, of these plans were submitted to CMS in June the year before the contract year Bid.
- We have also entered into sub-capitation and other risk-based and value-based arrangements with certain payors to provide care to commercial and Medicare Advantage ESRD and CKD patients. Under these arrangements, a baseline per patient per month amount is established. If we provide complete care for less than the baseline, we retain the difference. If the cost of complete care exceeds the baseline, we may owe the payor the difference. See Item 5. “Operating and financial review and prospects – IV. Financial position – Net cash provided by (used in) investing activities” below.

Urgent care services

We operate walk-in clinics focusing on the delivery of ambulatory care in a dedicated medical facility outside of a traditional emergency room. Urgent care centers serve patients with a variety of injuries and illnesses requiring immediate care, but not serious enough to require an emergency room visit. In addition to injury and illnesses treatment, our urgent care centers also provide physicals, occupational medicine services, pre-operative exams and vaccinations. In 2019, we divested the MedSpring Urgent Care Centers in Texas.

Physician nephrology and cardiology services

We manage and operate nephrology and cardiology physician practices in the United States.

Care Coordination activities outside the United States

Ambulant treatment services

In the Asia-Pacific Segment, we are the majority stakeholder in Cura, a leading operator of day hospitals in Australia. We also operate seven renal hospitals in China whose service scope includes inpatient and outpatient facilities focused on kidney disease. Additionally, we have care coordination activities in other parts of the region which include comprehensive and specialized health check-ups centers, vascular access, and other chronic treatment services.

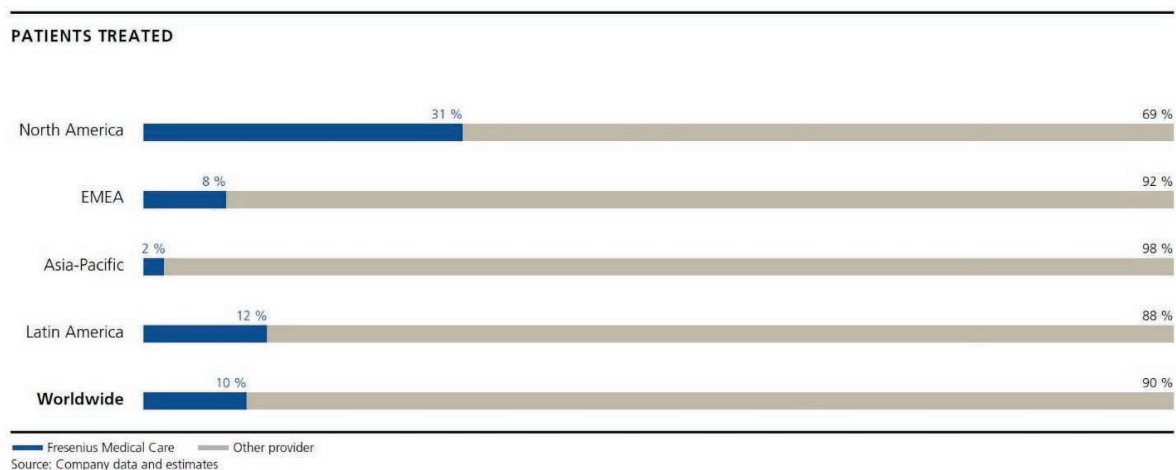
For additional information regarding Care Coordination, see Item 4 – Information on the Company – Regulatory and legal matters – Reimbursement – U.S., and Item 5 – Operating and financial review and prospects – I. Performance management system – Business metrics for Care Coordination. See also Item 3 – Risks relating to our business – *If we fail to estimate, price for and manage our medical costs in an effective manner, the profitability of our value-based products and services could decline and could materially and adversely affect our results of operations, financial position and cash flows.*

Major markets and competitive position

To obtain and manage information on the status and development of global, regional and national markets we have developed our Market & Competitor Survey, or MCS. We use the MCS within the Company as a tool to collect, analyze and communicate current and essential information on the dialysis market, developing trends, our market position and those of our competitors. Country-by-country surveys are performed at the end of each calendar year which focus on the total number of patients treated for ESRD, the treatment modality selected, products used, treatment location and the structure of ESRD patient care providers. The survey has been refined since inception to facilitate access to more detailed information and to reflect changes in the development of therapies and products as well as changes to the structure of our competitive environment. The questionnaires are distributed to professionals in the field of dialysis who are in a position to provide ESRD-relevant country specific information themselves or who can coordinate appropriate input from contacts with the relevant know-how in each country. The surveys are then centrally validated and checked for consistency by cross-referencing them with the most recent sources of national ESRD information (e.g. registry data or publications if available) and with the results of surveys performed in previous years. All information received is consolidated at a global and regional level and analyzed and reported together with publicly available information published by our competitors. While we believe the information contained in our surveys and competitor publications to be reliable, we have not independently verified the data or any assumptions from which our MCS is derived or on which the estimates they contain are based, and we do not make any representation as to the accuracy of such information. Except as otherwise specified herein, all patient and market data in this report have been derived using our MCS.

We estimate that the volume of the global dialysis market was €80 billion in 2019 (€74 billion in 2018) comprising approximately €14 billion of dialysis products and approximately €66 billion of dialysis services (including administration of dialysis drugs). The currency-adjusted growth rate amounted to 4% during the last year.

We are the world's leading provider of dialysis services with a market share of approximately 10% of the global dialysis patient population through treating 345,096 of the approximately 3.5 M dialysis patients worldwide. The segment breakdown according to patients treated is below:



We are also the global market leader for dialysis products. Dialysis products we made for use in our own dialysis centers or for sale to third-party customers accounted for a market share of 36% in 2019 (2018: 35%). In the case of hemodialysis products, we had a 41% share of the global market (2018: 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 350 M units in 2019. More than 155 M (around 44%) of these were made by the Company, giving us by far the biggest market share. Hemodialysis machines constitute another key component of our product business. Here, too, we are the market leader. Of the 102,000 machines installed in 2019, according to estimates, around 52,000, or more than 50% (2018: more than 50%), were produced by the Company.

Furthermore, we hold a strong position in the market for peritoneal dialysis products: Around 17% (2018: around 17%) of all peritoneal dialysis patients use products made by the Company.

The market for dialysis care services in the United States is already highly consolidated. We treat around 38% of all dialysis patients in the United States. Outside the U.S., the dialysis services business is much more fragmented. With around 1,430 dialysis centers and approximately 137,000 patients in around 50 countries, we operate by far the largest network of clinics

Our competitive environment is described in more detail below:

Health Care Services. We operate in a competitive, international market environment and are, therefore, subject to certain trends, risks and uncertainties that could cause actual results to differ from our projected results. The major trends affecting the markets in which we operate are: the aging population and increased life expectancies, shortage of donor organs for kidney transplants, and increasing incidence and better treatment of and survival of patients with diabetes and hypertension, which frequently precede the onset of ESRD, all of which contribute to patient growth. In the U.S. and other markets in which dialysis is readily available, additional trends are:

Trends in the developed markets:

- improvements in treatment quality, which prolong patient life;
- stronger demand for innovative products and therapies;
- advances in medical technology;
- ongoing cost-containment efforts and ongoing pressure to decrease health care costs, resulting in limited reimbursement rate increases; and
- reimbursement for the majority of treatments by governmental institutions, such as Medicare and Medicaid in the U.S.

Trends in the emerging markets:

- increasing national incomes and hence higher spending on health care;
- improving standards of living in developing countries, which make life-saving dialysis treatment available;
- consolidation of providers (e.g. hospital chains);
- consolidation of health care insurers with pricing pressure on providers; and
- privatization of health care providers.

The following are our largest competitors in the dialysis services industry:

<u>North America Segment</u>	<u>EMEA Segment</u>	<u>Asia-Pacific Segment</u>	<u>Latin America Segment</u>
DaVita, Inc.	Diaverum S.à r.l.	B. Braun Melsungen AG	Baxter International Inc.
U.S. Renal Care, Inc.	B. Braun Melsungen AG	Nephrocare Health Services Private Limited (NephroPlus)	DaVita, Inc. Diaverum S.à r.l.

U.S. government programs are the primary source of reimbursement for services to the majority of U.S. patients and, as such, competition for patients in the U.S. is based primarily on quality and accessibility of service and the ability to obtain admissions from physicians with privileges at the facilities. However, the extension of periods during which commercial insurers are primarily responsible for reimbursement and the growth of managed care have placed greater emphasis on service costs for patients insured with private insurance.

In most countries other than the U.S., we compete primarily against individual freestanding clinics and hospital-based clinics. In many of these countries, especially the developed countries, governments directly or indirectly regulate prices and the opening of new clinics. Providers compete in all countries primarily on

the basis of quality and availability of service and the development and maintenance of relationships with referring physicians.

Laboratory Services: Spectra, our dialysis laboratory subsidiary, competes in the U.S. with large nationwide laboratories, dedicated dialysis laboratories and numerous local and regional laboratories, including hospital laboratories. In the laboratory services market, companies compete on the basis of performance, including quality of laboratory testing, timeliness of reporting test results and cost-effectiveness. We believe that our services are competitive in these areas.

Products: We compete globally in the product market which is largely segmented between hemodialysis, peritoneal dialysis and renal pharmaceuticals. Our competitors include:

- Baxter International, Inc.
- Asahi Kasei Medical Corporation
- Medtronic Plc.
- B. Braun Melsungen AG
- Nipro Corporation
- Nikkiso Co. Ltd.
- Terumo Corporation
- Kawasumi Laboratories Incorporated
- Quanta Dialysis Technologies Ltd.
- Outset Medical, Inc.
- Fuso Pharmaceuticals Industries Ltd.
- Toray Industries Inc.
- Amgen, Inc.
- Genzyme Corporation (a subsidiary of Sanofi S.A.) and
- Akebia Therapeutics, Inc.

We have invested significantly in developing proprietary processes, technologies and manufacturing equipment which we believe provide a competitive advantage in manufacturing our products.

Our strategy and competitive strengths

“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 core values: collaborative, proactive, reliable, excellent.

Strategic core competencies

We aim to further consolidate our expertise as the world’s leading provider of top-quality dialysis treatments and health care products and to apply them as a basis for sustainable, profitable growth. Moreover, in the area of Care Coordination, our goal is to provide holistic care and improve outcomes for

patients as well as payors while increasing our corporate value in the long term. Our strategic plan is based on four core competencies:



Innovating products

Developing innovative products to achieve even better outcomes for our patients is an inherent part of our strategy of sustainable and profitable growth. We leverage our technology leadership position in dialysis to enhance treatment options in such a way that both patients and health care systems can benefit. This is also why we are committed to further expanding home dialysis. In addition, we are constantly striving to identify new business opportunities in value-added technologies and approaches, for example through our venture capital company Fresenius Medical Care Ventures.

Operating outpatient facilities

By leveraging our experience gained in currently 3,994 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. In 2019, we established the Global Medical Office with the aim of enhancing knowledge transfer across the Company. By adding the Global Chief Medical Officer to the Management Board as of January 1, 2020, we are underlining the importance of interlinking clinical science with therapy. With over 52 M dialysis treatments performed per year, we have one of the largest dialysis databases worldwide. We intend to use this information to standardize medical setups, open new clinics and integrate acquired clinics into our network based on proven and efficient concepts.

Coordinating patients efficiently

In an environment of growing patient numbers and changing health care systems, we see 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 our overall competitiveness. The expected range of sustained cost improvements is €150 M to €200 M per annum by the end of 2020.

Customers, marketing, distribution and service

We sell most of our products to dialysis clinics, hospitals and specialized treatment clinics. Close interaction between our sales and marketing as well as research and development (“R&D”) personnel

enables us to integrate concepts and ideas that originate in the field into product development. We maintain a direct sales force of trained salespersons engaged in the sale of hemodialysis and peritoneal dialysis as well as acute dialysis products and products for critical care. Sales and Marketing engages in direct promotional efforts, including visits to physicians, clinical specialists, hospitals, clinics and dialysis clinics, and represents us at industry trade shows. Our clinical nurses provide clinical support, training and assistance to customers and assist our sales force. We offer customer service, training and education in the applicable local language, and technical support such as field service, repair shops, maintenance, and warranty regulation for each country in which we sell dialysis products.

In our basic distribution system, we ship products from factories to central warehouses which are frequently located near the factories. From these central warehouses, we distribute our dialysis and non-dialysis products to regional warehouses. We also distribute home hemodialysis and peritoneal dialysis products to patients at home or their travel destination, and ship hemodialysis products directly to dialysis clinics and other customers. Additionally, local sales forces, independent distributors, dealers and sales agents sell all our products

Patient, physician and other relationships

We believe that our success in establishing and maintaining health care centers, both in the U.S. and in other countries, depends significantly on our ability to obtain the acceptance of and referrals from local physicians, hospitals and integrated care organizations. Our ability to provide high-quality dialysis care and to fulfill the requirements of patients and doctors depends significantly on our ability to enlist nephrologists for our dialysis clinics and receive referrals from nephrologists, hospitals and general practitioners.

Medicare program regulations rely on Conditions for Coverage rules for ESRD facilities which require that each dialysis clinic have a medical director who is responsible for overseeing the delivery of patient care and outcomes at the dialysis clinic. The medical director must be board-certified or board eligible in internal medicine or pediatrics, have completed a board-approved training program in nephrology and have at least twelve months of experience providing care to patients undergoing dialysis. We have engaged physicians or groups of physicians to serve as medical directors for our outpatient dialysis centers, home dialysis programs, and inpatient dialysis service relationships with hospitals. The compensation of our medical directors and other contracted physicians is negotiated individually and depends in general on local factors such as competition, the professional qualification of the physicians, the physicians' experience and tasks as well as the size and the offered services of the clinic. The total annual compensation of the medical directors and the other contracted physicians is stipulated at least one year in advance and the medical directors agree to seek to continue to improve quality, safety and efficiency. We believe that the compensation of our medical directors is consistent with the fair market value of their services.

Almost all contracts we enter into with our medical directors in the United States, as well as the typical contracts which we obtain when acquiring existing clinics, contain non-competition clauses concerning certain activities in defined areas for a defined period of time. These non-compete agreements restrict the physicians from owning or providing medical director services to other outpatient dialysis centers, but these clauses do not restrict the physicians from performing patient services directly at other locations/ areas or referring patients to other facilities. We do not require physicians to send patients to us or to specific clinics.

In addition to our dialysis clinics, a number of our other health care centers employ or contract with physicians to provide professional and administrative services. We have financial relationships with these physicians in the form of compensation arrangements for the services rendered. These contractual arrangements are designed to comply with federal and state laws applicable to financial relationships with physicians, such as the Stark Law and the Anti-Kickback Statute.

A number of the dialysis clinics and other health care centers we operate are owned, or managed, by joint ventures in which we hold a controlling interest and one or more hospitals, physicians or physician practice groups hold a minority interest. We have granted holders of these minority interests put options under which we could be required to purchase all or part of the minority owners' noncontrolling interests. See note 1a) of the notes to our audited consolidated financial statements included in this report. We also have agreements with physicians to provide management and administrative services at health care centers in which physicians or physician groups hold an ownership interest and agreements with physicians to provide professional services at such health care centers. Our relationships with physicians and other referral

sources relating to these joint ventures must comply with the federal Anti-Kickback Statute and Stark Law. There is a safe harbor under the Anti-Kickback Statute for certain investment interests in small entities. Our joint ventures have been designed to comply with the federal Anti-Kickback Statute and Stark Law, but they do not satisfy all of the requirements for safe harbor protection. Failure to comply with a safe harbor does not render an arrangement illegal under the federal Anti-Kickback Statute and, therefore, physician joint ventures that fall outside the safe harbors are not, by definition, prohibited by law. See Item III.D “Key information – Risk factors” – Results of operations – If our joint ventures violate the law, our business could be adversely affected.”

Capital expenditures

We invested, by operating segment and Corporate, the gross amounts shown in the table below during the twelve-month periods ended December 31, 2019, 2018, and 2017.

Capital expenditures (gross)

	<u>2019</u>	<u>2018</u>	<u>2017</u>
	(in € M)		
Capital expenditures for property, plant and equipment			
North America Segment	567	529	505
EMEA Segment	138	153	126
Asia-Pacific Segment	59	44	41
Latin America Segment	28	28	38
Corporate	<u>333</u>	<u>303</u>	<u>234</u>
Total capital expenditures	<u>1,125</u>	<u>1,057</u>	<u>944</u>
Acquisitions and investments			
North America Segment	2,111	769	339
EMEA Segment	41	98	65
Asia-Pacific Segment	43	21	262
Latin America Segment	69	44	8
Corporate	<u>33</u>	<u>25</u>	<u>9</u>
Total acquisitions and investments	<u>2,297</u>	<u>957</u>	<u>683</u>

For additional information regarding our capital expenditures, see Item 5.IV, “Operating and financial review and prospects – Financial position.”

Acquisitions and investments

A significant factor in the growth in our revenue and operating earnings in prior years has been our ability to acquire health care businesses, particularly dialysis clinics, on reasonable terms. In the U.S., doctors might decide to sell their clinics to obtain relief from day-to-day administrative responsibilities and changing governmental regulations, to focus on patient care and to realize a return on their investment. Outside of the U.S., doctors might determine to sell to us and/or enter into joint ventures or other relationships with us to achieve the same goals and to gain a partner with extensive expertise in dialysis products and services. Privatization of health care in Eastern Europe and Asia could present additional acquisition opportunities. We believe we are also viewed as a valuable strategic health care partner outside the dialysis business due to our experience in managing chronic disease for dialysis patients and our record of improving quality and patient satisfaction and reducing the overall cost of care, and our leadership in advancing innovation and improvement in health care.

For a discussion of our 2019 and 2018 acquisitions and investments, see Item 5, “Operating and financial review and prospects – III. Financial position – Net cash provided by (used in) investing activities.”

Procurement and production

We operate production facilities worldwide to meet the demand for our dialysis products and other health care products. We have invested significantly in developing proprietary processes, technologies and manufacturing equipment resulting in a competitive advantage in manufacturing our products. Production facilities and distribution centers are strategically located. This helps to reduce transportation costs and facilitate the distribution of products to our customers.

We produce and assemble hemodialysis machines and peritoneal dialysis cyclers in our Schweinfurt, Germany and our Concord, California, U.S. facilities. We manufacture and assemble dialyzers and polysulfone membranes in our Ogden, U.S., St. Wendel, Germany, L'Arbresle, France, Vrsac, Serbia (dialyzers), Buzen, Japan (dialyzers) and Changshu, China (dialyzers) facilities and at production facilities of our joint venture in Inukai, Japan. We manufacture hemodialysis concentrate products at various facilities worldwide, including France, Germany, Great Britain, Spain, Turkey, Serbia, Argentina, Brazil, Colombia, Ecuador, Australia, China, Malaysia, Canada, Mexico and the U.S. We manufacture PD solutions in North America, Europe, Latin America, and Asia, with two of our largest plants in Germany and the U.S. Additionally, we manufacture bloodlines in Mexico, China, Italy and Turkey. Our Reynosa, Mexico plant is the world's largest (by volume) bloodline manufacturing facility. See "Item 4.D. Property, plant and equipment," below.

The Global Manufacturing, Quality & Supply ("GMQS") division manages the procurement of raw materials and semi-finished goods as well as the manufacturing and distribution of renal products. This center-led approach enables us to:

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

With a focus on quality, costs and availability, GMQS has introduced a stable infrastructure with efficient processes and systems over the last several years. All production sites follow the Lean Manufacturing approach which, in North America and our Schweinfurt plant, includes the "Lean Six Sigma" management system. The focus of Lean Manufacturing and Six Sigma is continuous improvement of manufacturing processes to achieve a low defect rate resulting in improved product quality, while reducing manufacturing time.

We have been successful in harmonizing all local Quality Management Systems ("QMS") in all manufacturing and development sites of our EMEA Segment, Latin America Segment and Asia-Pacific Segment under one Consolidated QMS ("CQMS"). The CQMS fulfills ISO 13485:2016 and ISO 9001:2015 standards and has been implemented during 2019 in the EMEA Segment, Latin America Segment and Asia-Pacific Segment design and manufacturing sites. (See also "Regulatory and Legal Matters – Facilities and Operational Regulation" below). Every medical device plant within our EMEA Segment, Latin America Segment and Asia-Pacific Segment has a local QMS directed by CQMS that is certified either to ISO 13485:2016 and/or ISO 9001:2015. Where applicable, each plant also complies to the Medical Device Directive 93/42/EEC and additional national requirements based upon target markets and countries of manufacturing. The QMS of each site is reviewed through periodic management review, internal corporate and internal local audits.

All certified plants have successfully passed the annual ISO 13485, ISO 9001 external QMS audits and authority inspections for maintaining their required certifications and licenses.

Our procurement policy combines worldwide sourcing of high-quality materials with the establishment of long-term supplier relationships. Additionally, we strive to ensure that purchased materials comply with the quality specifications and safety standards required for our dialysis products. We outsource only after we have qualified suppliers, ensuring they meet our requirements. Interactive Supplier Relationship management and risk management systems connect all our global procurement activities to ensure global transparency, standardized processes and constant monitoring of our projects and supplier-related activities.

We focus on further optimizing procurement logistics and reducing total purchasing costs. Corporate frame contracts for the majority of our manufacturers of semi-finished goods and raw materials will enable us to improve purchasing terms for our complete network. We are continuously intensifying, where appropriate, our use of web-based procurement tools to increase agility and global transparency. Our sophisticated routing software enables us to distribute our supplies to best accommodate customer requests while maintaining operational efficiency. Additionally, we have an automated replenishment control in our national warehouses that allows the warehouses to be refilled when their inventory reaches a preset defined minimum level and allows us to continue to improve our operational efficiency.

Quality assurance and quality management in dialysis care

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 United States, the European Renal Best Practice standard (“ERBP”) and increasingly, Kidney Disease: Improving Global Outcomes (“KDIGO”), an industry initiative for global clinical practice guidelines. Clinical data management systems are used to routinely collect certain medical parameters, which we evaluate in anonymized form in compliance with these guidelines.

At each of our North America Segment dialysis clinics, a quality assurance committee is responsible for reviewing quality of care data, choosing local quality improvement projects and monitoring the progress towards achieving the quality targets which are informed by KDOQI, KDIGO and the Quality Agenda established by the FMCNA Medical Office. A rigorous scoring system, Clinical Quality Score or CQS, reports trends in outcomes and performance comparison among all levels of the organization. Visual representation of key performance indicators can be viewed in increasing levels of detail to provide transparency of results. In 2019, we continued to develop and implement programs and tools to assist in achieving our quality goals. These include treatment algorithms based on best medical evidence, outlier management teams, and technology to highlight opportunities for improvement at the dialysis chairside.

The Medicare Improvements for Patients and Providers Act of 2008 (“MIPPA”) created the ESRD quality incentive program under which dialysis facilities in the United States that fail to achieve annual quality standards established by CMS could have base payments reduced in a subsequent year by up to 2%. See Item 5. “Operating and financial review and prospects – II. Financial condition and results of operations – Overview.” These programs blend the CMS quality standard measures against the industry baselines to attempt the improvement in quality through a pay for performance program that operates as a part of the ESRD PPS.

In our EMEA Segment, our quality management activities are primarily focused on comprehensive development and implementation of a health care services QMS as part of an Integrated Management System (“IMS”). Our goals in this area include meeting quality requirements for our dialysis clinics and environmental concerns. This approach results in an IMS structure that closely reflects existing corporate processes. We are also able to use the IMS to fulfill many legal and normative regulations covering service lines. In addition, the IMS standard offers a highly flexible structure that allows us to adapt to future regulations.

Our IMS fulfills the ISO-Norm 9001:2015 requirements for QMSs and links it with the ISO-Norm 14001:2015 for environmental management systems. Additionally, the IMS conforms to the requirements of ISO-Norm 13485:2016 and the Medical Device Directive 93/42/EEC. We are continuing to transition to the new Medical Device Regulation (“MDR”). Our conformation with the regulations will be included as part of the audit program for 2019. Currently, dialysis clinics in 17 countries within our EMEA region have QMSs which are certified according to the quality management standard ISO 9001:2015.

Additionally, we have a comprehensive program, NephroCare Excellence, in our EMEA region. NephroCare is our service that provides complete life-saving treatments for renal failure at the point of care using advanced technologies and listening to and understanding our patients’ needs to enable the best therapies, ensure a high-quality of care and empower patients.

Our principal focus of our clinical research includes the development of new products, technologies and treatment concepts to optimize treatment quality, safety and efficiency for kidney failure patients. This includes steps and processes for the reduction in the costs of providing care for our patients. See Item 5.VII, “Operating and financial review and prospects – Research and development.”

Environmental management

We have integrated environmental protection targets into our operations. To reach these goals, our IMS in the EMEA Segment has been in use at certain of our production facilities as well as at a number of dialysis clinics. IMS fulfills the requirements of QMSs as well as environmental management. Environmental goals are set, adhered to and monitored during all stages of the lives of our products, from their development to their disposal.

We continually seek to improve our production processes for environmental compatibility, which frequently generates cost savings.

In some of our dialysis facilities, we establish, depending on the particular facility and circumstance, a priority environmental protection target on which our dialysis clinics concentrate for at least one year. Environmental performance in other dialysis facilities is used as the basis for comparisons and targets. Improvements are implemented on a site-by-site basis after evaluation of the site's performance.

In our European clinics, we maintained our environmental management system in dialysis clinic organizations and we continued to monitor and assess the management system performance in clinics where it was previously implemented. Currently, dialysis clinics in 14 countries in our European region are certified according to the revised environmental management standard ISO 14001:2015. We continued to roll out the integrated software solution e-con 5 for the management of eco-controlling data in over 700 clinics in the EMEA Segment and the Latin America Segment. This software is intended to monitor and reduce consumption of resources and generation of wastes while increasing the eco-controlling data quality and possibilities for data analysis at the place of origin.

In our North America Segment dialysis clinics, we implemented recycling programs for corrugated materials and hemodialysis machines. Targeted environmental performance criteria in other locations include fresh water consumption and improved separation of waste. We achieved ISO 14001:2015 certification for two dialysis clinics as well as one manufacturing facility in the North America Segment as of December 31, 2018.

In our dialysis centers in the Asia-Pacific Segment, we are enhancing our tracking of environmental performance measures, such as energy and water usage. Pilot programs are underway in Australia to explore the use of solar panels in order to augment, or fully meet, the power requirements of certain centers. Similarly, work is underway to determine whether, with the use of a family of systems that shred and autoclave medical waste into a sterile "non-infectious" confetti-like chaff, dialysis plastic waste could be incorporated into concrete to reduce the amount of waste that enters landfills.

Patents and licenses

As the owner of patents or licensee under patents throughout the world, we currently hold rights in over 10,600 patents and patent applications in major markets.

Technologies that are the subject of granted patents or pending patent applications and that relate to dialyzers include aspects of our FX dialyzers.

Other patents and pending patent applications relate to components of our 5008 dialysis equipment series, including, for example, the pump technology, extracorporeal blood pressure measurement and the connector system for our proprietary bicarbonate concentrate container.

Our 6008 therapy system is protected by more than 80 patent families that protect the disposable, the machine or the entire system. A number of applications or issued patents exist for the North American 2008T HD machine including, for example, the CDX system for the display of medical information directly on the 2008T screen, a wireless wetness detector for sensing line disconnect, an improved Crit-Line hematocrit measuring system and a U. S. version of the bicarbonate concentrate container filling system.

The 4008A dialysis machine, recently launched in China as well as in India, provides basic, reliable dialysis treatments and includes more than 10 new inventions with patent protection. The inventions refer for example to optimizing the device design without reduction of safety and quality of the device.

Applications are also pending or were recently issued relating to our next generation peritoneal dialysis cyclers which has a number of innovative attributes such as greatly reduced size and an innovative pumping system.

We believe that our success will continue to depend significantly on our technology. As a standard practice, we obtain the legal protections we believe are appropriate for our intellectual property. Nevertheless, we are in a position to successfully market a material number of products for which patent protection has lapsed or where only particular features are patented. We believe that even after the expiration of some of our patents, our proprietary know how for the manufacturing of our products and our continuous efforts in obtaining targeted patent protection for newly developed upgraded products will continue to provide us with a competitive advantage. From time to time our patents may be infringed by third parties and in such case we will assert and enforce our rights. Initially registered patents may also be subject to invalidation claims made by competitors in formal proceedings (oppositions, trials, re-examinations, etc.) either in part or in whole. In addition, technological developments could suddenly and unexpectedly reduce the value of some of our existing intellectual property (see note 22 of the notes to the consolidated financial statements included in this report).

Trademarks

As the owner of trademarks or licensee under trademarks throughout the world, we currently hold rights in over 2,900 registered trademarks or trademark applications covering *inter alia* our key products in major markets.

Our principal trademarks and corporate names are or comprise of the designation “Fresenius Medical Care” which we use stand-alone or together with a triangle figure in our corporate logo. The use of “Fresenius” in our trademarks is based on a perpetual, royalty-free license from Fresenius SE, our major shareholder and the sole shareholder of our general partner. See Item 7.B, “Related party transactions – Trademarks.”

Risk management

We see risk management as the ongoing task of determining, analyzing and evaluating the spectrum of potential and actual risks in the Company and its environment and, where possible, taking pre-emptive and corrective action. Our risk management system, which is described in more detail below, provides us with a basis for doing so. It enables management to identify at an early stage risks that could jeopardize our 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.

The main objective of the risk management system is to identify potential risks as early as possible to assess their impact on business activities and to enable us, where necessary, to take appropriate countermeasures. As internal and external requirements and conditions are continually changing, we are constantly adapting our risk management system.

The design of the internal risk management system is based on the Enterprise Risk Management Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Opportunities are not covered by the implemented risk management system.

In the risk management system, risk coordinators within the regions and in selected functions coordinate risk management activities utilizing risk management software. These activities address potential as well as existing short-term as well as mid-term risks. Semiannually, identified risk information is processed by the risk coordinators and discussed in regional/functional risk committees. Subsequently, the corporate risk management team gathers the risks from regions and functions, analyzes and discusses them in the corporate risk committee and communicates the compiled results to the Management Board. The main focus lies with material risks above a defined threshold.

Risks classified as high, whether newly identified or already known risks which changed their status to high in the period, are promptly reported to the Management Board and to corporate risk management to ensure an adequate response and mitigation of the risk. The effectiveness of the risk management system is monitored by the Audit and Corporate Governance Committee of the Supervisory Board.

The organizational structure of our risk management is shown below:



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

The Global Internal Audit department is regularly informed about the results of the risk management system. This department determines risk focus areas and audits a selected number of departments, subsidiaries and information technology applications worldwide each year. Determined risk focus areas are audited across all business segments. The department works according to the internationally accepted standards of the Institute of Internal Auditors, 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, information technology 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 mitigating identified deficiencies. The Management Board is informed about the mitigation status on a quarterly basis. The Audit and Corporate Governance Committee of the Supervisory Board is also informed of the audit results. In 2019, a total of 43 audits were carried out.

As a company required to file reports under the Exchange Act, we are subject to the provisions of the Sarbanes-Oxley Act of 2002 applicable to foreign private issuers, including the requirement to maintain disclosure controls and procedures, and to provide an annual assessment of our internal controls.

The internal control system over financial reporting follows the criteria of the Committee of Sponsoring Organizations of the Treadway Commission 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. Initially, regional project teams coordinate the assessment of the internal control system in each region, after which the results are consolidated for the Company and its subsidiaries. Based upon this assessment, management 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 per year to review changes and new requirements of the Sarbanes-Oxley Act of 2002, 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.

For further information on these requirements and management's assessment of the Company's internal control over financial reporting for 2019, see Items 15.A. and 15.B, "Disclosure controls and procedures" and "Management's annual report on internal control over financial reporting."

Regulatory and legal matters

Regulatory and compliance overview

Our operations are subject to extensive governmental regulation by virtually every country in which we operate including, most notably, in the U.S., at the federal, state and local levels. Although these regulations differ from country to country, in general, non-U.S. regulations are designed to accomplish the same objectives as U.S. regulations governing the operation of health care centers, laboratories and manufacturing facilities, the provision of high quality health care for patients, compliance with labor and employment laws, the maintenance of occupational, health, safety and environmental standards and the provision of accurate reporting and billing for payments and/or reimbursement. In the U.S., some states establish regulatory processes that must be satisfied prior to the establishment of new health care centers. Outside the U.S., each country has its own payment and reimbursement rules and procedures, and some countries prohibit private ownership of health care providers or establish other regulatory barriers to direct ownership by foreign companies.

Any of the following matters could have a material adverse effect on our business, financial condition and results of operations:

- failure to receive required licenses, certifications, clearances or other approvals for new or existing services, facilities, or products or significant delays in such receipt;
- complete or partial loss of various certifications, licenses, or other permits required under governmental authority by withdrawal, revocation, suspension, or termination or restrictions of such certificates and licenses by the imposition of additional requirements or conditions, or the initiation of proceedings possibly leading to such restrictions or the partial or complete loss of the required certificates, licenses or permits;
- recoupment of payments received from government payors and government health care program beneficiaries because of any failures to meet applicable requirements;
- a non-appealable finding of material violations of applicable health care or other laws; and
- changes resulting from health care reform or other government actions that restrict our operations, reduce reimbursement or reduce or eliminate coverage for particular products or services we provide.

We must comply with all U.S., German and other legal and regulatory requirements under which we operate, including the U.S. federal Medicare and Medicaid Fraud and Abuse Amendments of 1977, as amended, generally referred to as the “Anti-Kickback Statute”, the federal False Claims Act, the federal restrictions on certain physician referrals, commonly known as the “Stark Law”, the U.S. Civil Monetary Penalties Law, including the prohibition on inducements to patients to select a particular health care provider, U.S. federal rules protecting the privacy and security of patient medical information, as promulgated under the Health Insurance Portability and Accountability Act of 1996 (“HIPAA”) and, as amended by the Health Information Technology for Economic and Clinical Health (“HITECH”) Act (enacted as part of the American Recovery and Reinvestment Act of 2009), and other fraud and abuse laws and similar state statutes, as well as similar laws in other countries.

As a global health care company, we are subject to laws and regulations concerning privacy and data protection. These laws and regulations govern, amongst other elements, the collection, use, disclosure, retention, and transfer of personal data. For example, the European Union’s General Data Protection Regulation, which became effective in May 2018, imposes substantial new worldwide obligations on the processing of personal data. These laws continue to develop globally and differ from jurisdiction to jurisdiction, which increases the complexity and costs of our global data protection and security compliance programs. Because of varying legal requirements across the world, the FME Global Privacy Foundation establishes a set of requirements to help ensure appropriate use of personal data throughout its life cycle. While the Foundation creates a baseline compliance requirement for all of our subsidiaries and personnel, we also intend to comply with the requirements of all applicable local laws that impose other or stricter standards.

A number of states in which we operate have laws that prohibit business entities, such as the Company and our subsidiaries, from practicing medicine, employing physicians to practice medicine or exercising control over medical decisions by physicians (known collectively as the corporate practice of medicine prohibition). These states also prohibit entities from engaging in certain arrangements, such as fee-splitting, with physicians. Additional state and local laws and regulations require us to maintain certain licenses and certifications to operate our facilities and/or manufacture and distribute our products and services.

The Patient Protection and Affordable Care Act (Pub.L. 111-148), as amended by the Health Care and Education Reconciliation Act (Pub.L. 111-152) enacted in the U.S. in 2010 and other recent laws expanded the reach of many of these laws and expanded federal enforcement authority. Moreover, there can be no assurance that applicable laws, or the regulations thereunder, will not be amended, or that enforcement agencies or the courts will not make interpretations inconsistent with our own, any one of which could have a material adverse effect on our business, reputation, financial condition and operating results. Sanctions for violations of these statutes may include criminal or civil penalties, such as imprisonment, fines or forfeitures, denial of payments, and suspension or exclusion from the Medicare and Medicaid programs. In the U.S., some of these laws have been broadly interpreted by a number of courts, and significant government funds and personnel have been devoted to their enforcement because such enforcement has become a high priority for the federal government and some states. We, and the health care industry in general, will continue to be subject to extensive federal, state and foreign regulation, the full scope of

which cannot be predicted. In addition, the U.S. Congress and federal and state regulatory agencies continue to consider modifications to health care laws that may create further restrictions. In particular, the Trump Administration has publicly announced its intention to pursue significant changes to existing health care insurance programs. In addition, proposals 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, may also be considered. Changes of this nature could have significant effects on our businesses, but, due to the continued uncertainty about the implementation of the ACA, including potential further legal challenges to or significant modifications to or repeal of that legislation, the outcomes and impact of such changes on our business, financial condition and results of operations are currently impossible to quantify or predict.

We maintain a comprehensive worldwide compliance program under the overall supervision of our chief compliance officer. The program includes a compliance staff, a written code of conduct applicable worldwide, training programs, regulatory compliance policies and procedures including corrective action for failure to follow policies, provisions for anonymous reporting of suspected violations of applicable laws or Company policies, and periodic internal audits of our compliance procedures. We operate many facilities throughout the United States and other countries in which we do business. In such a decentralized system, it is often difficult to maintain the desired level of oversight and control over the thousands of individuals employed by many affiliated companies. We rely on our management structure, regulatory and legal resources, and the effective operation of our compliance program to direct, manage and monitor the activities of these employees. If our employees or their agents or subcontractors, deliberately or inadvertently, were to submit inadequate or incorrect billings to any federally-funded health care program, or engage in unlawful conduct with physicians or other referral sources or vendors with which we do business, the actions of such persons could subject us and our subsidiaries to liability under the Federal Food, Drug, and Cosmetic Act, Anti-Kickback Statute, the Stark Law, the False Claims Act or the Foreign Corrupt Practices Act, among other laws. See note 22 of the notes to our audited consolidated financial statements, included in this report.

Product regulation

U.S. pharmaceuticals

In the U.S. numerous regulatory bodies, including the FDA and comparable state regulatory agencies impose requirements on certain of our subsidiaries as a manufacturer, distributor and a seller of drug products under their jurisdiction. Some of the products our subsidiaries manufacture and/or distribute are subject to regulation under the Federal Food, Drug, and Cosmetic Act of 1938, as amended (“FDCA”) and FDA’s implementing regulations. They include our peritoneal dialysis and saline solutions, PhosLo® (calcium acetate), Phoslyra® (calcium acetate oral solution), Venofer® (iron sucrose injection, USP), and Velphoro (sucroferric oxyhydroxide). Many of these requirements are similar to those for devices, as described below. We are required to register as an establishment with the FDA, submit listings for drug products in commercial distribution and comply with regulatory requirements governing product approvals, drug manufacturing, labelling, promotion, distribution, post market safety reporting and recordkeeping. We are subject to periodic inspections by the FDA and other authorities for compliance with inspections as well as with federal Centers for Medicare and Medicaid Services average sales price reporting, medical drug rebate program and other requirements. Our pharmaceutical products must be manufactured in accordance with current Good Manufacturing Practices (“cGMP”). We are required to provide information to the FDA whenever we become aware of a report of an adverse drug experience associated with the use of one of our drug products that is both serious and unexpected, as defined in FDA regulations and guidance. We are required to notify the FDA of certain product quality issues. In addition, as with the marketing of our medical devices, in order to obtain marketing approval of our drug products we must satisfy mandatory procedures and safety and efficacy requirements. Furthermore, the FDA prohibits our products division from marketing or promoting our pharmaceutical products in a false or misleading manner and from otherwise misbranding or adulterating them. Finally, if the FDA believes that a company is not in compliance with applicable drug regulations, it has similar enforcement authorities as those discussed below with respect to medical devices, including under the administrative, civil, and criminal penalty provisions of the FDCA. Other state and federal regulatory and enforcement agencies have authority to enforce related fraud, consumer protection, privacy, and other laws. The Trump Administration has announced its intention to simplify and accelerate the process for approval of new drugs. We cannot predict whether or when any such changes will be adopted, or what they will accomplish.

Pharmaceuticals outside the U.S.

Some of our products, such as peritoneal dialysis solutions and PhosLo® and Phoslyra®, are considered medicinal products subject to the specific drug law provisions in various countries. The European Union has issued several directives and regulations on medicinal products, including a directive on medicinal products for human use, No. 2001/83/EC (November 6, 2001), as amended. Each member of the European Union is responsible for conforming its law to comply with this directive. In Germany, the German Drug Law (*Arzneimittelgesetz*) (“AMG”), which implements several European Union requirements, is the primary regulation applicable to medicinal products.

The provisions of the German Drug Law are comparable with the legal standards in all other European countries. As in many other countries, the AMG provides that a medicinal product may only be placed on the market if it has been granted a corresponding marketing authorization. Such marketing authorization is granted by the licensing authorities only if the quality, efficacy and safety of the medicinal product have been scientifically proven. Medicinal products marketed on the basis of a corresponding marketing authorization are subject to ongoing control by the competent authorities. The marketing authorization may also be subsequently restricted or made subject to specific requirements.

The production of medicinal products requires a corresponding manufacturing license which is granted by the competent authorities of the relevant EU Member State for a specific manufacturing facility and for specific medicinal products and forms of medicinal products. The manufacturing license is granted only if the manufacturing facility, production techniques and production processes comply with the national drug law requirements, with the principles and guidelines of EU-Good Manufacturing Practice (“EU-GMP”) as well as the terms of the particular marketing authorization. International guidelines also govern the manufacture of medicinal products and, in many cases, overlap with national requirements. Material regulations concerning manufacture and registration related to medicinal products have been issued by the European Commission (“EC”) and the International Council on Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (“ICH”). The Pharmaceutical Inspection Co-operation Scheme (“PIC/S”), an international informal cooperative arrangement between regulatory authorities, aims at harmonizing inspection procedures by developing common standards in the field of good manufacturing practices and by providing training opportunities to inspectors. Among other things, the EC, PIC/S and ICH establish requirements for good manufacturing practices, many of which are then adopted at the national level. Another international standard, which is non-binding for medicinal products, is the ISO9001:2015 system for assuring quality management system requirements. This system has a broader platform than EU-GMP, which is more detailed and is primarily acknowledged outside the field of medicinal products, e.g., with respect to medical devices.

U.S. medical devices

Our subsidiaries engaged in the manufacture of medical devices are required to register with the FDA as device manufacturers and submit listing information for devices in commercial distribution. As a manufacturer of medical devices, we are subject to requirements governing premarket approval and clearance, labelling, promotion, clinical research, medical device adverse event reporting, manufacturing practices, reporting of corrections and removals, and recordkeeping, and we are subject to periodic inspection by the FDA for compliance with these requirements. With respect to manufacturing, we are subject to FDA’s Quality System Regulation (21 C.F.R. Part 820) and related FDA guidance, which requires us to manufacture products in accordance with cGMP, including standards governing product design. The medical device reporting regulations and guidance require that we report to the FDA whenever we receive or become aware of information that reasonably suggests that a device may have caused or contributed to a death or serious injury, or that a device has malfunctioned and a device or similar device would be likely to cause or contribute to a death or serious injury if the malfunction were to recur. FDA regulations also may require us to conduct product recalls and take certain other product corrective actions in response to potential quality issues. In addition, the FDA prohibits our products division from promoting our manufactured products for unapproved or uncleared indications or in a false or misleading manner. We are also prohibited from promoting unapproved or uncleared drugs or devices more generally. Finally, as with our pharmaceutical products, states impose additional requirements on our drug and device manufacturing and distribution activities, including requiring additional state licenses. We are subject to periodic inspections by the FDA and other authorities for compliance with these requirements.

Medical devices outside the U.S.

In Europe, the requirements to be satisfied by medical devices are laid down in three European directives to be observed by all Member States and all Member States of the European Economic Area (“EEA”), as well as all future accession states: (1) Directive 90/385/EEC of June 20, 1990 relating to active implantable medical devices, as last amended (“AIMD Directive”), (2) Directive 93/42/EEC of June 14, 1993 relating to medical devices, as last amended (“MD Directive”), and (3) Directive 98/79/EC of October 27, 1998 relating to in vitro diagnostic medical devices, as last amended (“IVD Directive”). In addition, Directive 2001/95/EC of December 3, 2001, as last amended, concerning product safety should be noted. The MD Directive has been amended, 2007/47/EC, with the intention to achieve improvements, including in the following areas: clinical assessment by specification of the requirements in more detail; monitoring of the devices after their placing on the market; and decision-making by enabling the EC to make binding decisions in case of contradictory opinions of states regarding the classification of a product as a medical device. In the future, the industry will face increasing requirements for medical devices under the new MDR, which came into force on May 25, 2017 and includes a transition period of 3 years for most provisions, after which the MDR will repeal the MD Directive and the AIMD Directive. Although the MDR is self-binding in all member states of the EU, numerous acts of the EC and of national legislation in each member state are necessary to fully implement the new legal provisions. These new provisions essentially include higher safety standards to be met by medical devices and, therefore, require a new conformity evaluation and re-certification of all medical devices regardless of whether they have already been placed on the market. There can be a prolonged transition phase, based on a valid EC certificate according to MD Directive, which will allow manufacturers until May 2024, at the latest, to continue to place their medical devices on the market and to align them with the MDR. The IVD Directive will be repealed by Regulation (EU) 2017/746 on in vitro diagnostic medical devices, which also came into force in May 25, 2017 and provides for a transition period of 5 years.

According to the current EU directives relating to medical devices, the CE mark shall serve as a general product passport for all Member States of the EU and the EEA. Upon receipt of a CE certificate for a product according to the applicable conformity assessment procedure, e.g. a certified full quality management system for medical devices according to ISO 13485:2016, and the documented declaration and proof of conformity of our products to the harmonized European norms (Declaration of Conformity), we as the legal manufacturer are able to mark products as being in compliance with the EU requirements. If able to do so, the manufacturer must place a CE mark on the products. Medical devices that do not bear the CE mark cannot be sold or distributed within the EU.

Clinical Research

Our subsidiaries engaged in the manufacture and sale of drugs and devices, when engaged in clinical research involving investigational products, are subject to FDA and other requirements governing the conduct of clinical research, including Good Clinical Practice (GCP) standards. Similarly, our subsidiaries involved in the provision of clinical development services may also be subject to FDA and other requirements governing the conduct of clinical research depending on the nature of the research involved.

FDA enforcement action

If the FDA believes that a regulated company is not in compliance with applicable laws and regulations, it can pursue various administrative and enforcement actions, including, for example, issuing an untitled or warning letter, initiating a seizure action, or seeking an injunction. Among other things, these actions can result in the assessment of administrative penalties, product recalls, and civil or criminal enforcement. Such actions could also lead to additional enforcement by other state or federal government agencies as well as law suits by patients or shareholders.

On April 6, 2011, the FDA issued to us a warning letter alleging that we marketed certain blood tubing sets without required premarket 510(k) clearance, in response to which we ceased marketing and distributing those blood tubing sets that were the subject of a January 2011 recall. We received 510(k) clearance for the blood tubing set product from the FDA on June 15, 2012 and subsequently recommenced marketing and distribution of these products. In addition, we have completed a comprehensive review of our 510(k) filings and submitted our findings to the FDA, and we continue to work with the FDA regarding effective submission strategies for certain product lines.

On March 29, 2012, we issued an urgent product notification regarding our NaturaLyte[®] Liquid and Granuflo[®] acid concentrate products that are used as one component of dialysate. The notification, which

was also incorporated into revised product labels, reflected a memorandum issued by the Fresenius Medical Services Chief Medical Office in November 2011 and cautioned clinicians about possible risks for acid-base management in patients associated with inappropriate prescription of these products. The FDA subsequently classified the notification and related labelling revisions as a Class I recall and issued its own Safety Communication warning to physicians about the need to prescribe all acid concentrate products currently available on the market appropriately.

After reconsideration of the November 2011 memorandum, the FDA in May 2014 permitted the Company to withdraw the March 29, 2012 notification and to revise its product labels consistently with that withdrawal. The FDA has not requested any change in the composition of the Company's acid concentrate products, nor has it requested any return or removal of products in connection with the controversy surrounding the November 2011 memorandum. The FDA's Safety Communication directed at all dialysate products remains in effect. Wrongful death, personal injury, and other litigation predicated on the November 2011 memorandum was substantially resolved by settlement consummated in November 2017. See note 22 of the notes to consolidated financial statements included in this report.

We cannot assure that all necessary regulatory clearances or approvals, including those for new products or product improvements, will be granted on a timely basis, if at all. Delays in or failure to receive clearance or approval or delays in or failures to carry out product recalls may result in liability and reputational harm and may materially adversely affect our operating results. If at any time the FDA believes we are not in compliance with applicable laws and regulations, the FDA could take administrative, civil, or criminal enforcement action, resulting in liability and reputational harm, which could materially affect our operating results.

Sales of dialysis products to Iran

The Company actively employs comprehensive policies, procedures and systems to ensure compliance with applicable controls and economic sanctions laws. The Company has allocated resources to design, implement and maintain a compliance program specific to the Company's U.S. and non-U.S. activities. At the same time, the Company's dedication to providing its life-saving dialysis products to patients and sufferers of end-stage renal disease extends worldwide, including conducting humanitarian-related business with distributors in Iran in compliance with applicable law. In particular, the Company's product sales to Iran from Germany are not subject to the EU's restrictive measures against Iran established by Council Regulation (EU) No. 267/2012 of March 23, 2012, as last amended by Commission Implementing Regulation (EU) 2019/1163 of July 5, 2019, as the Company's products sold to Iran do not fall within the scope of the EU sanctions and none of the end users or any other person or organization involved is listed on the relevant EU sanctions lists. Because the Company's sales to Iran were and are made solely by its German subsidiaries, the sales are not subject to the Iranian Transactions and Sanctions Regulations, 31 C.F.R Part 560 ("ITSR") and are not eligible for licenses from the U.S. Treasury Department's Office of Foreign Assets Control ("OFAC") pursuant to the Trade Sanctions Reform and Export Enhancement Act of 2000. Also, ITSR § 560.215(a) is not applicable in the present case because the Company does not have a U.S. parent company and is not in any other way owned or controlled by a United States person, as those terms are used in ITSR § 560.215(a), and the Company's affiliates involved in Iran-related transactions are also not "owned or controlled" by a United States person. That the Company has a U.S. subsidiary does not cause the ITSR to apply to the Company's Iran-related transactions (because the sales by the Company's non-U.S. affiliates are outside the scope of ITSR §560.215(a)). In any case, OFAC's public guidance provides that sales of medical devices to Iran by non-U.S. companies are generally subject to humanitarian exceptions under U.S. sanctions targeting Iran.

During the year ended December 31, 2019, the Company sold approximately €1 M of dialysis products to independent Iranian distributors and other foreign distributors for resale, processing and assembling in Iran. The products included fibre bundles, hemodialysis concentrates, dialysis machines and parts, and related disposable supplies. The sales of these products generated approximately €300,000 in operating income. All such sales were made by the Company's German subsidiaries. Based on information available to the Company, the Company believes that most if not all products were eventually sold to hospitals in Iran through state purchasing organizations affiliated with the Iranian Ministry of Health and were therefore sales to the "Government of Iran" as defined in ITSR § 560.304. The Company's 2019 sales to Iran represent 0.01% of its total revenues. The Company has no subsidiaries, affiliates or offices, nor does it have any direct investment or own any assets, in Iran. In light of the humanitarian nature of its products and the patient communities that benefit from our products, the Company expects to continue selling

dialysis products to Iran, provided such sales continue to be permissible under applicable export control and economic sanctions laws and regulations.

Potential changes impacting our private payors

On August 18, 2016, CMS issued a request for information (“RFI”) seeking public comment about providers’ alleged steering of patients inappropriately to individual plans offered on the Patient Protection and Affordable Care Act individual health insurance market. FMCH and other dialysis providers, commercial insurers and other industry participants responded to the RFI, and in that response, we reported that we do not engage in such steering. On December 14, 2016, CMS published an Interim Final Rule (“IFR”) titled “Medicare Program; Conditions for Coverage for End-Stage Renal Disease Facilities-Third Party Payment” that would amend the Conditions for Coverage for dialysis providers, like FMCH. The IFR would have effectively enabled insurers to reject premium payments made by patients who received grants for individual market coverage from the American Kidney Fund (“AKF”) and, therefore, could have resulted in those patients losing their individual market health insurance coverage. The loss of individual market coverage for these patients would have had a material and adverse impact on our operating results. On January 25, 2017, a federal district court in Texas, responsible for litigation initiated by a patient advocacy group and dialysis providers including FMCH, preliminarily enjoined CMS from implementing the IFR (*Dialysis Patient Citizens v. Burwell (E.D. Texas, Sherman Div.)*). The preliminary injunction was based on CMS’ failure to follow appropriate notice-and-comment procedures in adopting the IFR. The injunction remains in place and the court retains jurisdiction over the dispute. On June 22, 2017, CMS requested a stay of proceedings in the litigation pending further rulemaking concerning the IFR. CMS stated, in support of its request that it expects to publish a Notice of Proposed Rulemaking in the Federal Register and otherwise pursue a notice-and-comment process in the fall of 2017 which they ultimately did not publish. Plaintiffs in the litigation, including FMCH, consented to the stay, which was granted by the court.

Separately, the United States Department of Health and Human Services (“HHS”) has drafted a new proposed rule entitled “Conditions for Coverage for End-Stage Renal Disease Facilities – Third Party Payments” (CMS-3337-P). We do not know the substance of the proposed rule; however, the title suggests it could be similar to the IFR and establish requirements for ESRD facilities treating patients that accept financial assistance from third parties for premiums to enroll in coverage provided by an individual market plan. While the proposed rule has been under review by the Office of Management and Budget since June 2019, and the HHS identified a target date of (11/00/19) for publication, the proposed rule has not yet been published for comment.

The operation of charitable assistance programs like that of the AKF is also receiving increased attention by state insurance regulators and legislators. The result may be a regulatory framework that differs from state to state. Even in the absence of the IFR or similar state actions, insurers are likely to continue efforts to thwart charitable premium assistance to our patients for individual market plans and other insurance coverages. If successful in a material area or scope of our U.S. operations, these efforts would have a material adverse impact on our business and operating results. (See “– Regulatory and legal matters – Reimbursement – Possible changes in statutes or regulations” for further information on charitable premium assistance programs.)

On January 3, 2017, FMCH received a subpoena from the United States Attorney for the District of Massachusetts inquiring into its interactions and relationships with AKF, including its charitable contributions to the Fund and the Fund’s financial assistance to patients for insurance premiums. FMCH cooperated with the investigation, which was part of a broader investigation into charitable contributions in the medical industry. On August 1, 2019, the United States District Court for the District of Massachusetts entered an order announcing that the United States had declined to intervene on a qui tam complaint underlying the Boston United States Attorney’s Office (“USAO”) investigation and unsealing the relator’s complaint so as to permit the relator to serve the complaint and proceed on his own. The relator did not serve the complaint within the time allowed but the court has not yet dismissed the relator’s complaint.

U.S. ballot initiatives and other legislation

Further federal or state legislation or regulations may be enacted in the future through legislative and public referendum processes that could substantially modify or reduce the amounts paid for services and products offered by us and our subsidiaries and/or mandate new or alternative operating models and payment models that could present more risk to our health care service operations. Ballot initiatives that

are successfully introduced at the state level in the United States require the vote of state citizens to directly adopt or reject proposed new legislation. These ballot initiatives require a material expenditure of resources by us to participate in public discourse regarding the proposed new legislation underlying the initiatives, which if passed, could further regulate multiple aspects of our operations including, for instance, clinic staffing requirements, state inspection requirements and profit margins on commercial business. Efforts to enact new state laws regarding our operations are continuing. State regulation at this level would introduce an unprecedented level of oversight and additional expense at the clinic level which could have a material adverse effect on our business in the impacted states. It is also possible that statutes may be adopted or regulations may be promulgated in the future that impose additional eligibility requirements for participation in the federal and state health care programs. Such new legislation or regulations could, depending upon the detail of the provisions, have positive or adverse effects, possibly material, on our businesses and results of operations. See “Reimbursement – Possible changes in statutes or regulations,” below.

Environmental regulation

We are subject to a broad range of federal, foreign, state and local laws and regulations relating to pollution and the protection of the environment. These laws regulate, among other things, the discharge of materials into the environment, the handling and disposal of wastes, remediation of contaminated sites and other matters relating to worker, public and consumer health, and safety as well as to the protection of the environment. In addition, the Company uses substances regulated under U.S. and EU environmental laws, primarily in product design as well as manufacturing and sterilization processes. Noncompliance with these regulations can result in significant fines or penalties or limitations on our operations. The applicable environmental, health and safety laws and regulations, and any changes to them or their enforcement, may require us to make material expenditures with respect to ongoing compliance with or remediation under these laws and regulations or require that we modify our products or processes in a manner that increases our costs or reduces revenues.

An Environmental Management System (“EMS”) based on ISO 14001:2015 has been established in our main European production plants and in a high number of dialysis clinics in the European region. Compliance with environmental laws and regulations is a core objective of our EMS. Internal and external audits are organized and performed to verify compliance with the EMS requirements and applicable environmental laws and regulations. For additional information, see “– Environmental Management,” above.

Facilities and operational regulation

U.S.

Federal, state and local regulations (implemented by CMS, FDA, the Occupational Health and Safety Administration (“OSHA”), the Drug Enforcement Administration, and state departments or boards of public health, public welfare, medicine, nursing, pharmacy, and medical assistance, among others) require us to meet various standards relating to, among other things, the management, licensing, safety, security and operation of facilities (including, e.g., laboratories, pharmacies, and clinics), personnel qualifications and licensing, the maintenance of proper records, equipment, and quality assurance programs, and the dispensing, storage, and administration of controlled substances. All of our operations in the U.S. are subject to periodic inspection by federal, state and local agencies to determine if the operations, premises, equipment, personnel and patient care meet applicable standards. To receive Medicare/Medicaid reimbursement, our health care centers, renal diagnostic support business and laboratories must be certified by CMS. While all of our entities that furnish Medicare or Medicaid services maintain and renew the required certifications, material adverse effects on our business, financial condition, and results of operations could potentially occur if certain of those entities lose or are delayed in renewing a certification.

Our operations are subject to various U.S. Department of Transportation, Nuclear Regulatory Commission, Environmental Protection Agency, and OSHA requirements and other federal, state and local hazardous and medical waste disposal laws. As currently in effect, laws governing the disposal of hazardous waste do not classify most of the waste produced in connection with the provision of our health care services as hazardous, although disposal of non-hazardous medical waste is subject to specific state regulation. Our operations are also subject to various air emission and wastewater discharge regulations.

Several states have certificate of need programs regulating the establishment or expansion of health care facilities, including dialysis centers. We believe that we have obtained all necessary approvals for the

operation of our health care facilities in accordance with all applicable state certificate of need laws. In states that also have certificate of need programs, the licensure requirements are separate and in addition to the need for certificates of need.

Non-U.S.

We are subject to a broad spectrum of regulation in almost all countries. Our operations must comply with various environmental and transportation regulations in the various countries in which we operate. Our manufacturing facilities and dialysis clinics are also subject to various standards relating to, among other things, facilities, management, personnel qualifications and licensing, maintenance of proper records, equipment, quality assurance programs, the operation of pharmacies, the protection of workers from blood-borne diseases and the dispensing of controlled substances. All of our operations may be subject to periodic inspection by various governmental authorities to determine if the operations, premises, equipment, personnel and patient care meet applicable standards. Our dialysis clinic operations and our related activities generally require licenses, which may be subject to periodic renewal and may be revoked for violation of applicable regulatory requirements.

In addition, many countries impose various investment restrictions on foreign companies. For instance, government approval may be required to enter into a joint venture with a local partner. Some countries do not permit foreign investors to own a majority interest in local companies or require that companies organized under their laws have at least one local shareholder. Investment restrictions therefore affect the corporate structure, operating procedures and other characteristics of our subsidiaries and joint ventures in these and other countries.

We believe our facilities are currently in compliance in all material respects with the applicable national and local requirements in the jurisdictions in which they operate.

Reimbursement

As a global company delivering health care and dialysis products, we are represented in around 150 countries worldwide. Consequently, we face the challenge of addressing the needs of a wide variety of stakeholders, such as patients, customers, payors and legislators in very different economic environments and health care systems.

Health care systems and reimbursement structures for ESRD treatment vary significantly by country. In general, the government (in some countries in coordination with private insurers) or social insurance programs pay for health care. Funding is achieved through taxes and other sources of government income, from social security contributions, or a combination of those sources. However, not all health care systems provide for dialysis treatment. In some developing countries, only limited subsidies from government, social insurances or charitable institutions are available, and typically dialysis patients must personally finance all or a substantial share of the treatment cost. Irrespective of the funding structure, in some countries patients in need of dialysis do not receive treatment on a regular basis but rather when the financial resources allow it.

U.S.

Our dialysis clinics provide outpatient hemodialysis treatment and related services for ESRD patients. In the U.S., Medicare pays as the primary insurer for Medicare-eligible individuals under most circumstances. For Medicare primary patients, Medicare pays 80 percent of the prospective payment amount for the ESRD Prospective Payment system items and services. The beneficiary or third-party insurance payors (including employer-sponsored health insurance plans, commercial insurance carriers and the Medicaid program) on behalf of the beneficiary are responsible for paying the beneficiary's cost-sharing obligations (typically an annual deductible and 20 percent co-insurance), subject to the specific coverage policies of such payors. Each third-party payor, including Medicaid, makes payment under contractual or regulatory reimbursement provisions that may or may not cover the full 20 percent co-payment or annual deductible. Where the beneficiary has no third-party insurance or the third-party insurance does not fully cover the co-payment or deductible, the beneficiary is responsible for paying the co-payments or the deductible, which we frequently cannot fully collect despite collection efforts. Medicare Advantage plans are required to pay to their out-of-network providers at least the rate applicable in the traditional Medicare fee-for-service program. As a result, Medicare Advantage plans with which we do not have a contract will pay at least 80 percent of the prospective payment amount for the ESRD PPS items and services we provide their members. We have also entered into network contracts with several Medicare Advantage plans pursuant to which we may be entitled to higher reimbursement than traditional Medicare rates.

Medicare's ESRD Prospective Payment System. Under the ESRD PPS, CMS reimburses dialysis facilities with a single payment for each dialysis treatment, inclusive of (i) all items and services included in the former composite rate, (ii) oral vitamin D analogues, oral levocarnitine, ESAs and other ESRD-related pharmaceuticals (other than vaccines and oral-only drugs) furnished to ESRD patients that were previously reimbursed separately under Part B of the Medicare program, (iii) most dialysis-related diagnostic laboratory tests and (iv) certain other items and services furnished to individuals for the treatment of ESRD.

Payment rates vary by both patient and facility. CMS subjects a base ESRD PPS payment rate to case-mix adjustments that take into account individual patient characteristics (e.g., age, body surface area, body mass) and certain co-morbidities. The base payment rate is also adjusted for (i) certain high cost patient outliers reflecting unusual variations in medically necessary care, (ii) disparately high costs incurred by low volume facilities relative to other facilities, (iii) provision of home dialysis training and (iv) wage-related costs in the geographic area in which the provider is located. The Protecting Access to Medicare Act of 2014 ("PAMA") provides that rates will be updated by the market basket rate of increase net of multifactor productivity adjustment.

On October 31, 2019, CMS issued a final rule for the ESRD PPS rate for calendar year (CY) 2020. On average, large dialysis organizations will receive a 1.7% increase in payments under this final rule. The base rate per treatment is \$239.33 which represents a 1.7% increase from the 2019 base rate including the adjustment for the wage index budget-neutrality factor. The 2020 final rule reflects a market basket increase of 2.0% that is partially offset by a 0.3% multifactor productivity adjustment (as mandated by the ACA) and application of the wage index budget-neutrality adjustment factor of 1.000244. The 2020 ESRD PPS rate retains the 2019 wage index floor of 0.5000. The labor-related portion of the ESRD PPS base rate to which the wage index is applied will be 52.3% in 2020. CMS updated the AKI payment rate for CY 2020 to \$239.33, which is the same as the base rate finalized under the ESRD PPS for CY 2020. In the final rule, effective January 1, 2020, CMS also revised the transitional drug add-on payment adjustment ("TDAPA"). Under the CY 2019 final rule, all new renal dialysis drugs and biological products became eligible for TDAPA, not just those in new ESRD PPS functional categories. However, in the CY 2020 final rule, CMS narrowed that policy to exclude from eligibility certain non-innovative drugs approved by FDA (e.g., generics, reformulations of existing drugs, and other types of new drug applications (NDAs) that do not represent truly new therapies). In the CY 2019 final rule, CMS also changed the basis of payment for the TDAPA from pricing methodologies under section 1847A of the Act, which includes average sales price ("ASP") plus 6 percent ("ASP+6"), to 100 percent of ASP ("ASP+0"). However, that change did not apply to calcimimetics under the TDAPA. In the CY 2020 final rule, CMS extended pricing based on ASP+0 to calcimimetics under the TDAPA.

In the CY 2020 ESRD PPS final rule, CMS updated the outlier policy and outlier services fixed-dollar loss ("FDL") amounts and Medicare Allowable Payment ("MAP") amounts for adult and pediatric patients, using 2018 claims data. CMS has consistently lowered the MAP amount each year under the ESRD PPS. For CY 2019, outlier payments represented only 0.5 percent of total ESRD payments, and CMS believes that using CY 2018 claims data to update the outlier MAP and FDL amounts for CY 2020 will increase payments for ESRD beneficiaries requiring higher resource utilization in accordance with a target 1 percent outlier percentage.

Sequestration of Medicare payments. On August 2, 2011, the BCA was enacted, raising the U.S. debt ceiling and putting into effect a series of actions for deficit reduction. The BCA, in effect, required automatic across-the-board spending cuts for most government programs over nine fiscal years (2013-2021); these cuts were projected to total \$1.2 trillion. The first cuts for Medicare payments to providers and suppliers were implemented on April 1, 2013. The Bipartisan Budget Act of 2013 extended the cuts to mandatory spending programs, including Medicare, for an additional two years. The reduction in Medicare payments to providers and suppliers (the "U.S. Sequestration") is limited to one adjustment of no more than 2 percent in each year through 2022, rising to 2.9 percent for the first half of FY 2023 and dropping to 1.11 percent for the second half of FY 2023. As mandated by PAMA, the reductions pursuant to the U.S. Sequestration for the first six months of 2024 will be 4 percent, and there will be no reductions for the second six months of 2024. The U.S. Sequestration is independent of Medicare's annual inflation update mechanisms, such as the market basket update pursuant to the ESRD PPS.

PAMA also included a provision addressing ESRD-related drugs with only an oral form, which are referred to as "oral-only" drugs and which have been paid separately. In the future, these drugs are expected to be reimbursed under the ESRD PPS, and the Secretary of Health and Human Services is

expected to adjust the ESRD PPS payment rates to reflect the additional cost to dialysis facilities of providing these medications. Subsequently, the Achieving a Better Life Experience Act of 2014 delayed inclusion of oral-only drugs in the ESRD PPS until January 1, 2025. At present only phosphate binders, including PhosLo®, are considered “oral-only” drugs. As described below, calcimimetics were considered to be oral-only drugs until a non-oral calcimimetic entered the market in 2018.

In a final rule published on November 6, 2015, CMS provided for implementation of the PAMA oral-only provision. CMS clarified that once any non-oral ESRD-related drug in a category previously considered oral only is approved by the FDA, such category of drugs will cease to be considered oral only. However, for at least two years, CMS will pay for both oral and non-oral versions of the drug using a TDAPA. During this transition period, CMS will not pay outlier payments for these drugs, but the agency will collect data reflecting utilization of both the oral and injectable or intravenous forms of the drugs, as well as payment patterns, in order to help determine how to appropriately adjust the ESRD PPS payment rate as these drugs are included in the payment bundle. At the end of this transition period, CMS will incorporate payment for the oral and non-oral versions of the drug in the ESRD PPS payment rates, utilizing a public rulemaking process.

As noted above, the CY 2020 final rule modified the eligibility policy for the TDAPA applicable to renal dialysis drugs and biologicals. The revised drug designation policy, including the revised TDAPA payment policy, took effect January 1, 2020. CMS will pay for Sensipar and Parsabiv™ for the remainder of the transition period based on ASP+0.

The introduction of Parsabiv™, an intravenous calcimimetic, has resulted in changes in how some payors, other than Medicare, arrange for the provision of calcimimetics for their patients. While some patients continue to receive calcimimetics from their pharmacies as a pharmacy benefit, other patients receive calcimimetics from their dialysis providers, as a medical benefit. While we receive additional reimbursement from some payors when these drugs are provided by our clinics, this type of transition from an oral-only drug has not occurred previously and the reimbursement landscape for non-Medicare payors continues to evolve.

Several generic calcimimetic products have been approved by the FDA. FMCH has been able to purchase certain of these generic calcimimetic products at rates that are lower than the rate paid for the brand name calcimimetic, Sensipar. As a result, FMCH has been able to realize a savings in cost. Amgen, Inc. (“Amgen”), the manufacturer of Sensipar, has taken steps to prevent the continued sale of the generic products through settlement and legal action. If Amgen is successful in preventing the continued sale of generic calcimimetics, FMCH might not be able to purchase a lower priced alternative and continue to realize cost savings, which could have an adverse effect on our business, results of operations and financial condition. See “Item 5. Operating and financial review and prospects – III. Results of operations, financial position and net assets – Year ended December 31, 2019 compared to year ended December 31, 2018” for information on the impact of the Implementation of PAMA oral-only provision.

Revisions to Medicare’s Physician Fee Schedule. The Medicare and CHIP Reauthorization Act of 2015 (“MACRA”) removed the periodic threat of substantial reductions in payment rates under the Physician Fee Schedule (“PFS”) that could have, if they had been permitted to take effect, significantly affected our businesses and those of our affiliated physicians. MACRA permanently removed the “sustainable growth rate” provision and in its place specified modest increases in PFS payment rates for the next several years. MACRA creates an elaborate scheme of incentive payments and penalty adjustments starting in 2019 based on 2017 physician performance as reflected in various measures of cost, use of health information technology, practice improvement activities, and quality of care and on possible participation in “advanced alternative payment models,” such as some accountable care organizations. We cannot predict whether this scheme is likely to have material effects on our revenues and profitability in our nephrology, urgent care, vascular, cardiovascular and endovascular speciality services. Through an annual rule-making cycle, CMS revises PFS payment rates to account for across-the-board updates as well as, from time to time, changes in the evaluation of physician work and practice expenses used to set rates for individual services paid under the PFS. While impacts of large changes are usually spread out over several years, such changes have the potential to affect the rates for specific services that are extensively furnished in our physician businesses and hence to affect materially the revenues of those businesses.

On November 15, 2016, CMS issued the final rule updating the Physician Fee Schedule for CY 2016, in which it substantially reduced the reimbursement rates for certain vascular access services provided in the physician office setting. For the range of procedures provided in a vascular access center, these cuts represent an average reduction of 20.5 percent compared to the prior year. For the most common dialysis

access related procedures, the cuts averaged as 32.2 percent compared to the prior year. Azura Vascular Care (previously known as Fresenius Vascular Care) is converting many of its facilities into ambulatory surgery centers. This more regulated model allows Azura Vascular Care to enhance coordination of care and expand services while offering a more specialized and less costly site of service as compared to hospital settings. Converting facilities to ambulatory surgical centers will require capital, take time and be subject to applicable federal and state regulations; certificates of need will be required in some states.

On November 1, 2019, CMS issued the CY 2020 final rule for hospital outpatient and ambulatory surgery center payment systems. For CY 2020, CMS will continue to pay certain dialysis vascular access codes at the Ambulatory Surgical Center (“ASC”) rate. The final rule updating the ASC Fee Schedule for CY 2020 generally increased the reimbursement rates for certain vascular access services. For the range of procedures provided in an ASC, the average increase is 3.4% compared to the prior year. CMS also updated the Physician Fee Schedule for CY 2020. For the range of procedures provided in a physician office, the CY 2020 Physician Fee Schedule represents, on average, no change in reimbursement compared to the prior year.

ESRD PPS quality incentive program. The ESRD PPS’s Quality Incentive Program (“QIP”) affects Medicare payments based on performance of each facility on a set of quality measures. Based on a prior year’s performance, dialysis facilities that fail to achieve the established quality standards have payments for a particular year reduced by up to 2 percent. CMS updates the set of quality measures each year, adding, revising or retiring measures.

In the 2020 ESRD PPS final rule, CMS finalized several programmatic updates to the ESRD QIP and codified data submission requirements for calculating measure scores. Under the ESRD QIP program, CMS assesses the total performance of each facility on measures specified per payment year and applies an appropriate payment reduction to each facility that does not meet a minimum total performance score (“TPS”). For performance year 2022, CMS estimated that a facility must meet or exceed a minimum TPS of 54 in order to avoid a payment reduction. CMS updated the scoring methodology for the NHSN Dialysis Event reporting measure to allow new eligible facilities to report data on the measure. The 2020 ESRD PPS final rule automatically advances the performance period and baseline period for each payment year by one year from the previous year, beginning with the PY 2024 payment year. The 2020 ESRD PPS final rule also includes requirements for the Extraordinary Circumstances Exception (ECE) process, which grants facilities exceptions to certain reporting requirements in the QIP. In the final rule, CMS converts the Standardized Transfusion Ratio (“STrR”) clinical measure used in the QIP to a reporting measure while it examines the validity of the STrR clinical measure. The final rule also finalizes payment reductions of up to two percent for the PY 2022 ESRD QIP. The total payment reductions for the approximate 1,871 out of 7,386 Medicare-enrolled dialysis facilities expected to receive a payment reduction is approximately \$18.2 million for the 2020 performance year.

ACA provides for broad health care system reforms, including (i) provisions to facilitate access to private health insurance, (ii) expansion of the Medicaid program, (iii) industry fees on device and pharmaceutical companies based on sales of brand name products to government health care programs, (iv) increases in Medicaid prescription drug rebates, (v) commercial insurance market reforms that protect consumers, such as bans on lifetime and annual limits, coverage of pre-existing conditions, and limits on waiting periods, (vi) provisions encouraging integrated care, efficiency and coordination among providers (vii) provisions for reduction of health care program waste and fraud and (viii) a 2.3 percent excise tax on manufacturers’ medical device sales starting in 2013. However, pursuant to the Consolidated Appropriations Act of 2016, enacted December 18, 2015, the medical device excise tax was suspended for all sales of such devices in 2016 and 2017. On January 22, 2018, Congress passed a continuing resolution that further extended this moratorium for 2018 and 2019. In December 2019, Congress passed, and President Trump signed, a full fiscal year 2020 domestic appropriations package that permanently repeals the medical device tax. In 2017, Congress considered legislation to “repeal and replace” ACA and may return to these issues in the future, but we cannot predict what provisions will be affected and what changes will result. Further, the Trump Administration may take various administrative actions that could materially affect how ACA provisions are implemented. We cannot predict the nature, extent, or impact of any such actions.

ACA includes a provision referred to as the individual mandate that requires most U.S. citizens and noncitizens to have health insurance that meets certain specified requirements or be subject to a tax penalty. On December 22, 2017, President Trump signed into law sweeping changes to the U.S. Tax Code. Among the provisions included in the law was an amendment to this ACA provision that reduced to zero

the excise tax penalty imposed on individuals who do not obtain minimum essential health care coverage. The provision became effective starting in 2019. The Congressional Budget Office estimated in November of 2017 that elimination of the mandate has the potential to decrease the number of individuals with health insurance by approximately 4 million in 2019 and premiums are likely to increase because healthier individuals are likely to opt out of paying for health insurance without the influence of a penalty. On February 26, 2018, the Texas and Wisconsin Attorneys General, leading a 20-state coalition, filed a lawsuit challenging the constitutionality of the ACA in the Northern District of Texas titled *Texas and Wisconsin, et al v. United States, et al* (N.D. Tex). The plaintiffs argued that because the amendment “renders legally impossible the Supreme Court’s prior savings construction of the Affordable Care Act’s core provision – the individual mandate – the Court should hold that the ACA is unlawful and enjoin its operations.” On December 14, 2018, the Court granted a partial summary judgment finding the individual mandate unconstitutional and the remaining provisions of the ACA inseparable, and therefore invalid, and granted the plaintiffs’ claim for declaratory relief in Count 1 of the amended complaint. On December 30, 2018, the Court issued a final judgment on Count 1, which enabled the decision to be appealed. In December 2019, a three-judge panel from the United States Court of Appeals for the Fifth Circuit affirmed a district court ruling that found the individual mandate to be unconstitutional because it can no longer be read as a tax, and there is no other constitutional provision that justifies this exercise of congressional power. The case, *Texas v. Azar*, remanded to the district court to provide additional analysis of the other provisions of the ACA as they currently exist. A decision on remand is expected in 2020, and a petition to the Supreme Court is likely to follow, making the outcome of this ACA litigation uncertain for some time. On December 31, 2018, the Court entered an order staying the remainder of the case pending resolution of the appeal. It is not possible for us to predict the outcome of this lawsuit or what if any impact the elimination of the individual mandate will have on the patients seeking our products and services.

Pharmaceuticals. We participate in the federal Medicaid rebate program established by the Omnibus Budget Reconciliation Act of 1990, as well as several state supplemental rebate programs. We make our pharmaceutical products available to authorized users of the Federal Supply Schedule (“FSS”) of the General Services Administration under an FSS contract negotiated by the Department of Veterans Affairs (“VA”). Under our license to market and distribute the intravenous iron medication Venofer® to freestanding dialysis clinics, we also are considered, for statutory price reporting purposes, to be the manufacturer of Venofer® (when sold by us under one of our national drug codes (“NDCs”)), which is reimbursed under Part B of the Medicare program. Our products also are subject to a federal requirement that any company participating in the Medicaid rebate or Medicare program charge prices comparable to the rebates paid to State Medicaid agencies on purchases under the Public Health Services (“PHS”) pharmaceutical pricing program managed by the Department of Health and Human Services (also known as the “340B program” by virtue of the section of the Public Health Service Act (“PHSA”) that created the program). The PHS pricing program extends these deep discounts on outpatient drugs to a variety of community health clinics and other entities that receive health services grants from the PHS, certain “look alike,” as well as various other providers. ACA expanded the 340B program to include additional providers.

Under the Medicaid rebate program, we pay a rebate to each state Medicaid program based upon sales of our covered outpatient drugs that are separately reimbursed by those programs. ACA increased the minimum federal Medicare rebate percentages, effective January 1, 2010. Rebate calculations and price reporting rules are complex and, in certain respects, subject to interpretations of law, regulation, or policy guidance by us, government or regulatory agencies and the courts. The Medicaid rebate amount is computed each quarter based on our submission to CMS of our current Average Manufacturer Price (“AMP”) and Best Price for our pharmaceutical products. The Veterans Health Care Act imposes a requirement that the prices we charge to certain federal entities under the FSS must be no greater than the Federal Ceiling Price, which is determined by applying a statutory discount to the average price charged to non-federal customers through wholesalers. Because the amount the government pays to reimburse the cost of a drug under Part B of the Medicare program is ordinarily based on the drug’s ASP, additional price calculation and reporting obligations are imposed on the manufacturers of Part B drugs under that program (to the extent these manufacturers participate in the Medicaid rebate program, from which an obligation to report Part B drug prices flows). Since Venofer® is covered under Part B, we are responsible for compiling and utilizing a wide range of sales data elements to determine the ASP of Venofer® marketed under our NDC, and reporting it to CMS. The Medicare ESRD PPS system incorporates payment for Venofer® at dialysis facilities.

Government agencies may make changes in program interpretations, requirements or conditions of participation, and retain the right to audit the accuracy of our computations of rebates and pricing, some of which may result in implications (such as recoupment) for amounts previously estimated or paid which may have a material adverse effect on our operating results.

Laboratory tests. Spectra obtains a portion of its revenue from Medicare, which pays for clinical laboratory services provided to dialysis patients in two ways. Payment for most tests is included in the ESRD PPS bundled rate paid to dialysis clinics. The dialysis clinics obtain the laboratory services from laboratories and pay the laboratories for the services. In accordance with industry practice, Spectra usually provides such testing services under capitation agreements with its customers pursuant to which it bills a fixed amount per patient per month to cover the laboratory tests included in the ESRD PPS rate at the frequencies designated in the capitation agreement. Second, the few laboratory tests performed by Spectra for Medicare beneficiaries that are not included in the ESRD PPS bundled rate are billed separately to Medicare. Such tests are paid at 100 percent of the payment amounts on Medicare's Clinical Laboratory Fee Schedule ("CLFS"), although payment rates are further reduced by a 2% sequestration adjustment that remains in place until further notice.

PAMA requires CMS to substantially revise how payment rates are determined under the CLFS. Through regulations, CMS delayed the effective date of the new payment rates from January 1, 2017 (as required by PAMA) to January 1, 2018. The new rates will be determined based on the median of rates paid by private payors for these tests in the period before the new rates take effect. The new rates will be effective for most tests for a three-year period, with no updates during that period for inflation or other factors. PAMA provides that rate declines will be limited to 10 percent in each of the first three years. Final estimates of the effects of the new rate-setting system on CLFS revenues are not yet available, but in general payment rates for most tests paid on the CLFS will decline. These declines are not expected to directly affect Spectra's principal source of revenue, payments from dialysis facilities for laboratory tests included in the ESRD PPS. We cannot predict whether Spectra may witness indirect effects in future years as the laboratory industry and its customers adjust to the new CLFS rates.

Coordination of benefits. Medicare entitlement begins for most patients at least three months after the initiation of chronic dialysis treatment at a dialysis center. During the first three months, considered to be a waiting period, the patient or patient's insurance, Medicaid or a state renal program is generally responsible for payment.

Patients who are covered by Medicare and are also covered by an employer group health plan ("EGHP") are subject to a 30-month coordination period during which the EGHP is the primary payor and Medicare the secondary payor. During this coordination period the EGHP pays a negotiated rate or in the absence of such a rate, our standard rate or a rate defined by its plan documents. The EGHP payments are generally higher than the Medicare payment. EGHP insurance, when available, will therefore generally cover as the primary payor for a total of 33 months, including the 3-month waiting period plus the 30-month coordination period. Any significant decreases in EGHP reimbursement rates could have material adverse effects on our provider business and, because the demand for our products is affected by provider reimbursement, on our products business.

Participation in new Medicare payment arrangements. For information on our value-based agreements and health insurance products, see "-- Business Overview -- Care Coordination -- Value and risk-based arrangements," above.

Executive order-based models. On July 10, 2019, President Trump signed an Executive Order on advancing kidney health. Among other things, the order instructs the Secretary of HHS to develop new Medicare payment models that will encourage identification and treatment earlier in kidney disease progression as well as increased home dialysis and transplant. One of those models, the ESRD Treatment Choices ("ETC") model, is a mandatory model that will create financial incentives for home treatment and transplant. This model proposes to apply both positive and negative payment adjustments to claims submitted by physicians and dialysis facilities for home dialysis patients for 3 years. This model also proposes a payment adjustment based on performance. The performance-based adjustment will be based on home dialysis and transplant rates and will range from (8%) to 5% in the first payment year to (13%) and 10% percent in the final payment year. The ETC model initially proposed a start date of January 2020 and would end in 2026, however CMS has postponed the start date of the ETC model. Participants in this model will be selected randomly. Pursuant to the Executive Order, the Secretary also announced voluntary payment models, Kidney Care First ("KCF") and CKCC (graduated, professional and global), which aims

to build on the existing Comprehensive End Stage Renal Disease Care model. The voluntary models create financial incentives for health care providers to manage care for Medicare beneficiaries with chronic kidney disease stages 4 and 5 and with ESRD to delay the start of dialysis and to incentivize kidney transplant. The voluntary models allow health care providers to take on various amounts of risk. One model, the CKCC global model, allows participating organizations to assume risk for 100 percent of the total cost of care for all Medicare Part A and B services for aligned beneficiaries. The KCF model limits participation to nephrologists while the CKCC model requires participation by both nephrologists or nephrology practices and transplant providers. Dialysis providers and other suppliers may participate. Applications for the voluntary models were submitted in January 2020, but CMS has not provided a timeline for acceptance of the applications. We submitted 25 CKCC applications and are also included in four other CKCC applications submitted by nephrologists. Once implemented, the CKCC model is expected to run through 2023. It is too soon to predict the effects on our business of the ETC payment model and the voluntary payment models.

Possible changes in statutes or regulations. Further federal or state legislation or regulations may be enacted in the future that could substantially modify or reduce the amounts paid for services and products offered by us and our subsidiaries and/or implement new or alternative payment models for dialysis that could present more risk sharing for dialysis clinics. For example, the Dialysis Patient Access to Integrated-care, Empowerment, Nephrologists, Treatment, and Services Demonstration Act of 2016 (a.k.a., the PATIENTS Act, S.3090/H.R.5942) was introduced in the U.S. Congress during the last session. If enacted, the legislation would, among other things, create a new ESRD-specific model of coordinated care not unlike that of the ESRD Seamless Care Organizations that would be mandated to be Advanced Alternate Payment Models as defined by the Medicare Access and CHIP Reauthorization Act, give enrolled patients supplemental benefits beyond what is available under current Medicare plans and establish incentives for providers, physicians and patients enrolled in the model. Nephrologists who are APM qualified participants would be eligible for the 5% payment bonus and would not be required to comply with MIPS reporting requirements. In addition, in July of 2019, CMS proposed several new mandatory and voluntary models impacting payments to dialysis care though it is unclear when those models will be finalized and how they might change in response to public comments. Other examples include ballot initiatives introduced at the state level which could further regulate clinic staffing requirements, state inspection requirements and commercial reimbursement rates. For example, in 2019, the State of California enacted legislation impacting commercial payment rates in cases where charitable premium assistance is provided to patients, but the effective date of such legislation has been preliminary enjoined. State regulation at this level would introduce an unprecedented level of oversight and additional expense at the clinic level which could have a material adverse effect on our business in the impacted states. While there is uncertainty regarding the passage and scope of these ballot initiatives (beyond the State of California), if some form of ballot initiative passes at the state level, such action could have a material adverse impact on our business. It is also possible that statutes may be adopted or regulations may be promulgated in the future that impose additional eligibility requirements for participation in the federal and state health care programs. Such new legislation or regulations could, depending upon the detail of the provisions, have positive or adverse effects, possibly material, on our businesses and results of operations. See “Item 3. Key Information – D. Risk Factors – Risks relating to regulatory matters *“We operate in a highly regulated industry such that the potential for legislative reform provides uncertainty and potential threats to our operating models and results”* and *“Changes in reimbursement for dialysis and other health care services could materially impact our operating results,”* as well as “– Health care Reform” below.

Non-U.S.

As a global company delivering health care and dialysis products in around 150 countries worldwide, we face the challenge of addressing the needs of patients and customers in widely varying economic and health care environments. A country’s approach to reimbursement and market pricing is markedly influenced by the type of health care funding system it employs. National insurance systems have been characterized by greater decentralisation and generally a more widespread use of ‘fee-for-service’ agreements.

In the major European and British Commonwealth countries, health care systems are generally based on one of two funding models. The health care systems of countries such as Germany, France, Belgium, Austria, Czech Republic, Poland and Hungary are based on the Bismarck-type system; where a mandatory employer and employee contributions dedicated to health care financing is required. Countries such as the United Kingdom, Canada, Denmark, Finland, Portugal, Sweden and Italy established their national health services using the Beveridge-type system, which provides a national health care system financed by taxes.

However, during the last decade, health care financing under many social security systems has also been significantly subsidized with tax money.

In Asia-Pacific, universal health care is at different stages of implementation and, as such, reimbursement mechanisms vary significantly between countries (including variances at the state, provincial or city level). Tax-based health care funding systems are mostly seen in Australia, New Zealand, Hong Kong, Malaysia, Taiwan and Thailand where governments have more direct levers to manage the provision of health care and have more control on expenditures. Other countries, such as Japan, the Philippines and South Korea (which runs a co-payment scheme), finance health care through social health insurance (“SHI”). Indonesia continues its roadmap towards a comparable universal health care coverage amidst system challenges. Singapore has a multi-tier system with mandatory contribution into medical health plans alongside means-tested subsidies to cover catastrophic illnesses. China’s health reforms are underway and the country is positioned to achieve universal health care by 2020.

In Latin America, health care systems are funded by public payors, private payors or a combination of both. For countries such as Argentina, Brazil, Chile, Colombia, Curaçao, Ecuador and Peru, Universal Health Care (“UHC”) covers ESRD for all citizens, funded by employers as well as individual compulsory contributions. In Peru, UHC is not yet fully implemented. Private insurers complement health care coverage, particularly in Argentina, Brazil and Colombia, and may be preferred by patients for a better quality of treatment or convenience. For those countries in Latin America in which we operate, with the exception of Chile, Curaçao, Ecuador and Peru where rates may vary depending upon payors, reimbursement rates are independent of treatment modality. Each payor (public or private) defines its own tariff, subject to a yearly revision to restore the value eroded by inflation. In Colombia, competition bids for lower prices without regard to adjusted tariffs and in Brazil, where public payors represent more than 60% of the share, inflation adjustments for dialysis care services are not often received.

Remuneration for ESRD treatments widely differs between countries but there are three broad types of reimbursement modalities: global budget, fee-for-service reimbursement and a bundled payment or capitation rate paid at predetermined periods. In some cases, reimbursement modalities may also vary within the same country depending on the type of health care provider (public or private). Budget allocation is a reimbursement modality used mainly for public providers in most of European countries where the funding is based on taxation and in some of the countries where it is based on social security. Fee for service, which used to be the most common reimbursement modality for private providers in European and Asia Pacific countries, is increasingly being replaced by periodic reimbursement bundles. These include different components of the ESRD treatment and level of payment is linked to certain quality parameters.

Additionally, in Europe and in some parts of Asia Pacific, operations are increasingly subject to cost management strategies, such as health technology assessments (a strict analysis on the entry of new products and services), which require additional data, reviews and administrative processes, all of which increase the complexity, timing and costs of obtaining product & service reimbursement, simultaneously putting continuous downward pressure towards available reimbursement. In addressing these cost containment pressures, the Company is developing more expertise in the Health Economics & Market Access field in order to respond, counteract and proactively anticipate health system funding changes that impact our business. The main aim of this development is to demonstrate that our products and services create value for patients and for those who pay for health care. The Company advocates to encourage a long-term partnership for sustainable health care financing and value-based payment programs.

Generally, in European countries with established dialysis programs, reimbursements range from \$70 to more than \$400 per treatment. In Asia-Pacific and Latin America, reimbursement rates can be significantly lower. Where treatment is reimbursed on a fee-for-service basis, reimbursement rates are sometimes allocated in accordance with the type of treatment performed. However, because the services and costs that are reimbursed differ widely between countries, calculation of an average global reimbursement amount would likely bear little relation to the actual reimbursement system in any one country. Hence, country comparison will be relevant only if it includes an analysis of the cost components covered, including their individual costs, services rendered and the structure of the dialysis clinic in the countries being compared.

Anti-kickback statutes, False Claims Act, Stark Law and other fraud and abuse laws in the United States

Some of our operations are subject to federal and state statutes and regulations governing financial relationships between health care providers and potential referral sources and reimbursement for services

and items provided to patients with Medicare, Medicaid and other types of U.S. Government and state government health insurance. Such laws include the Anti-Kickback Statute, the False Claims Act, the Stark Law, and other federal health care fraud and abuse laws and similar state laws. The U.S. Government, many individual states and private third-party risk insurers have devoted increasing resources to combat fraud, waste, and abuse in the health care sector.

The Office of the Inspector General of HHS (“OIG”), state Medicaid fraud control units, and other enforcement agencies have dedicated substantial resources to their efforts to detect arrangements and practices that may violate fraud and abuse laws.

The government’s ability to pursue actions against potential violators has been enhanced over the past years, by expanding the government’s investigative authority, expanding criminal and administrative penalties, by increasing funding for enforcement and providing the government with expanded opportunities to pursue actions under the federal Anti-Kickback Statute, the False Claims Act, and the Stark Law. For example, ACA narrowed the public disclosure bar under the False Claims Act, allowing increased opportunities for whistleblower litigation. In addition, the legislation modified the intent standard under the federal Anti-Kickback Statute, making it easier for prosecutors to prove that alleged violators had met the requisite knowledge requirement. ACA and implementing regulations also require providers and suppliers to report any Medicare or Medicaid overpayment and return the overpayment on the later of 60 days of identification of the overpayment or the date the cost report is due (if applicable), or else all claims associated with the overpayment will become false claims. The ACA also provides that any claim submitted from an arrangement that violates the Anti-Kickback Statute is a false claim.

Health care reform

In response to increases in health care costs in recent years, there have been, and continue to be, proposals by the federal government, state governments, regulators and third-party payors to control these costs and reform the U.S. health care system. The ACA, enacted in 2010, contained broad health care system reforms, including (i) provisions to facilitate access to affordable health insurance for all Americans, (ii) expansion of the Medicaid program, (iii) an industry fee on pharmaceutical companies starting in 2011 based on sales of brand name pharmaceuticals to government health care programs, (iv) increases in Medicaid prescription drug rebates effective January 1, 2010, (v) commercial insurance market reforms that protect consumers, such as bans on lifetime and annual limits, coverage of pre-existing conditions, and limits on waiting periods, (vi) provisions encouraging integrated care, efficiency and coordination among providers (vii) provisions for reduction of health care program waste and fraud and (viii) a 2.3% excise tax on manufacturers’ medical device sales starting in 2013. However, pursuant to the Consolidated Appropriations Act of 2016, which was signed into law on December 18, 2015, the medical device excise tax was suspended for all sales of such devices in 2016 and 2017. On January 22, 2018, Congress passed a continuing resolution that further extended this moratorium for 2018 and 2019. In December 2019, Congress passed, and President Trump signed, a full fiscal year 2020 domestic appropriations package that permanently repeals the medical device tax. Throughout the years of the Obama Administration, the Republicans in Congress attempted on several occasions to repeal the ACA, recognizing that any such effort would be rejected by a Presidential veto. Similarly, during the 2016 Presidential campaign, Donald Trump called for a repeal and replacement of the ACA. With the election of Trump and with both Houses of Congress retaining a Republican majority, it was widely anticipated that Congress and the President would proceed to repeal and replace the ACA. But despite the fact that Republican leadership in both the House and the Senate has proposed legislation on multiple occasions that would replace the ACA’s private insurance market reforms and substantially modify federal funding and other aspects of the Medicaid program, these efforts have been unsuccessful to date. Nevertheless, it is likely that additional attempts will be made in the future. Thus, the outcome of changes in health care policy and law are difficult to predict, and while there may be changes that are both favorable and unfavorable to us, it is possible that the overall impact of certain changes could be materially adverse to our business.

In *National Federation of Independent Business v. Sebelius*, the U.S. Supreme Court affirmed the right of individual states to elect whether or not to participate in ACA’s Medicaid expansion. As of October 2017, thirty-two states (including the District of Columbia) elected to expand their programs. Because 19 states declined to participate, the number of uninsured individuals will be greater than originally expected when the ACA was passed. We cannot predict whether additional states will agree to participate in the expansion in future years, presuming that there is no change in the current law.

The Trump Administration and several states led by Republican Governors continue to challenge the constitutionality of the ACA and, in particular, its requirement that all U.S. citizens purchase health coverage, known as the “individual mandate.” In December 2019, a three-judge panel from the United States Court of Appeals for the Fifth Circuit affirmed a district court ruling that found the mandate to be unconstitutional because it can no longer be read as a tax, and there is no other constitutional provision that justifies this exercise of congressional power. The case, *Texas v. Azar*, remanded to the District Court to provide additional analysis of the other provisions of the ACA as they currently exist. A decision on remand is expected in 2020, and a petition to the Supreme Court is likely to follow, making the outcome of this ACA litigation uncertain for some time.

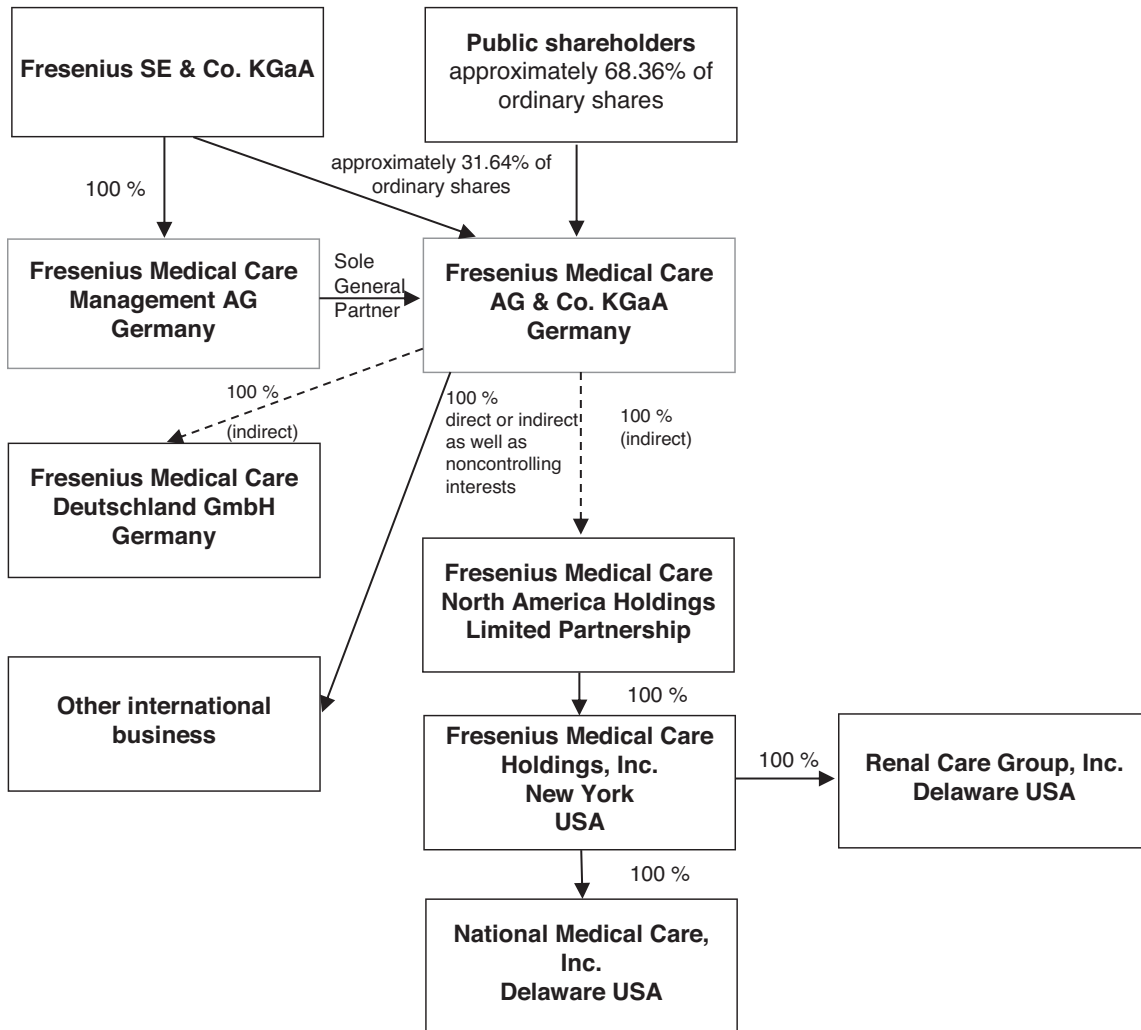
The Trump Administration has made changes in the leadership of CMS and the Department of Health and Human Services and this new leadership has initiated revisions to regulations and sub-regulatory guidance relating to implementation of various provisions of ACA, with or without changes in legislation. Additional changes may continue to occur, regardless whether the ACA is repealed. Significantly, in October 2017, the Trump Administration announced that it would immediately cease paying CSR subsidies to insurers. These subsidies reduce deductibles, coinsurance and copayments for individuals and families at or below 250% of the federal poverty level. Under the law insurers are still mandated to provide lower out-of-pocket costs for low-income individuals; as a result, ending CSR payments has caused many insurers to increase premiums in the individual insurance market to offset the loss of the federal support. In its fiscal year (“FY”) 2019 and 2020 budget proposals, the Trump administration altered course and requested authority to fund CSR payments. The FY 2019 CSR budget proposal was not ultimately included in appropriations authorized by Congress, and we cannot predict whether the inclusion of this funding for 2020 will come to pass. Notwithstanding its FY 2019 and 2020 budget proposals, the Administration has not made any CSR payments since its decision to cease payments in October 2017 and continues to defend against litigation pursued by insurers for unpaid CSR funds. Insurers continue to challenge the Administration’s non-payment of CSR subsidies in litigation. Most recently, on October 22, 2019, the U.S. Court of Federal Claims ordered the Administration to make payments of approximately \$1.6 billion to insurers for unpaid CSRs relating to the 2017 and 2018 plan years (*Common Ground Health Care, et al v. United States*). The Administration appealed the U.S. Court of Federal Claims order to the United States Court of Federal Appeals for the Federal Circuit on December 16, 2019. CSR-related litigation stemming from the decision to end the payments will likely continue to cause uncertainty for the foreseeable future. Given this uncertainty, some insurers may decide to leave the individual exchanges altogether.

In addition, further regulations may be promulgated in the future that could substantially change the Medicare and Medicaid reimbursement systems, or that could impose additional eligibility requirements for participation in the federal and state health care programs. Moreover, such regulations could alter the current responsibilities of third-party insurance payors (including employer-sponsored health insurance plans, commercial insurance carriers and the Medicaid program) including, without limitation, with respect to cost-sharing. Changes of this nature could have significant effects on our businesses, but, due to the continued uncertainty about the implementation of the ACA, including potential further legal challenges to or significant modifications to or repeal of that legislation (see, for example, the discussion above regarding the proceedings in *Texas v. Azar*, the outcomes and impact of such changes on our business, financial condition and results of operations are impossible to quantify or predict.

In January 2018, the Trump Administration released guidance aimed at allowing states to impose work requirements for Medicaid beneficiaries, a major shift in the design of the health insurance program for the poor and disabled. The Centers for Medicare and Medicaid Services claims that work requirements will help people lead healthier lifestyles. Opponents fear the requirements simply will lead to the poor and disabled losing health benefits. At least twenty states have applied for Medicaid waivers that include work requirements. The Arizona, Indiana, Michigan, Ohio, South Carolina and Utah programs have been approved by CMS, although most are not yet implemented. The Arkansas, Kentucky, Maine and New Hampshire programs have also been approved by CMS, but were subsequently set aside by court orders or refused or rescinded by state officials. The other states who have applied for waivers are Alabama, Georgia, Idaho, Mississippi, Montana, Nebraska, Oklahoma, Tennessee, Virginia and Wisconsin. It is not currently possible to accurately predict the impact such programs will have over time.

C. Organizational structure

The following chart shows our organizational structure and our significant subsidiaries as of December 31, 2019. Fresenius Medical Care Holdings, Inc. conducts its business as “Fresenius Medical Care North America.”



D. Property, plant and equipment

Property

The table below describes our principal facilities. We do not own the land and buildings comprising our principal facilities in Germany. Rather, we lease those facilities on a long-term basis from Fresenius SE or one of its affiliates. These leases are described under “Item 7.B. Related Party Transactions – Real Property Lease.”

Location	Floor area (approximate square meters)	Currently owned or leased by Fresenius Medical Care	Lease expiration	Use
Ogden, Utah	102,193	owned		Manufacture of polysulfone membranes and dialyzers and peritoneal dialysis solutions; research and development
St. Wendel, Germany	101,985	leased	December 2026	Manufacture of polysulfone membranes, dialyzers and peritoneal dialysis solutions; research and development
Suzhou, China (Changshu Plant) . . .	83,808	owned		Manufacture of hemodialysis bloodline sets & AV Fistula set, HD dialyzer and peritoneal dialysis solutions
Biebesheim / Gernsheim, Germany	64,800	leased	December 2023 / April 2022	Central distribution Europe, Asia Pacific and Latin America
L’Arbresle, France . .	47,674	owned		Manufacture of polysulfone dialyzers, special filters, dry & liquid hemodialysis concentrates, empty pouches, injection molding
Waltham, Massachusetts	38,190	leased	April 2029 / March 2021	Corporate headquarters and administration – North America
Schweinfurt, Germany	38,100	leased	December 2026	Manufacture of hemodialysis machines and peritoneal dialysis cyclers; research and development
Fukuoka, Japan (Buzen Plant)	37,092	owned		Manufacture of peritoneal dialysis bags and dialyzers
Cota, Colombia	37,000	owned		Manufacture of dry and liquid concentrates, CAPD and APD bags, intravenous solutions, empty Biofine bags.
Enstek, Malaysia . . .	28,778	owned		Manufacture of peritoneal dialysis solutions and hemodialysis concentrate
Fukuoka, Japan (Buzen Plant) – Site Area for future expansion	27,943	owned		Manufacture of peritoneal dialysis bags and dialyzers
Knoxville, Tennessee .	27,637	owned		Manufacture of peritoneal dialysis solutions

<u>Location</u>	<u>Floor area (approximate square meters)</u>	<u>Currently owned or leased by Fresenius Medical Care</u>	<u>Lease expiration</u>	<u>Use</u>
Palazzo Pignano, Italy	27,435	owned		Manufacture of bloodlines and tubing, office
São Paulo, Brazil . . .	24,755	owned		Manufacture of hemodialysis concentrate solutions, dry hemodialysis concentrates, peritoneal dialysis bags, intravenous solutions bags, peritoneal dialysis and blood lines sets and warehouse
Guadalajara, México .	24,234	owned		Manufacture of saline, sodium citrate and liquid acids
Bad Homburg, Germany	20,672	leased	December 2026 / September 2020	Corporate headquarters and administration
Buenos Aires, Argentina	20,020	owned		Manufacture of hemodialysis concentrate solutions, dry hemodialysis concentrates and disinfectants
Rockleigh, New Jersey	18,998	leased	December 2028	Clinical laboratory testing and administration
Concord, California .	17,015	leased	June 2028	Manufacture of hemodialysis machines and peritoneal dialysis cyclers; research and development; warehouse space
Reynosa, Mexico . . .	15,746	leased	November 2027	Manufacture of bloodlines
Vrsac, Serbia	15,365	owned		Administration, production and warehouse building
Bad Homburg (OE), Germany	10,300	leased	December 2026	Manufacture of hemodialysis concentrate solutions / technical services / logistics services

We lease most of our dialysis clinics, manufacturing, laboratory, warehousing and distribution and administrative and sales facilities in the U.S. and other countries on terms which we believe are customary in the industry. We own those dialysis clinics and manufacturing facilities that we do not lease.

For information regarding our capital expenditures, see “Item 4.B. Business Overview – Capital Expenditures.”

Item 4A. Unresolved staff comments

Not applicable

Item 5. Operating and financial review and prospects

You should read the following discussion and analysis of the results of operations of Fresenius Medical Care AG & Co. KGaA and its subsidiaries in conjunction with our historical consolidated financial statements and related notes contained elsewhere in this report. Some of the statements contained below, including those concerning future revenue, costs and capital expenditures and possible changes in our industry and competition and financial conditions include forward-looking statements. We made these forward-looking statements based on the expectations and beliefs of the management of our General

Partner concerning future events which may affect us, but we cannot assure that such events will occur or that the results will be as anticipated. Because such statements involve risks and uncertainties, actual results may differ materially from the results which the forward-looking statements express or imply. Such statements include the matters and are subject to the uncertainties that we described in the discussion in this report entitled “Introduction – Forward-looking statements.” See also Item 3.D., “Key Information – Risk factors.”

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

Our reported financial condition and results of operations are sensitive to accounting methods, assumptions and estimates that are the basis for our financial statements.

For information about our discretionary accounting policies and estimations, see note 2 of the notes to our consolidated financial statements found elsewhere in this report. The critical accounting policies, the judgments made in the creation and application of these policies, and the sensitivities of reported results to changes in accounting policies, assumptions and estimates are factors to be considered along with our financial statements, and the discussion below in III. Results of operations, financial position and net assets – “Results of operations.”

I. 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 compensation 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.

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 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. In addition, under our long-term incentive plans, we measure the attainment of certain

pre-determined financial targets for revenue growth and net income growth in Constant Currency. 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:

- (1) period-over-period changes in revenue, operating income, net income attributable to shareholders of FMC-AG & Co. KGaA and other items prepared in accordance with IFRS, and
- (2) Constant Currency changes in revenue, operating income, net income attributable to shareholders of FMC-AG & Co. KGaA and other items.

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 non-IFRS measures next to the growth rate derived from 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.

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. For further information regarding revenue recognition and measurement, refer to note 1k of the notes to consolidated financial statements, “The Company and Basis of Presentation – Significant accounting policies – Revenue recognition” included in this report. Revenue is also benchmarked based on movement at Constant Exchange Rates.

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.

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 operating income (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 Operating Income”). Delivered Operating Income approximates the operating income attributable to the shareholders of FMC-AG & Co. KGaA. As such, we believe that operating income is the closest comparable IFRS measure. Delivered Operating Income is also benchmarked based on movement at Constant Exchange Rates.

Below is a table showing the reconciliation of operating income to Delivered Operating Income on a consolidated basis and for our reporting segments:

Delivered Operating Income reconciliation			
in € M			
	<u>2019</u>	<u>2018</u>	<u>2017</u>
Total			
Operating income	2,270	3,038	2,362
less noncontrolling interests	<u>(239)</u>	<u>(244)</u>	<u>(274)</u>
Delivered Operating Income	2,031	2,794	2,088
North America Segment			
Operating income	1,794	2,665	2,086
less noncontrolling interests	<u>(225)</u>	<u>(231)</u>	<u>(263)</u>
Delivered Operating Income	1,569	2,434	1,823
Dialysis			
Operating income	1,737	1,752	1,942
less noncontrolling interests	<u>(205)</u>	<u>(212)</u>	<u>(229)</u>
Delivered Operating Income	1,532	1,540	1,713
Care Coordination			
Operating income	57	913	144
less noncontrolling interests	<u>(20)</u>	<u>(19)</u>	<u>(34)</u>
Delivered Operating Income	37	894	110
EMEA Segment			
Operating income	448	399	444
less noncontrolling interests	<u>(5)</u>	<u>(4)</u>	<u>(4)</u>
Delivered Operating Income	443	395	440
Asia-Pacific Segment			
Operating income	329	304	313
less noncontrolling interests	<u>(8)</u>	<u>(9)</u>	<u>(7)</u>
Delivered Operating Income	321	295	306
Dialysis			
Operating income	300	270	286
less noncontrolling interests	<u>(7)</u>	<u>(7)</u>	<u>(6)</u>
Delivered Operating Income	293	263	280
Care Coordination			
Operating income	29	34	27
less noncontrolling interests	<u>(1)</u>	<u>(2)</u>	<u>(1)</u>
Delivered Operating Income	28	32	26
Latin America Segment			
Operating income	43	29	58
less noncontrolling interests	<u>(1)</u>	<u>0</u>	<u>0</u>
Delivered Operating Income	42	29	58

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.

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.

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 considering 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, including cash flows that may be restricted for other uses. This indicator shows the percentage of revenue available for acquisitions and investments, dividends to shareholders, reducing debt financing or for repurchasing shares.

The following table shows the cash flow key performance indicators for 2019 and 2018 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:

Cash flow measures

in € M, except where otherwise specified

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Revenue	17,477	16,547	17,784
Net cash provided by (used in) operating activities	2,567	2,062	2,192
Capital expenditures	(1,125)	(1,057)	(944)
Proceeds from sale of property, plant and equipment	12	54	103
Capital expenditures, net	<u>(1,113)</u>	<u>(1,003)</u>	<u>(841)</u>
Free cash flow	1,454	1,059	1,351
Net cash provided by (used in) operating activities in % of revenue	14.7%	12.5%	12.3%
Free cash flow in % of revenue	8.3%	6.4%	7.6%

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 and lease liabilities less cash and cash equivalents (net debt) is compared to adjusted 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, non-cash charges and impairment loss). The ratio is an indicator of the length of time the Company needs to service the net debt out of its own resources. We believe that the net leverage ratio provides alternative information that management believes to be useful in assessing our

ability to meet our payment obligations in addition to considering 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 reasonable proportion of debt, through the employment of an extensive mix of debt.

Adjusted EBITDA is also the basis for determining compliance with certain other covenants contained in our Amended 2012 Credit Agreement and is also relevant in certain of our other major financing arrangements. You should not consider adjusted EBITDA to be an alternative to net earnings determined in accordance with IFRS or to cash flow from operations, investing activities or financing activities. In addition, not all funds depicted by adjusted EBITDA are available for management's discretionary use. For example, a substantial portion of such funds are subject to contractual restrictions and functional requirements to fund debt service, capital expenditures and other commitments from time to time as described in more detail elsewhere in this report.

IFRS 16, Leases ("IFRS 16") replaces the straight-line operating lease expense for former leases under IAS 17, Leases ("IAS 17") with a depreciation charge for the lease asset and an interest expense on the lease liability as well as the classification of certain IAS 17 leases (such effects being, collectively "IFRS 16 Implementation"), see note 1 of the notes to the consolidated financial statements included in this report. The adjustment to exclude the effects from the IFRS 16 Implementation is included solely for the purpose of increasing the comparability of previously reported information and is in conformity with the terms of the Amended 2012 Credit Agreement. This adjustment will only be made for the reporting periods included in this report and will not be included as an adjustment in the future.

The following table shows the reconciliation of adjusted EBITDA and net leverage ratio as of December 31, 2019 and 2018.

Reconciliation of adjusted EBITDA and net leverage ratio to the most directly comparable IFRS financial measure

in € M, except for net leverage ratio

	Measure 2019	IFRS 16 Implementation	Measure (excluding IFRS 16)	Measure 2018
Debt and lease liabilities ^{(1),(2)}	13,782	(4,797)	8,985	7,546
Minus: Cash and cash equivalents	(1,008)	—	(1,008)	(2,146)
Net debt	12,774	(4,797)	7,977	5,400
Net income	1,439	—	—	2,226
Income tax expense	402	—	—	511
Interest income	(62)	—	—	(147)
interest expense	491	—	—	448
Depreciation and amortization	1,553	—	—	725
Adjustments ⁽³⁾	110	—	—	(722)
Adjusted EBITDA	3,933	(774)	3,159	3,041
Net leverage ratio	3.2	(0.7)	2.5	1.8

(1) Debt includes the following balance sheet line items: short-term debt, short-term debt from related parties, current portion of long-term debt and long-term debt, less current portion.

(2) IFRS 16 Implementation includes lease liabilities and lease liabilities from related parties (€4,705 M), other financial liabilities resulting from changes in the accounting treatment for sale-leaseback transactions (€110 M) as well as the remaining balance of "liabilities from capital leases in accordance with IAS 17" at December 31, 2019, which are included in lease liabilities, but have already been included in debt as of December 31, 2018 (–€18 M).

(3) 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 (2019: –€71 M; 2018: –€23 M), non-cash charges, primarily related to pension expense (2019: €46 M; 2018: €45 M), impairment loss (2019: €40 M; 2018: €65 M), (gain) loss related to divestitures of Care Coordination activities with a sales price above €50 M (2018: –€809 M) (see note 4 c) of the notes to the consolidated financial statements) and NxStage related transaction costs (2019: €95 M).

Return on invested capital (“ROIC”)(Non-IFRS Measure)

ROIC is the ratio of operating income after tax (“net operating profit after tax” or “NOPAT”) to the average invested capital of the last five quarter closing dates, including adjustments 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 expresses how efficiently we allocate the capital under our control or how well we employ our capital with regard to a specific investment project. An adjustment to exclude amounts related to the IFRS 16 Implementation is included for the purpose of increasing the comparability of previously reported information in accordance with our long-term incentive plans in 2019 (see note 20 of the notes to the consolidated financial statements included in this report). The following table 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:

Reconciliation of average invested capital and ROIC (based on IFRS Measures)

in € M, except where otherwise specified

2019	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018
Total assets	32,935	33,169	31,956	32,353	26,242
Plus: Cumulative goodwill amortization . .	420	432	416	419	413
Minus: Cash and cash equivalents	(1,008)	(965)	(922)	(959)	(2,146)
Minus: Loans to related parties	(72)	(65)	(62)	(81)	(80)
Minus: Deferred tax assets	(361)	(348)	(329)	(309)	(346)
Minus: Accounts payable	(717)	(655)	(680)	(708)	(641)
Minus: Accounts payable to related parties	(119)	(255)	(156)	(210)	(154)
Minus: Provisions and other current liabilities ⁽¹⁾	(2,452)	(2,546)	(2,524)	(2,604)	(2,727)
Minus: Income tax payable	(180)	(181)	(171)	(161)	(166)
Invested capital	<u>28,446</u>	<u>28,586</u>	<u>27,528</u>	<u>27,740</u>	<u>20,395</u>
Average invested capital as of					
December 31, 2019	26,539				
Operating income	2,270				
Income tax expense ⁽²⁾	(565)				
NOPAT	1,705				

Adjustments to average invested capital and ROIC

in € M, except where otherwise specified

2019	December 31, 2019	September 30, 2019 ⁽³⁾	June 30, 2019 ⁽³⁾	March 31, 2019 ⁽³⁾	December 31, 2018 ⁽³⁾
Total assets	—	156	149	151	2,092
Plus: Cumulative goodwill amortization . .	—	—	—	—	—
Minus: Cash and cash equivalents	—	(4)	(4)	(4)	(45)
Minus: Loans to related parties	—	—	—	—	—
Minus: Deferred tax assets	—	—	—	—	(1)
Minus: Accounts payable	—	—	—	—	(17)
Minus: Accounts payable to related parties	—	—	—	—	—
Minus: Provisions and other current liabilities ⁽¹⁾	—	(4)	(3)	(3)	(48)
Minus: Income tax payable	—	—	—	—	—
Invested capital	<u>—</u>	<u>148</u>	<u>142</u>	<u>144</u>	<u>1,981</u>
Adjustment to average invested capital as of December 31, 2019	483				
Adjustment to operating income ⁽³⁾	(79)				
Adjustment to income tax expense ⁽³⁾	20				
Adjustment to NOPAT	(59)				

Reconciliation of average invested capital and ROIC (Non-IFRS Measure)

in € M, except where otherwise specified

2019	December 31, 2019	September 30, 2019⁽³⁾	June 30, 2019⁽³⁾	March 31, 2019⁽³⁾	December 31, 2018⁽³⁾
Total assets	32,935	33,325	32,105	32,504	28,334
Plus: Cumulative goodwill amortization . .	420	432	416	419	413
Minus: Cash and cash equivalents	(1,008)	(969)	(926)	(963)	(2,191)
Minus: Loans to related parties	(72)	(65)	(62)	(81)	(80)
Minus: Deferred tax assets	(361)	(348)	(329)	(309)	(347)
Minus: Accounts payable	(717)	(655)	(680)	(708)	(658)
Minus: Accounts payable to related parties	(119)	(255)	(156)	(210)	(154)
Minus: Provisions and other current liabilities ⁽¹⁾	(2,452)	(2,550)	(2,527)	(2,607)	(2,775)
Minus: Income tax payable	(180)	(181)	(171)	(161)	(166)
Invested capital	<u>28,446</u>	<u>28,734</u>	<u>27,670</u>	<u>27,884</u>	<u>22,376</u>
Average invested capital as of					
December 31, 2019	27,022				
Operating income ⁽³⁾	2,191				
Income tax expense ^{(2),(3)}	(545)				
NOPAT	1,646				
ROIC in %	6.1%				

Adjustments to average invested capital and ROIC for the effect from the IFRS 16 Implementation

in € M, except where otherwise specified

2019	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018
Total assets	(4,356)	(4,319)	(4,172)	(4,229)	—
Plus: Cumulative goodwill amortization . .	—	—	—	—	—
Minus: Cash and cash equivalents	—	—	—	—	—
Minus: Loans to related parties	—	—	—	—	—
Minus: Deferred tax assets	2	4	4	5	—
Minus: Accounts payable	—	—	—	—	—
Minus: Accounts payable to related parties	—	—	—	—	—
Minus: Provisions and other current liabilities ⁽¹⁾	(140)	(144)	(138)	(143)	—
Minus: Income tax payable	—	(4)	(4)	(1)	—
Invested capital	<u>(4,494)</u>	<u>(4,463)</u>	<u>(4,310)</u>	<u>(4,368)</u>	<u>—</u>
Adjustment to average invested capital as of December 31, 2019	(3,527)				
Adjustment to operating income	(75)				
Adjustment to income tax expense	18				
Adjustment to NOPAT	(57)				

Reconciliation of average invested capital and ROIC (Non-IFRS Measure, adjusted for the effect from the IFRS 16 Implementation)

in € M, except where otherwise specified

2019	December 31, 2019	September 30, 2019⁽³⁾	June 30, 2019⁽³⁾	March 31, 2019⁽³⁾	December 31, 2018⁽³⁾
Total assets	28,579	29,006	27,933	28,275	28,334
Plus: Cumulative goodwill amortization . .	420	432	416	419	413
Minus: Cash and cash equivalents	(1,008)	(969)	(926)	(963)	(2,191)
Minus: Loans to related parties	(72)	(65)	(62)	(81)	(80)
Minus: Deferred tax assets	(359)	(344)	(325)	(304)	(347)
Minus: Accounts payable	(717)	(655)	(680)	(708)	(658)
Minus: Accounts payable to related parties	(119)	(255)	(156)	(210)	(154)
Minus: Provisions and other current liabilities ⁽¹⁾	(2,592)	(2,694)	(2,665)	(2,750)	(2,775)
Minus: Income tax payable	(180)	(185)	(175)	(162)	(166)
Invested capital	<u>23,952</u>	<u>24,271</u>	<u>23,360</u>	<u>23,516</u>	<u>22,376</u>
Average invested capital as of					
December 31, 2019	23,495				
Operating income ⁽³⁾	2,116				
Income tax expense ^{(2),(3)}	(527)				
NOPAT	1,589				
ROIC in % (adjusted for IFRS 16)	6.8%				

Reconciliation of average invested capital and ROIC (based on IFRS Measures)

in € M, except where otherwise specified

2018	December 31, 2018	September 30, 2018	June 30, 2018	March 31, 2018	December 31, 2017
Total assets	26,242	25,587	25,045	24,157	24,025
Plus: Cumulative goodwill amortization . .	413	407	405	385	395
Minus: Cash and cash equivalents	(2,146)	(1,754)	(1,657)	(846)	(978)
Minus: Loans to related parties	(80)	(112)	(118)	(109)	(92)
Minus: Deferred tax assets	(346)	(328)	(334)	(325)	(315)
Minus: Accounts payable	(641)	(611)	(559)	(509)	(590)
Minus: Accounts payable to related parties	(154)	(194)	(183)	(236)	(147)
Minus: Provisions and other current liabilities ⁽¹⁾	(2,727)	(2,748)	(2,689)	(2,626)	(2,791)
Minus: Income tax payable	(166)	(209)	(330)	(239)	(194)
Invested capital	<u>20,395</u>	<u>20,038</u>	<u>19,580</u>	<u>19,652</u>	<u>19,313</u>
Average invested capital as of					
December 31, 2018	19,796				
Operating income	3,038				
Income tax expense ⁽²⁾	(620)				
NOPAT	2,418				

Adjustments to average invested capital and ROIC

in € M, except where otherwise specified

2018	December 31, 2018	September 30, 2018	June 30, 2018	March 31, 2018 ⁽³⁾	December 31, 2017 ⁽³⁾
Total assets	—	—	—	(1,066)	(1,095)
Plus: Cumulative goodwill amortization . .	—	—	—	—	—
Minus: Cash and cash equivalents	—	—	—	46	47
Minus: Loans to related parties	—	—	—	—	—
Minus: Deferred tax assets	—	—	—	—	—
Minus: Accounts payable	—	—	—	13	13
Minus: Accounts payable to related parties	—	—	—	—	—
Minus: Provisions and other current liabilities ⁽¹⁾	—	—	—	220	226
Minus: Income tax payable	—	—	—	—	—
Invested capital	—	—	—	(787)	(809)
Adjustment to average invested capital as of December 31, 2018	(320)				
Adjustment to operating income ⁽³⁾	(14)				
Adjustment to income tax expense ⁽³⁾	3				
Adjustment to NOPAT	(11)				

Reconciliation of average invested capital and ROIC (Non-IFRS Measure)

in € M, except where otherwise specified

2018	December 31, 2018	September 30, 2018	June 30, 2018	March 31, 2018 ⁽³⁾	December 31, 2017 ⁽³⁾
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	(80)	(112)	(118)	(109)	(92)
Minus: Deferred tax assets	(346)	(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⁾	(2,727)	(2,748)	(2,689)	(2,406)	(2,565)
Minus: Income tax payable	(166)	(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 ⁽³⁾	3,024				
Income tax expense ^{(2),(3)}	(617)				
NOPAT	2,407				
ROIC in %	12.4%				

(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) Adjusted for noncontrolling partnership interests.

(3) 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.

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 of the notes to the consolidated financial statements found elsewhere in this report), ESCO programs, MA-CSNPs (until December 31, 2018) 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, including BPCI Advanced, a similar initiative to BPCI that began October 1, 2018 and is scheduled to extend through December 31, 2023. We commenced participation under the BPCI Advanced in January 2020 through a physician practice, which is majority-owned by National Cardiovascular Partners. 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 associated with 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 (until December 31, 2018), ESCO and BPCI (until June 28, 2018 – see note 4 of the notes to the consolidated financial statements found elsewhere in this report) 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 with our patient membership in value-based programs. For ESCO, BPCI (until June 28, 2018 – see note 4 of the notes to the consolidated financial statements found elsewhere in this report), 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

In the North America Segment and the Asia-Pacific Segment, 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 of the notes to the consolidated financial statements found elsewhere in this report), 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.

II. Financial condition and results of operations

Overview

We are the world’s largest kidney dialysis company, based on publicly reported revenue and number of patients treated. We provide dialysis care and related services to persons who suffer from ESRD as well as other health care services. We develop, manufacture and distribute a wide variety of health care products,

which includes both dialysis and non-dialysis products. Our dialysis products include dialysis machines, water treatment systems and disposable products while our non-dialysis products include acute cardiopulmonary and apheresis products. We sell our health care products to customers in around 150 countries and we also use them in our own health care service operations. Our dialysis business is therefore vertically integrated. We describe certain other health care services that we provide in our North America and Asia-Pacific segments as “Care Coordination.” Care Coordination currently includes, but is not limited to, value and risk-based arrangements, pharmacy services, vascular, cardiovascular and endovascular specialty services as well as ambulatory surgery center services, physician nephrology services, urgent care services and ambulant treatment services. All of these Care Coordination services together with dialysis care and related services represent our health care services. We estimated the volume of the global dialysis market was approximately €80 billion in 2019 (€74 billion in 2018). Due to the complexity and evolving nature of Care Coordination services, we are currently unable to estimate the global volume of this market. Dialysis patient growth results from factors such as the aging population and increased life expectancies; shortage of donor organs for kidney transplants; increasing incidence of kidney disease and better treatment of and survival of patients with diabetes, hypertension and other illnesses, which frequently lead to the onset of chronic kidney disease; improvements in treatment quality, new pharmaceuticals and product technologies, which prolong patient life; and improving standards of living in developing countries, which make life-saving dialysis treatment available. We are also engaged in different areas of health care research.

As a global company delivering health care services and products, we face the challenge of addressing the needs of a wide variety of stakeholders, such as patients, customers, payors, regulators and legislators in many different economic environments and health care systems. In general, government-funded programs (in some countries in coordination with private insurers) pay for certain health care items and services provided to their citizens. Not all health care systems provide for dialysis treatment. Therefore, the reimbursement systems and ancillary services utilization environment in various countries significantly influence our business.

Company structure

Our operating segments are the North America Segment, the EMEA Segment, the Asia-Pacific Segment and the Latin America Segment. The operating segments are determined based upon how we manage our businesses with geographical responsibilities. All segments are primarily engaged in providing health care services and the distribution of products and equipment for the treatment of ESRD and other extracorporeal therapies. Management evaluates each segment using measures that reflect all of the segment’s controllable revenues and expenses. With respect to the performance of business operations, management believes that the most appropriate IFRS measures are revenue, operating income and operating income margin. We do not include income taxes as we believe this is outside the segments’ control. Financing is a corporate function which our segments do not control. Therefore, we do not include interest expense relating to financing as a segment measurement. Similarly, we do not allocate certain costs which relate primarily to certain headquarters’ overhead charges, including accounting and finance, because we believe that these costs are also not within the control of the individual segments. Production of products, production asset management, quality management and procurement related to production are centrally managed at Corporate. Global research and development is also centrally managed at Corporate. These corporate activities do not fulfill the definition of a segment according to IFRS 8. Products are transferred to the segments at cost; therefore, no internal profit is generated. The associated internal revenue for the product transfers and their elimination are recorded as corporate activities (see note 26 of the notes to consolidated financial statements found elsewhere in this report). Capital expenditures for production are based on the expected demand of the segments and consolidated profitability considerations. In addition, certain revenues, investments and intangible assets, as well as any related expenses, are not allocated to a segment but accounted for as Corporate. Accordingly, all of these items are excluded from our analysis of segment results and are discussed below in the discussion of our consolidated results of operations.

Significant U.S. reimbursement developments

The majority of health care services we provide are paid for by governmental institutions. For the year ended December 31, 2019, approximately 33% of our consolidated revenue is attributable to U.S. federally-funded health care benefit programs, such as Medicare and Medicaid reimbursement, under which reimbursement rates are set by CMS. Legislative changes could affect Medicare reimbursement

rates for a significant portion of the services we provide. In recent years, 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 reduction to the ESRD PPS rate to account for the decline in utilization of certain drugs and biologicals associated with dialysis pursuant to ATRA as subsequently modified under 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. Please see detailed discussions on these and further legislative developments in “Reimbursement” in Item 4.B above, “Information on the Company – B. Business overview.”

Presently, there is considerable uncertainty regarding possible future changes in health care regulation, including the regulation of reimbursement for dialysis services. As a consequence of the pressure to decrease health care costs, government reimbursement rate increases in the U.S. have historically been limited and are expected to continue in this fashion. However, any significant decreases in Medicare or commercial reimbursement rates or patient access to commercial insurance plans could have material adverse effects on our health care services business and, because the demand for dialysis products is affected by Medicare reimbursement, on our products business. To the extent that increases in operating costs that are affected by inflation, such as labor and supply costs, are not fully reflected in a compensating increase in reimbursement rates, our business and results of operations may be adversely affected. See “Risk factors – We operate in a highly regulated industry such that the potential for legislative reform provides uncertainty and potential threats to our operating models and results” in Item 3.D. Risk factors” above.

Participation in new Medicare payment arrangements

We also participate (or have participated) in the programs, initiatives and arrangements, each with the specific reimbursement models described in Item 4.B above, “Information on the Company – B. Business overview- Care Coordination – Value and risk-based arrangements.”

III. 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 consistent with the manner in which management internally disaggregates financial information to assist in making operating decisions and evaluating management performance.

Results of operations

Segment data (including Corporate)

in € M

	2019	2018	2017
Total revenue			
North America Segment	12,195	11,570	12,879
EMEA Segment	2,693	2,587	2,547
Asia-Pacific Segment	1,859	1,689	1,623
Latin America Segment	709	686	720
Corporate	21	15	15
Total	<u>17,477</u>	<u>16,547</u>	<u>17,784</u>
Operating income			
North America Segment	1,794	2,665	2,086
EMEA Segment	448	399	444
Asia-Pacific Segment	329	304	313
Latin America Segment	43	29	58
Corporate	(344)	(359)	(539)
Total	<u>2,270</u>	<u>3,038</u>	<u>2,362</u>
Interest income	62	147	51
Interest expense	(491)	(448)	(416)
Income tax expense	(402)	(511)	(443)
Net income	<u>1,439</u>	<u>2,226</u>	<u>1,554</u>
Net income attributable to noncontrolling interests	(239)	(244)	(274)
Net income attributable to shareholders of FMC-AG & Co. KGaA	<u>1,200</u>	<u>1,982</u>	<u>1,280</u>

Revenue and operating income generated in countries outside the eurozone are subject to currency fluctuations. The year ended December 31, 2019 was positively impacted by the development of the euro against the U.S. dollar whereas the year ended December 31, 2018 was negatively impacted by the development of the euro against the U.S. dollar. In the twelve-month period ended December 31, 2019, approximately 70% of revenue and approximately 79% of operating income were generated in U.S. dollars.

Year ended December 31, 2019 compared to year ended December 31, 2018

Consolidated financials

Key indicators for consolidated financial statements

in € M, except where otherwise specified

	2019	2018	Change in %		
			As reported	Currency translation effects	Constant Currency ⁽¹⁾
Revenue	17,477	16,547	6%	4%	2%
Health care services	13,872	13,264	5%	4%	1%
Health care products	3,605	3,283	10%	2%	8%
Number of dialysis treatments	52,148,107	50,027,579	4%		
Same market treatment growth in %	3.5%	2.8%			
Gross profit as a % of revenue	30.9%	31.2%			
Selling, general and administrative costs as a % of revenue	17.5%	17.4%			
Operating income	2,270	3,038	(25%)	3%	(28%)
Operating income margin in %	13.0%	18.4%			
Delivered Operating Income ⁽²⁾	2,031	2,794	(27%)	3%	(30%)
Net income attributable to shareholders of FMC-AG & Co. KGaA	1,200	1,982	(39%)	3%	(42%)
Basic earnings per share in €	3.96	6.47	(39%)	2%	(41%)

(1) For further information on Constant Exchange Rates, see "I. Performance management system" above.

- (2) For further information on Delivered Operating Income, including a reconciliation of Delivered Operating Income to operating income on a consolidated basis and for each of our operating segments, see “I. Performance management system – Delivered Operating Income (Non-IFRS Measure)” above.

Health care services revenue increased by 5%. In addition to a 4% positive impact from foreign currency translation, health care services revenue increased by 1% as growth in same market treatments (4%), contributions from acquisitions (2%) and increases in organic revenue per treatment (1%), were largely offset by decreases attributable to prior year revenue associated with the divested Sound activities as well as the effect of closed or sold clinics (5%) and a revenue recognition adjustment of €170 M for accounts receivable in legal dispute (1%) (see note 22 of the notes to the consolidated financial statements included in this report).

Dialysis treatments increased by 4% as a result of growth in same market treatments (4%) and contributions from acquisitions (1%), partially offset by the effect of closed or sold clinics (1%).

At December 31, 2019, we owned, operated or managed 3,994 dialysis clinics (excluding those managed but not consolidated in the U.S.) compared to 3,928 dialysis clinics at December 31, 2018. In the year ended December 31, 2019, we acquired 47 dialysis clinics, opened 123 dialysis clinics and combined or closed 104 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 345,096 at December 31, 2019 (December 31, 2018: 333,331).

Health care product revenue increased by 10%, including a 2% positive impact from foreign currency translation. At Constant Exchange Rates, health care product revenue increased by 8%. Dialysis product revenue increased by 10%. In addition to a 2% positive impact from foreign currency translation, dialysis product revenue increased by 8% driven by higher sales of home hemodialysis products (largely as a result of the acquisition of NxStage), dialyzers, hemodialysis solutions and concentrates, renal pharmaceuticals, bloodlines, peritoneal dialysis products and products for acute care treatments, partially offset by lower sales of machines as a result of changes in the accounting treatment for sale-leaseback transactions due to the IFRS 16 Implementation. Non-dialysis product revenue increased by 3% to €76 M from €74 M with virtually no foreign currency translation effects. The non-dialysis product revenue increase was due to higher sales of acute cardiopulmonary products.

The decrease period over period in the gross profit margin was 0.3 percentage points. Foreign currency translation effects represented a 0.1 percentage point increase in the current period. The decrease primarily reflects decreases in the EMEA Segment, the North America Segment and an unfavorable mix effect from the varying margins across our reporting segments, partially offset by an increase in the Asia-Pacific Segment. The decrease in the EMEA Segment was mainly driven by higher personnel expense in certain countries. The decrease in the North America Segment was mainly attributable to higher personnel expense, a revenue recognition adjustment for accounts receivable in legal dispute (see note 22 of the notes to the consolidated financial statements included in this report) and the effect of a reduction in patient attribution and a decreasing savings rate for ESCOs (loss rate for 2019) based on recent reports for current and prior plan years (“ESCO effect”), partially offset by a positive impact from higher utilization of oral based ancillaries with favorable margins, a favorable effect from the IFRS 16 Implementation, the positive current year effect from the divestiture of Sound which operated at lower margins and the impact from the acquisition of NxStage. The increase in the Asia-Pacific Segment was largely due to favorable impacts from business growth and the IFRS 16 Implementation, partially offset by an unfavorable impact from acquisitions with lower margins.

The increase period over period in the selling, general and administrative (“SG&A”) expenses as a percentage of revenue was 0.1 percentage points with virtually no impact from foreign currency translation. The increase was primarily driven by increases in the North America Segment and the Asia-Pacific Segment, partially offset by favorable impacts in the EMEA Segment and Corporate. The increase in the North America Segment was mainly driven by the effect from the integration and operational costs associated with NxStage, costs associated with the sustainable improvement of our cost base (“Cost Optimization Costs”), higher personnel expense as well as higher stock compensation expense, partially offset by the remeasurement effect on the fair value of the Humacyte investment, the prior year effects from U.S. Ballot Initiatives and the discontinuation of a non-IFRS policy with no associated cash flow effect. The increase in the Asia-Pacific Segment was due to the impact from business growth, an unfavorable impact from Care Coordination and an unfavorable effect from Cost Optimization Costs, partially offset by favorable foreign currency transaction effects. The decrease in the EMEA Segment was largely due to a reduction of a contingent consideration liability related to Xenios AG (“Xenios”), higher

other income related to a favorable outcome in a legal proceeding, favorable foreign currency transaction effects and a positive impact from acquisitions, partially offset by higher bad debt expense and Cost Optimization Costs. The favorable impact in Corporate was driven by an accrual for FCPA Related Charge in the prior year (see note 22 of the notes the consolidated financial statements included in this report).

The gain related to divestitures of Care Coordination activities decreased to €29 M from €809 M primarily due to the divestiture of Sound in 2018.

Research and development expenses increased by 47% to €168 M from €114 M. The period over period increase as a percentage of revenue, was 0.3 percentage points, largely driven by research and development activities at NxStage, in-center and home program development as well as higher costs related to pre-development activities and research activities in the field of regenerative medicine.

Income from equity method investees increased slightly to €74 M from €73 M. The slight increase was primarily driven by higher income from Vifor Fresenius Medical Care Renal Pharma Ltd., an entity in which we have ownership of 45%, mainly due to higher sales of renal pharmaceuticals.

The decrease period over period in the operating income margin was 5.4 percentage points. Foreign currency translation effects represented a 0.1 percentage point increase in the current period. The decrease in the current period was largely driven by the lower gain related to divestitures of Care Coordination activities as discussed above.

Delivered Operating Income decreased by 27%. In addition to a 3% positive impact from foreign currency translation, Delivered Operating Income decreased by 30% largely driven by decreased operating income.

Net interest expense increased by 43% to €429 M from €301 M. In addition to a 6% negative impact from foreign currency translation, net interest expense increased by 37% primarily due to the IFRS 16 Implementation and a higher debt level, partially offset by the replacement of high interest-bearing bonds by debt instruments at lower interest rates.

Income tax expense decreased by 21% to €402 M from €511 M. The effective tax rate increased to 21.8% from 18.7% for the same period of 2018 largely driven by prior year impacts from favorable implications of the U.S. tax reform, the gain related to the divestiture of Care Coordination activities in 2018 and favorable prior year tax impacts from the FCPA Related Charge, partially offset by non-tax deductible expenses related to U.S. Ballot Initiatives.

Net income attributable to noncontrolling interests decreased by 2% to €239 M from €244 M. In addition to a 5% negative impact from foreign currency translation, net income attributable to noncontrolling interests decreased by 7% due to lower performance in entities in which we have less than 100% ownership.

Net income attributable to shareholders of FMC-AG & Co. KGaA decreased by 39% to €1,200 M from €1,982 M. In addition to a 3% positive impact from foreign currency translation, net income attributable to shareholders of FMC-AG & Co. KGaA decreased by 42% driven by the combined effects of the items discussed above.

Basic earnings per share decreased by 39%. In addition to a 2% positive impact from foreign currency translation, basic earnings per share decreased by 41% primarily due to the decrease in net income attributable to shareholders of FMC-AG & Co. KGaA described above. The average weighted number of shares outstanding for the period decreased to approximately 302.7 M in 2019 (2018: 306.5 M), primarily as a result of our share buy-back program.

We employed 120,659 people (full-time equivalents) as of December 31, 2019 (December 31, 2018: 112,658). This 7% increase was primarily due to the NxStage acquisition.

Consolidated operating performance on an adjusted basis

Management believes that there are certain distinct transactions or events for which the operating results should be adjusted to enhance transparency and comparability. We believe the following results (adjusted to exclude these items) should be analyzed in connection with the results presented above. For the years ended December 31, 2019 and 2018, we identified the following transactions which, when excluded from the results disclosed above, may provide a reader with further useful information in assessing our performance:

- an adjustment to the 2019 presentation to remove the effects of the IFRS 16 Implementation

- an adjustment to the 2019 presentation to remove the contribution of NxStage to conform to the 2018 presentation (“NxStage Operations”)
- an adjustment to the 2019 presentation to remove the integration costs related to the acquisition of NxStage on February 21, 2019 (“NxStage Costs”)
- an adjustment to the 2019 presentation to remove the Cost Optimization Costs
- an adjustment to the 2018 presentation to remove the contribution of Sound to conform to the 2019 presentation (“Sound H1”)
- an adjustment to remove the gain related to divestitures of Care Coordination activities (see note 4 of the notes to the consolidated financial statements included in this report) (“(Gain) loss related to divestitures of Care Coordination activities”)
- an adjustment to the 2018 presentation to remove the FCPA related charge

The following table reconciles the key indicators for the consolidated financial statements in accordance with IFRS to the key indicators adjusted for the items described above, as the adjustments allow for a better comparison of these key indicators to the 2019 Outlook that we issued in connection with the announcement of our periodic results. While we believe these adjustments provide additional clarity to the discussion of our operating results, the following table should only be viewed as a supplement to our results disclosed in accordance with IFRS above.

Consolidated operating performance on an adjusted basis

in € M, except where otherwise specified

	Results 2019	IFRS 16 Implementation	NxStage operations	NxStage costs	Cost optimization costs	(Gain) loss related to divestitures of Care Coordination activities	Results 2019 adjusted	Change in % as adjusted	
								Current rate	Constant Currency ⁽¹⁾
Twelve months ended December 31									
Total revenue	17,477	115	(263)	—	—	—	17,329	8%	5%
Health Care Services . . .	13,872	—	(12)	—	—	—	13,860	9%	5%
Health Care Products . . .	3,605	115	(251)	—	—	—	3,469	6%	4%
Total operating income . .	2,270	(75)	15	24	91	(29)	2,296	0%	(4%)
Operating income margin	13.0%						13.2%		
Interest expense, net . . .	(429)	172	71	—	—	—	(186)	(33%)	(35%)
Income tax expense	(402)	(27)	(23)	(6)	(24)	(20)	(502)	18%	13%
Net income attributable to noncontrolling interests . .	(239)	—	—	—	—	—	(239)	(2%)	(7%)
Net income ⁽²⁾	1,200	70	63	18	67	(49)	1,369	2%	(2%)
Basic earnings per share . .	3.96	0.23	0.21	0.06	0.22	(0.16)	4.52	3%	(1%)

Consolidated operating performance on an adjusted basis

	Results 2018	Sound H1 ⁽³⁾	(Gain) loss related to divestitures of Care Coordination activities	FCPA related charge	Results 2018 adjusted
Total revenue	16,547	(521)	—	—	16,026
Health Care Services	13,264	(521)	—	—	12,743
Health Care Products	3,283	—	—	—	3,283
Total operating income	3,038	(14)	(809)	77	2,292
Operating income margin	18.4%				14.3%
Interest expense, net	(301)	21	—	—	(280)
Income tax expense	(511)	(3)	136	(49)	(427)
Net income attributable to noncontrolling interests	(244)	0	—	—	(244)
Net income ⁽²⁾	1,982	4	(673)	28	1,341
Basic earnings per share	6.47	0.01	(2.20)	0.09	4.37

(1) For further information on Constant Exchange Rates, see “I. Performance management system” above.

(2) Attributable to shareholders of FMC-AG & Co. KGaA.

(3) Contribution of Sound Physicians.

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.

North America Segment

Key indicators and business metrics for the North America Segment in € M, except where otherwise specified

	2019	2018	Change in %		
			As reported	Currency translation effects	Constant Currency ⁽¹⁾
Total North America Segment					
Revenue	12,195	11,570	5%	5%	(0%)
Health care services	11,157	10,725	4%	5%	(1%)
Health care products	1,038	845	23%	7%	16%
Operating income	1,794	2,665	(33%)	3%	(36%)
Operating income margin in %	14.7%	23.0%			
Delivered Operating Income ⁽²⁾	1,569	2,434	(36%)	3%	(39%)
Dialysis					
Revenue	11,011	9,934	11%	6%	5%
Number of dialysis treatments	32,138,448	30,843,876	4%		
Same market treatment growth in %	3.3%	2.5%			
Operating income	1,737	1,752	(1%)	4%	(5%)
Operating income margin in %	15.8%	17.6%			
Delivered Operating Income ⁽²⁾	1,532	1,540	(1%)	4%	(5%)
Care Coordination					
Revenue	1,184	1,636	(28%)	3%	(31%)
Operating income	57	913	(94%)	0%	(94%)
Operating income margin in %	4.8%	55.8%			
Delivered Operating Income ⁽²⁾	37	894	(96%)	0%	(96%)
Member Months Under Medical Cost Management ^{(3),(4)}	645,273	639,329	1%		
Medical Cost Under Management ^{(3),(4)}	4,226	4,196	1%	6%	(5%)
Care Coordination Patient Encounters^{(3),(4)}					
Encounters ^{(3),(4)}	1,004,250	4,407,598	(77%)		

(1) For further information on Constant Exchange Rates, see “I. Performance management system” above.

(2) For further information on Delivered Operating Income, including a reconciliation of Delivered Operating Income to operating income on a consolidated basis and for each of our operating segments, see “I. Performance management system – Delivered Operating Income (Non-IFRS Measure)” above.

(3) For further information on these metrics, please refer to the discussion above of our Care Coordination measures under “Business metrics for Care Coordination.”

(4) Data presented for the ESCO metrics are subject to finalization by CMS, which may result in changes from previously reported metrics.

Dialysis

Revenue

Dialysis revenue increased by 11% including a 6% positive impact resulting from foreign currency translation. At Constant Exchange Rates, dialysis revenue increased by 5%. Dialysis revenue is comprised of dialysis care revenue and health care product revenue.

Dialysis care revenue increased by 10% to €9,973 M from €9,089 M. In addition to a 6% positive impact from foreign currency translation, dialysis care revenue increased by 4% mainly due to growth in same market treatments (3%), increases in organic revenue per treatment (2%) and contributions from acquisitions (1%), partially offset by a revenue recognition adjustment of €170 M for accounts receivable in legal dispute (2%) (see note 22 of the notes to the consolidated financial statements included in this report).

Dialysis treatments increased by 4% largely due to growth in same market treatments (3%) and contributions from acquisitions (1%). At December 31, 2019, 211,064 patients, an increase of 3% (December 31, 2018: 204,107), were treated in the 2,579 dialysis clinics (December 31, 2018: 2,529) that we own or operate in the North America Segment.

In the U.S., the average revenue per treatment decreased to \$352 (€298 at Constant Exchange Rates) from \$354 (€300) largely due to a revenue recognition adjustment of €170 M for accounts receivable in legal dispute and lower revenue from commercial payors, partially offset by higher utilization of oral based ancillaries and the impact from an increase in the ESRD PPS base rate.

Cost per treatment in the U.S., adjusted for the effects from the IFRS 16 Implementation, increased to \$296 (€250 at Constant Exchange Rates) from \$289 (€245). This increase was largely driven by higher personnel expense, higher costs for medical supplies, the integration and operational costs associated with NxStage and higher depreciation expense, partially offset by lower costs for renal pharmaceuticals.

Health care product revenue increased by 23%. In addition to a 7% positive impact from foreign currency translation, health care product revenue increased by 16% driven by higher sales of home hemodialysis products, renal pharmaceuticals, dialyzers, peritoneal dialysis products, and hemodialysis solutions and concentrates, partially offset by lower sales of machines as a result of changes in the accounting treatment for sale-leaseback transactions in accordance with the IFRS 16 Implementation.

Operating income margin

The decrease period over period in the dialysis operating income margin was 1.8 percentage points including a 0.1 percentage point negative impact from foreign currency translation in the current period. The decrease was due to higher personnel expense, a revenue recognition adjustment for accounts receivable in legal dispute (see note 22 of the notes the consolidated financial statements included in this report), the integration and operational costs associated with NxStage, and Cost Optimization Costs, partially offset by a favorable impact from higher utilization of oral based ancillaries with favorable margins, the remeasurement effect on the fair value of our Humacyte investment, a positive effect from the IFRS 16 Implementation, the prior year effect from the U.S. Ballot Initiatives, and discontinuation of a non-IFRS policy with no associated cash flow effect.

Delivered Operating Income

Dialysis Delivered Operating Income decreased by 1%. In addition to a 4% positive impact from foreign currency translation, Delivered Operating Income decreased by 5% mainly as a result of decreased operating income.

Care Coordination

Revenue

Care Coordination revenue decreased by 28%. In addition to a 3% positive impact from foreign currency translation, Care Coordination revenue decreased by 31% largely driven by decreases attributable to prior year revenue associated with the divested Sound activities (33%) and a decrease in organic revenue, including the ESCO effect (1%), partially offset by contributions from acquisitions (3%).

Operating income margin

The decrease period over period in the Care Coordination operating income margin was 51.0 percentage points, including a 0.1 percentage point negative impact from foreign currency translation in the current period. The decrease was mainly due to lower gains related to divestiture of Care Coordination activities, the ESCO effect, lower volumes for pharmacy services as well as unfavorable margins for oral based ancillaries, partially offset by a positive effect from the IFRS 16 Implementation.

Delivered Operating Income

Care Coordination Delivered Operating Income decreased by 96% with virtually no impact from foreign currency translation. Delivered Operating Income decreased mainly as a result of decreased operating income.

Care Coordination business metrics

Member months under medical cost management remained relatively stable as the expansion of our existing ESCOs through the addition of new physician practice partners and dialysis facilities since the beginning of 2018 was mostly 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 of the notes to consolidated financial statements included in this report and note 4 to the table “Key indicators and business metrics for the North America Segment,” above.

Care Coordination’s medical cost under management increased by 1%. Including a 6% positive impact from foreign currency translation, Care Coordination’s medical cost under management decreased by 5% primarily due to the divestment of our controlling interest in Sound on June 28, 2018 (see note 4 of the notes to consolidated financial statements included in this report) and, as a result, the conclusion of our participation in BPCI as well as a decrease in member months attributable to MA-CSNPs, which we no longer provide as of January 2019. This decrease was partially offset by the expansion of our existing ESCOs through the addition of new physician practice partners and dialysis facilities since the beginning of 2018 as well as an increase in member months attributable to sub-capitation programs. See note 4 to the table “Key indicators and business metrics for the North America Segment” above.

The decrease in patient encounters was primarily driven by decreased encounters for hospital related physician services as a result of the divestiture of our controlling interest in Sound on June 28, 2018. See note 4 of the notes to consolidated financial statements included in this report and note 4 to the table “Key indicators and business metrics for the North America Segment” above.

North America Segment operating performance on an adjusted basis

Management believes that there are certain distinct transactions or events for which the operating results should be adjusted to enhance transparency and comparability. We believe the following results (adjusted to exclude these items) should be analyzed in connection with the results presented above. For the years ended December 31, 2019 and 2018, we identified the following transactions that, when excluded from the results disclosed above, may provide a reader with further useful information in assessing our performance:

- an adjustment to the 2019 presentation to remove the effects of the IFRS 16 Implementation
- an adjustment to the 2019 presentation to remove the NxStage Operations
- an adjustment to the 2019 presentation to remove the NxStage Costs
- an adjustment to the 2019 presentation to remove the Cost Optimization Costs
- an adjustment to the 2018 presentation to remove Sound H1
- an adjustment to remove the (Gain) loss related to divestitures of Care Coordination activities

The following table reconciles the key indicators for the North America Segment in accordance with IFRS to the key indicators adjusted for the items described above as the adjustments allow for a better comparison of these key indicators to the 2019 Outlook that we issued in connection with the announcement of our periodic results. While we believe these adjustments provide additional clarity to the

discussion of our operating results, the following table should only be viewed as a supplement to our results disclosed in accordance with IFRS above.

North America Segment operating performance on an adjusted basis

in € M, except where otherwise specified

	Results 2019	IFRS 16 Implementation	NxStage operations	NxStage costs	Cost optimization costs	(Gain) loss related to divestitures of Care Coordination activities	Results 2019 adjusted	Change in % as adjusted	
								Current rate	Constant Currency ⁽¹⁾
Twelve months ended									
December 31									
Revenue	12,195	115	(263)	—	—	—	12,047	9%	3%
Health Care Services . .	11,157	—	(12)	—	—	—	11,145	9%	4%
Thereof Dialysis Care . .	9,973	—	(12)	—	—	—	9,961	10%	4%
Thereof Care									
Coordination	1,184	—	—	—	—	—	1,184	6%	1%
Health Care Products . .	1,038	115	(251)	—	—	—	902	7%	1%
Operating income	1,794	(59)	19	24	83	(29)	1,832	(1%)	(5%)
Operating income margin	14.7%						15.2%		
Dialysis	1,737	(51)	19	24	83	—	1,812	3%	(1%)
Dialysis operating income margin	15.8%						16.7%		
Care Coordination	57	(8)	—	—	—	(29)	20	(78%)	(79%)
Care Coordination operating income margin	4.8%						1.7%		

North America Segment operating performance on an adjusted basis

	Results 2018	Sound HI ⁽²⁾	(Gain) loss related to divestitures of Care Coordination activities	Results 2018 adjusted
Revenue	11,570	(521)	—	11,049
Health Care Services	10,725	(521)	—	10,204
Thereof Dialysis Care	9,089	—	—	9,089
Thereof Care Coordination	1,636	(521)	—	1,115
Health Care Products	845	—	—	845
Operating income	2,665	(14)	(809)	1,842
Operating income margin	23.0%			16.7%
Dialysis	1,752	—	—	1,752
Dialysis operating income margin	17.6%			17.6%
Care Coordination	913	(14)	(809)	90
Care Coordination operating income margin	55.8%			8.0%

(1) For further information on Constant Exchange Rates, see “I. Performance management system” above.

(2) Contribution of Sound Physicians.

EMEA Segment

Key indicators for the EMEA Segment

in € M, except where otherwise specified

	2019	2018	Change in %		
			As reported	Currency translation effects	Constant Currency ⁽¹⁾
Revenue	2,693	2,587	4%	0%	4%
Health care services	1,354	1,274	6%	(1%)	7%
Health care products	1,339	1,313	2%	0%	2%
Number of dialysis treatments	10,042,109	9,731,941	3%		
Same market treatment growth in %	3.4%	3.0%			
Operating income	448	399	12%	(1%)	13%
Operating income margin in %	16.6%	15.4%			
Delivered Operating Income ⁽²⁾	443	395	12%	(1%)	13%

(1) For further information on Constant Exchange Rates, see “I. Performance management system” above.

(2) For further information on Delivered Operating Income, including a reconciliation of Delivered Operating Income to operating income on a consolidated basis and for each of our operating segments, see “I. Performance management system – Delivered Operating Income (Non-IFRS Measure)” above.

Revenue

Health care service revenue increased by 6%. Including a 1% negative impact resulting from foreign currency translation, health care service revenue increased by 7% largely as a result of growth in same market treatments (3%), increases in organic revenue per treatment (3%), and contributions from acquisitions (2%), partially offset by the effect of closed or sold clinics (1%).

Dialysis treatments increased by 3% mainly due to growth in same market treatments (3%) and contributions from acquisitions (2%), partially offset by the effect of closed or sold clinics (2%). As of December 31, 2019, 66,217 patients, an increase of 2% (December 31, 2018: 65,061) were treated at the 781 dialysis clinics (December 31, 2018: 776) that we own, operate or manage in the EMEA Segment.

Health care product revenue increased by 2%, with virtually no impact from foreign currency translation. Dialysis product revenue increased by 2% due to higher sales of machines, products for acute care treatments, bloodlines and peritoneal dialysis products. Non-Dialysis product revenue increased by 3% to €76 M from €74 M largely due to higher sales of acute cardiopulmonary products.

Operating income margin

The increase period over period in the operating income margin was 1.2 percentage points. Foreign currency translation effects represented a 0.1 percentage point decrease in the operating income margin. The increase was mainly due to a reduction of a contingent consideration liability related to Xenios, a positive impact from the IFRS 16 Implementation, higher other income related to a favorable outcome in a legal proceeding, and a favorable impact from acquisitions, partially offset by higher personnel expense in certain countries as well as higher bad debt expense.

Delivered Operating Income

Delivered Operating Income increased by 12%. Including a 1% negative impact resulting from foreign currency translation, Delivered Operating Income increased by 13% primarily due to increased operating income.

Asia-Pacific Segment

Key indicators and business metrics for the Asia-Pacific Segment

in € M, except where otherwise specified

	2019	2018	Change in %		
			As reported	Currency translation effects	Constant Currency ⁽¹⁾
Total Asia-Pacific Segment					
Revenue	1,859	1,689	10%	3%	7%
Health care services	862	776	11%	4%	7%
Health care products	997	913	9%	1%	8%
Operating income	329	304	8%	2%	6%
Operating income margin in %	17.7%	18.0%			
Delivered Operating Income ⁽²⁾	321	295	9%	3%	6%
Dialysis					
Revenue	1,618	1,481	9%	3%	6%
Number of dialysis treatments	4,579,220	4,371,742	5%		
Same market treatment growth in %	7.1%	6.4%			
Operating income	300	270	11%	3%	8%
Operating income margin in %	18.5%	18.2%			
Delivered Operating Income ⁽²⁾	293	263	11%	2%	9%
Care Coordination					
Revenue	241	208	16%	3%	13%
Operating income	29	34	(13%)	1%	(14%)
Operating income margin in %	12.1%	16.2%			
Delivered Operating Income ⁽²⁾	28	32	(11%)	1%	(12%)
Care Coordination Patient Encounters ⁽³⁾ . . .	1,010,238	982,169	3%		

(1) For further information on Constant Exchange Rates, see “I. Performance management system” above.

- (2) For further information on Delivered Operating Income, including a reconciliation of Delivered Operating Income to operating income on a consolidated basis and for each of our operating segments, see “I. Performance management system – Delivered Operating Income (Non-IFRS Measure)” above.
- (3) For further information on patient encounters, please refer to the discussion above of our Care Coordination measures under “Business Metrics for Care Coordination.”

Dialysis

Revenue

Dialysis revenue increased by 9% including a 3% positive impact resulting from foreign currency translation. At Constant Exchange Rates, dialysis revenue increased by 6%. Dialysis revenue is comprised of dialysis care revenue and health care product revenue.

Dialysis care service revenue increased by 9% to €621 M from €568 M. Including a 5% positive impact resulting from foreign currency translation, dialysis care service revenue increased by 4% as a result of growth in same market treatments (7%), and contributions from acquisitions (1%), partially offset by the effect of closed or sold clinics (3%) and a decrease in organic revenue per treatment (1%).

Dialysis treatments increased by 5% mainly due to growth in same market treatments (7%) and contributions from acquisitions (1%), partially offset by the effect of closed or sold clinics (3%). As of December 31, 2019, 33,005 patients, an increase of 5% (December 31, 2018: 31,476) were treated at the 400 dialysis clinics (December 31, 2018: 394) that we own, operate or manage in the Asia-Pacific Segment.

Health care product revenue increased by 9%. Including a 1% positive impact resulting from foreign currency translation, health care product revenue increased by 8% as a result of increased sales of dialyzers, bloodlines, hemodialysis solutions and concentrates products as well as for acute care treatments, partially offset by lower sales of machines.

Operating income margin

The increase period over period in the operating income margin was 0.3 percentage points. Foreign currency translation effects represented a 0.1 percentage point decrease in the operating income margin. The increase was primarily due to favorable impacts from foreign currency transaction effects as well as a positive effect from the IFRS 16 Implementation, partially offset by an effect from Cost Optimization Costs.

Delivered Operating Income

Delivered Operating Income increased by 11%. Including a 2% positive impact resulting from foreign currency translation, Dialysis Operating Income increased by 9% mainly due to increased operating income.

Care Coordination

Revenue

Care Coordination revenue increased by 16%. Including a 3% positive impact resulting from foreign currency translation, Care Coordination revenue increased by 13% driven by organic revenue growth (7%) and contributions from acquisitions (6%).

Operating income margin

The decrease period over period in the Care Coordination operating income margin was 4.1 percentage points. Foreign currency translation effects represented a 0.2 percentage point decrease in the operating income margin. The decrease was driven by higher start-up and operating costs as well as an unfavorable mix effect from acquisitions with lower margins, partially offset by a positive effect from the IFRS 16 Implementation.

Delivered Operating Income

Care Coordination Delivered Operating Income decreased by 11%. Including a 1% positive impact resulting from foreign currency translation, Care Coordination Delivered Operating Income decreased by 12% mainly as a result of decreased 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

Key indicators for the Latin America Segment

in € M, except where otherwise specified

	2019	2018	Change in %		
			As reported	Currency translation effects	Constant Currency ⁽¹⁾
Revenue	709	686	3%	(18%)	21%
Health care services	499	489	2%	(23%)	25%
Health care products	210	197	6%	(6%)	12%
Number of dialysis treatments	5,388,330	5,080,020	6%		
Same market treatment growth in %	2.4%	1.3%			
Operating income	43	29	47%	12%	35%
Operating income margin in %	6.0%	4.2%			
Delivered Operating Income ⁽²⁾	42	29	47%	12%	35%

(1) For further information on Constant Exchange Rates, see “I. Performance management system” above.

(2) For further information on Delivered Operating Income, including a reconciliation of Delivered Operating Income to operating income on a consolidated basis and for each of our operating segments, see “I. Performance management system – Delivered Operating Income (Non-IFRS Measure)” above.

Revenue

Health care service revenue increased by 2%. Including a 23% negative impact resulting from foreign currency translation, health care service revenue increased by 25% as a result of increases in organic revenue per treatment (18%), contributions from acquisitions (5%) and growth in same market treatments (2%).

Dialysis treatments increased by 6% mainly due to contributions from acquisitions (4%) and growth in same market treatments (2%). As of December 31, 2019, 34,810 patients, an increase of 6% (December 31, 2018: 32,687) were treated at the 234 dialysis clinics (December 31, 2018: 229) that we own, operate or manage in the Latin America Segment.

Health care product revenue increased by 6%. Including a 6% negative impact resulting from foreign currency translation, health care product revenue increased by 12% due to higher sales of hemodialysis solutions and concentrates, machines, peritoneal dialysis products and products for acute care treatments, partially offset by lower sales of dialyzers.

Operating income margin

The increase period over period in the operating income margin was 1.8 percentage points. Foreign currency translation effects represented a 1.3 percentage point increase in the operating income margin in the current period. The increase was mainly due to favorable foreign currency transaction effects, a reimbursement rate increase in Chile and a positive impact from acquisitions, partially offset by the impact from hyperinflation and an increase in bad debt.

Delivered Operating Income

Delivered Operating Income increased by 47%. Including a 12% positive impact resulting from foreign currency translation, Delivered Operating Income increased by 35% due to increased operating income.

Year ended December 31, 2018 compared to year ended December 31, 2017

For a discussion of our 2018 results as compared to our 2017 results, see Item 5. “Operating and financial review and prospects – III. Results of operations, financial position and net assets – Results of operations” within our 2018 Annual report on Form 20-F, which is incorporated herein by reference.

IV. 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 reasonable proportion of debt, through the employment of an extensive mix of debt. 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, our financing strategy gives top priority to ensuring financial flexibility. We remain flexible by using a wide range of financial instruments and being highly diversified with regard to our investors and banks. Our financing profile is characterized by a wide range of maturities up to 2029.

Our main mid- and long-term financing instruments are the Amended 2012 Credit Agreement (a syndicated credit agreement with revolving credit facilities and long-term loans in U.S. dollar and euro) as well as bonds in U.S. dollar and euro. Short-term financing needs are covered by issuances under our commercial paper program in euro, the Accounts Receivable Facility in U.S. dollar and bilateral credit facilities.

In our long-term financial planning, we focus primarily on the Net Leverage Ratio, a non-IFRS measure. At December 31, 2019, the net leverage ratio, was 3.2 (2018: 1.8). Adjusted for the IFRS 16 Implementation, the net leverage ratio was 2.5 at December 31, 2019. See “– I. Performance management system – Net leverage ratio (Non-IFRS Measure)” above.

The key financial risks we are exposed to include foreign exchange risk and interest rate risk. 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 Item 11. “Quantitative and qualitative disclosures about market risk – Management of foreign exchange and interest rate risks” below as well as note 23 of the notes to the consolidated financial statements included in this report).

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 the one hand and administration, accounting and controlling on the other.

We also utilize Fresenius SE’s cash management system as well as an unsecured loan agreement with Fresenius SE (see note 13 of the notes to the consolidated financial statements included in this report).

We are rated investment grade by the three leading rating agencies, Moody’s, Standard & Poor’s and Fitch. Please see note 18 of the notes to the consolidated financial statements included in this report.

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, proceeds from the issuance of long-term debt and divestitures. We require this capital primarily to finance working capital needs, fund acquisitions, operate clinics, 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, (see “Net cash provided by (used in) investing activities” and “Net cash provided by (used in) financing activities” below).

At December 31, 2019, we had cash and cash equivalents of €1,008 M (December 31, 2018: €2,146 M).

Free cash flow (Net cash provided by (used in) operating activities, after capital expenditures, before acquisitions and investments) in 2019, 2018 and 2017 amounted to €1,454 M, €1,059 M and €1,351 M, respectively. 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 “– I. Performance management

system – Cash flow measures” above. Free cash flow in percent of revenue in 2019, 2018 and 2017 was 8.3%, 6.4% and 7.6%, respectively.

Net cash provided by (used in) operating activities

During 2019, 2018, and 2017, we generated net cash provided by operating activities of €2,567 M, €2,062 M, and €2,192 M respectively. Net cash provided by operating activities in percent of revenue was 15%, 12%, and 12% for 2019, 2018 and 2017, respectively. 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 increase in net cash provided by operating activities was largely driven by the IFRS 16 Implementation leading to a reclassification of the repayment portion of rent to financing activities in the amount of €669 M.

The profitability of our business depends significantly on reimbursement rates for our services. Approximately 79% 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 2019, approximately 33% of our consolidated revenue was attributable to reimbursements from U.S. federal health care benefit programs, such as Medicare and Medicaid. 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 position and results of operations and thus on our capacity to generate cash flow. See “II. Financial condition and results of operations – Overview” above.

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 our commercial paper program (see note 13 of the notes to the consolidated financial statements included in this report) as well as from the use of our Accounts Receivable Facility. In addition, to finance acquisitions or 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 government institutions 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 the legal systems of, and due to the economic conditions in, some countries. Accounts receivable balances, net of valuation allowances, represented Days Sales Outstanding (“DSO”) of 73 days at December 31, 2019, a decrease as compared to 75 days at December 31, 2018.

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 revenues 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. The development of DSO by reporting segment is shown in the table below:

Development of days sales outstanding

in days, at December 31,

	<u>2019</u>	<u>2018</u>
North America Segment	58	60
EMEA Segment	96	98
Asia-Pacific Segment	113	116
Latin America Segment	127	119
FMC-AG & Co. KGaA average days sales outstanding	73	75

The DSO decrease in the North America Segment was largely due to a revenue recognition adjustment for accounts receivable in legal dispute (see note 22 of the notes to the consolidated financial statements included in this report), partially offset by business growth. The decrease in the DSO for the EMEA Segment primarily related to increased bad debt reserves in the region. The decrease in the Asia-Pacific Segment was driven by an improvement of payment collections in China. The increase in the Latin

America Segment reflects periodic delays in payment of public health care organizations in certain countries.

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 in 2019, 2018, and 2017 was €3,286 M, €245 M and €992 M, respectively. The following table shows our capital expenditures for property, plant and equipment, net of proceeds from sales of property, plant and equipment as well as acquisitions, investments and purchases of intangible assets for 2019, 2018 and 2017:

Capital expenditures (net), acquisitions, investments and purchases of intangible assets

in € M

	Capital expenditures, net			Acquisitions, investments and purchases of intangible assets		
	2019	2018	2017	2019	2018	2017
	North America Segment	567	495	437	2,080	768
thereof investments in debt securities				11	480	10
EMEA Segment	130	140	107	41	77	66
Asia-Pacific Segment	58	43	38	28	21	156
Latin America Segment	26	24	35	50	36	7
Corporate	332	301	224	34	23	9
Total	1,113	1,003	841	2,233	925	566

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, Germany and France), capitalization of machines provided to our customers and for Care Coordination as well as capitalization of certain development costs. Capital expenditures were approximately 6%, 6% and 5% of total revenue in 2019, 2018, and 2017, respectively.

Acquisitions during 2019 were primarily driven by the acquisition of NxStage on February 21, 2019 (see note 3 of the notes to the consolidated financial statements included in this report) as well as dialysis clinics.

In 2019, we received €60 M from divestitures. These divestitures were mainly related to the divestment of MedSpring Urgent Care Centers in Texas, sales of debt securities, the divestment of a California-based cardiovascular business and B.Braun Medical Inc.'s purchase of NxStage's bloodlines business in connection with our acquisition of NxStage.

Investments in 2018 were primarily driven by debt securities and an equity investment in Humacyte 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 included in this report), as well as the sale of debt 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 debt securities of €256 M and the divestment of our non-dialysis laboratory testing services business in December 2017.

In 2020, we anticipate capital expenditures of €1.1 to €1.3 billion and expect to make acquisitions and investments, excluding investments in debt securities, of approximately €500 to €700 M.

Net cash provided by (used in) financing activities

In 2019, 2018 and 2017, net cash used in financing activities was €467 M, €682 M and €799 M, respectively.

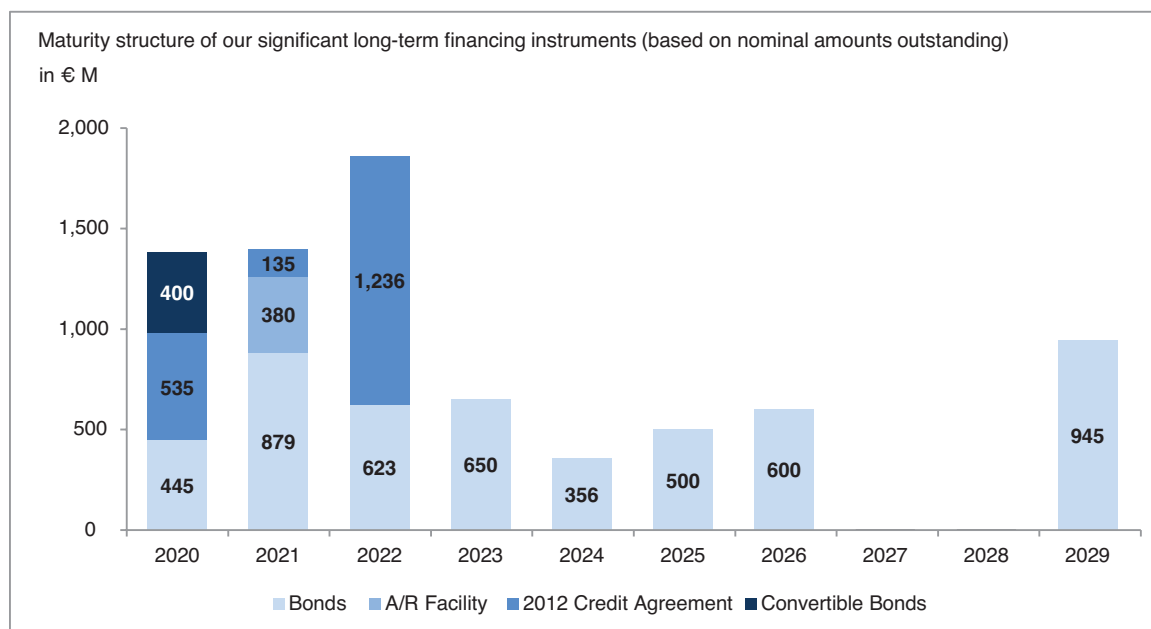
In 2019, cash was mainly used in the repayments of long-term debt (including the current portion of long-term debt primarily driven by the repayment of bonds due in July 2019), repayments of short-term debt (including short-term debt from related parties), repayment of lease liabilities, shares repurchased as part of a share buy-back program, payment of dividends, and distributions to noncontrolling interests, partially offset by proceeds from long-term debt (including the issuance of bonds with a volume of €1,750 M and \$500 M as well as additional drawings under the revolving credit facilities of the Amended 2012 Credit Agreement), proceeds from short-term debt (including short-term debt from related parties) and the utilization of the Accounts Receivable Facility.

In 2018, cash was mainly used in the repayments of long-term debt 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 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 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 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 21, 2019, we paid a dividend of €1.17 per share for 2018 (€1.06 per share for 2017 paid in 2018, €0.96 per share for 2016 paid in 2017). The total dividend payment in 2019, 2018, and 2017 was €355 M, €325 M and €294 M, respectively.

The following chart summarizes our significant long-term financing instruments as well as their maturity structure at December 31, 2019:



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.

The following table summarizes our available sources of liquidity at December 31, 2019:

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⁾	400	—	400	—	—
Amended 2012 Credit Agreement ⁽²⁾	1,277	—	1,277	—	—
Other unused lines of credit	518	518	—	—	—
	<u>2,195</u>	<u>518</u>	<u>1,677</u>	<u>—</u>	<u>—</u>

(1) Subject to availability of sufficient accounts receivable that meet funding criteria. At December 31, 2019, the Company had letters of credit outstanding in the amount of \$23 M (€21 M) which reduces the availability under the Accounts Receivable Facility to the amount shown in this table.

(2) At December 31, 2019, the Company had letters of credit outstanding in the amount of \$1 M (€1 M) which reduces the availability under the revolving credit facility to the amount shown in this table.

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, 2019 and December 31, 2018, we fully utilized the commercial paper program.

The amount of guarantees and other commercial commitments at December 31, 2019 was not significant.

At December 31, 2019, 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 €1,172 M.

The following table 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, 2019:

Contractual obligations and commitments⁽¹⁾

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⁾	8,624	1,657	3,566	1,185	2,216
Lease liabilities	5,442	770	1,443	1,076	2,153
Lease liabilities from related parties	130	19	37	36	38
Unconditional purchase obligations for inventory . . .	444	209	166	56	13
Other long-term obligations ⁽³⁾	159	106	38	15	—
Letters of credit	22	22	—	—	—
	<u>14,821</u>	<u>2,783</u>	<u>5,250</u>	<u>2,368</u>	<u>4,420</u>

(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 to the discount rate, the 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 2020 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.

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-leaseback transactions. 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 net leverage ratio as defined in these financing agreements.

As of December 31, 2019, 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 A/R Facility, see note 14 of the notes to consolidated financial statements included in this report.

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 is 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 “III. Results of Operations, financial position and net assets” above. If the conditions in the capital markets worsen, this could increase our financing costs and limit our financial flexibility).

At our AGM on May 19, 2020, our General Partner and our Supervisory Board will propose to the shareholders a dividend of €1.20 per share for 2019, payable in 2020 (for 2018 paid in 2019: €1.17). The total expected dividend payment is approximately €358 M compared to dividends of €355 M for 2018 paid in 2019.

Our principal financing needs in 2020 relate to repayments of the Equity-Neutral Convertible Bonds due in January 2020, which were refinanced via bonds in November 2019, and of bonds due in October 2020, to the share buy-back program as well as amortizations under our Amended 2012 Credit Agreement. These payments as well as our dividend payment in May 2020, anticipated capital expenditures and further acquisition payments are expected to be covered by our cash flow, 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.

V. Balance sheet structure

Total assets as of December 31, 2019 increased by 26% to €32.9 billion from €26.2 billion as compared to 2018. In addition to a 2% positive impact resulting from foreign currency translation, total assets increased by 24% to €32.5 billion from €26.2 billion primarily driven by the recognition of right-of-use assets due to the IFRS 16 Implementation and an increase in goodwill and intangible assets, mainly due to the acquisition of NxStage in February 2019.

Current assets as a percent of total assets decreased to 22% at December 31, 2019 as compared to 30% at December 31, 2018, primarily driven by a decrease in cash and cash equivalents, mainly in connection with the acquisition of NxStage, as well as the increase in total assets described above. The equity ratio, the ratio of our equity divided by total liabilities and shareholders' equity, decreased to 40% at December 31, 2019 as compared to 49% at December 31, 2018, primarily driven by the recognition of lease liabilities due to the IFRS 16 Implementation, higher short-term and long-term debt as well as pension liabilities. ROIC decreased to 6.1% at December 31, 2019 as compared to 12.4% at December 31, 2018. Adjusted for the Implementation of IFRS 16, ROIC was 6.8% at December 31, 2019.

For supplementary information on capital management and capital structure see also note 18 of the notes to the consolidated financial statements included in this report.

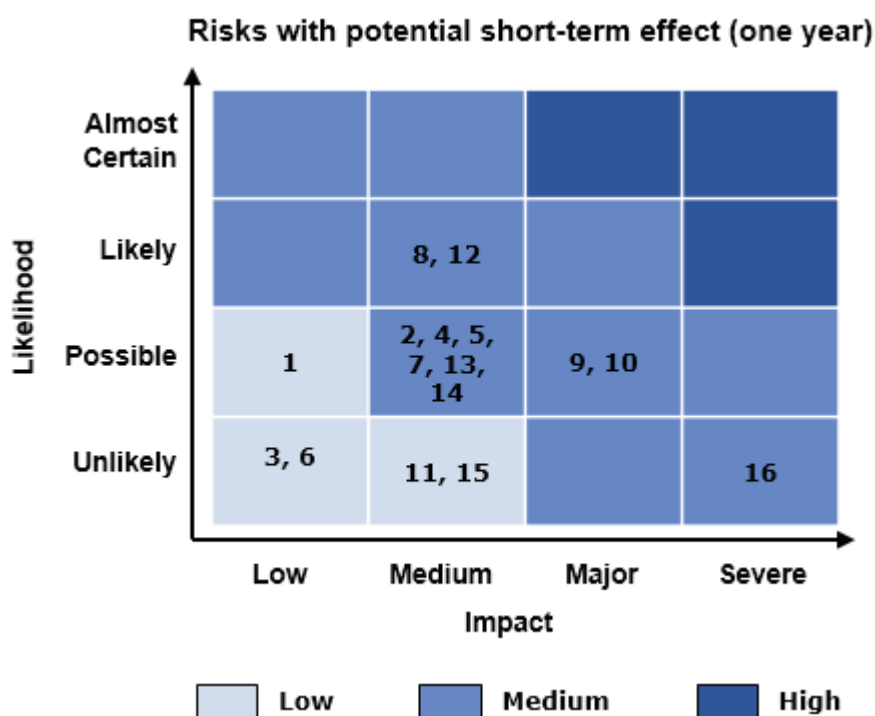
VI. Risk Matrix

In addition to the consolidated financial statements prepared in accordance with IFRS included in this report, we are subject to home country reporting requirements in Germany. These require that we provide an assessment of the probability and impact of certain risks and uncertainties that could materially affect our outlook. A summary of such risk assessment is set forth below.

Although we believe our fiscal year 2020 outlook, which we issue in connection with the announcement of our periodic results, is based on reasonable assumptions, it is subject to risks and uncertainties that may materially impact the achievement of the outlook. In the following table, we have listed certain risks and

the corresponding risk factor (or other discussion of such risks) within this report as well as our assessment of the reasonable probability and potential impact of these known risks on our results for the fiscal year 2020. The risks and their related risk factors or other disclosure headings have been paired together to provide further information on the risks as well as provide an indication of their location in this report. The assessment below should be read together with the discussions of such risks and uncertainties contained in Item 3, Key Information – D. “Risk Factors” and Item 11, Quantitative and Qualitative Disclosures About Market Risk – “Management of Foreign Exchange and Interest Rate Risks.” Our Litigation risk represents an assessment of material litigation currently known or threatened and is discussed in note 22 of the notes to consolidated financial statements found elsewhere in this report. These assessments by their nature do not purport to be a prediction or assurance as to the eventual resolution of such risks. As with all forward-looking statements, actual results may vary materially. See “Forward-looking Statements” immediately following the Table of Contents to this report. Other risks discussed in Item 3, Key Information – D. “Risk Factors” that are not included in the table below were deemed to have a medium to long-term potential effect on our business, financial condition and results of operations. The classification of potential impact and likelihood as well as the localization of the risks within the risk matrix are depicted below:

Potential impact	Description of impact	Classification	Likelihood
Severe	Material negative impact	Almost certain	> 90% to 100%
Major	Significant negative impact	Likely	> 50% to 90%
Medium	Moderate negative impact	Possible	> 10% to 50%
Low	Small negative impact	Unlikely	0% to 10%



Risk Number	Risk factor (or other related disclosure) within the report
1	If we do not comply with the numerous governmental regulations applicable to our business, we could suffer adverse legal consequences, including exclusion from government health care reimbursement programs or termination of our authority to conduct business, any of which would result in a material decrease in our revenue; this regulatory environment also exposes us to claims and litigation, including “whistleblower” suits.
2	If we fail to estimate, price for and manage medical costs in an effective manner, the profitability of our value-based products and services could decline and could materially and adversely affect our results of operations, financial position and cash flows.
3	A dependency on the payment behavior and decision-making of our business partners can affect the collectability of accounts receivable.
4	Changes in reimbursement and/or governmental regulations for health care could materially decrease our revenues and operating profit.
5	We operate in a highly regulated industry such that the potential for legislative reform provides uncertainty and potential threats to our operating models and results.
6	Our growth depends, in part, on our ability to develop our core dialysis business.
7	We could be adversely affected if we experience shortages of goods or material price increases from our suppliers, or an inability to access new and improved products and technology.
8	If we are unable to attract and retain skilled medical, technical and engineering personnel, or if legislative, union, or other labor-related activities or changes result in significant increases in our operating costs or decreases in productivity, we may be unable to manage our growth or continue our technological development.
9	We operate in many different jurisdictions and we could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act and similar worldwide anti-corruption laws.
10	Cyber attacks or other privacy and data security incidents that result in privacy and data breaches could disrupt our operations or result in the unintended disclosure and access of sensitive personal information or proprietary or confidential information. If we are unable to protect our information technology security systems and rely on our third-party service providers to protect their systems against such attacks and other incidents, we could be exposed to significant regulatory fines or penalties, liability or reputational damage, or experience a material adverse impact on our business, financial condition and results of operations.
11	Our indebtedness may limit our ability to pay dividends or implement certain elements of our business strategy.
12	Foreign currency and interest rate exposure. See Item 5, “Operating and financial review and prospects – IV. Financial position,” Item 11, Quantitative and qualitative disclosures about market risk – “Management of foreign exchange and interest rate risks” and note 23 of the notes to the consolidated financial statements.
13	Legal and regulatory matters (see note 22 of the notes to the consolidated financial statements)
14	We face specific risks from international operations
15	Unforeseeable events (including natural disasters) could affect our services and our ability to deliver products and services in a limited time and place.
16	Global economic conditions as well as further disruptions in financial markets may have an adverse effect on our businesses.

VII. 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 not only meet high quality standards, but are also affordable. As an operator of proprietary dialysis clinics and a provider of products for treating patients at home, we know that these are by no means incompatible aims. 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 prestigious 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 renowned 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 2019

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.

New hemodialysis system in development

In 2019, the U.S. FDA granted breakthrough device designation to a new hemodialysis system, currently in development, that aims to prevent blood clotting without the use of blood thinner medication. The novel system integrates the antithrombogenic additive Endexo® into the manufacturing process of dialyzers and bloodlines. Endexo® is a polymer made of surface modifying molecules that are designed to inhibit the adsorption of protein and platelets. When incorporated into the membrane, this additive creates a modified inner wall that allows blood to pass through more effectively. Citrasate dialysate would be used with the new dialyzers and bloodlines as part of this novel system. The hope is that the new system will help reduce the risk of coagulation and increase hemocompatibility thereby eliminating the need for blood thinners, such as heparin, in most standard dialysis treatments.

Digital health care

Digitization, connectivity and data analysis are key elements of our development strategy. In the future, our devices will be connected to a modern connectivity framework that takes full account of different user needs and therapy options. The aim is to make the processes more efficient and thus achieve ever better treatment outcomes. The data analysis of this framework enables us to offer intelligent products and solutions that illustrate the complexity of treatments and processes internally.

Application tailored to emerging markets

The number of dialysis patients worldwide is expected to increase. Emerging markets need cost-effective programs that help to better manage the entire dialysis treatment process. In response to this need, we are currently developing a digital application tailored to the Asian markets. The app is a cloud-based clinical information system that offers electronic treatment management at a reasonable price, thus increasing the efficiency of work processes in clinics. To test the digital app in its environment, we launched a production pilot in a clinic in India in the third quarter of 2019. Market launch is planned mid/end of 2020.

Research in the field of regenerative medicine

We invest in promising technologies and research approaches in the area of regenerative medicine through our independent affiliate Unicyte AG as well as Fresenius Medical Care Ventures. In fiscal year 2019, we invested €60 M in Unicyte AG (“Unicyte”). Unicyte will primarily use this capital to start clinical trials and establish the corresponding manufacturing processes. Our continued investment in Unicyte shows our commitment to developing the best treatment options for our patients across the entire spectrum of renal therapy.

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 2019, Fresenius Medical Care Ventures invested in eGenesis, a leading player in the field of xenotransplantation of kidneys for patients with advanced renal disease. Xenotransplantation could significantly improve the lives of patients with kidney failure, reduce overall costs and dramatically increase the number of kidneys available for transplant.

R&D resources

R&D expenditure corresponded to around 5% (2018: 3% and 2017: 3%) of our health care product revenue. At the end of 2019, our patent portfolio comprised some 10,658 property rights in approximately 1,518 patent families, i.e. groups of patents linked to the same invention. Our R&D work in the financial year produced around 163 additional patent families. A broad portfolio of patents will provide us with a wide range of treatment options in this competitive area in future.

At December 31, 2019, 1,157 highly qualified employees (full-time equivalents) worked for the Company in R&D worldwide (December 31, 2018: 933). They come from various backgrounds: Physicians work side by side with software specialists, business economists and engineers in interdisciplinary teams. More than 680 employees – the majority of our R&D staff – are based in Europe. Most R&D activities are carried out at our facilities in Schweinfurt and Bad Homburg v. d. Höhe (Germany). Other R&D sites are 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 R&D organization coordinates collaboration and technology exchange among the various sites. Carrying out R&D responsibly is an intrinsic element of our innovative culture.

Research and development expenditures in € M

in € M	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Total	168	114	111	134	116

Employees

Full-time equivalents, as of December 31, for the respective period presented	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Total	1,157	933	825	794	649

Number of patents

As of December 31, for the respective period presented	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Total	10,658	9,152	8,396	7,748	6,643

VIII. Trend information

For information regarding significant trends in our business see Item 5, “Operating financial review and prospects.”

IX. Tabular disclosure of contractual obligations

The information required by this item may be found in Item 5B under the caption “– IV. Financial position – net cash provided by (used in) financing activities.”

Item 6. Directors, senior management and employees

A. Directors and senior management

General

As a partnership limited by shares, under the German Stock Corporation Act (*Aktiengesetz* or AktG), our corporate bodies are our General Partner, our Supervisory Board and our general meeting of shareholders. Our sole General Partner is Management AG, a wholly-owned subsidiary of Fresenius SE. Management AG is required to devote itself exclusively to the management of Fresenius Medical Care AG & Co. KGaA.

For a detailed discussion of the legal and management structure of Fresenius Medical Care AG & Co. KGaA, including the more limited powers and functions of the Supervisory Board compared to those of the General Partner, see Item 16G, “Corporate governance – The legal structure of FMC-AG & Co. KGaA.”

Our General Partner has a supervisory board and a management board. These two boards are separate and no individual may simultaneously serve as a member on both boards. A person may, however, serve on both the supervisory board of our General Partner and on our Supervisory Board.

The General Partner’s Supervisory Board

The supervisory board of Management AG consists of six members who are elected by Fresenius SE (acting through its general partner, Fresenius Management SE), the sole shareholder of Management AG. Pursuant to a pooling agreement for the benefit of the public holders of our shares, at least one-third (but no fewer than two) of the members of the General Partner’s supervisory board are required to be independent directors as defined in the pooling agreement, i.e., persons with no substantial business or professional relationship with us, Fresenius SE, the General Partner, or any affiliate of any of them.

Unless resolved otherwise by Fresenius SE in the general meeting of shareholders of Management AG, the terms of each of the members of the supervisory board of Management AG will expire at the end of the general meeting of shareholders held during the fourth fiscal year following the year in which the Management AG supervisory board member was elected by Fresenius SE, but not counting the fiscal year in which such member’s term begins. Fresenius SE, as the sole shareholder of Management AG, is at any time entitled to re-appoint members of the Management AG supervisory board. The most recent election of members of the General Partner’s supervisory board took place in May 2016. Members of the General Partner’s supervisory board may be removed only by a court decision or by a resolution of Fresenius SE in its capacity as sole shareholder of the General Partner. Neither our shareholders nor our separate Supervisory Board has any influence on the appointment of the supervisory board of the General Partner.

The General Partner’s supervisory board ordinarily acts by simple majority vote and the Chairman has a tie-breaking vote in case of any deadlock. The principal function of the General Partner’s supervisory board is to appoint and to supervise the General Partner’s management board in its management of the Company and to approve mid-term planning, dividend payments and other matters which are not in the ordinary course of business and are of fundamental importance to us. The General Partner’s supervisory board is also responsible for determining the compensation for the individual members of the Management Board as well as determining and reviewing the compensation system for the members of the Management Board.

The table below provides the names of the current members of the supervisory board of Management AG and their ages. Dr. Schenk, Mr. Classon and Mr. Johnston are also members of the Supervisory Board of FMC AG & Co. KGaA.

<u>Name</u>	<u>Current Age</u>
Mr. Stephan Sturm, Chairman ⁽¹⁾	56
Dr. Dieter Schenk, Vice Chairman ⁽¹⁾⁽⁴⁾	67
Dr. Gerd Krick ⁽¹⁾	81
Mr. Rolf A. Classon ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾	74
Mr. William P. Johnston ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾	75
Ms. Rachel Empey	43

(1) Members of the Human Resources Committee of the supervisory board of Management AG

(2) Members of the Audit and Corporate Governance Committee of FMC-AG & Co. KGaA. See “Board Practices,” below.

- (3) Independent director for purposes of our pooling agreement
- (4) Member of the Regulatory and Reimbursement Assessment Committee of the supervisory board of Management AG. See “Board Practices,” below.

MR. STEPHAN STURM has been Chairman of the Management Board of Fresenius Management SE since July 1, 2016, after serving for over 11 years as Fresenius Management SE’s Chief Financial Officer. Prior to joining Fresenius in 2005, he was a Managing Director of Credit Suisse First Boston (“CSFB”), from 2000 as Head of Investment Banking for Germany and Austria, and also served on CSFB’s European Management Committee. During his more than 13 years in investment banking, Stephan Sturm held various executive positions with BHF-Bank, Union Bank of Switzerland and CSFB in Frankfurt and London. Prior to entering investment banking in 1991, he was a management consultant at McKinsey & Co in Duesseldorf and Frankfurt. Mr. Stephan Sturm holds a degree in Business from Mannheim University. Additionally, Mr. Sturm is the Chairman of the supervisory board of Fresenius Kabi AG, Vice Chairman of the supervisory board of Vamed AG, Austria as well as a member of the supervisory board of Deutsche Lufthansa AG.

DR. DIETER SCHENK has been Vice Chairman of the supervisory board of Management AG since 2005 and is Vice Chairman of the supervisory board of Fresenius Management SE. Dr. Schenk was elected as the Chairman of our Supervisory Board in 2018; previously Dr. Schenk served as the Vice Chairman of our Supervisory Board. He is an attorney and tax advisor and was a partner in the law firm Noerr LLP (formerly Nörr Stiefenhofer Lutz) from 1986 until December 31, 2017. Additionally, he also serves as the Chairman of the supervisory board of Gabor Shoes AG, HWT invest AG (formerly Bank Schilling & Co. AG) and TOPTICA Photonics AG. Dr. Schenk is also Chairman of the Foundation Board of Else Kröner-Fresenius-Stiftung, the sole shareholder of Fresenius Management SE, which is the sole general partner of Fresenius SE & Co. KGaA.

MR. ROLF A. CLASSON has been a member of the supervisory board of Management AG since July 7, 2011 and a member of our Supervisory Board since May 12, 2011. Mr. Classon also has served on the Board of Directors of Catalent Inc. since August 2014 and as a member of the Board of Directors of Perrigo Company plc, since May 8, 2017. Mr. Classon was the Chairman of the Board of Directors for Hill-Rom Holdings, Inc. until March 6, 2018 as well as the Chairman of the Board of Directors for Tecan Group Ltd. until April 18, 2018.

MR. WILLIAM P. JOHNSTON has been a member of the supervisory board of Management AG since May 2006 and also serves on our Supervisory Board. Mr. Johnston has been an Operating Executive of The Carlyle Group since June 2006.

MS. RACHEL EMPEY became the Chief Financial Officer of Fresenius Management SE on August 1, 2017 and member of the supervisory board of Management AG on September 1, 2017. Prior to August 1, 2017, she served as Chief Financial and Strategy Officer of Telefónica Deutschland Holding AG and member of the Telefónica Deutschland Management Board, starting in 2011. Previously, Ms. Empey held a number of key international finance and controlling positions in the Telefónica group. She started her career as an audit executive at Ernst & Young and business analyst at Lucent Technologies. Ms. Empey is a chartered accountant and holds an MA (Hons) in Mathematical Sciences from the University of Oxford. Additionally, Ms. Empey has been the Vice Chairman of the supervisory board of Fresenius Kabi AG since October 2017 and has served on the Board of Directors of Inchcape plc since May 2016.

DR. GERD KRICK has been a member of the supervisory board of Management AG since December 2005 and was Chairman of our Supervisory Board until May 17, 2018. He is the Chairman of the supervisory board of Fresenius Management SE and of Fresenius SE & Co. KGaA. Additionally, Dr. Gerd Krick is also Chairman of the supervisory board of Vamed AG, Austria.

The General Partner’s Management Board

Each member of the Management Board of Management AG is appointed by the supervisory board of Management AG for a maximum term of five years and is eligible for reappointment thereafter. Their terms of office expire in the years listed below.

The table below provides names, positions and terms of office of the current members of the Management Board of Management AG and their ages:

<u>Name</u>	<u>Current Age</u>	<u>Position</u>	<u>Year term expires</u>
Mr. Rice Powell	64	Chief Executive Officer and Chairman of the Management Board	2022
Ms. Helen Giza	51	Chief Financial Officer	2022
Mr. William Valle	59	Chief Executive Officer for the North America Segment	2020
Dr. Olaf Schermeier	47	Chief Officer of Global Research & Development	2021
Mr. Kent Wanzek	60	Chief Executive Officer of Global Manufacturing, Quality & Supply	2022
Mr. Harry de Wit	57	Chief Executive Officer for the Asia-Pacific Segment	2023
Dr. Katarzyna Mazur-Hofsäß .	56	Chief Executive Officer for the EMEA Segment	2021
Franklin W. Maddux, MD	62	Global Chief Medical Officer	2022

MR. RICE POWELL has been with the Company since 1997. He became Chairman and Chief Executive Officer of the Management Board of Management AG effective January 1, 2013. Mr. Powell is also a member of the Management Board of Fresenius Management SE and of the Board of Administration of Vifor Fresenius Medical Care Renal Pharma, Ltd., Switzerland. Mr. Powell was the Chief Executive Officer and director of Fresenius Medical Care North America until December 31, 2012. Mr. Powell has more than 40 years of experience in the health care industry, which includes various positions with Baxter International Inc., Biogen Inc., and Ergo Sciences Inc.

MS. HELEN GIZA was appointed Chief Financial Officer of the Management Board of Management AG effective November 1, 2019. Prior to joining Fresenius Medical Care, Ms. Giza held a number of key international finance and controlling positions at Takeda Pharmaceuticals, TAP Pharmaceuticals and Abbott Laboratories.

MR. WILLIAM VALLE was appointed Chief Executive Officer for FMCNA effective January 2017 and a member of the Management Board of Management AG on February 17, 2017. Prior to that, Mr. William Valle was executive vice president responsible for the dialysis service business and vascular access business of FMCNA from 2014 to 2017. Mr. Valle joined FMCNA in 2009 and has approximately 30 years of experience in the dialysis industry, holding executive positions in sales, marketing and business development at several dialysis companies including Gambro Healthcare, Inc.

DR. OLAF SCHERMEIER was appointed Chief Executive Officer for Global Research and Development on March 1, 2013. Dr. Schermeier serves on the supervisory board of Xenios AG. Prior to FMC-AG & Co. KGaA, Dr. Schermeier served as President of Global Research and Development for Dräger Medical, Lübeck, Germany. Dr. Schermeier has many years of experience in various areas of the health care industry, among others at Charité clinic and at Biotronik, Germany.

MR. KENT WANZEK has been with the Company since 2003. Mr. Wanzek is a member of the Management Board of Management AG since January 1, 2010 with responsibility for Global Manufacturing, Quality & Supply and prior to joining the Management Board had been in charge of North American operations for the Renal Therapies Group at Fresenius Medical Care North America since 2004. Mr. Wanzek held several senior executive positions with companies in the health care industry, including Philips Medical Systems, Perkin-Elmer, Inc. and Baxter Healthcare Corporation.

MR. HARRY DE WIT assumed the role of Chief Executive Officer for the Asia-Pacific Segment on April 1, 2016. Mr. de Wit has worked in the medical device industry for more than 25 years. Mr. de Wit holds a master's degree in Medicine from the VU University of Amsterdam in the Netherlands and a Bachelor of Science in Physiotherapy from the School of Physiotherapy of Den Bosch in the Netherlands. Mr. de Wit has been a non-executive member of the Board of Directors of New Asia Investments Pte Ltd. since March 25, 2014.

DR. KATARZYNA MAZUR-HOFSÄß assumed the role of Chief Executive Officer for the EMEA Segment on September 1, 2018. Before joining the Company, she had been president for EMEA at the

med-tech company Zimmer Biomet since 2013. She has 25 years of professional experience and held various positions in the medical and pharmaceutical industry from her positions, among others at Abbott Laboratories and Roche.

FRANKLIN W. MADDUX, MD was appointed Global Chief Medical Officer in 2019 and appointed to the Management Board on January 1, 2020. He is an expert nephrologist, IT entrepreneur and healthcare executive with more than 30 years of experience in healthcare. He joined the Company in 2009 and was appointed Executive Vice President for Clinical & Scientific Affairs and Chief Medical Officer for Fresenius Medical Care North America in 2011, where he was responsible for the delivery of high-quality, value-based care for the largest integrated renal care network on the continent.

The business address of all members of our Management Board and Supervisory Board is Else-Kröner-Strasse 1, 61352 Bad Homburg, Germany.

The Supervisory Board of FMC-AG & Co. KGaA

Our Supervisory Board consists of six members who are elected by the shareholders of FMC-AG & Co. KGaA in a general meeting. Generally, the terms of office of the members of the Supervisory Board will expire at the end of the general meeting of shareholders of FMC-AG & Co. KGaA, in which the shareholders discharge the Supervisory Board for the fourth fiscal year following the year in which they were elected, but not counting the fiscal year in which such member's term begins. The next regular elections will take place in 2021. Before the expiration of their term, members of the Supervisory Board may be removed only by a court decision or by a resolution of the shareholders of FMC-AG & Co. KGaA with a majority of three quarters of the votes cast at such general meeting.

Fresenius SE, as the sole shareholder of Management AG, our General Partner, is barred from voting for election and/or removal of members of the Supervisory Board as well as from voting on discharge of the Supervisory Board, but it nevertheless has and will retain significant influence over the membership of the Supervisory Board in the foreseeable future. See Item 16G, "Corporate governance – The legal structure of FMC-AG & Co. KGaA."

The current Supervisory Board consists of six persons, three of whom – Messrs. Schenk (Chairman), Classon (Vice Chairman) and Johnston – are also members of the supervisory board of our General Partner. For information regarding those members of the supervisory board, see "The General Partner's Supervisory Board," above.

MS. PASCALE WITZ, 53, has been a member of the Supervisory Board since May 12, 2016. Ms. Witz was the Executive Vice President of Global Diabetes and Cardiovascular of Sanofi S.A. as well as on Sanofi's executive committee (equivalent to management board), prior to which she held other executive positions in Sanofi S.A. and with GE Healthcare and Becton Dickinson. Ms. Witz has served on the Board of Directors of Regulus Therapeutics Inc. since June 1, 2017, Horizon Pharma plc since August 3, 2017 and Perkin Elmer Inc. since October 30, 2017. Additionally, Ms. Witz is president of PWH ADVISORS SASU, since November 2016, and the CEO of PWH ADVISORS LLC.

PROF. DR. GREGOR ZÜND, 60, has been appointed as a new member of the Supervisory Board on October 29, 2018. Prof. Dr. Zünd has been Chief Executive Officer of the University Hospital of Zurich since 2016. As Director of Research and Education he has been a member of the hospital's executive board since 2008. In parallel, he has been Managing Director of the Center for Clinical Research and Head of the Surgical Research department at University Hospital Zurich. Until 2001, Prof. Zünd was Senior Physician at the Clinic for Cardiovascular Surgery at University Hospital Zurich. He spent several years at Texas Medical Center, Houston, and at Harvard Medical School, Boston. Gregor Zünd is Professor ad personam at the University of Zurich.

DR. DOROTHEA WENZEL, 50, became a member of the Supervisory Board effective May 16, 2019 and is currently the Executive Vice President and Head of the Global Business Unit Surface Solutions at Merck KGaA. Dr. Wenzel has previously held a number of finance and business positions in the health care industry at Merck KGaA, AXA Krankenversicherung AG and Medvantis Holding AG. Dr. Wenzel was also a Member of the Staff of the Committee for the Sustainability of the Financing of the Social Security Systems of the Federal Ministry of Health (Germany). Dr. Wenzel holds a doctorate in Health Economics and a diploma in business & computer sciences from the Technical University of Darmstadt.

The principal function of the Supervisory Board is to oversee the management of the Company but, in this function, the supervisory board of a partnership limited by shares has less power and scope for influence

than the supervisory board of a stock corporation. The Supervisory Board is not entitled to appoint the General Partner or its executive bodies, nor may it subject the general partner's management measures to its consent or issue rules of procedure for the general partner. Only the supervisory board of Management AG, elected solely by Fresenius SE, has the authority to appoint or remove members of the General Partner's Management Board. See Item 16G, "Corporate governance – The legal structure of FMC-AG & Co. KGaA." Among other matters, the Supervisory Board will, together with the General Partner, determine the agenda for the AGM and make recommendations with respect to the approval of the Company's financial statements and dividend proposals. The Supervisory Board will also propose nominees for election as members of the Supervisory Board. The Audit and Corporate Governance Committee also recommends to the Supervisory Board a candidate as the Company's auditor to audit our German statutory financial statements to be proposed by the Supervisory Board to our shareholders for approval and, as required by the SEC and NYSE audit committee rules, retains the services of our independent auditors to audit our IFRS financial statements included in the periodic reports that we file with the SEC.

B. Compensation

Report of the Management Board of Management AG, our General Partner

The Compensation Report of FMC-AG & Co. KGaA summarizes the main elements of the system for the compensation of the members of the Management Board of Fresenius Medical Care Management AG, the General Partner of FMC-AG & Co. KGaA, and in this regard notably explains the amounts and structure of the compensation paid to the Management Board. Furthermore, the principles and the amount of the compensation of the Supervisory Board of the Company are described. The Compensation Report is part of the Management Report on the annual financial statements and on the annual consolidated group financial statements of FMC-AG & Co. KGaA as at December 31, 2019. The Compensation Report is prepared on the basis of the recommendations of the German Corporate Governance Code in the version dated February 7, 2017. Therefore, the terms "granting" or "granted" used in the following in connection with the components of performance-related remuneration are to be construed in the meaning of the recommendations of the German Corporate Governance Code in the version dated February 7, 2017. The Compensation Report also includes the disclosures as required pursuant to the applicable statutory regulations, notably in accordance with the German Commercial Code (HGB).

Compensation of the Management Board

The Supervisory Board of Fresenius Medical Care Management AG is responsible for determining the compensation of the members of the Management Board. The Supervisory Board of Fresenius Medical Care Management AG is assisted in this task by a personnel committee, the Human Resources Committee, a committee which is composed of individual members of the Supervisory Board of Fresenius Medical Care Management AG and which is also responsible for the tasks of a compensation committee. The Human Resources Committee is composed of Mr. Stephan Sturm (Chairman), Dr. Gerd Krick (Vice Chairman), Mr. Rolf A. Classon, Mr. William P. Johnston and Dr. Dieter Schenk.

The underlying system of the Management Board compensation in the fiscal year was approved by the General Meeting of FMC-AG & Co. KGaA on May 12, 2016. The Management Board compensation is reviewed by an independent external compensation expert on a regular basis.

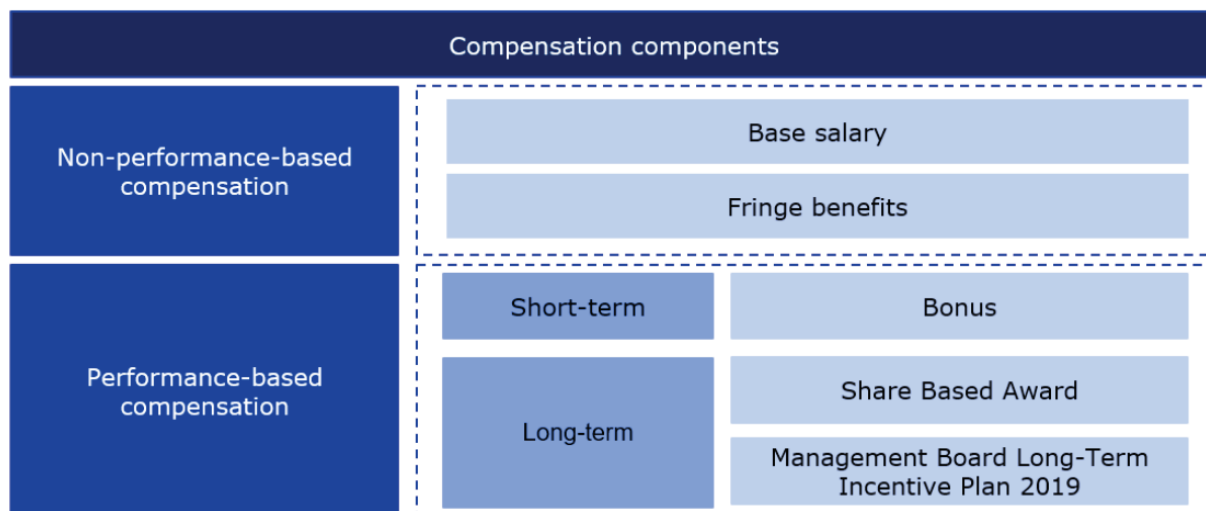
The objective of the compensation system is to enable the members of the Management Board to participate reasonably in the sustainable development of the Company's business and to reward them based on their duties and performance as well as their success in managing the Company's economic and financial position giving due regard to the peer environment.

The amount of the total compensation of the members of the Management Board is measured taking particular account of a horizontal comparison with the compensation of management board members of other DAX-listed companies and similar companies of comparable size and performance in a relevant peer environment. Furthermore, the relation of the overall compensation of the members of the Management Board and that of the senior management as well as the staff overall, as determined by way of a vertical comparison, is taken into account.

The compensation of the Management Board is, as a whole, performance-based and geared to promoting sustainable corporate development. It consists of three components:

1. non-performance-based compensation (base salary and fringe benefits)
2. short-term performance-based compensation (one-year variable compensation)
3. components with long-term incentive effects (multi-year variable compensation comprised of share-based compensation with cash settlement and stock options, the latter granted in previous fiscal years).

Compensation components granted during the fiscal year:



I. Non-performance-based compensation

The members of the Management Board receive a base salary. In Germany or Hong Kong (applicable to Mr. Harry de Wit, who is resident in Hong Kong), as the case may be, the base salary is paid in twelve equal monthly instalments. To the extent the base salary is paid to members of the Management Board in the U.S., the payment is made in accordance with local customs in twenty-four equal instalments.

Moreover, the members of the Management Board receive fringe benefits. In the fiscal year these consisted mainly of payments for insurance premiums, the private use of company cars and special payments such as school fees, housing, rent and relocation supplements, reimbursement of fees for the preparation of tax returns, reimbursement of charges, payments in connection with the appointment to the Management Board, reimbursement of air travel expenses, anniversary payments, contributions to pension, accident, life and health insurance as well as tax burden compensation due to varying tax rates applicable in Germany and the U.S. (net compensation) and other benefits in kind and fringe benefits, also in case provisions have been set up therefore.

II. Performance-based compensation

Performance-based compensation is granted as a short-term cash component (one-year variable compensation) and as components with long-term incentive effects (comprising share-based compensation with cash settlement). The one-year variable compensation consists of an amount that is payable without deferral after the end of the fiscal year (hereinafter: “Bonus”) and an amount that is converted into virtual shares of the Company as an amount to be deferred (the so-called Share Based Award, together with the Bonus the “Total Bonus”). The share-based compensation with cash settlement consists of the Share Based Award as well as of Performance Shares, which have been granted in the context of the Fresenius Medical Care Management Board Long-Term Incentive Plan 2019 (hereinafter: “MB LTIP 2019”).

Performance-based compensation components granted in the fiscal year:

Performance-based compensation		
Short-term	Bonus	<ul style="list-style-type: none"> Annual payment in cash after lapse of the fiscal year Targets: Adjusted net income growth, adjusted free cash flow in % of revenues, adjusted operating margin Overall target achievement: 0%-120%
Long-term	Share Based Award	<ul style="list-style-type: none"> Deferred part of the Total Bonus converted into virtual shares of the Company Exercise and payment after three years at the earliest Payment amount in cash depends on Company's share price at exercise
	MB LTIP 2019	<ul style="list-style-type: none"> Performance Share Plan with a vesting period of four years and payment in cash Targets: revenue growth, net income growth, return on invested capital Overall target achievement: 0%-200%

Under the Fresenius Medical Care Long-Term Incentive Program 2011 (hereinafter: "LTIP 2011"), individual members of the Management Board may under certain conditions also exercise stock options already granted or receive a share-based compensation with cash settlement from already granted Phantom Stock. In addition, under certain conditions and for the first time in year 2020, individual members of the Management Board may receive a share-based compensation with cash settlement from Performance Shares that have been granted within the framework of the Fresenius Medical Care Long-Term Incentive Plan 2016 (hereinafter: "LTIP 2016").

One-year variable compensation and Share Based Award

The amount of the one-year variable compensation and of the Share Based Award depends on the achievement of the following individual and joint targets which are derived from the corporate strategy:

- adjusted net income growth attributable to the shareholders of FMC-AG & Co. KGaA at constant currency ("Adjusted Net Income Growth")
- adjusted net cash provided by (used in) operating activities after capital expenditures, before acquisitions and investments ("Adjusted Free Cash Flow"), in percent of revenues
- adjusted operating margin ("Adjusted Operating Margin")

In order to ensure comparability of the figures, they are adjusted for certain special effects (such as the implementation of IFRS 16 and effects from certain acquisitions and divestments).

The targets are weighted differently depending on the Management Board department or function. In the case of Messrs. Rice Powell and Michael Brosnan (member of the Management Board until October 31, 2019) respectively Ms. Helen Giza (member of the Management Board since November 1, 2019) (each of them being members of the Management Board with corporate group functions) as well as Dr. Olaf Schermeier (member of the Management Board responsible for Research and Development), the Adjusted Net Income Growth is weighted with 80%. In the case of Dr. Katarzyna Mazur-Hofsäß and Messrs. William Valle and Harry de Wit (each of them being members of the Management Board with regional responsibility) as well as Mr. Kent Wanzek (member of the Management Board responsible for Global Manufacturing, Quality and Supply), the Adjusted Net Income Growth is weighted with 60%. In the case of the members of the Management Board last named, the valuation of the respective Adjusted Operating Margin contributes another 20%. The target Adjusted Free Cash Flow in percent of revenues is uniformly measured with 20% for all members of the Management Board.

	Adjusted Net Income Growth	Adjusted Free Cash Flow in % of revenues	Adjusted Operating Margin
Corporate group function and/or Research and Development	80%	20%	-
Regional function and/or Global Manufacturing, Quality and Supply	60%	20%	20%

The degree of the achievement of the specific targets (target achievement) is determined by comparing the actual values with the target values to be achieved. The Adjusted Net Income Growth is taken into account up to a growth rate of 2%. The targets regarding the respective Adjusted Free Cash Flow in percent of revenues fall within a range of rates between 0.51% and 10.69% and are evaluated within the Group or, as the case may be, in the relevant regions. For the benefit of members of the Management Board with regional responsibilities as well as for the benefit of the Management Board member responsible for Global Manufacturing, Quality and Supply, growth of the respective Adjusted Operating Margin is compensated within individual target corridors between 11.84% and 17.75%, reflecting the particularities of the respective regions and responsibilities:

	0% target achievement (Minimum)	100% target achievement	120% target achievement (Maximum)
Adjusted Net Income Growth	-2.00%	1.49%	2.00%
Adjusted Free Cash Flow in % of revenues	Individual corridors between 0.51% and 10.69%, depending on the respective responsibilities		
Adjusted Operating Margins	Individual target corridors between 11.84% and 17.75%, depending on the respective responsibilities		

The degree of overall target achievement of each member of the Management Board is determined by the weighted arithmetic mean of the target achievement of the aforementioned targets. Multiplying the degree of the respective overall target achievement by the respective base salary and another fixed multiplier results in the Total Bonus, of which a 75% share is paid out in cash to the members of the Management Board as Bonus after approval of the consolidated annual financial statements of FMC-AG & Co. KGaA by the Supervisory Board for the respective fiscal year. Since the degree of target achievement is limited to a maximum of 120%, the Management Board's achievable one-year variable compensation has maximum limits (cap).

For the fiscal year and the previous year, the amount of cash compensation payments to members of the Management Board without components with long-term incentive effects consists of the following:

Amount of Cash Compensation

in € THOUS

	Non-performance-based compensation				Short-term performance-based compensation		Cash compensation (without long-term incentive components)	
	Base salary		Fringe benefits		Bonus		2019	2018 ⁽¹⁾
	2019	2018 ⁽¹⁾	2019	2018 ⁽¹⁾	2019	2018 ⁽¹⁾		
Members of the Management Board serving as of December 31, 2019								
Rice Powell	1,340	1,270	256	195	1,970	2,376	3,566	3,841
Helen Giza ⁽²⁾	108	—	440 ⁽³⁾	—	159	—	707	—
Dr. Katarzyna Mazur-Hofsäß ⁽²⁾	700	233	94	844 ⁽⁴⁾	1,131	370	1,925	1,447
Dr. Olaf Schermeier	510	490	136	131	750	970	1,396	1,591
William Valle	866	792	237	330	1,035	1,395	2,138	2,517
Kent Wanzek	607	550	127	126	866	1,076	1,600	1,752
Harry de Wit	520	480	337	315	841	950	1,698	1,745
Former member of the Management Board who resigned during the fiscal year 2019⁽⁵⁾								
Michael Brosnan	633	720	211	56	1,117	1,300	1,961	2,076
Total:	5,284	4,535	1,838	1,997	7,869	8,437	14,991	14,969

(1) Please note for purposes of comparison between the amounts indicated and those of the fiscal year that the compensation is subject to foreign exchange rate fluctuations depending on whether it is contractually denominated in euro (Mses. Helen Giza and Dr. Katarzyna Mazur-Hofsäß as well as Messrs. Dr. Olaf Schermeier and Harry de Wit) or U.S. dollar (Messrs. Rice Powell, William Valle, Kent Wanzek and Michael Brosnan).

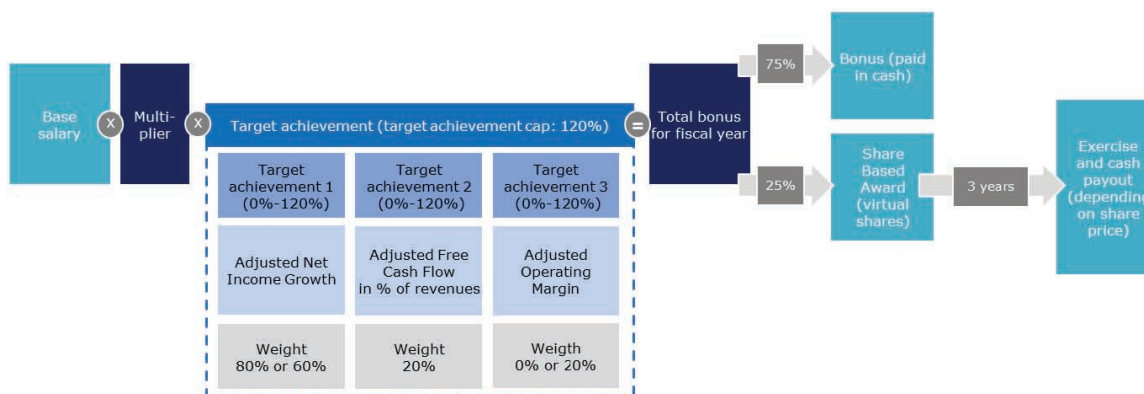
(2) Please note for purposes of comparison of the amounts indicated for the fiscal year that Ms. Helen Giza has been appointed as member of the Management Board only with effect as of November 1, 2019 and Dr. Katarzyna Mazur-Hofsäß with effect as of September 1, 2018 and, therefore, they have received compensation payments to be set out herein only in each case as of such date.

- (3) The fringe benefits of Ms. Helen Giza include a payment of €400 THOUS, which Ms. Helen Giza received in connection with her appointment to the Management Board. In the years 2020 and 2021, Ms. Helen Giza will receive further payments of €200 THOUS each year in connection with her appointment to the Management Board.
- (4) The other benefits of Dr. Katarzyna Mazur-Hofsäß include a one-off special payment in the amount of €800 THOUS by which Dr. Katarzyna Mazur-Hofsäß was compensated for forfeited compensation benefits from the previous employment relationship.
- (5) Mr. Michael Brosnan resigned from the Management Board with effect as of the end of October 31, 2019. Therefore, the amounts for the base salary and the fringe benefits as set out herein for the fiscal year relate to the period until October 31, 2019.

The portion of the one-year variable compensation not paid out for the fiscal year in question, amounting to 25% of the Total Bonus, is converted into virtual shares not backed by equity and allocated to the members of the Management Board in the form of the so-called Share Based Award. The Share Based Award is attributed to the compensation components with long-term incentive effect and can be exercised at the earliest after lapse of a period of three years following the grant date. In special cases (e.g. occupational disability, entry into retirement, non-renewal of expired employment contracts by the company), a shorter period may apply. The payment from the Share Based Award is made in cash and depends on the share price of FMC-AG & Co. KGaA upon exercise.

In accordance with the targets achieved in the fiscal year, the members of the Management Board who were members of the Management Board on December 31 of the fiscal year and the member of the Management Board who resigned during the fiscal year acquired entitlements to Share Based Awards valued at €2,623 THOUS (2018: €3,414 THOUS). Based on the already fixed value, the allocation of the specific number of virtual shares made by the Supervisory Board of Fresenius Medical Care Management AG in principle takes place in March of the following year on the basis of the then current price conditions of the shares of FMC-AG & Co. KGaA. This number will also serve as multiplier for the share price on the respective exercise date and, thus, as the basis for the determination of the payment amount of the respective share-based compensation.

Functionality of the Total Bonus (Bonus and Share Based Award) in principle:



Personal Investment from the Bonus 2018 with Stock Holding Condition

To take adequate account of the business development in the year 2018, the members of the Management Board being in office at that time—in accordance with a respective agreement with the Supervisory Board—have acquired shares in FMC-AG & Co. KGaA on a stock exchange for a portion of their Bonus for year 2018 after payment in the fiscal year 2019. The shares acquired from this portion of their Bonus for year 2018 may only be sold by the respective member of the Management Board after a period of three years from the respective date of acquisition has expired.

The net amounts invested by the members of the Management Board being in office at that time in implementation of this personal investment partly exceed the agreed amounts and, taking into account the respective exchange rate applicable at the time of acquisition, are as follows:

Personal Investment in Fiscal Year 2019

	<u>Amount</u>	<u>Currency</u>
Rice Powell	619,571	US\$
Michael Brosnan	317,951	US\$
Dr. Katarzyna Mazur-Hofsäß	80,207	€
Dr. Olaf Schermeier	244,664	€
William Valle	308,633	US\$
Kent Wanzek	344,036	US\$
Harry de Wit	166,456	€

Performance Shares

In addition to the Share Based Award, the members of the Management Board were also granted so-called “Performance Shares” on the basis of the MB LTIP 2019, as further performance-based component with a long-term incentive effect. The MB LTIP 2019 was approved in the fiscal year 2019 by the Supervisory Board of Fresenius Medical Care Management AG upon recommendation of the Human Resources Committee and follows on the LTIP 2016, under which, as of the end of 2018, no further Performance Shares may be granted, and on the LTIP 2011, under which, as of the end of 2015, no further stock options or Phantom Stock may be granted.

Performance Shares are virtual compensation instruments not backed by equity. These may provide entitlement to a cash payment depending on the achievement of the performance targets described below and the development of FMC-AG & Co. KGaA's share price. The MB LTIP 2019 stipulates that the members of the Management Board could be granted Performance Shares once or twice in the year 2019. For the members of the Management Board, the Supervisory Board determined, after due consideration and taking into account the individual responsibilities and performance of the respective members of the Management Board, the so-called grant value, as the initial amount for each grant to be made to members of the Management Board. This grant value was divided by the applicable fair value of a Performance Share at the grant date, taking into account the 30-day average stock exchange price of the share of FMC-AG & Co. KGaA prior to the grant, in order to determine the number of Performance Shares to be granted. This number may change over a period of three years depending on the degree to which the performance targets are achieved, both the total loss of all granted Performance Shares as well as a doubling (at most) of that number being possible. The number of Performance Shares after the three-year performance period, resulting from the respective target achievement, is considered as vested four years after the date the respective allocation was made. The above-mentioned number of Performance Shares is then multiplied by the average price of the Company's shares during the thirty-day period prior to the expiration of the four years' vesting period. The resulting amount is paid out in cash to the members of the Management Board for their respective Performance Shares.

The degree of the total target achievement during the three-year performance period is determined based on the three following performance targets which are derived from the long-term corporate strategy:

- revenue growth at constant currency (“Revenue Growth”)
- growth of the net income attributable to the shareholders of FMC-AG & Co. KGaA at constant currency (“Net Income Growth”)
- ROIC

In order to ensure comparability of the figures of the growth-related performance targets, they are adjusted for the effects of the implementation of IFRS 16.

The target corridors and targets are as set out in the table below:

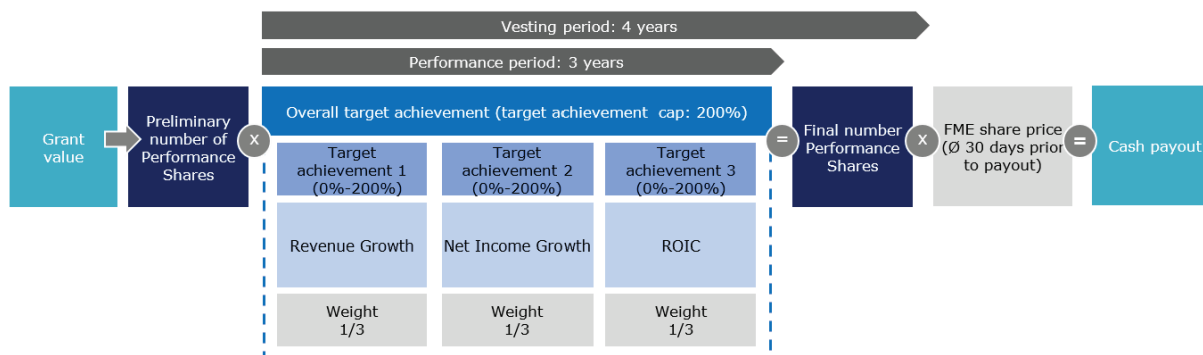
	Growth/ROIC	Target achievement	Weight
Performance target 1: Revenue Growth	≤ 0%	0%	1/3
	7%	100%	
	≥ 16%	200%	
Performance target 2: Net Income Growth	≤ 0%	0%	1/3
	7%	100%	
	≥ 14%	200%	
Performance target 3: ROIC	0.2 percentage points below target ROIC	0%	1/3
	target ROIC	100%	
	0.2 percentage points above target ROIC	200%	

Under the MB LTIP 2019 the ROIC target for the year 2019 is set at 7.9%. For each Revenue Growth, any Net Income Growth and any ROIC level within the range of the values presented above, the degree of target achievement is linearly interpolated. If the target achievement in relation to the ROIC target in the third year of the performance period is higher than or equal to the target achievement in each of the two previous years, the ROIC target achievement for the third year applies to all years of the performance period.

Each of these three performance targets accounts for one-third in the calculation of the yearly target achievement, which is calculated for each year of the three-year performance period. The overall target achievement at the end of the three-year performance period is determined by the arithmetic value of these three average yearly target achievements. The achievement degree of each of the performance targets as well as the overall target achievement can lie in a corridor between 0% and 200% and in this respect has a maximum limit (target achievement cap).

The number of Performance Shares granted to the members of the Management Board is multiplied by the overall target achievement in percent in order to determine the final number of Performance Shares that forms the basis of the cash payments under the MB LTIP 2019 as described above.

Functionality of the MB LTIP 2019 in principle:



In the course of the fiscal year, a total of 114,999 Performance Shares (2018: 73,315 under the LTIP 2016) with a total value of €7,158 THOUS (2018: €5,783 THOUS under the LTIP 2016) were granted to the members of the Management Board under the MB LTIP 2019. The fair value of the Performance Shares issued in July of the fiscal year amounted on the grant date to €62.10 (2018: €80.55 under the LTIP 2016) for grants in euro (applies to Dr. Katarzyna Mazur-Hofsäß and Messrs. Dr. Olaf Schermeier and Harry de Wit) and to \$69.71 (2018: \$94.11 under the LTIP 2016) for grants in U.S. dollars (applies to Messrs. Rice Powell, Michael Brosnan (member of the Management Board until October 31, 2019), William Valle and Kent Wanzek). Ms. Helen Giza (member of the Management Board since November 1, 2019) was granted Performance Shares in December of the fiscal year whose fair value on the grant date was €60.58 (2018: €69.05 for the grant of Performance Shares to Dr. Katarzyna Mazur-Hofsäß under the LTIP 2016). At the end of the fiscal year, the members of the Management Board being in office on December 31 of the fiscal year held a total of 314,313 Performance Shares under the MB LTIP 2019 and the LTIP 2016 (2018: 204,693 under the LTIP 2016).

For the fiscal year, the value of the share-based compensation with cash settlement granted to the members of the Management Board is shown, in each case compared to the previous year, individualized in the following table:

Long-Term Incentive Components

in € THOUS

	Share-based compensation with cash settlement ⁽¹⁾	
	2019	2018 ⁽²⁾
Members of the Management Board serving as of December 31, 2019		
Rice Powell	2,232	2,391
Helen Giza ⁽³⁾	865	—
Dr. Katarzyna Mazur-Hofsäß ⁽³⁾	1,180	858
Dr. Olaf Schermeier	1,053	1,081
William Valle	1,133	1,402
Kent Wanzek	1,076	1,084
Harry de Wit	1,083	1,074
Former member of the Management Board who resigned during the fiscal year 2019⁽⁴⁾		
Michael Brosnan	1,160	1,307
Total:	9,782	9,197

(1) This includes Performance Shares pursuant to the MB LTIP 2019 (for fiscal year 2019) and to the LTIP 2016 (for fiscal year 2018) as well as Share Based Awards granted to the members of the Management Board during the respective fiscal year. The share-based compensation amounts are based on the fair value on the grant date.

(2) Please note for purposes of comparison between the amounts indicated and those of the fiscal year that the compensation is subject to foreign exchange rate fluctuations depending on whether it is contractually denominated in euro (Mses. Helen Giza and Dr. Katarzyna Mazur-Hofsäß as well as Messrs. Dr. Olaf Schermeier and Harry de Wit) or U.S. dollar (Messrs. Rice Powell, William Valle, Kent Wanzek and Michael Brosnan).

(3) Please note for purposes of comparison of the amounts indicated for the fiscal year that Ms. Helen Giza has been appointed as member of the Management Board only with effect as of November 1, 2019 and Dr. Katarzyna Mazur-Hofsäß with effect as of September 1, 2018 and, therefore, they have received compensation payments to be set out herein only in each case as of such date.

(4) Mr. Michael Brosnan resigned from the Management Board with effect as of the end of October 31, 2019.

The Supervisory Board has agreed on a limitation option for the components with a long-term incentive effect in the event of extraordinary developments.

The components with long-term incentive effect entitle to a cash payment or can be exercised only after the expiration of the predefined waiting and/or vesting periods. Their value is distributed over the waiting periods and is proportionally accounted for as an expense in the respective fiscal year.

The expenses pertaining to components with long-term incentive effects for the fiscal year and for the previous year are set out in the following table:

Expenses for Long-Term Incentive Components
in € THOUS

	Stock Options		Share-based compensation with cash settlement ⁽¹⁾		Share-based compensation	
	2019	2018	2019	2018	2019	2018
Members of the Management Board serving as of December 31, 2019						
Rice Powell	327	659	2,588	391	2,915	1,050
Helen Giza ⁽²⁾	—	—	10	—	10	—
Dr. Katarzyna Mazur-Hofsäß ⁽²⁾	—	—	224	9	224	9
Dr. Olaf Schermeier	109	236	1,226	229	1,335	465
William Valle ⁽³⁾	—	—	731	114	731	114
Kent Wanzek	153	295	1,272	128	1,425	423
Harry de Wit	—	—	1,001	222	1,001	222
Former member of the Management Board who resigned during the fiscal year 2019⁽⁴⁾						
Michael Brosnan	164	330	3,552	245	3,716	575
Total:	753	1,520	10,604	1,338	11,357	2,858

(1) This includes expenses for Performance Shares under the MB LTIP 2019 (for fiscal year 2019 only) and under the LTIP 2016, expenses for Phantom Stock under the LTIP 2011 and expenses for the Share Based Award.

(2) Please note for purposes of comparison of the amounts indicated for the fiscal year that Ms. Helen Giza has been appointed as member of the Management Board only with effect as of November 1, 2019 and Dr. Katarzyna Mazur-Hofsäß with effect as of September 1, 2018 and, therefore, they have received compensation payments to be set out herein only in each case as of such date.

(3) The amounts indicated for stock options do not include the expenses from stock options which have been granted to the member of the Management Board William Valle prior to his appointment to the Management Board.

(4) Mr. Michael Brosnan resigned from the Management Board with effect as of the end of October 31, 2019. The expenses for long-term incentive components result from the compensation components granted to Mr. Michael Brosnan under the LTIP 2011, the LTIP 2016, the MB LTIP 2019 and the Share Based Award which are payable or can be exercised, as the case may be, on the relevant regular vesting date in accordance with the respective plan conditions.

Focus on sustainable corporate development

The compensation of the Management Board is designed to promote sustainable corporate development. This is ensured, among other things, by the fact that the portion of the long-term compensation always exceeds the portion of short-term compensation. To the extent the portion of the performance-based components with long-term incentive effects (i.e. Performance Shares and Share Based Award) does not reach 50% of the sum of all variable compensation components for the respective fiscal year, it has been contractually provided that the one-year variable compensation is reduced accordingly and the Share Based Award is increased correspondingly.

In addition, already earned and paid compensation components, in particular in case of relevant violations of internal guidelines or undutiful conduct, can be reclaimed (claw back) on the basis of the MB LTIP 2019 and the LTIP 2016 plan conditions and in accordance with the employment contracts concluded with individual members of the Management Board as from January 1, 2018.

Performance Shares under the LTIP 2016

Until the end of year 2018 grants of Performance Shares under the LTIP 2016 constituted a component of the compensation of the members of the Management Board. As of the end of year 2018 grants under the LTIP 2016 are no longer possible. However, individual members of the Management Board may exercise Performance Shares which have already been granted and receive (for the first time in year 2020) thereof a cash-settled share-based payment from Performance Shares under the LTIP 2016, taking into consideration blackout periods, the achievement of defined performance targets as well as, subject to deviating stipulations in the individual case, the continuation of the service and/or employment relationship. The members of the Management Board being in office on December 31 of the fiscal year

held, by the end of the fiscal year, a total of 211,878 Performance Shares (2018: 204,693) under the LTIP 2016.

Stock options and Phantom Stock under the LTIP 2011

Until the end of the fiscal year 2015 grants under the LTIP 2011, which consisted of the Phantom Stock Plan 2011 and the Stock Option Plan 2011, constituted an essential component of the compensation system for the members of the Management Board. As of the end of the fiscal year 2015 grants under the LTIP 2011 are no longer possible. However, individual members of the Management Board may exercise Phantom Stock or stock options which have already been granted, taking into consideration blackout periods, the achievement of defined performance targets as well as, subject to deviating stipulations in the individual case, the continuation of the service and/or employment relationship.

The members of the Management Board being in office on December 31 of the fiscal year held, by the end of the fiscal year, a total of 23,336 Phantom Stock (2018: 54,711) pursuant to the Phantom Stock Plan 2011. Moreover, at the end of the fiscal year the members of the Management Board being in office on December 31 of the fiscal year held a total of 452,989 stock options (2018: 602,389) originating from the Stock Option Plan 2011. For details regarding the conditional capital used to secure the Stock Option Plan 2011, please see the section “Conditional Capital” of the notes consolidated financial statements of the Company.

The development and status of stock options in the fiscal year of the members of the Management Board serving at December 31 of the fiscal year are shown in more detail in the following table:

	Development and Status of the Stock Options							Total:
	Rice Powell	Helen Giza	Dr. Katarzyna Mazur-Hofsäb	Dr. Olaf Schermeier	William Valle	Kent Wanzek	Harry de Wit	
Options outstanding January 1, 2019								
Number	256,781	—	—	96,488	30,000	69,720	—	452,989
Weighted average exercise price in €	66.06	—	—	63.88	76.99	76.99	—	68.00
Options exercised during the fiscal year								
Number	—	—	—	—	—	—	—	—
Weighted average exercise price in €	—	—	—	—	—	—	—	—
Weighted average share price in €	—	—	—	—	—	—	—	—
Options outstanding December 31, 2019								
Number	256,781	—	—	96,488	30,000	69,720	—	452,989
Weighted average exercise price in €	66.06	—	—	63.88	76.99	76.99	—	68.00
Weighted average remaining contractual life in years	2.97	—	—	2.99	3.57	3.57	—	3.11
Range of exercise prices in €	49,76 - 76,99	—	—	49,76 - 76,99	76,99	76,99	—	49,76 - 76,99
Options exercisable December 31, 2019								
Number	256,781	—	—	96,488	30,000	69,720	—	452,989
Weighted average exercise price in €	66.06	—	—	63.88	76.99	76.99	—	68.00

III. Total Compensation

The amount of the total compensation of the Management Board for the fiscal year and for the previous year is shown in the following table:

Total Compensation in € THOUS

	Cash compensation (without long-term incentive components)		Components with long-term incentive effect		Total compensation (including long-term incentive components)	
	2019	2018 ⁽¹⁾	2019	2018 ⁽¹⁾	2019	2018 ⁽¹⁾
Members of the Management Board serving as of December 31, 2019						
Rice Powell	3,566	3,841	2,232	2,391	5,798	6,232
Helen Giza ⁽²⁾	707	—	865	—	1,572	—
Dr. Katarzyna Mazur-Hofsäß ⁽²⁾	1,925	1,447	1,180	858	3,105	2,305
Dr. Olaf Schermeier	1,396	1,591	1,053	1,081	2,449	2,672
William Valle	2,138	2,517	1,133	1,402	3,271	3,919
Kent Wanzek	1,600	1,752	1,076	1,084	2,676	2,836
Harry de Wit	1,698	1,745	1,083	1,074	2,781	2,819
Former member of the Management Board who resigned during the fiscal year 2019⁽³⁾						
Michael Brosnan	1,961	2,076	1,160	1,307	3,121	3,383
Total:	14,991	14,969	9,782	9,197	24,773	24,166

(1) Please note for purposes of comparison between the amounts indicated and those of the fiscal year that the compensation is subject to foreign exchange rate fluctuations depending on whether it is contractually denominated in euro (Mses. Helen Giza and Dr. Katarzyna Mazur-Hofsäß as well as Messrs. Dr. Olaf Schermeier and Harry de Wit) or U.S. dollar (Messrs. Rice Powell, William Valle, Kent Wanzek and Michael Brosnan).

(2) Please note for purposes of comparison of the amounts indicated for the fiscal year that Ms. Helen Giza has been appointed as member of the Management Board only with effect as of November 1, 2019 and Dr. Katarzyna Mazur-Hofsäß with effect as of September 1, 2018 and, therefore, they have received compensation payments to be set out herein only in each case as of such date.

(3) Mr. Michael Brosnan resigned from the Management Board with effect as of the end of October 31, 2019.

IV. Commitments to members of the Management Board for the event of termination of their appointment

The following pension commitments and other benefits are also part of the compensation system for the members of the Management Board: Individual contractual pension commitments for the members of the Management Board Messrs. Rice Powell, Michael Brosnan (member of the Management Board until October 31, 2019), Dr. Olaf Schermeier, Mr. Kent Wanzek and Mr. Harry de Wit have been granted by Fresenius Medical Care Management AG. In addition, pension commitments from the participation in employee pension schemes of other Fresenius Medical Care companies exist for individual members of the Management Board.

Each of the pension commitments by Fresenius Medical Care Management AG provides for a pension and survivor benefit (*Hinterbliebenenversorgung*) as of the time of conclusively ending active work, at age 65 at the earliest or upon occurrence of disability or incapacity to work (*Berufs- oder Erwerbsunfähigkeit*) or of reduction of earning capacity (*Erwerbsminderung*), calculated by reference to the amount of the recipient's most recent base salary. In deviation from this, individual members of the Management Board (Messrs. Rice Powell and Kent Wanzek) have this entitlement already upon reaching the age of the 63 if they have been members of the Management Board of Fresenius Medical Care Management AG for at least ten years at the time of their final retirement from active employment (early retirement); in this case, the benefits are reduced by 0.5% per calendar month that the member leaves active employment before reaching the age of 65.

The retirement pension will be based on 30% of the last base salary or the 5-year average of the last base salaries and will increase for each complete year of service by 1.5 percentage points up to a maximum of 45%. Current pensions increase according to legal requirements (Sec. 16 of the German Act to improve

company pension plans, “BetrAVG”). 30% of the gross amount of any post-retirement income from an activity of the Management Board member is offset against the pension. Any amounts to which the members of the Management Board or their surviving dependents, respectively, are entitled to from other company pension rights of the Management Board member, even from employment contracts with other companies, are also to be set off. If a Management Board member dies, the surviving spouse receives a pension amounting to 60% of the resulting pension claim at that time. Furthermore, the deceased Management Board member’s own legitimate children (*leibliche eheliche Kinder*) receive an orphan’s pension amounting to 20% of the resulting pension claim at that time, until the completion of their education or they reach 25 years of age, at the latest. All orphans’ pensions and the surviving spouse’s pension together reach a maximum of 90% of the Management Board member’s pension, however. If a Management Board member leaves the Management Board of Fresenius Medical Care Management AG before reaching the age of 65, the rights to the aforementioned benefits remain, however the pension to be paid is reduced – unless the Management Board member is leaving because of the occurrence of an event insured against (occupational disability, incapacity to work, pension payments to surviving dependents in case of death or, if applicable, early retirement) – in proportion to the ratio of the actual years of service as a Management Board member to the potential years of service until reaching the age of 65.

Based on individual contractual commitments, the members of the Management Board Messrs. Rice Powell, Michael Brosnan (member of the Management Board until October 31, 2019), William Valle and Kent Wanzek additionally participated in the U.S.-based 401(k) savings plan in the fiscal year; in this regard, contributions in the amount of \$8,400 (2018: \$8,250) were earned in the fiscal year in each case and allocated in January 2020 to the members of the Management Board mentioned above. This plan generally allows employees in the U.S. to invest a limited portion of their gross salaries in retirement pension programs. The Company supports its employees at this with contributions of up to 50% of the yearly made payments.

Furthermore, the members of the Management Board Messrs. Rice Powell and Michael Brosnan (member of the Management Board until October 31, 2019) have acquired non-forfeitable benefits from participation in employee pension plans of Fresenius Medical Care North America, which provide payment of pensions as of the age of 65 and the payment of reduced benefits as of the age of 55. In March 2002, the rights to receive benefits from the pension plans were frozen at the level then applicable.

Based on an individual contractual commitment, the member of the Management Board Mr. Harry de Wit additionally participated in the Hong Kong-based “Mandatory Provident Fund Scheme” until December 31, 2018. In this regard, contributions in the amount of 0 HKD (2018: 18,000 HKD) were earned in the fiscal year. This scheme enables employees to contribute a limited portion of their gross salaries in programs for retirement planning.

Additions to pension provisions in the fiscal year for the members of the Management Board being in office on December 31 of the fiscal year amounted to €6,751 THOUS (2018: €5,071 THOUS). The pension commitments are shown in the following table:

Development and Status of Pension Commitments

in € THOUS	As of January 1, 2019	Increase	As of December 31, 2019
Rice Powell	12,940	3,309	16,249
Helen Giza	—	—	—
Dr. Katarzyna Mazur-Hofsäß	—	—	—
Dr. Olaf Schermeier	974	549	1,523
William Valle	—	—	—
Kent Wanzek	3,587	1,191	4,778
Harry de Wit	—	1,702	1,702
Total:	<u>17,501</u>	<u>6,751</u>	<u>24,252</u>

A post-employment non-competition covenant was agreed upon with all members of the Management Board. If such covenant becomes applicable, the members of the Management Board for a period of up to two years receive compensation amounting to half of their respective annual base salary and an amount equivalent to half of 30% of their respective base salary for each year of respective application of the non-competition covenant. The employment contracts of the members of the Management Board contain no express provisions that are triggered by a change of control.

The new or extended employment contracts concluded with individual members of the Management Board effective from or after January 1, 2018 provide for a severance payment cap. Under this cap, payments in connection with the early termination of a Management Board activity in the event of dismissal for cause (*Abberufung aus wichtigem Grund*) may not exceed the value of two years' compensation and may not compensate more than the remaining term of the contract. For the calculation of the relevant annual compensation, only the non-performance-based compensation components are applied. If there is good cause for the termination of the employment contract, no severance payments are made.

V. Miscellaneous

All members of the Management Board have received individual contractual commitments for the continuation of their compensation in cases of sickness for a maximum of twelve months, although after six months of sick leave, insurance benefits may be set off against such payments. If a Management Board member dies, the surviving dependents will be paid three more monthly instalments after the month of death, not to exceed, however, the amount due between the time of death and the scheduled expiration of the respective employment contract.

Mr. Michael Brosnan was a member of the Management Board until the end of October 31, 2019. In his termination agreement, it was agreed with respect to the compensation components he is contractually entitled to for the period from November 1, 2019 to December 31, 2020 that he will receive a base salary of \$850 THOUS p.a. (pro rata for the period from November 1, 2019 to December 31, 2019). For the period from January 1, 2020 to December 31, 2020 Mr. Michael Brosnan has an entitlement to fringe benefits in the form of contributions to financial planning, insurance benefits, contributions to pension, accident, life and health insurances and housing, rent and relocation supplements as well as tax burden compensation due to varying tax rates in Germany and the U.S. (net compensation) and a car allowance in the total amount of approximately \$257 THOUS. For the period from November 1, 2019 to December 31, 2019 these fringe benefits amounted to \$17 THOUS. Additionally, Mr. Michael Brosnan will participate in the U.S.-based 401(k) savings plan until December 31, 2020. For the period from January 1, 2020 to December 31, 2020, Mr. Michael Brosnan will also receive an amount equivalent to 30% of his base salary. The compensation components granted to Mr. Michael Brosnan under the LTIP 2016, the MB LTIP 2019 and in the form of Share Based Awards are payable or exercisable in accordance with the respective plan conditions. With the exception of the Share Based Award for 2019, Mr. Michael Brosnan will no longer be granted any further components with long-term incentive effects as from (and including) the year 2020. As of January 1, 2021, Mr. Michael Brosnan will receive an annual compensation for the agreed post-employment non-competition covenant in the amount of \$553 THOUS p.a. for a period of two years. It was agreed with Mr. Michael Brosnan that he is entitled to receive a company pension on the basis of the individual contractual pension commitment of Fresenius Medical Care Management AG in the annual amount of \$405 THOUS from January 1, 2021. The compensation for the agreed post-employment non-competition covenant is credited against the company pension.

Mr. Dominik Wehner was a member of the Management Board until the end of December 31, 2017. In his termination agreement, it was agreed with respect to the compensation components he is contractually entitled to for the period from January 1, 2018 to March 31, 2022 that he will annually receive a base salary of €425 THOUS and an amount of 30% of his base salary. In addition, Mr. Dominik Wehner is entitled to fringe benefits such as the private use of his company car, contributions to financial planning, insurance benefits and contributions to pension and health insurance in a total amount of approximately €30 THOUS p.a. The compensation components granted to Mr. Dominik Wehner under the LTIP 2011, the LTIP 2016 and in form of Share Based Awards are payable or can be exercised, as the case may be, upon the relevant regular vesting date in accordance with the respective plan conditions. Except for the Share Based Award for 2017, Mr. Dominik Wehner is no longer eligible to be granted any components with long-term incentive effects since the year 2018 (including). As of the completion of the age of 65, Mr. Dominik Wehner will receive a Company-funded retirement pension in accordance with the individual contractual pension commitment by Fresenius Medical Care Management AG, as described before.

Mr. Ronald Kuerbitz, who was a member of the Management Board until February 17, 2017, received an annual non-compete compensation from February 17, 2017 for a period of two years; this compensation amounted in the fiscal year to €90 THOUS (2018: €515 THOUS). It was also agreed with him that, after the end of his employment contract, he would act as an advisor to National Medical Care, Inc. from August 14, 2017 until the end of August 13, 2019. The consideration to be granted for such services (including reimbursement of expenses) amounts to €167 THOUS (2018: €212 THOUS) for the fiscal year.

As of the completion of the age of 65, Mr. Ronald Kuerbitz will receive a Company-funded retirement pension of €130 THOUS per year.

Mr. Roberto Fusté, who was a member of the Management Board until March 31, 2016, received pension payments in the amount of approximately €274 THOUS (2018: €261 THOUS) in the fiscal year. On the occasion of the termination of his employment contract with effect as of December 31, 2016 as a member of the Management Board, it was agreed with Mr. Roberto Fusté that he would be subject to a post-employment non-compete obligation lasting until the end of December 31, 2018 and that he would act as an advisor to the Chairman of the Management Board. For this, he did neither receive a non-compete compensation (2018: €377 THOUS) nor an advisory fee (2018: €377 THOUS) in the fiscal year.

Prof. Emanuele Gatti, who was a member of the Management Board until March 31, 2014, received pension payments in the amount of €355 THOUS in the fiscal year (2018: €338 THOUS).

A consulting agreement was entered into with Dr. Rainer Runte, who was a member of the Management Board until March 31, 2014, effective March 1, 2017, the term of which in the meantime was extended until December 31, 2018. Under this consulting agreement, Dr. Rainer Runte provided consulting services on certain fields. The consideration (including the reimbursement of expenses) to be granted by Fresenius Medical Care Management AG for such services amounts to €0 THOUS for the fiscal year (2018: €226 THOUS).

Instead of a pension provision, a consulting agreement was entered into with Dr. Ben Lipps, the Chairman of the Management Board until December 31, 2012, for the period January 1, 2013 to December 31, 2021. Under this consulting agreement, Dr. Ben Lipps will provide consulting services on certain fields and within a specified time frame and will be subject to a non-compete covenant. The consideration to be granted by Fresenius Medical Care Management AG for such services (including reimbursement of expenses) amounts for the fiscal year to €568 THOUS (2018: €522 THOUS). In 2019, an amendment to the agreement was made which provides for a one-off payment of €1,129 THOUS for the remaining term of the agreement. This payment was also made in the fiscal year. All payments for services to be performed by him under the consulting agreement have thus been made.

In the fiscal year, no loans or advance payments for future compensation components were made to the members of the Management Board of Fresenius Medical Care Management AG.

The payments to U.S. members of the Management Board Messrs. Rice Powell, Michael Brosnan (member of the Management Board until October 31, 2019) and Kent Wanzek were paid in part in the U.S. (in U.S. dollar) and in part in Germany (in euro). For the part paid in Germany, the Company has agreed that due to varying tax rates in both countries, the increased tax burden to such members of the Management Board arising from German tax rates in comparison to U.S. tax rates will be balanced (net compensation). Pursuant to a modified net compensation agreement, these members of the Management Board will be treated as if they were taxed in their home country, the United States, only. Therefore, the gross amounts may be retroactively changed. Since the actual tax burden can only be calculated in connection with the preparation of the Management Board members' tax returns, subsequent adjustments may have to be made, which will then be retroactively covered in future compensation reports.

To the extent permitted by law, Fresenius Medical Care Management AG undertook to indemnify the members of the Management Board from claims against them arising out of their work for the Company and its affiliates, to the extent such claims exceed their liability under German law. To secure such obligations, a Directors & Officers liability insurance exists with a deductible that corresponds to the specifications according to the German Stock Corporation Act.

Former members of the Management Board did not receive any compensation in the fiscal year other than mentioned herein. As of December 31 of the fiscal year, pension obligations towards this group of persons exist in an amount of €37,373 THOUS (2018: €25,163 THOUS).

VI. Revision of the compensation system for the Management Board

The Supervisory Board attaches great importance to good corporate governance – also in the area of the compensation of the Management Board. This includes ensuring an effective system of incentives that is in line with the market. Therefore, the Supervisory Board also in 2019 intensively dealt with the system for the compensation of the General Partner's Management Board and continuously and closely monitored the further development of the standards of good corporate governance and identified suitable measures to adjust the existing compensation regulations. On the basis of intensive discussions also with external

stakeholders and the now established statutory changes resulting from the implementation of the Second Shareholders' Rights Directive in the German Stock Corporation Act and the publication of a new version of the German Corporate Governance Code, the compensation system for the members of the Management Board of the General Partner shall now be comprehensively revised.

The Supervisory Board is convinced that the changes to the system for compensation will significantly contribute to creating further incentives to bring the long-term strategic business orientation, with due consideration of the amended regulatory framework, even more in line with the further evolved interests of the Company's shareholders. This includes in particular the introduction of non-financial sustainable performance parameters for compensation, with which the Company's commitment to its social and environmental responsibility is also reflected in the Management Board compensation. In addition, it is intended to adjust the basic systematics of the system for compensation, to reduce its complexity, and to orient it even more strongly on the long term. The compensation component that has so far been paid out as part of the one-year variable compensation, but irrespective of the target achievement, will in future be determined as part of the base salary. Further, the one-year variable compensation shall no longer partially be converted into a long-term performance-related compensation element (Share Based Award). Instead, a larger portion of the performance-related compensation than so far shall be granted in the long term under the future long-term incentive plan. Such plan is also intended to provide for mandatory share retention rules to promote share ownership. Overall, this results in a shift in compensation to a longer-term composition with comparable total compensation. The hypothetical possibility of paying a discretionary compensation component shall be expressly excluded. Furthermore, maximum payout limits (caps) shall be introduced for all performance-related compensation components granted in future.

The comprehensively revised compensation system for the members of the Management Board of the General Partner shall be submitted to the Annual General Meeting of the Company on May 19, 2020 for approval in accordance with the provisions of the Second Shareholders' Rights Directive as implemented in the German Stock Corporation Act.

VII. Tables of the value of benefits granted and received

The German Corporate Governance Code in the version dated February 7, 2017 provides that the compensation report shall include information for each member of the Management Board on the benefits granted and received as well as on the pension expenses for the fiscal year. The model tables provided in the appendix to the German Corporate Governance Code shall be used to present this information. The following tables include information on the value of benefits granted and received. They adhere to the structure and, to the greatest extent possible, the standards of the model tables of the German Corporate Governance Code:

Benefits granted to serving members of the Management Board as of December 31, 2019

in € THOUS

	Rice Powell				Helen Giza			
	Chairman of the Management Board Member of the Management Board since December 21, 2005 ⁽¹⁾				Chief Financial Officer Member of the Management Board since November 1, 2019			
	2019	2019	2019	2018 ⁽²⁾	2019	2019	2019	2018 ⁽²⁾
	Minimum	Maximum			Minimum	Maximum		
Base salary	1,340	1,340	1,340	1,270	108	108	108	—
Fringe benefits	256	256	256	195	440	440	440	—
Total non-performance-based compensation	1,596	1,596	1,596	1,465	548	548	548	—
One-year variable compensation	2,211	201	2,653	2,096	179	98	215	—
Multi-year variable compensation / components with long-term incentive effects	2,232	—	n.a.	2,390	865	—	n.a.	—
thereof Share Based Award – New Incentive Bonus Plan 2010 3-year term / 3-year vesting period	657	—	n.a.	977	53	—	n.a.	—
thereof Performance Shares – LTIP 2016 4-year term / 4-year vesting period	—	—	n.a.	1,413	—	—	n.a.	—
thereof Performance Shares – MB LTIP 2019 4-year term / 4-year vesting period	1,575	—	n.a.	—	812	—	n.a.	—
Total non-performance-based compensation and performance-based compensation	6,039	1,797	n.a.	5,951	1,592	646	n.a.	—
Pension expense	828	828	828	674	—	—	—	—
Value of benefits granted	6,867	2,625	n.a.	6,625	1,592	646	n.a.	—

Benefits granted to serving members of the Management Board as of December 31, 2019

in € THOUS

	Dr. Katarzyna Mazur-Hofsäß				Dr. Olaf Schermeier			
	Member of the Management Board for EMEA Member of the Management Board since September 1, 2018				Member of the Management Board for Research and Development Member of the Management Board since March 1, 2013			
	2019	2019	2019	2018 ⁽²⁾	2019	2019	2019	2018 ⁽²⁾
	Minimum	Maximum			Minimum	Maximum		
Base salary	700	700	700	233	510	510	510	490
Fringe benefits	94	94	94	844	136	136	136	131
Total non-performance-based compensation	794	794	794	1,077	646	646	646	621
One-year variable compensation	1,155	105	1,386	386	842	77	1,010	809
Multi-year variable compensation / components with long-term incentive effects	1,180	—	n.a.	857	1,053	—	n.a.	1,080
thereof Share Based Award – New Incentive Bonus Plan 2010								
3-year term / 3-year vesting period	377	—	n.a.	123	250	—	n.a.	323
thereof Performance Shares – LTIP 2016								
4-year term / 4-year vesting period	—	—	n.a.	734	—	—	n.a.	757
thereof Performance Shares – MB LTIP 2019								
4-year term / 4-year vesting period	803	—	n.a.	—	803	—	n.a.	—
Total non-performance-based compensation and performance-based compensation	3,129	899	n.a.	2,320	2,541	723	n.a.	2,510
Pension expense	—	—	—	—	179	179	179	189
Value of benefits granted	3,129	899	n.a.	2,320	2,720	902	n.a.	2,699

(1) The indicated date refers to the appointment as a member of the Management Board of the General Partner.

(2) Please note for purposes of comparison between the amounts indicated and those of the fiscal year that the compensation is subject to foreign exchange rate fluctuations depending on whether it is contractually denominated in euro (Mses. Helen Giza and Dr. Katarzyna Mazur-Hofsäß as well as Messrs. Dr. Olaf Schermeier and Harry de Wit) or U.S. dollar (Messrs. Rice Powell, William Valle, Kent Wanzek and Michael Brosnan).

Benefits granted to serving members of the Management Board as of December 31, 2019

in € THOUS

	William Valle				Kent Wanzek			
	Member of the Management Board for North America Member of the Management Board since February 17, 2017				Member of the Management Board for Global Manufacturing, Quality and Supply Member of the Management Board since January 1, 2010			
	2019	2019	2019	2018 ⁽¹⁾	2019	2019	2019	2018 ⁽¹⁾
	Minimum	Maximum			Minimum	Maximum		
Base salary	866	866	866	792	607	607	607	550
Fringe benefits	237	237	237	330	127	127	127	126
Total non-performance-based compensation	1,103	1,103	1,103	1,122	734	734	734	676
One-year variable compensation	1,430	130	1,716	1,306	1,002	91	1,203	908
Multi-year variable compensation / components with long-term incentive effects	1,133	—	n.a.	1,403	1,077	—	n.a.	1,084
thereof Share Based Award – New Incentive Bonus Plan 2010								
3-year term / 3-year vesting period	345	—	n.a.	696	289	—	n.a.	377
thereof Performance Shares – LTIP 2016								
4-year term / 4-year vesting period	—	—	n.a.	707	—	—	n.a.	707
thereof Performance Shares – MB LTIP 2019								
4-year term / 4-year vesting period	788	—	n.a.	—	788	—	n.a.	—
Total non-performance-based compensation and performance-based compensation	3,666	1,233	n.a.	3,831	2,813	825	n.a.	2,668
Pension expense	—	—	—	—	379	379	379	369
Value of benefits granted	3,666	1,233	n.a.	3,831	3,192	1,204	n.a.	3,037

	Harry de Wit			
	Member of the Management Board for Asia-Pacific Member of the Management Board since April 1, 2016			
	2019	2019	2019	2018 ⁽¹⁾
	Minimum	Maximum		
Base salary	520	520	520	480
Fringe benefits	337	337	337	315
Total non-performance-based compensation	857	857	857	795
One-year variable compensation	858	78	1,030	792
Multi-year variable compensation / components with long-term incentive effects	1,083	—	n.a.	1,074
thereof Share Based Award – New Incentive Bonus Plan 2010				
3-year term / 3-year vesting period	280	—	n.a.	317
thereof Performance Shares – LTIP 2016				
4-year term / 4-year vesting period	—	—	n.a.	757
thereof Performance Shares – MB LTIP 2019				
4-year term / 4-year vesting period	803	—	n.a.	—
Total non-performance-based compensation and performance-based compensation	2,798	935	n.a.	2,661
Pension expense	1,795	1,795	1,795	—
Value of benefits granted	4,593	2,730	n.a.	2,661

(1) Please note for purposes of comparison between the amounts indicated and those of the fiscal year that the compensation is subject to foreign exchange rate fluctuations depending on whether it is contractually denominated in euro (Mses. Helen Giza and Dr. Katarzyna Mazur-Hofsäß as well as Messrs. Dr. Olaf Schermeier and Harry de Wit) or U.S. dollar (Messrs. Rice Powell, William Valle, Kent Wanzek and Michael Brosnan).

Benefits granted to a former member of the Management Board who retired in fiscal year 2019
in € THOUS

	Michael Brosnan			
	Chief Financial Officer			
	Member of the Management Board until			
	October 31, 2019			
	2019⁽¹⁾	2019⁽¹⁾	2019⁽¹⁾	2018⁽²⁾
		Minimum	Maximum	
Base salary	633	633	633	720
Fringe benefits	211	211	211	56
Total non-performance-based compensation	844	844	844	776
One-year variable compensation	1,253	114	1,503	1,188
Multi-year variable compensation / components with long-term incentive effects	1,160	—	n.a.	1,307
thereof Share Based Award – New Incentive Bonus Plan 2010				
<i>3-year term / 3-year vesting period</i>	372	—	n.a.	600
thereof Performance Shares – LTIP 2016				
<i>4-year term / 4-year vesting period</i>	—	—	n.a.	707
thereof Performance Shares – MB LTIP 2019				
<i>4-year term / 4-year vesting period</i>	788	—	n.a.	—
Total non-performance-based compensation and performance-based compensation	3,257	958	n.a.	3,271
Pension expense	1,494	1,494	1,494	667
Value of benefits granted	4,751	2,452	n.a.	3,938

- (1) The amounts for the base salary and the fringe benefits as set out herein for the fiscal year relate to the period until October 31, 2019.
- (2) Please note for purposes of comparison between the amounts indicated and those of the fiscal year that the compensation is subject to foreign exchange rate fluctuations depending on whether it is contractually denominated in euro (Ms. Helen Giza, Dr. Katarzyna Mazur-Hofsäß as well as Messrs. Dr. Olaf Schermeier and Harry de Wit) or U.S. dollar (Messrs. Rice Powell, William Valle, Kent Wanzek and Michael Brosnan).

Allocations
in € THOUS

	Serving members of the Management Board as of December 31, 2019														Former member of the Management Board (retired in fiscal year)	
	Rice Powell		Helen Giza		Dr. Katarzyna Mazur-Hofsäß		Dr. Olaf Schermeier		William Valle		Kent Wanzek		Harry de Wit		Michael Brosnan	
	Chairman of the Management Board Member of the Management Board since December 21, 2005 ⁽¹⁾		Chief Financial Officer Member of the Management Board since November 1, 2019		Member of the Management Board for EMEA Member of the Management Board since September 1, 2018		Member of the Management Board for Research and Development Member of the Management Board since March 1, 2013		Member of the Management Board for North America Member of the Management Board since February 17, 2017		Member of the Management Board for Global Manufacturing, Quality and Supply Member of the Management Board since January 1, 2010		Member of the Management Board for Asia-Pacific Member of the Management Board since April 1, 2016		Chief Financial Officer Member of the Management Board until October 31, 2019	
	2019	2018 ⁽²⁾	2019	2018 ⁽²⁾	2019	2018 ⁽²⁾	2019	2018 ⁽²⁾	2019	2018 ⁽²⁾	2019	2018 ⁽²⁾	2019	2018 ⁽²⁾	2019 ⁽³⁾	2018 ⁽²⁾
	Base salary	1,340	1,270	108	—	700	233	510	490	866	792	607	550	520	480	633
Fringe benefits	256	195	440	—	94	844	136	131	237	330	127	126	337	315	211	56
Total non-performance based compensation	1,596	1,465	548	—	794	1,077	646	621	1,103	1,122	734	676	857	795	844	776
One-year variable compensation	1,970	2,376	159	—	1,131	370	750	970	1,035	1,395	866	1,076	841	950	1,117	1,300
Multi-year variable compensation / components with long-term incentive effects	494	2,777	—	—	—	—	740	277	207	2,693	459	5,401	—	—	1,505	131
thereof Share Based Award – New Incentive Bonus Plan 2010 3-year term / 3-year vesting period																
Grant 2014	—	131	—	—	—	—	—	55	—	—	—	104	—	—	—	76
Grant 2015	150	—	—	—	—	—	53	—	—	—	115	—	—	—	82	—
thereof LTIP 2011 – Stock Option Plan 2011 8-year term / 4-year vesting period																
Grant 2011	—	2,536	—	—	—	—	—	—	—	532 ⁽⁴⁾	—	1,573	—	—	1,251	—
Grant 2012	—	—	—	—	—	—	—	—	—	333 ⁽⁴⁾	—	786	—	—	—	—
Grant 2013	—	—	—	—	—	—	—	—	—	466 ⁽⁴⁾	—	786	—	—	—	—
Grant 2014	—	—	—	—	—	—	—	—	—	1,331 ⁽⁴⁾	—	2,097	—	—	—	—
thereof LTIP 2011 – Phantom Stock Plan 2011 5-year term / 4-year vesting period																
Grant 2013	—	110	—	—	—	—	—	—	—	31	—	55	—	—	—	55
Grant 2014	344	—	—	—	—	—	—	222	207	—	344	—	—	—	172	—
Grant 2015	—	—	—	—	—	—	687	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total non-performance-based and performance-based compensation	4,060	6,618	707	—	1,925	1,447	2,136	1,868	2,345	5,210	2,059	7,153	1,698	1,745	3,466	2,207
Pension expense	828	674	—	—	—	—	179	189	—	—	379	369	1,795	—	1,494	667
Allocation	4,888	7,292	707	—	1,925	1,447	2,315	2,057	2,345	5,210	2,438	7,522	3,493	1,745	4,960	2,874

- (1) The indicated date refers to the appointment as a member of the Management Board of the General Partner.
- (2) Please note for purposes of comparison between the amounts indicated and those of the fiscal year that the compensation is subject to foreign exchange rate fluctuations depending on whether it is contractually denominated in euro (Ms. Helen Giza and Dr. Katarzyna Mazur-Hofsäß as well as Messrs. Dr. Olaf Schermeier and Harry de Wit) or U.S. dollar (Messrs. Rice Powell, William Valle, Kent Wanzek and Michael Brosnan).
- (3) The amounts for the base salary and the fringe benefits as set out herein for the fiscal year relate to the period until October 31, 2019.
- (4) The indicated amounts are allocations from multi-year variable compensation which have been granted to the member of the Management Board William Valle prior to his appointment to the Management Board: LTIP 2011 – Phantom Stock Plan 2011 – Grant 2011 – fair value at grant €81 THOUS, LTIP 2011 – Phantom Stock Plan 2011 – Grant 2012 – fair value at grant €48 THOUS, LTIP 2011 – Phantom Stock Plan 2011 – Grant 2013 – fair value at grant €47 THOUS, LTIP 2011 – Phantom Stock Plan 2011 – Grant 2014 – fair value at grant €135 THOUS.

Compensation of the Supervisory Board

The compensation of the FMC-AG & Co. KGaA Supervisory Board is set out in section 13 of the Articles of Association.

Each Supervisory Board member receives a base salary of \$88 THOUS (2018: \$88 THOUS) for each full fiscal year, payable in four equal instalments at the end of a calendar quarter. The Chairman of the Supervisory Board receives additional compensation of \$88 THOUS (2018: \$88 THOUS) and the Vice Chairman receives additional compensation of \$44 THOUS (2018: \$44 THOUS) per respective full fiscal year.

In addition, each member of the Supervisory Board receives as a variable performance-based compensation component (hereinafter also: “performance-based compensation”) an additional remuneration which is based upon the respective average growth of earnings per share of the Company (EPS) during the period of the last three fiscal years prior to the payment date (3-year average EPS growth). The amount of the performance-based compensation is \$60 THOUS in case of achieving a 3-year average EPS growth corridor from 8.00% to 8.99%, \$70 THOUS in the corridor from 9.00% to 9.99% and \$80 THOUS in case of a 3-year average EPS growth of 10.00% or more. If the aforementioned targets are reached, the respective variable remuneration amounts of the performance-based compensation are earned to their full extent, i.e., within these margins there is no pro rata remuneration. In any case, this component is capped at the maximum amount of \$80 THOUS per annum. Reciprocally, the members of the Supervisory Board are only entitled to the remuneration component if the 3-year average EPS growth of at least 8.00% is reached. Provided that the relevant targets have been achieved, the remuneration is, in principle, disbursed on a yearly basis following approval of the Company’s annual financial statements at the end of the calendar quarter in which the Company’s annual financial statements are approved. For the fiscal year 2019, the 3-year average EPS growth for the years 2017, 2018 and 2019 was relevant.

In application of the principles above, for the fiscal year no entitlement to a payment of performance-based compensation was achieved (2018: \$641 THOUS).

As a member of a committee, a Supervisory Board member of FMC-AG & Co. KGaA additionally annually receives \$44 THOUS (2018: \$44 THOUS). A member of a committee who serves as chairman or vice chairman of a committee additionally receives \$22 THOUS and \$11 THOUS a year, respectively (2018: \$22 THOUS and \$11 THOUS, respectively), payable in identical instalments at the end of a calendar quarter. For memberships in the Nomination Committee of the Supervisory Board and in the Joint Committee of the Company as well as in the capacity of their respective chairmen and vice chairmen, no separate remuneration shall be granted to the members of the Supervisory Board. In accordance with section 13e para. 3 of the Articles of Association of FMC-AG & Co. KGaA, the members of the Joint Committee are, however, entitled to receive an attendance fee in the amount of \$3.5 THOUS.

Should a member of the FMC-AG & Co. KGaA Supervisory Board at the same time be a member of the Supervisory Board of the General Partner Fresenius Medical Care Management AG and receive compensation for his/her work on the Supervisory Board of Fresenius Medical Care Management AG, the compensation for the work as a FMC-AG & Co. KGaA Supervisory Board member shall be reduced by half. The same applies to the additional compensation for the Chairman of the FMC-AG & Co. KGaA Supervisory Board and the Vice Chairman, to the extent that they are at the same time chairman and vice chairman, respectively, of the Supervisory Board of Fresenius Medical Care Management AG. To the extent the vice chairman of the FMC-AG & Co. KGaA Supervisory Board is at the same time chairman of the Supervisory Board at Fresenius Medical Care Management AG, he shall receive no additional compensation for his work as vice chairman of the FMC-AG & Co. KGaA Supervisory Board.

The compensation of the members of the Supervisory Board of Fresenius Medical Care Management AG and the compensation of the members of its committees were charged to FMC-AG & Co. KGaA in accordance with section 7 para. 3 of the Articles of Association of FMC-AG & Co. KGaA.

The members of the Supervisory Board of FMC-AG & Co. KGaA are to be reimbursed for the expenses incurred in the exercise of their office, which also include the applicable VAT.

For the benefit of the members of the Supervisory Board of FMC-AG & Co. KGaA a Directors & Officers liability insurance exists with a deductible that corresponds to the specifications according to the German Stock Corporation Act.

The total compensation of the Supervisory Board of FMC-AG & Co. KGaA, including the amount charged by Fresenius Medical Care Management AG to FMC-AG & Co. KGaA, is stated in the following tables:

Compensation of the Supervisory Board

in € THOUS⁽¹⁾

	Base salary for Supervisory Board at FMC Management AG		Base salary for Supervisory Board at FMC-AG & Co. KGaA		Compensation for committee services at FMC Management AG		Compensation for committee services at FMC-AG & Co. KGaA		Total amount of non-performance-based compensation	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Dr. Dieter Schenk ⁽²⁾	39	44	118	91	120	93	19	—	296	228
Stephan Sturm ⁽³⁾	157	149	—	—	100	65	—	—	257	214
Rolf A. Classon ⁽⁴⁾	39	37	79	41	118	112	49	47	285	237
Rachel Empey ⁽⁵⁾	79	75	—	—	—	—	—	—	79	75
William P. Johnston	39	37	39	37	108	102	59	56	245	232
Dr. Gerd Krick ⁽⁶⁾	79	60	—	42	59	56	—	14	138	172
Dr. Dorothea Wenzel ⁽⁷⁾	—	—	45	—	—	—	—	—	45	—
Pascale Witz ⁽⁸⁾	—	—	79	75	—	—	60	—	139	75
Prof. Dr. Gregor Zünd ⁽⁹⁾	—	—	79	13	—	—	—	—	79	13
Deborah Doyle McWhinney ⁽¹⁰⁾	—	—	—	62	—	—	—	31	—	93
Total	432	402	439	361	505	428	187	148	1,563	1,339

- (1) Shown without VAT and withholding tax; translation of U.S. dollar amounts at respective average exchange rates for the respective calendar year.
- (2) Please note for purposes of comparison of the amounts indicated for the fiscal year that Dr. Dieter Schenk was appointed at the same time as vice chairman of the Supervisory Board of FMC-AG & Co. KGaA until May 17, 2018 and as chairman of the Supervisory Board of FMC-AG & Co. KGaA since May 17, 2018.
- (3) Chairman of the Supervisory Board of FMC Management AG, but not a member of the Supervisory Board of FMC-AG & Co. KGaA; compensation paid by FMC Management AG.
- (4) Please note for purposes of comparison of the amounts indicated for the fiscal year that Mr. Rolf A. Classon was appointed at the same time as vice chairman of the Supervisory Board of FMC-AG & Co. KGaA since November 30, 2018.
- (5) Member of the Supervisory Board of FMC Management AG, but not a member of the Supervisory Board of FMC-AG & Co. KGaA; compensation paid by FMC Management AG.
- (6) Please note for purposes of comparison of the amounts indicated for the fiscal year that Dr. Gerd Krick was appointed as a member of the Supervisory Board of FMC AG & Co. KGaA until May 17, 2018, and, therefore, received compensation payments to be set out herein until this date. Dr. Gerd Krick is a member of the Supervisory Board of FMC Management AG; compensation for this paid by FMC Management AG.
- (7) Member of the Supervisory Board of FMC-AG & Co. KGaA, but not a member of the Supervisory Board of FMC Management AG; compensation paid by FMC-AG & Co. KGaA. Please note for purposes of comparison of the amounts indicated for the fiscal year that Dr. Dorothea Wenzel was appointed as a member of the Supervisory Board of FMC-AG & Co. KGaA as of May 16, 2019, and, therefore, received compensation payments to be set out herein as of this date.
- (8) Member of the Supervisory Board of FMC-AG & Co. KGaA, but not a member of the Supervisory Board of FMC Management AG; compensation paid by FMC-AG & Co. KGaA.
- (9) Member of the Supervisory Board of FMC-AG & Co. KGaA, but not a member of the Supervisory Board of FMC Management AG; compensation paid by FMC-AG & Co. KGaA. Please note for purposes of comparison of the amounts indicated for the fiscal year that Prof. Dr. Gregor Zünd was appointed as a member of the Supervisory Board of FMC-AG & Co. KGaA as of October 29, 2018, and, therefore, received compensation payments to be set out herein as of this date.
- (10) Former member of the Supervisory Board of FMC-AG & Co. KGaA, but not a member of the Supervisory Board of FMC Management AG; compensation paid by FMC-AG & Co. KGaA. Please note for purposes of comparison of the amounts indicated for the fiscal year that Mrs. Deborah Doyle McWhinney resigned as a member of the Supervisory Board of FMC-AG & Co. KGaA effective November 1, 2018, and, therefore, received compensation payments to be set out herein until this date.

Compensation of the Supervisory Board

in € THOUS⁽¹⁾

	Performance-based compensation in FMC Management AG		Performance-based compensation in FMC-AG & Co. KGaA		Performance-based compensation		Total compensation	
	2019	2018	2019	2018	2019	2018	2019	2018
Dr. Dieter Schenk ⁽²⁾	—	34	—	34	—	68	296	296
Stephan Sturm ⁽³⁾	—	68	—	—	—	68	257	282
Rolf A. Classon ⁽⁴⁾	—	34	—	34	—	68	285	305
Rachel Empey ⁽⁵⁾	—	68	—	—	—	68	79	143
William P. Johnston	—	34	—	34	—	68	245	300
Dr. Gerd Krick ⁽⁶⁾	—	42	—	25	—	67	138	239
Dr. Dorothea Wenzel ⁽⁷⁾	—	—	—	—	—	—	45	—
Pascale Witz ⁽⁸⁾	—	—	—	68	—	68	139	143
Prof. Dr. Gregor Zünd ⁽⁹⁾	—	—	—	12	—	12	79	25
Deborah Doyle McWhinney ⁽¹⁰⁾	—	—	—	57	—	57	—	150
Total	—	280	—	264	—	544	1,563	1,883

(1) Shown without VAT and withholding tax; translation of U.S. dollar amounts at respective average exchange rates for the respective calendar year.

(2) Please note for purposes of comparison of the amounts indicated for the fiscal year that Dr. Dieter Schenk was appointed at the same time as vice chairman of the Supervisory Board of FMC-AG & Co. KGaA until May 17, 2018 and as chairman of the Supervisory Board of FMC-AG & Co. KGaA since May 17, 2018.

(3) Chairman of the Supervisory Board of FMC Management AG, but not a member of the Supervisory Board of FMC-AG & Co. KGaA; compensation paid by FMC Management AG.

(4) Please note for purposes of comparison of the amounts indicated for the fiscal year that Mr. Rolf A. Classon was appointed at the same time as vice chairman of the Supervisory Board of FMC-AG & Co. KGaA since November 30, 2018.

(5) Member of the Supervisory Board of FMC Management AG, but not a member of the Supervisory Board of FMC-AG & Co. KGaA; compensation paid by FMC Management AG.

(6) Please note for purposes of comparison of the amounts indicated for the fiscal year that Dr. Gerd Krick was appointed as a member of the Supervisory Board of FMC AG & Co. KGaA until May 17, 2018, and, therefore, received compensation payments to be set out herein until this date. Dr. Gerd Krick is a member of the Supervisory Board of FMC Management AG; compensation for this paid by FMC Management AG.

(7) Member of the Supervisory Board of FMC-AG & Co. KGaA, but not a member of the Supervisory Board of FMC Management AG; compensation paid by FMC-AG & Co. KGaA. Please note for purposes of comparison of the amounts indicated for the fiscal year that Dr. Dorothea Wenzel was appointed as a member of the Supervisory Board of FMC-AG & Co. KGaA as of May 16, 2019, and, therefore, received compensation payments to be set out herein as of this date.

(8) Member of the Supervisory Board of FMC-AG & Co. KGaA, but not a member of the Supervisory Board of FMC Management AG; compensation paid by FMC-AG & Co. KGaA.

(9) Member of the Supervisory Board of FMC-AG & Co. KGaA, but not a member of the Supervisory Board of FMC Management AG; compensation paid by FMC-AG & Co. KGaA. Please note for purposes of comparison of the amounts indicated for the fiscal year that Prof. Dr. Gregor Zünd was appointed as a member of the Supervisory Board of FMC-AG & Co. KGaA as of October 29, 2018, and, therefore, received compensation payments to be set out herein as of this date.

(10) Former member of the Supervisory Board of FMC-AG & Co. KGaA, but not a member of the Supervisory Board of FMC Management AG; compensation paid by FMC-AG & Co. KGaA. Please note for purposes of comparison of the amounts indicated for the fiscal year that Mrs. Deborah Doyle McWhinney resigned as a member of the Supervisory Board of FMC-AG & Co. KGaA effective November 1, 2018, and, therefore, received compensation payments to be set out herein until this date.

C. Board practices

For information relating to the terms of office of the Management Board and the supervisory board of the General Partner, Management AG, and of the Supervisory Board, and the periods in which the members of those bodies have served in office, see Item 6.A, “Directors, senior management and employees – Directors and senior management,” above. For information regarding certain compensation payable to certain members of the General Partner’s Management Board after termination of employment, see Item 6.B, “Directors, senior management and employees – Compensation – Commitments to members of the Management Board for the event of termination of their employment” above. Determination of the compensation system and of the compensation to be granted to the members of the Management Board is made by the full supervisory board of Management AG. It is assisted in these matters, particularly evaluation and assessment of the compensation of the members of the General Partner’s management board, by the Human Resources Committee of the General Partner’s supervisory board, the members of which are currently Stephan Sturm (Chairman) Dr. Gerd Krick (Vice Chairman), Rolf A. Classon, William P. Johnston, and Dr. Dieter Schenk.

The Audit and Corporate Governance Committee of the Supervisory Board currently consists Rolf A. Classon (Chairman since January 1, 2020, Vice Chairman until December 31, 2019), William P. Johnston (Vice Chairman since January 1, 2020, Chairman until December 31, 2019), and Pascale Witz, all of whom

are independent directors for purposes of SEC Rule 10A-3 and NYSE Rule 303A.06. The primary function of the Audit and Corporate Governance Committee is to assist FMC-AG & Co. KGaA's Supervisory Board in fulfilling its oversight responsibilities, primarily through:

- overseeing FMC-AG & Co. KGaA's accounting and financial reporting processes, the performance of the internal audit function and the effectiveness of the internal control systems;
- overseeing the independence and performance of FMC-AG & Co. KGaA's outside auditors
- overseeing the effectiveness of our systems and processes utilized to comply with relevant legal and regulatory standards for global health care companies, including adherence to our Code of Ethics and Business Conduct;
- overseeing the effectiveness of our risk management system;
- overseeing our corporate governance performance according to the German Corporate Governance Code;
- providing an avenue of communication among the outside auditors, management and the Supervisory Board;
- overseeing our relationship with Fresenius SE & Co. KGaA and its affiliates and reviewing the report of our General Partner on relations with related parties and for reporting to the overall Supervisory Board thereon;
- recommending to the Supervisory Board a candidate as an independent auditor to audit our German statutory financial statements (to be proposed by the Supervisory Board for election by our shareholders at our AGM) and approval of their fees;
- retaining the services of our independent auditors to audit our consolidated financial statements and approval of their fees; and
- pre-approval of all audit and non-audit services performed by our independent auditors.

The Audit and Corporate Governance Committee has also been in charge of conducting the internal investigation described in Item 15B, "Management's annual report on internal control over financial reporting."

In 2005, we established a joint committee (the "Joint Committee") (*Gemeinsamer Ausschuss*) of FMC-AG & Co. KGaA consisting of four members, two of which are members of the supervisory board of the General Partner, Management AG, designated by the General Partner, and two of which are members of our Supervisory Board elected by the AGM. The two members from the supervisory board of the General Partner are Dr. Gerd Krick and Stephan Sturm. The two members from our Supervisory Board are Rolf A. Classon and William P. Johnston. The Joint Committee advises on and approves certain extraordinary management measures, including:

- transactions between us and Fresenius SE and its subsidiaries if considerable importance is attributed to them and the value exceeds 0.25% of our consolidated revenue, and
- acquisitions and sales of significant participations and parts of companies, the spin-off of significant parts of our business, initial public offerings of significant subsidiaries and similar matters. A matter is "significant" for purposes of this approval requirement if 40% of our consolidated revenues, our consolidated balance sheet total assets or consolidated profits, determined by reference to the arithmetic average of the said amounts shown in our audited consolidated accounts for the previous three fiscal years, are affected by the matter.

Furthermore, a nomination committee prepares candidate proposals for the Supervisory Board and suggests suitable candidates to the Supervisory Board and for its election proposals to the General Meeting. The nomination committee of the Supervisory Board currently consists of Rolf A. Classon (Chairman) and Dr. Dieter Schenk (Vice Chairman).

The supervisory board of our General Partner, Management AG, is supported by a Regulatory and Reimbursement Assessment Committee, whose members are currently William P. Johnston (Chairman since January 1, 2020, Vice Chairman until December 31, 2019), Rolf A. Classon (Vice Chairman since January 1, 2020, Chairman until December 31, 2019), and Dr. Dieter Schenk. The primary function of this committee is to assist and to represent the supervisory board in fulfilling its responsibilities, primarily through assessing the Company's affairs in the area of its regulatory obligations and reimbursement

structures for dialysis services. In the United States, these reimbursement regulations are mandated by the HHS and CMS for dialysis services. Similar regulatory agencies exist country by country in the international regions to address the conditions for payment of dialysis treatments. Furthermore, the supervisory board of Management AG has its own nomination committee, which consists of Stephan Sturm (Chairman), Dr. Gerd Krick and Dr. Dieter Schenk.

We are exempt from the NYSE rule requiring companies listed on that exchange to maintain compensation committees and nominating committees consisting of independent directors. See Item 16G, “Corporate governance.”

D. Employees

At December 31, 2019, we had 120,659 employees (full-time equivalents) as compared to 112,658 at December 31, 2018, and 114,000 at December 31, 2017. The increase in 2019 was mainly due to acquisition of NxStage. The following table shows the number of employees by our major category of activities for the last three fiscal years.

	<u>December 31, 2019</u>	<u>December 31, 2018</u>	<u>December 31, 2017</u>
North America Segment			
Health care services	55,611	54,374	57,098
Health care products	4,867	1,217	1,167
	<u>60,478</u>	<u>55,591</u>	<u>58,265</u>
EMEA Segment			
Health care services	16,298	15,895	15,214
Health care products	3,805	3,763	3,689
	<u>20,103</u>	<u>19,658</u>	<u>18,903</u>
Asia-Pacific Segment			
Health care services	9,296	8,444	7,910
Health care products	2,540	2,383	2,207
	<u>11,836</u>	<u>10,827</u>	<u>10,117</u>
Latin America Segment			
Health care services	9,224	8,255	8,581
Health care products	1,245	1,032	935
	<u>10,469</u>	<u>9,287</u>	<u>9,516</u>
Corporate ⁽¹⁾	17,773	17,295	17,199
Total Company	<u>120,659</u>	<u>112,658</u>	<u>114,000</u>

(1) Including the divisions Global Manufacturing, Quality and Supply as well as Global Research and Development.

We are members of the Chemical Industry Employers Association for most sites in Germany and we are bound by union agreements negotiated by the employer’s association with the respective union representatives. We generally apply the principles of the association and the related union agreements also for those sites and legal entities where we are not members. These collective bargaining agreements cover all so-called “tariff” employees. We are also party to shop agreements on workplace-related issues, negotiated with works councils at individual facilities that relate to those facilities. In addition, approximately 2% of our U.S. employees are covered by collective bargaining agreements. During the last three fiscal years, we have not suffered any protracted labor-related work disruptions.

E. Share ownership

As of December 31, 2019, no member of the supervisory board of our General Partner or the Management Board beneficially owned 1% or more of our outstanding shares, according to the most recent information available. See Item 6.B, “Directors, senior management and employees – Compensation”. Additionally, stock option and other share based plans are discussed in detail in note 20 of the notes to our consolidated financial statements included in this report.

Item 7. Major shareholders and related party transactions

A. Major shareholders

Security ownership of certain beneficial owners of Fresenius Medical Care

Our outstanding share capital consists of shares issued only in bearer form. Accordingly, unless we receive information regarding acquisitions of our shares through a filing with the Securities and Exchange Commission or through the German statutory requirements referred to below, or except as described below with respect to our shares held in American Depositary Receipt (“ADR”) form, we face difficulties precisely determining who our shareholders are at any specified time or how many shares any particular shareholder owns.

Since we are a foreign private issuer under the rules of the Securities and Exchange Commission, our directors and officers are not required to report their ownership of our equity securities or their transactions in our equity securities pursuant to Section 16 of the Securities and Exchange Act of 1934. However, persons who become “beneficial owners” of more than 5% of our shares are required to report their beneficial ownership pursuant to Section 13(d) of the Securities and Exchange Act of 1934.

In addition, under Article 19(1) of the Regulation (EU) No.596/2014 of the European Parliament and of the Council of April 16, 2014 on market abuse (Market Abuse Regulation or “MAR”), persons discharging managerial responsibilities within an issuer of shares, as well as persons closely associated with them, are obliged to notify the issuer and the competent authority, i.e. for the Company as issuer, the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht or “BaFin”), of every transaction conducted on their own account relating to the shares or debt instruments of the issuer or to derivatives or other financial instruments linked thereto no later than three business days after the date of the transaction. This notification obligation applies once the volume of all transactions of such person conducted within a calendar year exceeds a total amount of €5,000. As of January 1, 2020, the threshold is €20,000 per calendar year. Persons discharging managerial responsibilities, inter alia, include the members of management as well as supervisory boards.

In addition, holders of voting securities of a German company listed on the regulated market (Regulierter Markt) of a German stock exchange or a corresponding trading segment of a stock exchange within the European Union are, under Sections 33, 34 of the German Securities Trading Act (Wertpapierhandelsgesetz or “WpHG”), obligated to notify the company of held or attributed holding whenever such holding reaches, exceeds or falls below certain thresholds, which have been set at 3%, 5%, 10%, 15%, 20%, 25%, 30%, 50% and 75% of a company’s outstanding voting rights. Such notification obligations will also apply pursuant to Section 38 of the WpHG to the direct or indirect holder of instruments granting an unconditional right to acquire voting rights when due or providing discretion as to the acquisition of shares or instruments that have a similar economic effect as well as pursuant to Section 39 of the WpHG to the aggregate of held or attributed voting rights and instruments (in each case excluding the 3% threshold). For threshold notifications furnished to us by third parties please see note 17 in the notes to the consolidated financial statements included in this report.

We have been informed that as of February 11, 2020, Fresenius SE owned 94,380,382, 31.65% of our shares. As the sole shareholder of our General Partner, Fresenius SE is barred from voting its shares on certain matters. See Item 16G, “Corporate governance – Supervisory Board.” Subject to any applicable statutory limitations, all of our outstanding shares have the same voting rights.

According to an amended Schedule 13G filed by BlackRock, Inc. on June 7, 2019, the various BlackRock entities named in the amended Schedule 13G are the beneficial owners of a total of 15,278,680 shares, or 4.96% of our shares.

Bank of New York Mellon, our ADR depository, informed us, that as of December 31, 2019, 16,906,846 ADRs were held of record by 2,711 U.S. holders. For more information regarding ADRs and ADSs see Item 10B, “Articles of Association – Description of American depository receipts.”

Security ownership of certain beneficial owners of Fresenius SE

Fresenius SE’s share capital consists solely of ordinary shares, issued only in bearer form. Accordingly, Fresenius SE has difficulties precisely determining who its shareholders are at any specified time or how many shares any particular shareholder owns. However, under the WpHG, holders of voting securities of a German company listed on the regulated market (*Regulierter Markt*) of a German stock exchange or a

corresponding trading segment of a stock exchange within the European Union are obligated to notify a company of certain levels of holdings, as described above.

The Else Kröner-Fresenius Stiftung is the sole shareholder of Fresenius Management SE, the general partner of Fresenius SE, and has sole power to elect the supervisory board of Fresenius Management SE. In addition, based on the most recent information available, Else Kröner-Fresenius Stiftung owns approximately 26.61% of the Fresenius SE ordinary shares. See Item 7.B, “Related party transactions – Other interests,” below.

B. Related party transactions

In connection with the formation of FMC-AG, and the combination of the dialysis businesses of Fresenius SE and W.R. Grace & Co. in 1996, Fresenius SE and its affiliates and FMC-AG and its affiliates entered into several agreements for the purpose of giving effect to the Merger and defining our ongoing relationship. Fresenius SE and W.R. Grace & Co. negotiated these agreements. The information below summarizes the material aspects of certain agreements, arrangements and transactions between FMC-AG & Co. KGaA and Fresenius SE, their affiliates and with certain of our equity method investees. For further information, see note 5 of the notes to the consolidated financial statements included in this report. The following descriptions are not complete and are qualified in their entirety by reference to those agreements, which have been filed with the Securities and Exchange Commission and the New York Stock Exchange. We believe that the leases, the supply agreements and the service agreements summarized below are no less favorable to us and no more favorable to Fresenius SE than would have been obtained in arm’s-length bargaining between independent parties. The trademark and other intellectual property agreements summarized below were negotiated by Fresenius SE and W.R. Grace & Co., and, taken independently, are not necessarily indicative of market terms.

In the discussion below regarding our contractual and other relationships with Fresenius SE:

- the term “we (or us) and our affiliates” refers only to FMC-AG & Co. KGaA and its subsidiaries; and
- the term “Fresenius SE and its affiliates” refers only to Fresenius SE and affiliates of Fresenius SE other than FMC-AG & Co. KGaA and its subsidiaries.

Real property leases

For information with respect to our principal properties, see “Item 4.D. Property, plant and equipment.” For discussion of related party leases, see note 5 of the notes to the consolidated financial statements included in this report.

Trademarks

Fresenius SE continues to own the name “Fresenius” and several marks containing “Fresenius” (hereinafter referred to as “Fresenius Marks”). Fresenius SE and Fresenius Medical Care Deutschland GmbH, one of our German subsidiaries (hereinafter referred to as “D-GmbH”), have entered into agreements containing the following provisions. Fresenius SE has granted to D-GmbH, for our benefit and that of our affiliates, an exclusive, worldwide, royalty-free, perpetual license to use “Fresenius Medical Care” in our names, and to use the Fresenius marks, including some combination marks containing the Fresenius name that were used by the worldwide dialysis business of Fresenius SE, and the “Fresenius Marks” as a trademark in all aspects of the renal business. D-GmbH, for our benefit and that of our affiliates, has also been granted a worldwide, royalty-free, perpetual license to use the “Fresenius Marks” in the former National Medical Care non-renal business if it is used as part of a trademark containing the words “Fresenius Medical Care” together with one or more descriptive words, such as “Fresenius Medical Care Vascular Care” or “Fresenius Medical Care Physician Services”.

We and our affiliates have the right to use “Fresenius Marks” in other medical businesses only with the consent of Fresenius SE. Fresenius SE may not unreasonably withhold its consent. Fresenius SE will not use or license third parties to use the Fresenius Marks in the renal business worldwide and will not use the Fresenius Marks alone or in combination with any other words in the US and Canada, except in combination with one or more additional words such as “Pharma Home Care” as a service mark in connection with its home care business.

Other intellectual property

Some of the patents, patent applications, inventions, know-how and trade secrets that Fresenius Worldwide Dialysis used prior to our formation were also used by other divisions of Fresenius SE. For Biofine[®], the polyvinyl chloride-free packaging material, Fresenius SE has granted to D-GmbH, for our benefit and for the benefit of our affiliates, an exclusive license for the renal business and a non-exclusive license for all other fields except other non-renal medical businesses. D-GmbH and Fresenius SE share equally any royalties from licenses of the Biofine[®] intellectual property by either D-GmbH or by Fresenius SE to third parties outside the renal business and the other non-renal medical businesses. In addition, Fresenius SE transferred to D-GmbH the other patents, patent applications, inventions, know-how and trade secrets that were used predominantly in Fresenius SE's dialysis business. In certain cases Fresenius Worldwide Dialysis and the other Fresenius SE divisions as a whole each paid a significant part of the development costs for patents, patent applications, inventions, know-how and trade secrets that were used by both prior to the Merger. Where D-GmbH acquired those jointly funded patents, patent applications, inventions, know-how and trade secrets, D-GmbH licensed them back to Fresenius SE exclusively in the other non-renal medical businesses and non-exclusively in all other fields. Where Fresenius SE retained the jointly funded patents, patent applications, inventions, know-how and trade secrets, Fresenius SE licensed them to D-GmbH exclusively in the renal business and non-exclusively in all other fields.

Services agreements and products

For information on our services agreements and products, please see note 5 of the notes to the consolidated financial statements included in this report.

Financing

For information on our related party financing arrangements, please see note 5 of the notes to the consolidated financial statements included in this report.

Key management personnel

For information on our key management personnel, please see note 5 of the notes to the consolidated financial statements included in this report.

General Partner reimbursement

For information on General Partner reimbursement please see, Item 16G, "Corporate Governance – The legal structure of FMC AG & Co. KGaA" below as well as note 5 of the notes to the consolidated financial statements included in this report.

Item 8. Financial information

The information called for by parts 8.A.1 through 8.A.6 of this item is in the section beginning on Page F-1.

8.A.7. Legal and regulatory matters

The information in note 22 of the notes to consolidated financial statements of this report is incorporated by this reference in response to this item. For information regarding certain tax audits and related claims, see note 4 of the notes to consolidated financial statements.

8.A.8. Dividend policy

We generally pay annual dividends on our shares in amounts that we determine on the basis of FMC-AG & Co. KGaA's prior year's retained earnings (*Bilanzgewinn*) as shown in the statutory unconsolidated financial statements that we prepare under German law on the basis of the accounting principles of the German Commercial Code (*Handelsgesetzbuch* or *HGB*). The payment of dividends is subject to a resolution of the general meeting of shareholders. Our goal is for the dividend development to be closely aligned with our growth in basic earnings per share, while maintaining dividend continuity.

The General Partner and our Supervisory Board propose dividends to the AGM and the AGM approves dividends. The dividends are paid in respect of the fiscal year preceding the respective AGM. Since all of our shares are in bearer form, we remit dividends to the depositary bank (*Depotbank*) on behalf of the shareholders.

The table below provides information regarding the annual dividend per share that we paid on our shares. These payments were made in the years shown in the table. They relate to the results of operations in the year preceding the payment.

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Per share amount	€1.17	€1.06	€0.96

For the proposed dividend for 2019 payable in 2020, see Item 5. IV. “Operation and financial review and prospects – Financial position – Net cash provided by (used in) financing activities.”

Except as described herein, holders of ADSs will be entitled to receive dividends on the shares represented by the respective ADSs. We will pay any cash dividends payable to such holders to the depositary in euros and, subject to certain exceptions, the depositary will convert the dividends into U.S. dollars and, after deduction of its fees and any taxes, distribute the dividends to ADS holders. See Item 10, “Additional information – Description of American depositary receipts – Share dividends and other distributions.” Fluctuations in the exchange rate between the U.S. dollar and the euro will affect the amount of dividends that ADS holders receive. Dividends paid to holders and beneficial holders of the ADSs will be subject to deduction of German withholding tax. You can find a discussion of German withholding tax below in “Item 10.E. Taxation”.

Item 9. The offer and listing details

A.4. and C. Information regarding the trading markets for and price history of our stock

Trading markets

Trading on the Frankfurt Stock Exchange

The principal trading market for our shares is the Frankfurt Stock Exchange (FWB® Frankfurter Wertpapierbörse). The Ordinary Shares of Fresenius Medical Care AG had been listed on the Frankfurt Stock Exchange since October 2, 1996. Trading in the Ordinary Shares of FMC-AG & Co. KGaA on the Frankfurt Stock Exchange commenced on February 13, 2006 under the symbol FME.

Our shares have been listed on the Regulated Market (*Regulierter Markt*) of the Frankfurt Stock Exchange and on the Prime Standard of the Regulated Market, which is a sub-segment of the Regulated Market with additional post-admission obligations. Admission to the Prime Standard requires the fulfillment of the following transparency criteria: publication of quarterly reports; preparation of financial statements in accordance with international accounting standards (IFRS or U.S. GAAP); publication of a company calendar; convening of at least one analyst conference per year; and publication of ad-hoc messages (i.e., certain announcements of material developments and events) in English. Companies aiming to be listed in this segment have to apply for admission. Listing in the Prime Standard is a prerequisite for inclusion of shares in the selection indices of the Frankfurt Stock Exchange, such as the DAX®, the index of 30 major German stocks.

Deutsche Börse AG operates the Frankfurt Stock Exchange, which is the largest of the six German stock exchanges by value of shares traded. Our shares are traded on Xetra, the electronic trading system of the Deutsche Börse. The trading hours for Xetra are between 9:00 a.m. and 5:30 p.m. CET. Only brokers and banks that have been admitted to Xetra by the Frankfurt Stock Exchange have direct access to the system and may trade on it. Private investors can trade on Xetra through their banks and brokers.

Deutsche Börse AG publishes information for all traded securities on the Internet, <http://www.deutsche-boerse.com>.

Transactions on Xetra and the Frankfurt Stock Exchange settle on the second business day following the trade except for trades executed on Xetra International Markets, the European Blue Chip segment of Deutsche Börse AG, which settle on the third business day following a trade. The Frankfurt Stock Exchange can suspend a quotation if orderly trading is temporarily endangered or if a suspension is deemed to be necessary to protect the public.

The Hessian Stock Exchange Supervisory Authority (*Hessische Börsenaufsicht*) and the Trading Monitoring Unit of the Frankfurt Stock Exchange (*HÜST Handelsüberwachungsstelle*) both monitor trading on the Frankfurt Stock Exchange.

The Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*), an independent federal authority, is responsible for the general supervision of securities trading pursuant to the provisions of the Regulation (EU) No. 596/2014 of the European Parliament and of the Council (*Market Abuse Regulation* or “*MAR*”), the German Securities Trading Act (*Wertpapierhandelsgesetz* or “*WpHG*”) and other applicable laws.

Trading on the New York Stock Exchange

ADSs representing the Ordinary Shares of Fresenius Medical Care AG had been listed on the NYSE since October 1, 1996. Trading in the ADSs representing the Ordinary Shares of FMC AG & Co. KGaA on the NYSE, under the symbol FMS, commenced in February of 2006. Effective December 3, 2012, we effected a two-for-one split of our outstanding ADSs, which changed the ratio our ADSs to shares from one ADSs representing one share to two ADSs representing one share. The Depository for the ADSs is Bank of New York Mellon (the “*Depository*”).

Item 10. Additional information

B. Articles of Association

FMC-AG & Co. KGaA is a partnership limited by shares (KGaA or *Kommanditgesellschaft auf Aktien*) organized under the laws of Germany. FMC-AG & Co. KGaA is registered with the commercial register of the local court (*Amtsgericht*) of Hof an der Saale, Germany under HRB 4019. Our registered office (*Sitz*) is Hof an der Saale, Germany. Our registered business address is Else Kröner-Strasse 1, 61352 Bad Homburg, Germany, telephone +49-6172-609-0.

The following summary of the material provisions of our Articles of Association (*Satzung*) is qualified in its entirety by reference to the complete text of our Articles of Association. An English convenience translation of our Articles of Association has been filed with the Securities and Exchange Commission and can also be found on our website under www.freseniusmedicalcare.com. For a summary of certain other provisions of our Articles of Association relating to management by our General Partner and required ownership of our share capital by the shareholder of our general partner, See Item 16G, “Corporate Governance – The Articles of Association of FMC-AG & Co. KGaA.”

Corporate purposes

Under our Articles of Association, our business purposes are:

- the development, production and distribution of, as well as the trading in, products, systems and procedures in the areas of medical care and health care, including dialysis and associated forms of treatment, as well as the provision of any services in such area;
- the projecting, planning, establishment, acquisition and operation of health care businesses, including dialysis centers, also in separate enterprises or through third parties as well as the participation in such dialysis centers;
- the development, production and distribution of other pharmaceutical products and the provision of services in this field;
- the provision of advice in the medical and pharmaceutical areas as well as scientific information and documentation;
- the provision of laboratory services for dialysis and non-dialysis patients and homecare medical services.

We conduct our business directly and through subsidiaries within and outside Germany.

General information regarding our share capital

As of February 11, 2020, our share capital consists of 298,191,384 outstanding bearer shares, excluding treasury we held, without par value (*Stückaktien*) and a nominal value of €1.00 each. Our share capital has been fully paid in.

A description of our ordinary shares, constituting Exhibit 2.1 to this report, is incorporated by reference to Item 10B of FMC-AG & Co. KGaA’s Annual Report on Form 20-F for the year ended December 31, 2018, available at <https://www.sec.gov/Archives/edgar/data/1333141/000104746919000562/a2237687z20-f.htm>.

The description of our ordinary shares contained in Exhibit 2.1 is qualified in its entirety by reference to the complete text of our Articles of Association, which are available at the locations described above under “B. Articles of Association.”

Description of American depositary receipts

General

The Bank of New York Mellon, a New York banking corporation, is the depositary for ADSs representing our shares. Each ADS represents an ownership interest in one-half of a share. The deposited shares are deposited with a custodian, as agent of the depositary, under the deposit agreement among ourselves, the depositary and all of the holders and owners of ADSs from time to time (who become bound by the deposit agreement by their acceptance of American Depositary Receipts, or ADRs, evidencing their ADSs). Each ADS also represents any securities, cash or other property deposited with the depositary but not distributed by it directly to ADS holders. The ADSs may be evidenced by certificates or may also be uncertificated. If ADSs are issued in uncertificated form, owners holding ADSs in book-entry form will receive periodic statements from the depositary showing their ownership of ADSs. In the case of beneficial holders of ADSs, owners will receive these periodic statements through their brokers.

The depositary’s office is located at 101 Barclay Street, New York, NY 10286, U.S.A.

An investor may hold ADSs either directly or indirectly through a broker or other financial institution. Investors who hold ADSs directly, by having ADSs registered in their names on the books of the depositary, are ADS holders. This description assumes an investor holds ADSs directly. Investors who hold ADSs through their brokers or financial institution nominees must rely on the procedures of their brokers or financial institutions to assert the rights of an ADS holder described in this section. Investors should consult with their brokers or financial institutions to find out what those procedures are.

As an ADS holder, we will not treat you as one of our shareholders and you will not have shareholder rights. German law governs shareholder rights. The depositary will be the holder of the shares underlying your ADSs. As a registered holder of ADSs, you will have ADS holder rights. The deposit agreement sets out ADS holder rights as well as the rights and obligations of the depositary. New York law governs the deposit agreement and the ADSs.

The following is a summary of the material terms of the deposit agreement. Because it is a summary, it does not contain all the information that may be important to investors. For more complete information, investors should read the entire deposit agreement and the form of ADR which contains the terms of the ADSs. The deposit agreement is also available in electronic form on the website maintained by the SEC, www.sec.gov.

Share dividends and other distributions

We may make different types of distributions with respect to our shares. The depositary has agreed to pay to investors the cash dividends or other distributions it or the custodian receives on the shares or other deposited securities, after deducting its fees and expenses. Investors will receive these distributions in proportion to the number of underlying shares their ADSs represent.

Except as stated below, to the extent the depositary is legally permitted it will deliver distributions to ADS holders in proportion to their interests in the following manner:

- *Cash.* The depositary shall convert cash distributions from foreign currency to U.S. dollars if conversion is permissible and can be done on a reasonable basis. The depositary will endeavor to distribute cash in a practicable manner, and may deduct any taxes or other governmental charges required to be withheld, any expenses of converting foreign currency and transferring funds to the United States, and certain other fees and expenses. In addition, before making a distribution the depositary will deduct any taxes withheld. If exchange rates fluctuate during a time when the depositary cannot convert a foreign currency, investors may lose some or all of the value of the distribution.
- *Shares.* If we make a distribution in shares, the depositary may deliver additional ADSs to represent the distributed shares, unless the number of shares represented by our ADSs is adjusted in connection with the distribution. Only whole ADSs will be issued. Any shares which would result in fractional ADSs will be sold and the net proceeds will be distributed to the ADS holders otherwise entitled to receive fractional ADSs. The depositary may withhold any such

delivery of ADSs if it has not received satisfactory assurances from us that such distribution does not require registration under the Securities Act or is exempt from registration under the provisions of such Act.

- *Rights to receive additional shares.* In the case of a distribution of pre-emptive rights to subscribe for shares or other subscription rights, if we provide satisfactory evidence that the depositary may lawfully distribute the rights, the depositary may arrange for ADS holders to instruct the depositary as to the exercise of the rights. However, if we do not furnish the required evidence or if the depositary determines it is not practical to distribute the rights, the depositary may:
 - allow the rights to lapse, in which case ADS holders will receive nothing, or
 - sell the rights if practicable and distribute the net proceeds as cash.

We have no obligation to file a registration statement under the Securities Act in order to make any rights available to ADS holders.

- *Other Distributions.* If we make a distribution of securities or property other than those described above, the depositary may either:
 1. distribute the securities or property in any manner it deems fair and equitable;
 2. sell the securities or property and distribute any net proceeds in the same way it distributes cash; or
 3. hold the distributed property in which case the ADSs will also represent the distributed property.

Any U.S. dollars will be distributed by checks drawn on a bank in the United States for whole dollars and cents (fractional cents will be rounded to the nearest whole cent). Registered holders will receive the checks directly, while the distributions for beneficial owners will be first sent to their brokers or other nominees, who will then distribute the cash to the rightful owners.

The depositary may choose any practical method of distribution for any specific ADS holder, including the distribution of foreign currency, securities or property, or it may retain the items, without paying interest on or investing them, on behalf of the ADS holder as deposited securities.

The depositary is not responsible if it decides that it is unlawful or impractical to make a distribution available to any ADS holders.

The depositary may convert currency itself or through any of its affiliates and, in those cases, acts as principal for its own account and not as agent, advisor, broker or fiduciary on behalf of any other person and earns revenue, including, without limitation, transaction spreads, that it will retain for its own account. The revenue is based on, among other things, the difference between the exchange rate assigned to the currency conversion made under the deposit agreement and the rate that the depositary or its affiliate receives when buying or selling foreign currency for its own account. The depositary makes no representation that the exchange rate used or obtained in any currency conversion under the deposit agreement will be the most favorable rate that could be obtained at the time or that the method by which that rate will be determined will be the most favorable to ADS holders. The methodology used to determine exchange rates used in currency conversions is available upon request from the depositary. There can be no assurance that the depositary will be able to convert any currency at a specified exchange rate or sell any property, rights, shares or other securities at a specified price, or that any of these transactions can be completed within a specified time period.

Deposit, withdrawal and cancellation

The depositary will deliver ADSs if an investor or his broker deposits shares or evidence of rights to receive shares with the custodian. Shares deposited with the custodian must be accompanied by certain documents, including instruments showing that such shares have been properly transferred or endorsed by the person on whose behalf the deposit is being made.

The custodian will hold all deposited shares for the account of the depositary. ADS holders thus have no direct ownership interest in the shares and only have the rights that are contained in the deposit agreement. (For German tax purposes, ADS holders will generally be treated as the economic owners of the deposited shares represented by the ADSs, and for U.S. federal income tax purposes, ADSs holders will generally be treated as the owners of such shares. See Item 10.E., “Additional Information – E. U.S.

and German tax consequences of holding ADSs.”) The custodian will also hold any additional securities, property and cash received on or in substitution for the deposited shares. The deposited shares and any additional items are referred to as “deposited securities.”

Upon each deposit of shares, receipt of related delivery documentation and compliance with the other provisions of the deposit agreement, including the payment of the fees and charges of the depository and any taxes or other fees or charges owing, the depository will deliver ADSs representing the deposited shares as instructed.

All ADSs issued will, unless specifically requested to the contrary, be delivered through the book-entry settlement system of The Depository Trust Company, also referred to as DTC, or be uncertificated and held through the depository’s book-entry direct registration system (“DRS”), and a registered holder will receive periodic statements from the depository which will show the number of ADSs registered in the holder’s name. An ADS holder can request that the ADSs not be held through the depository’s DRS and that an ADR in certificated form be issued to evidence those ADSs. ADRs will be delivered at the depository’s principal New York office or any other location that it may designate as its transfer office.

Profile is a required feature of DRS which allows a participant in DTC, claiming to act on behalf of a registered holder of ADSs, to direct the depository to register a transfer of those ADSs to DTC or its nominee and to deliver those ADSs to the DTC account of that DTC participant without receipt by the depository of prior authorization from the ADS registered holder to register that transfer.

In connection with and in accordance with the arrangements and procedures relating to DRS/Profile, the parties to the deposit agreement understand that the depository will not verify, determine or otherwise ascertain that the DTC participant claiming to be acting on behalf of an ADS registered holder in requesting registration of transfer and delivery described in the paragraph above has the actual authority to act on behalf of the ADS registered holder (notwithstanding any requirements under the Uniform Commercial Code). In the deposit agreement, the parties agree that the depository’s reliance on and compliance with instructions received by the depository through the DRS/Profile System and in accordance with the deposit agreement, shall not constitute negligence or bad faith on the part of the depository.

When an investor surrenders ADSs at the depository’s office, the depository will, upon payment of certain applicable fees, charges and taxes, and upon receipt of proper instructions, deliver the whole number of shares represented by the surrendered ADSs to the account the investor directs within Clearstream Banking AG, the central German clearing firm.

The depository may restrict the withdrawal of deposited securities only in connection with:

- temporary delays caused by closing our transfer books or those of the depository, or the deposit of shares in connection with voting at a general meeting of shareholders’, or the payment of dividends,
- the payment of fees, taxes and similar charges, or
- compliance with any U.S. or foreign laws or governmental regulations relating to the ADRs.

This right of withdrawal may not be limited by any other provision of the deposit agreement.

Pre-release of ADSs

The deposit agreement permits the depository to deliver ADSs before deposit of the underlying shares. This is called a pre-release of the ADSs. The depository may also deliver shares upon cancellation of pre-released ADSs (even if the ADSs are cancelled before the pre-release transaction has been closed out). A pre-release is closed out as soon as the underlying shares are delivered to the depository. The depository may release ADSs instead of shares to close out a pre-release. The depository may pre-release ADSs only under the following conditions: (1) before or at the time of pre-release, the person to whom the pre-release is being made represents to the depository in writing that it or its customer owns the shares of the ADSs to be deposited; (2) the pre-release is fully collateralized with cash or other collateral that the depository considers appropriate; (3) the depository must be able to close out the pre-release on not more than five business days’ notice. Under the deposit agreement, the number of ADSs that may be outstanding at any time as a result of pre-release will not normally exceed thirty percent (30%), although the depository may change or disregard the limit from time to time, if it thinks it is appropriate to do so.

The depository may retain for its own account any compensation received by it in connection with a pre-release of ADSs.

Voting rights

You may instruct the depositary to vote the number of shares your ADSs represent. The depositary will notify you of general meetings of shareholders' and arrange to deliver our voting materials to you if we ask it to do so. Those materials will describe the matters to be voted on and explain how you may instruct the depositary how to vote. For instructions to be valid, they must reach the depositary by a date set by the depositary.

The depositary will try, as far as practical, subject to German law and the provisions of our constitutive documents, to vote the number of shares or other deposited securities represented by your ADSs as you instruct. The depositary will only vote or attempt to vote as you instruct or as described below.

We will include in voting materials distributed to ADS holders that date by which their voting instructions must be received by the depositary. However, we cannot ensure that you will receive voting materials or otherwise learn of an upcoming general meeting of shareholders' in time to ensure that you can timely instruct the depositary to vote the shares represented by your ADSs. In addition, the depositary and its agents are not responsible for failing to carry out voting instructions or for the manner of carrying out voting instructions. This means that you may not be able to vote and there may be nothing you can do if your shares are not voted as you requested.

If (i) we timely ask the depositary to solicit your voting instructions, (ii) the depositary receives a recommendation as to how to vote from the custodian pursuant to the AktG before it mails voting materials to ADS holders and (iii) the depositary does not receive voting instructions from you by the specified date, it will consider you to have authorized and directed it to give a discretionary proxy to the custodian to vote the number of deposited securities represented by your ADSs in accordance with the custodian's recommendation. The depositary will give a discretionary proxy in those circumstances with respect to each question covered by the recommendation unless we notify the depositary that:

- we do not wish a discretionary proxy to be given;
- we think there is substantial shareholder opposition to the particular question; or
- we think the particular question would have an adverse impact on our shareholders.

Fees and expenses

For information regarding fees and expenses payable by holders of ADSs and amounts payable by the Depositary to us, see Item 12.D, "American Depositary Shares – Fees and expenses."

Payment of taxes

ADS holders must pay any tax or other governmental charge payable by the custodian or the depositary on any ADS or ADR, deposited security or distribution. If an ADS holder owes any tax or other governmental charge, the depositary may (i) deduct the amount thereof from any cash distributions, or (ii) sell deposited securities and deduct the amount owing from the net proceeds of such sale. In either case the ADS holder remains liable for any shortfall. Additionally, if any tax or governmental charge is unpaid, the depositary may also refuse to effect any registration, registration of transfer, split-up or combination of deposited securities or withdrawal of deposited securities (except under limited circumstances mandated by securities regulations). If any tax or governmental charge is required to be withheld on any non-cash distribution, the depositary may sell the distributed property or securities to pay such taxes and distribute any remaining net proceeds to the ADS holders entitled thereto.

Limitations on obligations and liability

Limits on our obligations and the obligations of the depositary; limits on liability to holders of ADSs

The deposit agreement expressly limits our obligations and the obligations of the depositary. It also limits our liability and the liability of the depositary. We and the depositary:

- are only obligated to take the actions specifically set forth in the deposit agreement without negligence or bad faith;
- are not liable if we are or it is prevented or delayed by law or circumstances beyond our or its control from performing our or its obligations under the deposit agreement;
- are not liable if we exercise or it exercises discretion permitted under the deposit agreement;

- have no obligation to become involved in a lawsuit or other proceeding related to the ADSs or the deposit agreement on your behalf or on behalf of any other person; and
- may rely upon any documents we believe or it believes in good faith to be genuine and to have been signed or presented by the proper person.

In the deposit agreement, we and the depositary agree to indemnify each other under certain circumstances.

Requirements for depositary actions

Before the depositary will deliver or register a transfer of an ADS, make a distribution on an ADS, or permit withdrawal of shares, the depositary may require:

- payment of stock transfer or other taxes or other governmental charges and transfer or registration fees charged by third parties for the transfer of any shares or other deposited securities;
- satisfactory proof of the identity and genuineness of any signature or other information it deems necessary; and
- compliance with regulations it may establish, from time to time, consistent with the deposit agreement, including presentation of transfer documents.

The depositary may refuse to deliver ADSs or register transfers of ADSs generally when the transfer books of the depositary are closed or at any time if the depositary or we think it advisable to do so.

Shareholder communications; inspection of register of holders of ADSs

The depositary, as a holder of deposited securities, will make available for your inspection at its office all communications that it receives from us that we make generally available to holders of deposited securities. The depositary will send you copies of those communications if we ask it to. You have a right to inspect the register of holders of ADSs, but not for the purpose of contacting those holders about a matter unrelated to our business or the ADSs.

Amendment of the deposit agreement

We may agree with the depositary to amend the deposit agreement and the ADRs without your consent for any reason. If an amendment adds or increases fees or charges, except for taxes or other governmental charges or expenses of the depositary for registration fees, facsimile costs, delivery charges or similar items, or prejudices a substantial right of ADS holders, it will not become effective for outstanding ADSs until 30 days after the depositary notifies ADS holders of the amendment. At the time the amendment becomes effective, you are considered, by continuing to hold your ADSs, to agree to the amendment and to be bound by the ADRs and the deposit agreement as amended.

Termination of the deposit agreement

The depositary will terminate the deposit agreement at our direction by mailing notice of termination to the ADS holders then outstanding at least 30 days prior to the date fixed in such notice of termination. The depositary may also terminate the deposit agreement by mailing notice of termination to us and the ADS holders. Termination will be effective 60 days following the notice date if a successor depositary has not been appointed and accepted its appointment.

After termination, the depositary and its agents will do the following under the deposit agreement but nothing else: collect distributions on the deposited securities, sell rights and other property, and deliver shares and other deposited securities upon cancellation of the ADSs. Four months after termination, the depositary may sell any remaining deposited securities by public or private sale. After that, the depositary will hold the money it received on the sale, as well as any other cash it is holding under the deposit agreement for the pro rata benefit of the ADS holders that have not surrendered their ADSs. It will not invest the money and has no liability for interest. The depositary's only obligation will be to account for the money and other cash. After termination, our only obligations will be to indemnify the depositary as provided in the deposit agreement and to pay fees and expenses of the depositary that we agreed to pay.

C. Material contracts

For information regarding certain of our material contracts, see “Item 7.B. Major shareholders and related party transactions – Related party transactions.” For a description of our stock option plans, see “Item 6.E. Directors, senior management and employees – Share ownership – Options to purchase our securities.” For a description of our Amended 2012 Credit Agreement and our agreements relating to our long-term and short-term indebtedness, see note 13 and note 14 of the notes to consolidated financial statements included in this report.

D. Exchange controls

Exchange controls and other limitations affecting security holders.

At the present time, Germany, in principle, does not restrict the export or import of capital. However, certain restrictions on transactions based on so-called “restrictive measures”, i.e. sanctions, international embargos or terror prevention resolutions concerning for example but not limited to the People’s Republic of Korea, Russia, Crimea/Sevastopol or Syria are in place. Restrictions of this nature are adopted at the EU level and, where required, implemented by the German national authorities. Furthermore, the Federal Ministry of Economics and Energy (*Bundesministerium für Wirtschaft und Energie*) may review and restrict or prohibit the direct or indirect acquisition of 25% or more of the shares or voting rights in a German company by a person or company with residency outside of the European Union and the European Free Trade Area if such acquisition constitutes a sufficiently serious threat to the public security or order. This threshold has recently been lowered to 10% for investments in further defined companies e.g. constituting critical infrastructures or providing software for these critical infrastructures. The relevant provisions are also applicable to other means of acquisitions, e.g. asset deals, and mergers. Further, for statistical purposes only, every resident individual or corporation residing in Germany must report to the German Federal Bank (*Deutsche Bundesbank*), subject only to certain exceptions (e.g. payments for the import, export or transfer of goods), any payment received from/for account of or made to/for account of an individual or a corporation resident outside of Germany if such payment exceeds €12,500 (or the corresponding amount in other currencies). Specific reporting requirements apply if reports must be lodged for transit trade transactions (relating, inter alia, to the designation of the good) and in case the resident operates a maritime shipping company. In addition, residents (excluding natural persons, monetary financial institutions, investment stock corporations and capital management companies regarding the claims and liabilities of their investment funds) must report (i) monthly any claims against, or any liabilities payable to, non-resident individuals or corporations, if such claims or liabilities, in the aggregate exceed €5 M at the end of any month and (ii) quarterly claims against, or liabilities payable to, non-residents arising under derivative financial instruments (*derivative Finanzinstrumente*) if the claims, or liabilities, exceed €500 M at the end of the quarter. Further, in principle, residents must report yearly the value (*Stand*) of the assets (*Vermögen*) (i) of non-resident companies in which either 10% or more of the shares or of the voting rights in a company are to be attributed to the resident, (ii) of non-resident companies if more than 50% of the shares or of the voting rights are to be attributed to one or more non-resident companies which are controlled by the resident, and (iii) of the resident’s non-resident branch offices and permanent establishments of a domestic company, and the assets which are ascribed to foreign branches and permanent establishments of a foreign company which fulfils the conditions mentioned under (ii). Likewise, equivalent to the conditions described with regard to assets of German residents abroad, residents must report yearly the value of the assets of foreigners in Germany.

There are no limitations imposed by German law or our Articles of Association (*Satzung*) on the right of a non-resident to hold our shares or the ADSs evidencing shares.

E. Taxation

U.S. and German tax consequences of holding ADSs

The discussion below is intended only as a descriptive summary and does not purport to be a complete analysis of all potential German tax and U.S. federal income tax consequences relating to the ownership and disposition of ADSs of the Company. Each holder of ADSs should consult its own tax advisors with respect to the particular German and U.S. federal income tax consequences of the ownership and disposition of ADSs in light of its particular circumstances, including the application of the German and U.S. federal income tax considerations discussed below, as well as the application of state, local, foreign or other laws.

This summary is based on the current tax laws of Germany and the United States, including the current “Convention between the United States of America and the Federal Republic of Germany for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and Capital and to Certain Other Taxes”, as amended through the 2006 Protocol to the conventions which entered into force on December 28, 2007 (the “Treaty”). The 2006 Protocol is effective in respect of withholding taxes for amounts paid on or after January 1, 2007. Changes related to other taxes on income became effective on January 1, 2008.

German taxation

For German tax purposes, a holder of ADSs is generally treated as the economic owner of the underlying shares and, therefore, is generally treated as a shareholder of the Company (Federal Ministry of Finance circular dated May 24, 2013, as updated on December 18, 2018) for tax purposes. Differences may, however, apply when the holder of the ADSs seeks to obtain treaty relief from dividend withholding tax in Germany (e.g., in terms of requirements to provide evidence regarding the actual ownership of the ADS and entitlement to economic ownership in the underlying shares).

Tax treatment of dividends

Dividend distributions by German corporations paid to resident and non-resident shareholders are generally subject to dividend withholding tax at a rate of 25% (plus solidarity surcharge). The tax withholding obligation in general applies regardless of whether and, if so, to what extent the dividend is exempt from tax at the shareholder’s level.

For non-resident shareholders, the withholding tax rate of 25% may be reduced up to 0%, e.g. on the basis of a double tax treaty. For corporate non-German holders, forty percent (40%) of the withheld and remitted withholding tax may be refunded upon application at the German Federal Tax Office (at the address noted below), which would generally result in a net dividend tax of 15% (plus solidarity surcharge). The entitlement of corporate non-German holders to further reductions of the withholding tax under an applicable income tax treaty remains unaffected. A partial refund of this withholding tax can be obtained by U.S. Holders under the Treaty (see discussion below). Foreign corporations will generally have to meet certain activity or substance criteria defined by applicable law in order to receive an exemption from or a (partial) refund of German dividend withholding tax.

Under the Treaty, the refund of German tax, including the withholding tax, Treaty payment and solidarity surcharge, will not be granted when the ADSs are part of the business property of a U.S. Holder’s permanent establishment located in Germany or are part of the assets of an individual U.S. Holder’s fixed base located in Germany and used for the performance of independent personal services. In this case, however, withholding tax and solidarity surcharge may be credited against German income tax liability.

Taxation of capital gains

If the shares are not held as business assets of a domestic business, capital gains realized by a non-German holder are only taxable in Germany if the disposing holder holds (or has held at any time in the last five years) 1% or more of the Company’s stated capital. Under the Treaty, a U.S. Holder who is not a resident of Germany for German tax purposes will not be liable for German tax on capital gains realized or accrued on the sale or other disposition of ADSs unless the ADSs are part of the business property of a permanent establishment located in Germany or are part of the assets of a fixed base of an individual located in Germany and used for the performance of independent personal services.

Refund procedures

To claim a refund under the Treaty, the U.S. Holder, as defined below, must submit an application for refund to the German tax authorities, with the original bank voucher, or certified copy thereof issued by the paying entity documenting the tax withheld or a withholding tax certificate (*Steuerbescheinigung*), as the case may be, within four years from the end of the calendar year in which the dividend is received.

Claims for refund are made on a special German claim for refund form, which must be filed with the German Federal Tax Office: Bundeszentralamt für Steuern, An der Kuppe 1, D-53225 Bonn, Germany. The claim refund forms may be obtained from the German Federal Tax Office at the same address where the applications are filed, or from the Embassy of the Federal Republic of Germany, 4645 Reservoir

Road, N.W., Washington, D.C. 20007-1998, or can be downloaded from the homepage of the Bundeszentralamt für Steuern (www.bzst.de).

U.S. Holders must also submit to the German tax authorities a certification (on IRS Form 6166) with respect to their last filed U.S. federal income tax return. Requests for IRS Form 6166 are made on IRS Form 8802, which requires payment of a user fee. IRS Form 8802 and its instructions can be obtained from the IRS website at www.irs.gov.

German Gift or Inheritance Tax; Other German taxes

The transfer of ADS to another person by way of gift or inheritance is generally subject to German gift or inheritance tax only if (i) the decedent, the donor, the heir, donee or any other beneficiary maintained a domicile or his/her habitual abode in Germany, or has its place of management or statutory seat in Germany at the time of the transfer, or is a German citizen who has spent no more than five consecutive years outside Germany without maintaining a residence in Germany (special rules apply to certain former German citizens who neither maintain their domicile nor have their habitual abode in Germany), (ii) the ADS were held by the decedent or donor as part of business assets for which a permanent establishment or other fixed place of business was maintained in Germany or for which a permanent representative in Germany had been appointed, or (iii) the decedent or donor, at the time of the inheritance or gift, held either individually or collectively with related parties, held directly or indirectly, at least 10% of the Company's registered share capital.

The U.S.-Germany estate, inheritance and gift tax treaty provides that an individual whose domicile is determined to be in the U.S. for purposes of such treaty will not be subject to German inheritance and gift tax, the equivalent of the U.S. federal estate and gift tax, on the individual's death or making of a gift unless the ADSs are part of the business property of a permanent establishment located in Germany or are part of the assets of a fixed base of an individual located in Germany and used for the performance of independent personal services. An individual's domicile in the U.S., however, does not prevent imposition of German inheritance and gift tax with respect to an heir, donee, or other beneficiary who is domiciled in Germany at the time the individual died or the gift was made.

Such U.S.-Germany estate, inheritance and gift tax treaty also provides a credit against U.S. federal estate and gift tax liability for the amount of inheritance and gift tax paid in Germany, subject to certain limitations, in a case where ADSs are subject to German inheritance or gift tax and U.S. federal estate or gift tax.

There are no German transfer, stamp or other similar taxes that would apply to U.S. Holders who purchase or sell ADSs.

United States taxation

The following discussion describes the material U.S. federal income tax consequences relating to the ownership and disposition of the ADSs by a U.S. Holder (as defined below) who holds ADSs as capital assets. The discussion below is intended only as a descriptive summary and does not purport to be a complete analysis of all of the potential U.S. tax consequences of holding ADSs of the Company. In particular, this discussion does not address all of the tax consequences that may be relevant to specific U.S. Holders in light of their particular circumstances or to U.S. Holders subject to special tax rules, such as certain financial institutions, insurance companies, regulated investment companies, real estate investment trusts, grantor trusts, traders that have elected the "mark-to-market" method of accounting, a U.S. expatriate within the meaning of Sections 877 or 877A of the Code, tax-exempt entities (including a private foundation, an "individual retirement account" or a Roth IRA), persons subject to special tax accounting rules as a result of any item of gross income with respect to ADSs being taken into account in an applicable financial statement, persons who own 10% or more, by vote, of the equity of the Company for U.S. federal income tax purposes, investors holding ADSs through partnerships or other fiscally transparent entities, investors liable for the alternative minimum tax, investors that hold ADSs as part of a straddle or a hedge, investors whose functional currency is not the U.S. dollar, and financial institutions and dealers in securities. Moreover, this description does not address the U.S. federal estate and gift tax or alternative minimum tax, or state and local tax consequences of the acquisition, ownership or disposition of ADSs. U.S. Holders should consult their tax advisors regarding U.S. federal, state and local tax consequences of owning and disposing of ADSs.

This discussion is based on the Internal Revenue Code of 1986, as amended (the “Code”), Internal Revenue Service (“IRS”) rulings and pronouncements, judicial decisions, and income tax treaties to which the U.S. is a party, all as now in effect and all of which are subject to change or differing interpretations, possibly with retroactive effect.

For purposes of this discussion, a “U.S. Holder” is a beneficial owner of ADSs that for U.S. federal income tax purposes, is (1) an individual who is a citizen or resident of the United States; (2) a corporation created or organized under the laws of the United States, any state thereof or the District of Columbia; (3) an estate, the income of which is subject to U.S. federal income tax regardless of its source; or (4) a trust, if it (i) is subject to the primary supervision of a U.S. court and one or more U.S. persons control all substantial decisions of the trust or (ii) has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person. If a partnership (including for this purpose any entity treated as a partnership for U.S. federal income tax purposes) is a beneficial owner of ADSs, the U.S. federal income tax consequences to a partner in the partnership will generally depend on the status of the partner and the activities of the partnership. A holder of ADSs that is a partnership and the partners in such partnership should consult their own tax advisors regarding the U.S. federal income tax consequences of the ownership and disposition of ADSs.

Ownership of ADSs in general

For U.S. federal income tax purposes, a holder of ADSs generally will be treated as the owner of the shares represented by such ADSs. The U.S. Treasury Department has expressed concern that depositaries for ADSs, or other intermediaries between the holders of shares of an issuer and the issuer, may be taking actions that are inconsistent with the claiming of U.S. foreign tax credits by U.S. Holders of such receipts or shares. Accordingly, the analysis regarding the availability of a U.S. foreign tax credit for German taxes and sourcing rules described below could be affected by future actions that may be taken by the U.S. Treasury Department.

Tax treatment of dividends

Subject to the discussion below under “Passive foreign investment company considerations,” a U.S. Holder that receives a distribution with respect to ADSs generally will be required to include the U.S. dollar value of the gross amount of such distribution (before reduction for any German withholding taxes) in gross income as a dividend when actually or constructively received to the extent of the U.S. Holder’s pro rata share of the Company’s current or accumulated earnings and profits (as determined under U.S. federal income tax principles). To the extent a distribution received by a U.S. Holder is not a dividend because it exceeds the U.S. Holder’s pro rata share of the Company’s current and accumulated earnings and profits, the distribution will be treated first as a tax-free return of capital and reduce (but not below zero) the adjusted tax basis of the U.S. Holder’s ADSs. To the extent the distribution exceeds the adjusted tax basis of the U.S. Holder’s ADSs, the remainder will be taxed as capital gain.

With respect to non-corporate U.S. Holders, certain dividends received from a qualified foreign corporation will be subject to U.S. federal income tax at a maximum rate of 20% (rather than the higher rates of tax generally applicable to items of ordinary income, the maximum of which is 37% for tax years beginning after December 31, 2017), provided that the ADSs in respect of which such dividend is paid have been held for at least 61 days during the 121 day period beginning 60 days before the ex-dividend date and certain other requirements are met. Periods during which you hedge a position in our ADSs or related property may not count for purposes of the holding period test. The dividends would also not be eligible for the lower rate if you elect to take dividends into account as investment income for purposes of limitations on deductions for investment income. Provided (i) the ADSs of the Company are regularly tradable on the NYSE (or certain other stock exchanges) or the Company qualifies for benefits under the income tax treaty between the U.S. and Germany and (ii) the Company is not a passive foreign investment company (discussed below), the Company will be treated as a qualified foreign corporation for this purpose. This reduced rate will not be available in all situations, and U.S. Holders should consult their tax advisors regarding the application of the relevant rules to their particular circumstances.

For U.S. federal income tax purposes, U.S. Holders are subject to tax on dividends paid by German corporations, which may qualify for a foreign tax credit for certain German income taxes paid. A corporate U.S. Holder will generally not be eligible for the “dividends-received deduction” under Section 243 of the Code with respect to such dividends.

Subject to certain complex limitations, any German tax withheld from distributions in accordance with the Treaty will be deductible or creditable against your U.S. federal income tax liability. Any dividends will constitute foreign source income for foreign tax credit limitation purposes. If the dividends are taxed as qualified dividend income (as discussed above), the amount of the dividend taken into account for purposes of calculating the foreign tax credit limitation will in general be limited to the gross amount of the dividend, multiplied by a fraction, the numerator of which is the reduced tax rate applicable to qualified dividend income and denominator of which is the highest tax rate normally applicable to dividends. However, such foreign tax credit may be disallowed if the U.S. Holder held such ADSs or equity shares for less than a minimum period during which the U.S. Holder is not protected from risk of loss, or is obligated to make payments related to the dividends. The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. For this purpose, any dividends distributed by us with respect to ADSs or equity shares will generally constitute “passive category income” but could, in the case of certain U.S. Holders, constitute “general category income.” The rules relating to the determination of the foreign tax credit are complex and U.S. Holders should consult their tax advisors to determine whether and to what extent a credit would be available in their particular circumstances, including the effects of any applicable income tax treaties.

The U.S. dollar value of any distribution on the ADSs made in Euros generally should be calculated by reference to the spot exchange rate between the U.S. dollar and the Euro in effect on the date the distribution is actually or constructively received by the U.S. Holder regardless of whether the Euros so received are in fact converted into U.S. dollars. A U.S. Holder who receives payment in Euros and converts those Euros into U.S. dollars at an exchange rate other than the rate in effect on such day may have a foreign currency exchange gain or loss, which would generally be treated as ordinary income or loss from sources within the United States for U.S. foreign tax credit purposes.

Taxation of capital gains

Subject to the discussion below under “Passive foreign investment company considerations”, upon a sale, exchange, or other disposition of the ADSs, a U.S. Holder will generally recognize gain or loss for U.S. federal income tax purposes in an amount equal to the difference between the amount realized and the U.S. Holder’s tax basis in the ADSs. Such gain or loss will generally be capital gain or loss if the ADSs are held by the U.S. Holder as a capital asset, and will be long-term capital gain or loss if the U.S. Holder’s holding period for the ADSs exceeds one year. Individual U.S. Holders are generally taxed at a maximum 20% rate on net long-term capital gains. The deductibility of capital losses is subject to limitations. Any such gain or loss that you recognize will generally be treated as U.S. source income or loss for foreign tax credit limitation purposes. You should consult your own tax advisor regarding the availability of a foreign tax credit or deduction in respect of any German tax imposed on a sale or other disposition of ADSs.

In the case of a cash-basis U.S. Holder who receives Euros in connection with the sale or other disposition of ADSs, the amount realized will be calculated based on the U.S. dollar value of the Euros received as determined by reference to the spot rate in effect on the settlement date of such exchange. A U.S. Holder who receives payment in Euros and converts Euros into U.S. dollars at a conversion rate other than the rate in effect on the settlement date may have foreign currency exchange gain or loss that would be treated as ordinary income or loss from sources within the United States for U.S. foreign tax credit purposes.

An accrual-basis U.S. Holder may elect the same treatment required of cash-basis taxpayers with respect to a sale or disposition of ADSs, provided that the election is applied consistently from year to year. Such election may not be changed without the consent of the IRS. In the event that an accrual-basis U.S. Holder does not elect to be treated as a cash-basis taxpayer (pursuant to the Treasury regulations applicable to foreign currency transactions), such U.S. Holder may have foreign currency gain or loss for U.S. federal income tax purposes because of differences between the U.S. dollar value of the currency received prevailing on the trade date and the settlement date. Any such currency gain or loss would be treated as ordinary income or loss from sources within the United States for U.S. foreign tax credit purposes. However, if foreign currency is converted into U.S. dollars on the date received by the U.S. Holder, a cash-basis or electing accrual-basis U.S. Holder should not recognize any gain or loss on such conversion.

Taxation of foreign currency gains upon refund of German withholding taxes

U.S. Holders of ADSs who receive a refund attributable to reduced withholding taxes under the Treaty may be required to recognize foreign currency gain or loss, which will be treated as ordinary income or loss, to the extent that the dollar value of the refund on the date it is received by the U.S. Holders differs

from the dollar equivalent of the refund on the date the dividend on which such withholding taxes were imposed was received by the depository or the U.S. Holder, as the case may be.

Passive foreign investment company considerations

Special adverse U.S. federal income tax rules apply to U.S. Holders owning shares of a Passive Foreign Investment Company (“PFIC”). In general, if you are a U.S. Holder, we will be a PFIC with respect to you if for any taxable year in which you held our ADSs or shares: (i) at least 75% of our gross income for the taxable year is passive income or (ii) at least 50% of the value, determined on the basis of a quarterly average, of our assets is attributable to assets that produce or are held for the production of passive income. The determination of whether we are a PFIC will be made annually. Accordingly, it is possible that we may become a PFIC in the current or any future taxable year due to changes in our asset or income composition.

Passive income generally includes dividends, interest, royalties, rents (other than certain rents and royalties derived in the active conduct of a trade or business), annuities and gains from the disposition of assets that produce passive income. Any cash we hold generally will be treated as held for the production of passive income for the purpose of the PFIC test, and any income generated from cash or other liquid assets generally will be treated as passive income for such purpose. If a non-U.S. corporation owns at least 25% by value of the shares of another corporation, the non-U.S. corporation is treated for purposes of the PFIC tests as owning its proportionate share of the assets of the other corporation, and as receiving directly its proportionate share of the other corporation’s income.

Although we do not believe that we are currently a PFIC, the determination of PFIC status is highly factual and based on technical rules that are difficult to apply. Accordingly, there can be no assurances that we will not be a PFIC for the current year or any future taxable year. U.S. Holders should consult their own tax advisors regarding the application of the PFIC rules to their investment in our ADSs.

Tax on net investment income

In addition to regular U.S. federal income tax, certain U.S. Holders that are individuals, estates, or trusts are subject to a 3.8% tax on all or a portion of their “net investment income,” which may include all or a portion of their dividend income and net gain from the sale, exchange or other disposition of their ADSs.

United States information reporting and backup withholding

Dividends paid on, and proceeds on a sale or other dispositions of, ADSs paid to a U.S. Holder within the United States or through U.S.-related financial intermediaries are subject to information reporting and may be subject to backup withholding at a current rate of 24% unless you (1) are a corporation or other exempt recipient or (2) provide a taxpayer identification number and certify (on IRS Form W-9) that no loss of exemption from backup withholding has occurred.

Backup withholding tax is not an additional tax, and any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against a U.S. Holder’s U.S. federal income tax liability, provided the required information is furnished to the IRS in a timely manner.

Non-U.S. Holders are generally not subject to backup withholding. However, a non-U.S. Holder may be required to provide a certification (generally on IRS Form W-8BEN or W-8BEN-E) of its non-U.S. status in connection with payments received in the United States or through a U.S.-related financial intermediary in order to establish its exemption from backup withholding.

Individuals who are U.S. Holders, and who hold “specified foreign financial assets” (as defined in section 6038D of the Code), including debt or ordinary shares of a non-U.S. corporation that are held for investment and not held in an account maintained by a financial institution whose aggregate value exceeds certain thresholds during the tax year, may be required to attach to their tax returns for the year certain specified information. An individual who fails to timely furnish the required information may be subject to a penalty. Additionally, in the event a U.S. Holder does not file the required information, the statute of limitations may not close before such information is filed. Under certain circumstances, an entity may be treated as an individual for purposes of the foregoing rules.

U.S. and non-U.S. Holders may be subject to other U.S. information reporting requirements. U.S. and non-U.S. Holders should consult their own advisors regarding the application of U.S. information reporting rules in light of their particular circumstances.

The above summary is not intended to constitute a complete analysis of all tax consequences relating to the ownership and disposition of ADSs. U.S. Holders should consult their own tax advisors concerning the tax consequences of the ownership and disposition of ADSs in light of their particular circumstances, including the application of the U.S. federal income tax considerations discussed above, as well as the application of state, local, foreign or other laws.

H. Documents on display

We file periodic reports and information with the Securities and Exchange Commission and the New York Stock Exchange. You may obtain copies of these reports without charge from the Internet site maintained by the Securities and Exchange Commission which contains reports, proxy and information statements and other information regarding registrants that file electronically with the Securities and Exchange Commission. The Securities and Exchange Commission's World Wide Web address is <http://www.sec.gov>. You can also obtain copies of these reports from our own web site, www.freseniusmedicalcare.com. In furnishing our website address in this report, however, we do not intend to incorporate any information on our website into this report, and any information on our website should not be considered part of this report, except as expressly set forth herein.

The New York Stock Exchange currently lists American Depositary Shares representing our shares. As a result, we are subject to the periodic reporting requirements of the Exchange Act and we file reports and other information with the Securities and Exchange Commission. These reports, proxy statements and other information and exhibits and schedules thereto may be inspected without charge at, and copies thereof may be obtained at prescribed rates from, the public reference facilities of the Securities and Exchange Commission and the electronic sources listed in the preceding paragraph. In addition, these materials are available for inspection and copying at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005, USA.

We prepare annual and quarterly reports. Our annual reports contain financial statements examined and reported upon, with opinions expressed by our independent auditors. Commencing with our quarterly report for the first quarter of 2017 and our annual report for the year ended December 31, 2017, our consolidated financial statements included in our reports are prepared in conformity with IFRS. The financial statements contained in our annual and quarterly reports through December 2016 were prepared in accordance with U.S. GAAP. Our annual and quarterly reports to our shareholders are posted under "News & publications" on the "Investors" page of our website at <http://www.freseniusmedicalcare.com>. In furnishing our web site address in this report, however, we do not intend to incorporate any information on our web site into this report, and any information on our web site should not be considered to be part of this report.

We will also furnish the depositary with all notices of shareholder meetings and other reports and communications that are made generally available to our shareholders. The depositary, to the extent permitted by law, shall arrange for the transmittal to the registered holders of American Depositary Receipts of all notices, reports and communications, together with the governing instruments affecting our shares and any amendments thereto. Such documents are also available for inspection by registered holders of American Depositary Receipts at the principal office of the depositary.

Documents referred to in this report which relate to us as well as future annual and interim reports prepared by us may also be inspected at our offices, Else-Kröner-Strasse 1, 61352 Bad Homburg.

Item 11. Quantitative and qualitative disclosures about market risk

Market risk

Our businesses operate in highly competitive markets and are subject to changes in business, economic and competitive conditions. Our business is subject to:

- changes in reimbursement rates;
- intense competition;
- foreign exchange rate and interest rate fluctuations;
- varying degrees of acceptance of new product introductions;
- technological developments in our industry;

- uncertainties in litigation or investigative proceedings and regulatory developments in the health care sector; and
- the availability of financing.

As permitted by the Instruction to Item 11, the information required by this Item is contained in note 23 of our consolidated financial statements and is incorporated by this reference in response to this Item. We also enter in non-speculative derivative contracts to hedge these risks which are also discussed in detail in note 23. Additional information related to interest rates is discussed in note 14.

Additional factors

Our business is also subject to other risks and uncertainties that we describe from time to time in our public filings. See Item 3.D, “Key information – Risk factors.” Developments in any of these areas could cause our results to differ materially from the results that we or others have projected or may project.

Reimbursement rates

Approximately 33% of our worldwide revenue for 2019 was for services rendered to patients covered by Medicare’s ESRD program and Medicaid. In order to be eligible for reimbursement by Medicare, ESRD facilities must meet conditions for coverage established by CMS. Additionally, government agencies may make changes in program interpretations, requirements or conditions of participation, and retain the right to audit the accuracy of our computations of rebates and pricing, some of which may result in implications (such as recoupment) for amounts previously estimated or paid which may have a material adverse effect on the Company’s revenues, profitability and financial condition. See Item 4.B, “Information on the Company – Business overview – Regulatory and legal matters – Reimbursement” and “– Health care reform.”

We also obtain a significant portion of our revenues from reimbursement by non-government payors. Historically, these payors’ reimbursement rates generally have been higher than government program rates in their respective countries. However, non-governmental payors are imposing cost containment measures that are creating significant downward pressure on reimbursement levels that we receive for our services and products.

Inflation

The effects of inflation during the periods covered by the consolidated financial statements have not been significant to our results of operations. However, a major portion of our revenues from health care are subject to reimbursement rates regulated by governmental authorities, and a significant portion of other revenues, especially revenues from the U.S., is received from customers whose revenues are subject to these regulated reimbursement rates. Non-governmental payors are also exerting downward pressure on reimbursement rates. Increased operation costs that are subject to inflation, such as labor and supply costs, may not be recoverable through price increases in the absence of a compensating increase in reimbursement rates payable to us and our customers, and could materially adversely affect our business, financial condition and results of operations.

Item 12. Description of securities other than equity securities

D. American depositary shares

For a description of our American depositary shares, see Item 10.B, “Additional Information – Articles of Association – Description of American Depositary Receipts.”

D.3. Fees and expenses

ADS holders will be charged a fee for each issuance of ADSs, including issuances resulting from distributions of shares, rights and other property, and for each surrender of ADSs in exchange for deposited securities. The fee in each case is up to \$5.00 for each 100 ADSs (or any portion thereof) issued or surrendered.

The following additional charges shall be incurred by the ADS holders, by any party depositing or withdrawing shares or by any party surrendering ADSs or to whom ADSs are issued (including, without

limitation, issuance pursuant to a stock dividend or stock split declared by the Company or an exchange of stock regarding the ADSs or the deposited securities or a distribution of ADRs), whichever is applicable:

- a fee of \$0.05 or less per ADS (or portion thereof) for any cash distribution made pursuant to the deposit agreement;
- a fee of \$0.05 per ADS (or portion thereof) per year for services performed by the depositary in administering our ADS program (which fee shall be assessed against holders of ADSs as of the record date set by the depositary not more than once each calendar year and shall be payable in the manner described in the next succeeding provision);
- any other charge payable by any of the depositary or the custodian, any of the depositary's or custodian's agents, or the agents of the depositary's or custodian's agents in connection with the servicing of our shares or other deposited securities (which charge shall be assessed against registered holders of our ADSs as of the record date or dates set by the depositary and shall be payable at the sole discretion of the depositary by billing such registered holders or by deducting such charge from one or more cash dividends or other cash distributions);
- a fee for the distribution of securities or of rights where the depositary will not exercise or sell those rights on behalf of holders (or the sale of securities in connection with a distribution), such fee being in an amount equal to the fee for the execution and delivery of ADSs which would have been charged as a result of the deposit of such securities (treating all such securities as if they were ordinary shares) but which securities or the net cash proceeds from the sale thereof are instead distributed by the depositary to those holders entitled thereto;
- stock transfer or other taxes and other governmental charges;
- cable, (including SWIFT) and facsimile transmission and delivery charges as are expressly provided for in the deposit agreement;
- transfer or registration fees for the registration of transfer of deposited securities on any applicable register in connection with the deposit or withdrawal of deposited securities; and
- expenses of the depositary in connection with the conversion of foreign currency into U.S. dollars.

The depositary may collect any of its fees by deduction from any cash distribution payable, or by selling a portion of any securities to be distributed, to holders that are obligated to pay those fees. In performing its duties under the deposit agreement, the depositary may use brokers, dealers, foreign currency dealers or other service providers that are owned by or affiliated with the depositary and that may earn or share fees, spreads or commissions. The depositary may own and deal in any class of securities of the Company and its affiliates and in the ADSs.

The depositary collects its fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The depositary may collect its annual fee for depositary services by deduction from cash distributions or by directly billing investors or by charging the book-entry system accounts of participants acting for them. The depositary may generally refuse to provide fee-attracting services until its fees for those services are paid.

We will pay all other charges and expenses of the depositary and any agent of the depositary (except the custodian) pursuant to agreements from time to time between us and the depositary. The fees described above may be amended from time to time. If an amendment adds or increases fees or charges, except for taxes or other governmental charges or expenses of the depositary for registration fees, facsimile costs, delivery charges or similar items, or prejudice a substantial right of ADS holders, it will not become effective for outstanding ADSs until 30 days after the depositary notifies ADS holders of the amendment.

D.4. Amounts payable by the depositary to the Company

Under the fee agreement between us and Bank of New York Mellon, the depositary has agreed to reimburse us for expenses we incur that are related to establishment and maintenance expenses of the ADS program. The depositary has agreed to reimburse us for the program's continuing annual stock exchange listing fees. The depositary has also agreed to pay the standard out-of-pocket maintenance costs for the ADRs, which consist of the expenses of postage and envelopes for mailing annual and interim financial statements, printing and distributing dividend checks, electronic filing of U.S. Federal tax information, mailing required tax forms, stationary, postage, facsimile, telephone calls and legal fees. It has

also agreed to reimburse us annually for certain investor relations programs or special investor relations promotion activities. In certain instances, the depositary has agreed to provide additional payments to us based on any applicable performance indicators relating to the ADR facility. There are limits on the amount of expenses for which the depositary will reimburse the Company, but the amount of reimbursement available to us is not necessarily tied to the amount of fees the depositary collects from investors. For 2019, we received from the depositary €0.8 M in aggregate payments for such fees and expenses.

Part II

Item 13. Defaults, dividend arrearages and delinquencies

None.

Item 14. Material modifications to the rights of security holders and use of proceeds

Not applicable.

Item 15A. Disclosure controls and procedures

The Company maintains disclosure controls and procedures that are designed to ensure that the information the Company is required to disclose in the reports filed or furnished under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms and are effective to ensure that the information the Company is required to disclose in its reports is accumulated and communicated to the general partner's Management Board, including the general partner's Chief Executive Officer and the Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

The Company's management, including the members of the Management Board of our general partner performing the functions Chief Executive Officer and Chief Financial Officer, has conducted an evaluation of the effectiveness of the Company's disclosure controls and procedures as of the end of the period covered by this report, as contemplated by Exchange Act Rule 13a-15. Based on that evaluation, the persons performing the functions of Chief Executive Officer and Chief Financial Officer concluded in connection with the filing of this report that as a result of the material weakness described in Item 15B below, the Company's disclosure controls and procedures were not effective as of December 31, 2019.

Item 15B. Management's annual report on internal control over financial reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f). The Company's internal control over financial reporting is a process designed by or under the supervision of the Chief Executive Officer of our general partner and Chief Financial Officer of our general partner, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's consolidated financial statements for external reporting purposes in accordance with IFRS as issued by the IASB.

The Company acquired NxStage on February 21, 2019. Management excluded NxStage's internal control over financial reporting from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2019. NxStage accounted for less than 1% of the Company's consolidated total assets, excluding goodwill and intangible assets recorded in connection with the acquisition, as of December 31, 2019 and less than 1% of the Company's consolidated revenues as of and for the year ended December 31, 2019.

As of December 31, 2019, management conducted an assessment of the effectiveness of the Company's internal control over financial reporting based on the criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). Based on this assessment, management has determined that the material weakness described below existed as of December 31, 2019. As a result, management, under the supervision of our Chief Executive Officer and Chief Financial Officer, has concluded that the Company did not maintain effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria described above. A material weakness in internal control over financial reporting is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

The Company's management did not design and maintain effective internal control relating to revenue recognition, specifically for estimating the transaction price and constraining the variable consideration of the transaction price for certain fee-for-service revenue arrangements under legal consideration and timely adjusting the constraint of variable consideration when new information arises. Multiple sources of information are utilized in assessing the appropriateness of variable consideration and the related estimate of transaction price under IFRS 15; however, the Company did not have effective oversight controls in

assessing the weighting of such information as an input into revenue recognition. As such, the Company did not appropriately constrain certain fee-for-service revenue arrangements under IFRS 15 resulting in immaterial errors to accounts receivable and revenue from specific fee-for-service arrangements in the Company's consolidated financial statements for the year ended December 31, 2018. These errors did not, individually or in the aggregate, result in a material misstatement of the Company's consolidated financial statements and disclosures for any periods through and including the fiscal year ended December 31, 2019 and have been corrected prior to the issuance of the Company's consolidated financial statements for the year ended December 31, 2019. However, this control deficiency could have resulted in a material misstatement to our annual or interim consolidated financial statements that would not be prevented or detected. Accordingly, the Company has determined that this control deficiency constitutes a material weakness.

Consistent with the Company's assessment, KPMG, the Company's independent registered public accounting firm, for the fiscal year ended December 31, 2019, issued an attestation report expressing an adverse opinion on the effectiveness of internal control over financial reporting, with respect to this material weakness, which is elsewhere in this Form 20-F.

The Company's internal control over financial reporting includes policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of our assets; (2) provide reasonable assurance that the Company's transactions are recorded as necessary to permit preparation of the consolidated financial statements in accordance with IFRS as issued by the IASB, and that the Company's receipts and expenditures are being made only in accordance with authorizations of management; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the Company's financial statements.

Because of its inherent limitation, internal control over financial reporting, no matter how well designed, cannot provide absolute assurance of achieving financial reporting objectives and may not prevent or detect misstatements. Therefore, even if the internal control over financial reporting is determined to be effective it can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Item 15C. Attestation report of the registered public accounting firm

KPMG, an independent registered public accounting firm, has issued an attestation report expressing an adverse opinion on the effectiveness of the Company's internal control over financial reporting in their report on page F-5.

Item 15D. Changes in internal control over financial reporting

As discussed in Item 15B, management determined that there was a material weakness in controls relating to revenue recognition, specifically for estimating the transaction price and constraining the variable consideration of the transaction price for certain fee-for-service revenue arrangements under legal consideration and timely adjusting the constraint of variable consideration when new information arises. This material weakness continues to exist as of the date of this filing.

As at the date of this filing, remediation efforts are ongoing and management is undertaking steps to strengthen the Company's controls relating to revenue recognition, specifically for estimating the transaction price and constraining the variable consideration of the transaction price for certain fee-for-service revenue arrangements under legal consideration and its related accounts receivable, including:

- Increasing oversight by management over revenue recognition specific to fee-for-service matters in legal consideration as well as the accounting and reporting of the related receivable balances;
- Enhancing policies and procedures;
- Strengthening communication and information flows between the legal and finance departments specific to fee-for-service matters in legal consideration; and

- Increasing the role of the finance function in its oversight of revenue recognition specific to fee-for-service matters in legal consideration and their related accounts receivable balances, including responsibility for the final estimation and reporting.

Management is committed to maintaining a strong internal control environment and believe the above noted remediation efforts will represent significant improvements to the internal control environment. The identified material weakness in internal control will not be considered fully remediated until the applicable controls operate for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively.

Beginning in 2012, the Company received certain communications alleging conduct in countries outside the United States that might violate the FCPA or other anti-bribery laws. The Company conducted investigations with the assistance of outside counsel and, in a continuing dialogue, advised the SEC and the DOJ about these investigations. The DOJ and the SEC also conducted their own investigations, in which the Company cooperated.

In the course of this dialogue, the Company identified and reported to the DOJ and the SEC, and took remedial actions with respect to, conduct that resulted in the DOJ and the SEC seeking monetary penalties including disgorgement of profits and other remedies. This conduct revolved principally around the Company's products business in countries outside the United States.

On March 29, 2019, the Company entered into a non-prosecution agreement with the DOJ and a separate agreement with the SEC intended to resolve fully and finally the claims against the Company arising from the investigations. The Company paid a combined total in penalties and disgorgement of approximately \$231,700 to the DOJ and the SEC in connection with these agreements. The entire amount paid to the DOJ and the SEC was reserved for in charges that the Company recorded in 2017 and 2018 and announced in 2018. See note 22 of the notes to our consolidated financial statements included in this report. As part of the settlement, the Company agreed to retain an independent compliance monitor for a period of at least two years and to an additional year of self-reporting. As of July 26, 2019, the monitor was appointed and the monitorship period commenced.

In 2015, the Company self-reported to the German prosecutor conduct with a potential nexus to Germany and continues to cooperate with government authorities in Germany in their review of the conduct that prompted the Company's and government investigations.

Since 2012, the Company has made and continues to make further significant investments in its compliance and financial controls and in its compliance, legal and financial organizations. The Company's remedial actions included separation from those employees responsible for the above-mentioned conduct. The Company is dealing with post-FCPA review matters on various levels. The Company continues to be fully committed to compliance with the FCPA and other applicable anti-bribery laws.

Item 16A. Audit committee financial expert

Our Supervisory Board has determined that each of Mr. Rolf A. Classon, Mr. William P. Johnston and Ms. Pascale Witz qualifies as an audit committee financial expert and is "independent" as defined in Rule 10A-3 under the Exchange Act, in accordance with the instructions in Item 16A of Form 20-F.

Item 16B. Code of ethics

Our Management Board adopted, through our worldwide compliance program, a code of ethics, titled the *Code of Ethics and Business Conduct*, which as adopted applies to members of the Management Board, including its chairman and the responsible member for Finance & Controlling, other senior officers and all Company employees. A copy of the Company's Code of Business Conduct is available on our website under "About Us – Responsibility" at: https://www.freseniusmedicalcare.com/fileadmin/data/com/pdf/About_us/Compliance/Code_of_Ethics_and_Business_Conduct_GB_ext.pdf

Item 16C. Principal accountant fees and services.

During the AGM held on May 16, 2019, our shareholders approved the appointment of KPMG to serve as our independent auditors for the 2019 fiscal year and for the potential review of the first half year financial report and other interim financial information for fiscal year 2019. Furthermore, during the AGM held on May 16, 2019, our shareholders approved the appointment of PricewaterhouseCoopers GmbH

Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, to serve as our independent auditors for the potential review of interim financial information for fiscal year 2020 that is prepared prior to the AGM in 2020.

For the fees billed by KPMG see note 29 of the notes to the consolidated financial statements included in this report.

Audit Committee's pre-approval policies and procedures

As a German company, we prepare statutory financial statements under German law on the basis of the accounting principles of the German Commercial Code (*Handelsgesetzbuch* or *HGB*) and consolidated financial statements in accordance with IFRS. Our Supervisory Board engages our independent auditors to audit these financial statements, in consultation with our Audit and Corporate Governance Committee and subject to election by our shareholders at our AGM in accordance with German law.

Our financial statements are also included in registration statements and reports that we file with the SEC. Our Audit and Corporate Governance Committee engages our independent auditors to audit these financial statements in accordance with Rule 10A-3 under the Exchange Act and Rule 303A.06 of the NYSE Governance Rules. See also the description in "Item 6C. Directors, senior management and employees – Board practices."

Fresenius Medical Care AG's audit committee also adopted a policy requiring management to obtain the committee's approval before engaging our independent auditors to provide any permitted non-audit services to us or our subsidiaries. Pursuant to this policy, which is designed to assure that such engagements do not impair the independence of our auditors, the Audit and Corporate Governance Committee pre-approves a catalog of specific non-audit services that may be performed by our auditors as well as provides for additional approval requirements based on fee amount.

The General Partner's Chief Financial Officer reviews all individual management requests to engage our auditors as a service provider in accordance with this catalog and, if the requested services are permitted pursuant to the catalog, approves the request accordingly. Services that are not included in the catalog or are included but exceed applicable fee levels are passed on either to the chairman of the Audit and Corporate Governance Committee or to the full committee, for approval on a case by case basis. In addition, the Audit and Corporate Governance Committee is informed about all approvals on a quarterly basis. Neither the chairman of our Audit and Corporate Governance Committee nor the full committee is permitted to approve any engagement of our auditors if the services to be performed either fall into a category of services that are not permitted by applicable law or would be inconsistent with maintaining the auditors' independence.

During 2019, the total fees paid to the Audit and Corporate Governance Committee members for service on the committee were \$0.160 M (€0.143 M).

Item 16D. Exemptions from the listing standards for audit committees

Not applicable.

Item 16E. Purchase of equity securities by the issuer and affiliated purchasers

Please see note 17 for information on our share buy-back programs and subsequent partial retirement of these shares, which is provided in substantially the columnar format required by Item 16E regarding the share buy-back program purchases made in the fiscal year. The repurchase programs disclosed in note 17 were terminated on the last day that purchases for the applicable program were made. The authorization granted by our Annual General Meeting on May 12, 2016 remains in effect until May 11, 2021.

Item 16F. Change in registrant's certifying accountant

On May 16, 2019, our Supervisory Board recommended the appointment of PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft ("PwC") to serve as our new independent accountants and KPMG, which is currently serving as the Company's independent auditors, has declined to stand for re-election upon completion of their audit of the Company's consolidated financial statements as of and for the year ended December 31, 2019 and the effectiveness of internal control over financial reporting as of December 31, 2019, and the issuance of their reports thereon. KPMG did not participate in the tender due to EU requirements which require a new external auditor to be in place after 2023. Subject to approval at the 2020 AGM, we anticipate that our Audit and Governance

Committee will appoint PwC as our independent auditors and that following their appointment, PwC will be responsible for the issuance of the audit report to be included in our annual report on Form 20-F for the year ended December 31, 2020.

KPMG's reports on our consolidated balance sheets as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the "consolidated financial statements"), were not qualified or modified as to uncertainty, audit scope or accounting principle, except KPMG's report on the consolidated financial statements as of and for the years ended December 31, 2019 and 2018, contains a separate paragraph referring to a change in method of accounting for leases as of January 1, 2019 due to the adoption of IFRS 16, *Leases*, and referring to a change in method of accounting for revenue from contracts with customers and financial instruments as of January 1, 2018 due to the adoption of IFRS 15, *Revenue From Contracts With Customers*, and IFRS 9, *Financial Instruments*, respectively.

KPMG's reports on the effectiveness of internal control over financial reporting as of December 31, 2019 and 2018 each contained an adverse opinion indicating that the Company did not maintain effective internal control over financial reporting as of December 31, 2019 and 2018 due to the effect of a material weakness on the achievement of the objectives of the control criteria and contains an explanatory paragraph that states the Company had a material weakness related to revenue recognition specific to estimating the transaction price on certain fee-for-service revenue arrangements which was identified and included in management's assessment.

During the years ended December 31, 2019 and 2018 and the subsequent interim through February 20, 2020, there were no disagreements with KPMG, whether or not resolved, on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which, if not resolved to KPMG's satisfaction, would have caused them to make reference to the subject matter of the disagreement in connection with any reports they would have issued.

During the years ended December 31, 2019 and 2018 and the subsequent interim through February 20, 2020, there were no "reportable events" as that term is defined in Item 16F(a)(1)(v)(A) through (D) of Form 20-F, other than described below.

As discussed in this annual report on Form 20-F for the year ended December 31, 2019 (the "2019 20-F") and in the amended annual report on Form 20-F for the year ended December 31, 2018 (the "Amended 2018 20-F") as filed with the SEC on October 31, 2019, management concluded that the Company's internal control over financial reporting was not effective as of December 31, 2019 and 2018 due to a material weakness in controls as described in Item 15B. "Management's annual report on internal control over financial reporting," above.

Our Audit and Corporate Governance Committee discussed the material weakness with KPMG and the Company has authorized KPMG to respond fully to the inquiries of the successor independent registered public accounting firm concerning this matter.

During the fiscal year ended December 31, 2019 and 2018 and the subsequent interim through February 20, 2020, we did not consult with PwC regarding the application of accounting principles to a specific completed or contemplated transaction or regarding the type of audit opinion that might be rendered by PwC on our consolidated financial statements or the effectiveness of internal control over financial reporting. Further, PwC did not provide any written or oral advice that was an important factor considered by us in reaching a decision as to any such accounting, auditing or financial reporting matter or any matter being the subject of disagreement or defined as a reportable event or any other matter as defined in Item 16F(a)(1)(v) of Form 20-F.

We have provided KPMG with a copy of the foregoing disclosure and have requested that KPMG furnish to us a letter addressed to the Securities and Exchange Commission stating whether KPMG agrees with such disclosure. We have included as Exhibit 99.1 to this Form 20-F a copy of the letter from KPMG as required by Item 16F(a)(3) of Form 20-F.

Item 16G. Corporate governance

Introduction

ADSs representing our shares are listed on the NYSE. However, because we are a "foreign private issuer," as defined in the rules of the SEC, we are exempt from substantially all of the governance rules set forth in

Section 303A of the NYSE's Listed Companies Manual, other than the obligation to maintain an audit committee in accordance with Rule 10A-3 under the Exchange Act, the obligation to notify the NYSE if any of our executive officers becomes aware of any material non-compliance with any applicable provisions of Section 303A, the obligation to file annual and interim written affirmations, on forms mandated by the NYSE, relating to our compliance with applicable NYSE governance rules, and the obligation to disclose the significant ways in which the governance standards that we follow differ from those applicable to U.S. companies under the NYSE governance rules. Many of the governance reforms instituted by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, including the requirements to provide shareholders with "say-on-pay" and "say-on-when" advisory votes related to the compensation of certain executive officers, are implemented through the SEC's proxy rules. Because foreign private issuers are exempt from the proxy rules, these governance rules are not applicable to us. However, the compensation system for our Management Board is reviewed by an independent external compensation expert as amendments to the system are made, the most recent review having been conducted in 2019. See Item 6.B, "Directors, senior management and employees – Compensation – Compensation of the Management Board." Similarly, the more detailed disclosure requirements regarding management compensation applicable to U.S. domestic companies (including requirements for pay ratio disclosure and a proposal for disclosure of the relationship between executive compensation actually paid and a registrant's financial performance issued in 2015 but currently on the SEC's "long-term actions" agenda without a target date for adoption) are found in SEC Regulation S-K, whereas compensation disclosure requirements for foreign private issuers are set forth in Form 20-F. That form generally limits our compensation disclosure obligations to the information we disclose under German law. In 2015 the SEC also issued its proposed compensation "clawback" rule which would direct U.S. stock exchanges to establish listing standards that would require listed issuers to develop, implement and disclose policies providing for the recovery, under certain circumstances, of incentive-based compensation based on financial information that is subsequently restated. The proposal received extensive comments from issuers and participants in the securities markets. It has not been withdrawn and in 2019, action on the proposed rule was moved from the SEC's "long-term actions" agenda to its "current" agenda. Under the terms and conditions of our LTIP 2016 plan and our MB LTIP 2019 plan (see Item 6.B., "Directors, senior management and employees – Compensation"), and the employment contracts concluded or prolonged with individual members of the Management Board as from January 1, 2018, the Company is entitled to reclaim previously earned and paid compensation components. Such right to reclaim exists in case of relevant violations of internal guidelines or undutiful conduct. If the SEC's proposed clawback rule is eventually adopted as proposed, requirements of that rule would apply to both U.S. domestic and foreign private issuers and would impose clawback requirements without fraud or other misconduct as a necessary prerequisite. Subject to the exceptions noted above, instead of applying their governance and disclosure requirements to foreign private issuers, the rules of both the SEC and the NYSE require that we disclose the significant ways in which our corporate practices differ from those applicable to U.S. domestic companies under NYSE listing standards.

As a German company FMC-AG & Co. KGaA follows German corporate governance practices. German corporate governance practices generally derive from the provisions of the AktG, capital market related laws, the German Codetermination Act (*Mitbestimmungsgesetz*, or "*MitBestG*") and the German Corporate Governance Code. Our Articles of Association also include provisions affecting our corporate governance. German standards differ from the corporate governance listing standards applicable to U.S. domestic companies which have been adopted by the NYSE. The discussion below provides certain information regarding our organizational structure, management arrangements and governance, including information regarding the legal structure of a KGaA, management by a general partner, certain provisions of our Articles of Association and the role of the Supervisory Board in monitoring the management of our company by our General Partner.

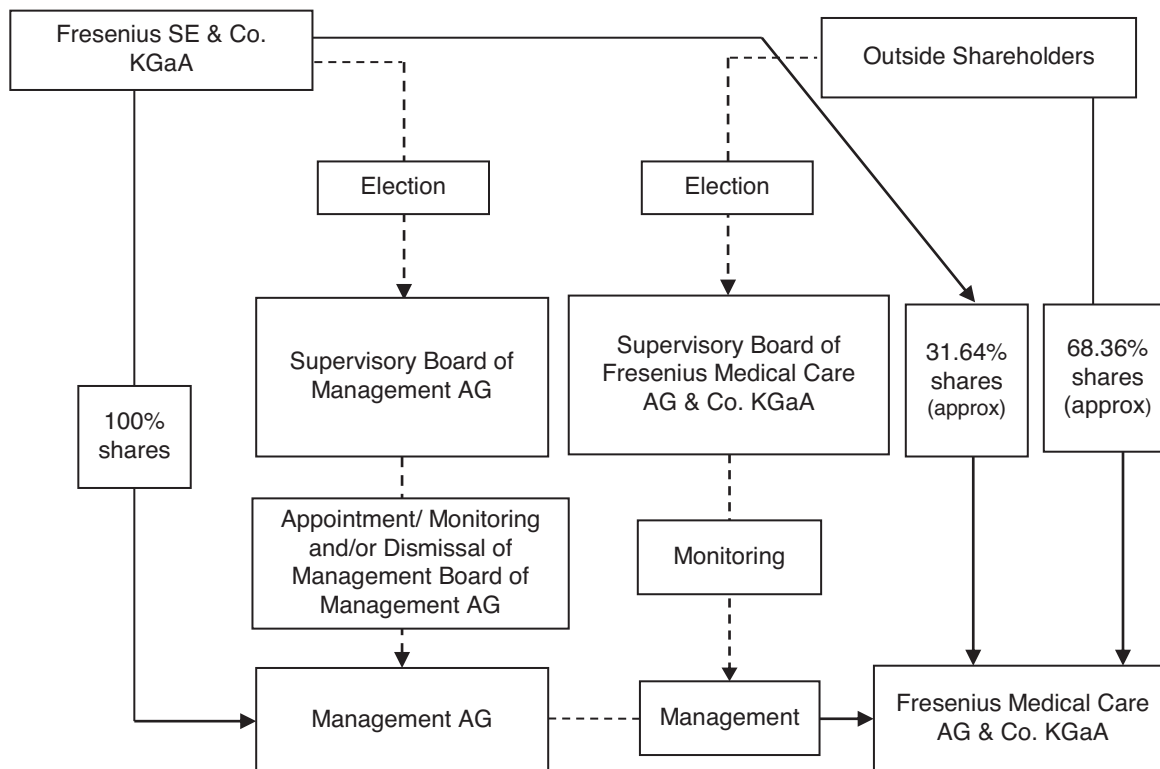
The legal structure of FMC-AG & Co. KGaA

A German partnership limited by shares (*Kommanditgesellschaft*, or "KGaA") is a mixed form of entity under German corporate law, which has elements of both a partnership and a corporation. Like a German stock corporation (*Aktiengesellschaft*, or "AG"), the share capital of a KGaA is held by its shareholders. A KGaA is also similar to a limited partnership because there are management and non-management partners, one or more general partner(s) on the one hand, and the KGaA shareholders on the other hand. Our sole general partner, Management AG, is a wholly-owned subsidiary of Fresenius SE.

A KGaA's corporate bodies are its general partner, its supervisory board and the general meeting of shareholders. General partners may, but are not required to, hold shares of the KGaA. General partners are personally liable for the liabilities of the KGaA in relations with third parties subject, in the case of corporate general partners, to applicable limits on liability of corporations generally.

Management and oversight

The management structure of FMC-AG & Co. KGaA is illustrated as follows:



General Partner

Management AG, as our sole General Partner, conducts the business of FMC-AG & Co. KGaA and represents it in external relations. Management AG was incorporated on April 8, 2005 and registered with the commercial register in Hof an der Saale on May 10, 2005. The registered share capital of Management AG is €3.0 M. The General Partner receives annual compensation amounting to 4% of its capital for assuming liability as the general partner and the management of FMC-AG & Co. KGaA as well as reimbursement for all outlays in connection with conducting the business of the Company, including the remuneration of members of the General Partner's Management Board and its supervisory board. See "The Articles of Association of FMC-AG & Co. KGaA – Organization of the Company."

The position of the general partners in a KGaA is different and in part stronger than that of the shareholders based on: (i) the management powers of the general partners, (ii) the existing de facto veto rights regarding certain resolutions adopted by the KGaA's general meeting and (iii) the independence of general partners from the influence of the KGaA shareholders as a collective body (See "General meeting", below). Because Fresenius SE is the sole shareholder of Management AG, Fresenius SE has the sole power to elect the supervisory board of Management AG which appoints, supervises and consults the members of the Management Board of Management AG, who act for the General Partner in conducting the company's business in accordance with the rules of procedure adopted by the General Partner's supervisory board.

Fresenius SE's influence on the Company through ownership of the General Partner is conditioned upon its ownership of a substantial amount of the Company's share capital (see "The Articles of Association of FMC-AG & Co. KGaA – Organization of the Company", below).

Supervisory Board

The supervisory board of a KGaA is similar in certain respects to the supervisory board of an AG. Like the supervisory board of an AG, the supervisory board of a KGaA is under an obligation to oversee the management of the business of the Company. The members of the supervisory board are elected by the KGaA shareholders at the general meeting.

Under certain conditions, a supervisory board is required to include employee representatives (“Codetermination”). In proceedings initiated by a shareholder seeking to require that we implement Codetermination, both the Regional Court (*Landgericht*) of Nuremberg/Fürth and the Higher Regional Court (*Oberlandesgericht*) of Munich confirmed our position that we are not subject to Codetermination. In a KGaA having a corporate general partner, supervisory board members may hold offices on both supervisory boards, the supervisory board of a KGaA and of its general partner.

Three of the six current members of the FMC-AG & Co. KGaA supervisory board are also members of the supervisory board of Management AG. See Item 6.A, “Directors, senior management and employees – Directors and senior management – The General Partner’s Supervisory Board.” Shares in the KGaA held by the General Partner or its affiliated companies are not entitled to vote for the election of the supervisory board members of the KGaA. Accordingly, Fresenius SE is not entitled to vote its shares for the election of FMC-AG & Co. KGaA’s Supervisory Board members.

The Supervisory Board has less power and scope for influence than a supervisory board of an AG. The Supervisory Board is not entitled to appoint the General Partner or its executive bodies. Nor may the Supervisory Board subject the management measures of the General Partner to its consent, or issue rules of procedure for the General Partner.

German regulations have several rules applicable to supervisory board members which are designed to ensure that the supervisory board members in the entirety possess the knowledge, ability and expert experience to properly complete their tasks as well as to ensure a certain degree of independence of the board’s members. In addition to prohibiting members of the management board from contemporaneously serving on the supervisory board, German law requires members of the supervisory board to act in the best interest of the company. They do not have to follow direction or instruction from third parties. Any service, consulting or similar agreements between a KGaA and any of its supervisory board members must be approved by the supervisory board.

General meeting

The general meeting is the resolution body of the KGaA shareholders. Shareholders can exercise their voting rights at the general meeting themselves, by proxy via a representative of their choice, or by a company-nominated proxy acting on their instructions. Among other matters, the AGM of a KGaA approves its annual financial statements. The internal procedure of the general meeting of a KGaA corresponds to that of the general meeting of an AG. The agenda for the general meeting is fixed by the general partner and the KGaA supervisory board except that the general partner cannot propose nominees for election as members of the KGaA supervisory board or make proposals for the KGaA’s auditors.

Fresenius SE is subject to various bans on voting at general meetings due to its ownership of the shares of the General Partner. Fresenius SE is banned from voting on resolutions concerning the election to and removal from office of the FMC-AG & Co. KGaA Supervisory Board, ratification or discharge (*Entlastung*) of the actions of the General Partner and members of the Supervisory Board, the appointment of special auditors, the assertion of claims for damages as well as the waiver of claims for damages that fall within the competence of the general meeting, and the election of auditors of the annual financial statements.

Certain matters requiring a resolution at the general meeting will also require the consent of the General Partner, such as amendments to the Articles of Association, dissolution of the Company, mergers, a change in the legal form of the partnership limited by shares and other fundamental changes. The General Partner therefore has a de facto veto right on these matters. Statutory annual financial statements are subject to approval by both the KGaA shareholders and the General Partner.

The Articles of Association of FMC-AG & Co. KGaA

The following is a summary of certain material provisions of our Articles of Association. This summary is not complete and is qualified in its entirety by reference to the complete form of Articles of Association of FMC-AG & Co. KGaA. A convenience English translation of our Articles of Association is on file with the SEC and can also be found on the Company's website under www.freseniusmedicalcare.com.

Organization of the Company

The Articles of Association contain several provisions relating to the General Partner.

Under the Articles of Association, possession of the power to control management of the Company through ownership of the General Partner is conditioned upon ownership of a specific minimum portion of the Company's share capital. Under German law, Fresenius SE could significantly reduce its holdings in the Company's share capital while at the same time retaining influence on the Company's management through its ownership of the shares of the General Partner. However, pursuant to the Articles of Association of FMC-AG & Co. KGaA, the General Partner ceases to be the general partner of FMC-AG & Co. KGaA if its shareholder no longer holds, directly or indirectly, more than 25% of the Company's share capital. The effect of this provision is that Fresenius SE may not reduce its capital participation in FMC-AG & Co. KGaA below such threshold without causing the withdrawal of the General Partner.

The Articles of Association also provide that the General Partner ceases to be the general partner of FMC-AG & Co. KGaA if the shares of the General Partner are acquired by a person who does not make an offer under the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz or WpÜG*) to acquire the shares of the Company's other shareholders within three months of the acquisition of the General Partner. As long as our American Depositary Shares are listed on the NYSE and/or registered under Section 12 of the Exchange Act, any such offer would also be subject to regulation under Sections 13 and 14 of the Exchange Act. The obligation of the General Partner's new shareholder to make this offer could have the effect of discouraging a change of control of the Company.

The Articles of Association also permit a transfer of all shares in the General Partner to the Company. In this case the Company will be continued as a so-called "unified KGaA" (*Einheits-KGaA*), i.e. a KGaA in which the general partner is a wholly-owned subsidiary of the KGaA. Pursuant to the Articles of Association, the control over the General Partner in such a "unified KGaA" would be exercised by the Supervisory Board through its power to appoint the supervisory board of the General Partner. In the event that the General Partner ceases to be the general partner of FMC-AG & Co. KGaA as described above or for other reasons, the Articles of Association provide for continuation of the Company. The Supervisory Board would then be authorized and obligated to admit as a new general partner of the Company a corporation whose shares are fully owned by the Company. Similar to the case in which the Company acquires all shares of the General Partner, a "unified KGaA" would be formed. Upon the coming into existence of a "unified KGaA" (irrespective of the way it has been created), the shareholders of FMC-AG & Co. KGaA would have the right to decide in a general meeting whether to transform the Company into a stock corporation (*Aktiengesellschaft*); a simple majority of the votes cast would be sufficient for the adoption of the transformation resolution. If the shareholders decline to approve such a transformation, the Company will be continued as a "unified KGaA" with the Supervisory Board exercising the control over the General Partner.

The Articles of Association provide that to the extent that the resolutions of the general meeting are subject to the consent of the general partner, the general partner shall declare or refuse its consent to resolutions adopted by the meeting directly at the general meeting.

The articles of association of a KGaA may be amended only through a resolution of the general meeting adopted by a simple majority of the votes cast and an additional qualified majority (of at least 75% of the share capital represented at the vote) and with the consent of the general partner. Therefore, neither the KGaA shareholders nor the general partner(s) can unilaterally amend the articles of association without the consent of the other. Fresenius SE will, however, continue to be able to exert significant influence over amendments to the Articles of Association through its ownership of a significant percentage of the Company's shares, since such amendments require a qualified majority (of at least 75% of the share capital represented at the vote), and a de facto veto right over such amendments through its ownership of the General Partner.

Description of the pooling agreement

Prior to the transformation of legal form of FMC-AG to FMC-AG & Co. KGaA, FMC-AG, Fresenius SE and the independent directors (as defined in the pooling agreements referred to below) of FMC-AG were parties to two pooling agreements for the benefit of the holders of our ordinary shares and the holders of our preference shares (other than Fresenius SE and its affiliates). Upon consummation of the transformation in February 2006 and completion of the conversion offer made to holders of our preference shares in connection with the transformation, we entered into a pooling agreement that we believe provides similar benefits for the shareholders of FMC-AG & Co. KGaA. The following is a summary of the material provisions of the pooling agreement which we have entered into with Fresenius SE and the independent directors on the General Partner's supervisory board. The description is qualified in its entirety by the complete text of the pooling agreement, as amended in 2016, a copy of which is on file with the SEC.

The pooling agreement was originally entered into for the benefit of all persons who, from time to time, beneficially own our ordinary shares and our preference shares, including owners of ADSs evidencing such shares, other than Fresenius SE and its affiliates or their agents and representatives. Beneficial ownership is determined in accordance with the beneficial ownership rules of the SEC. Upon completion of the mandatory exchange of our remaining outstanding preference shares for ordinary shares in 2013, our share capital consists solely of ordinary shares.

Under the pooling agreement, no less than one-third of the supervisory board of Management AG, the general partner of FMC-AG & Co. KGaA, must be independent directors, and there must be at least two independent directors. Independent directors on the General Partner's supervisory board are persons without a substantial business or professional relationship with us, Fresenius SE, or any affiliate of either, other than as a member of the Supervisory Board or as a member of the supervisory board of Management AG. The provisions of the pooling agreement relating to independent directors are in addition to the requirement of Rule 10A-3 under the Exchange Act that our audit committee be composed solely of independent directors as defined in that rule. We have identified the members of Management AG's supervisory board who are independent for purposes of our pooling agreement in Item 6.B., "Directors, senior management and employees – The General Partner's Supervisory Board."

Additionally, under the pooling agreement, we, our affiliates, Management AG and Fresenius SE, as well as their affiliates, must comply with all provisions of German law regarding: any merger, consolidation, sale of all or substantially all assets, recapitalization, other business combination, liquidation or other similar action not in the ordinary course of our business, any issuance of shares of our voting capital stock representing more than 10% of our total voting capital stock outstanding, and any amendment to our articles of association which adversely affects any holder of ordinary shares.

Lastly, we and Management AG and Fresenius SE have agreed that while the pooling agreement is in effect, a majority of the independent directors must approve any transaction or contract, or any series of related transactions or contracts, between Fresenius SE, Management AG or any of their affiliates (other than us or our controlled affiliates), on the one hand, and us or our controlled affiliates, on the other hand, which involves aggregate payments in any calendar year in excess of €5 M for each individual transaction or contract, or a related series of transactions or contracts, though limitations apply with regards to agreements included in previously approved business plans.

Listing of American depositary shares; SEC filings

During the term of the pooling agreement, Fresenius SE has agreed to use its best efforts to exercise its rights as the direct or indirect holder of the general partner interest in Fresenius Medical Care AG & Co. KGaA to cause us to, and we have agreed to:

- maintain the effectiveness of the deposit agreement for the ordinary shares, or a similar agreement, and to assure that the ADSs evidencing the ordinary shares are listed on either the New York Stock Exchange or the Nasdaq Stock Market;
- file all reports, required by the New York Stock Exchange or the Nasdaq Stock Market, as applicable, the Securities Act, the Exchange Act and all other applicable laws;
- prepare all financial statements required for any SEC filing in accordance with U.S. GAAP or, as permitted by amendments made in 2016, IFRS;

- on an annual basis, prepare audited consolidated financial statements, and, on a quarterly basis, prepare and furnish to the SEC under cover of a Form 6-K, consolidated financial statements in each case prepared in accordance with U.S. GAAP or, as permitted by amendments made in 2016, IFRS;
- furnish materials to the SEC with respect to annual and special shareholder meetings under cover of Form 6-K and make the materials available to the depositary for distribution to holders of Ordinary Share ADSs; and
- make available to the depositary for distribution to holders of ADSs representing our ordinary shares on an annual basis, a copy of any report prepared by the supervisory board or the supervisory board of the general partner and provided to our shareholders generally pursuant to Section 314(2) of the AktG, or any successor provision. These reports concern the results of the supervisory board's examination of the managing board's report on our relation with affiliated enterprises.

Term

The pooling agreement will terminate if:

- Fresenius SE or its affiliates acquire all our voting shares;
- Fresenius SE's beneficial ownership of our outstanding share capital is reduced to less than 25%;
- Fresenius SE or an affiliate of Fresenius SE ceases to own the shares in our general partner Management AG; or
- We no longer meet the minimum threshold for obligatory registration of the ordinary shares or ADSs representing our ordinary shares under Section 12(g)(1) of the Exchange Act and Rule 12g-1 thereunder.

Amendment

FMC-AG & Co. KGaA and a majority of the independent directors on the General Partner's supervisory board may amend the pooling agreement, provided, that beneficial owners of 75% of the ordinary shares held by shareholders other than Fresenius SE and its affiliates at a general meeting of shareholders approve such amendment.

Enforcement; governing law

The pooling agreement is governed by New York law and may be enforced in the state and federal courts of New York. The Company and Fresenius SE have confirmed their intention to abide by the terms of the pooling agreement as described above.

Managers' transactions

According to Article 19(1) of the MAR, persons discharging managerial responsibilities within an issuer of shares, as well as persons closely associated with them, are obligated to notify the issuer and the competent authority, i.e. for the Company as issuer, the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht* or "*BaFin*"), of every transaction conducted on their own account relating to the shares or debt instruments of the issuer or to derivatives or other financial instrument linked thereto no later than three business days after the date of the transaction, once the volume of all transactions conducted within a calendar year exceeds a total amount of €5,000. As of January 1, 2020, the threshold is €20,000 per calendar year. Persons discharging managerial responsibilities include, inter alia, the members of management and as well as supervisory boards. We make public the information received through these notifications and publish them on our website in accordance with the MAR. Pursuant to Article 19(11) of the MAR, a person discharging managerial responsibilities within an issuer must not either conduct any transactions on its own account or for the account of a third party, directly or indirectly, relating to, *inter alia*, the shares or debt instruments of the issuer during a closed period of 30 calendar days before the announcement of an interim financial report or a year-end report which the issuer is obliged to make public.

The reporting requirements of Section 16 of the Exchange Act do not apply to the equity securities of a foreign private issuer. Accordingly, the members of the Management Board and supervisory board of the

General Partner and of the Supervisory Board of the Company are not subject to these requirements with respect to their ownership of or transactions in our shares, and “short-swing” profit recovery is not available for transactions in our shares. As a foreign private issuer, we are exempt from the SEC proxy rules. Therefore, we are also not subject to rules adopted by the SEC in December 2018 that require U.S. domestic public companies to disclose in their proxy statements their practices or policies regarding the ability of their directors, officers or employees (or their respective designees) to purchase financial instruments that are designed to hedge or offset any decrease in the market value of equity securities granted to them as compensation or directly or indirectly held by them. Such transactions may, however, be reportable under the provisions of the MAR referred to above relating to transactions in derivatives or other financial instruments linked to our securities.

Certain Share Issuances

Under the listing rules of the NYSE, the issuance of securities of the same class as the listed class, or of securities convertible into or exchangeable for the listed securities, may require shareholder approval as a condition to the listing of such additional securities on the NYSE. Subject to certain exceptions (including the issuance of shares in public offerings for cash and issuances for cash at a price equal to or exceeding a defined minimum) shareholder approval may be required for issuances to certain related parties and issuances of shares having voting power equal to or in excess of 20 percent of the voting power outstanding before the issuance of such securities. However, under NYSE policy, such approval is not required for issuances of securities by foreign private issuers if it is not required by the issuer’s home country law and the NYSE receives an opinion of counsel in the issuer’s home jurisdiction.

Under the AktG, the issuance of new shares requires a capital increase (*Kapitalerhöhung*) of the Company by way of an approval by the shareholders requiring the affirmative vote of a majority of three quarters of the capital represented at the vote. Next to a capital increase against contribution (*Kapitalerhöhung gegen Einlagen*), a capital increase may also be conducted from Authorized Capital (*genehmigtes Kapital*) or Conditional Capital (*bedingtes Kapital*). The resolution creating Authorized Capital may authorize the General Partner and its Management Board to issue new shares up to a stated amount for a period of up to five years. The nominal value of any proposed increase of the Authorized Capital may not exceed half of the issued capital stock at the time of the authorization. In addition, Conditional Capital may be created for the purpose of issuing (i) new shares to holders of convertible bonds or other securities which grant a right to shares, (ii) new shares as the consideration in a merger with another company, or (iii) new shares offered to management or employees. The nominal value for any proposed increase of the Conditional Capital may not exceed half or, in the case of Conditional Capital created for the purpose of issuing shares to management and employees, 10% of the Company’s issued capital at the time of the resolution. All resolutions increasing the capital of the Company also require the consent of the General Partner in order for the resolutions to go into effect.

Comparison with U.S. and NYSE governance standards and practices

The listing standards of the NYSE require that a U.S. domestic listed company have a majority of independent board members and that the independent directors meet in regularly scheduled sessions without management. U.S. listed companies also must adopt corporate governance guidelines that address director qualification standards, director responsibilities, director access to management and independent advisors, director compensation, director orientation and continuing education, management succession, and an annual performance evaluation of the board. Although, as noted above, our status as a foreign private issuer exempts us from these NYSE requirements, several of these concepts are addressed (but not mandated) by the German Corporate Governance Code. The most recent applicable version of the German Corporate Governance Code is dated February 7, 2017. While the German Corporate Governance Code’s governance rules applicable to German corporations are not legally binding, companies that do not comply with the German Corporate Governance Code’s recommendations must disclose publicly to what extent and for what reason their practices differ from the recommendations of the German Corporate Governance Code. Under the German Corporate Governance Code a well justified deviation from a recommendation may be in the interest of good corporate governance. A convenience translation of our most recent annual “Declaration of Compliance” will be posted on our web site, www.freseniusmedicalcare.com in the section “Corporate Governance” of the Investor Relations page under “Declaration of Compliance” together with our declarations for prior years.

Some of the German Corporate Governance Code’s recommendations address the independence and qualifications of supervisory board members. Specifically, the German Corporate Governance Code

recommends that the supervisory board shall specify concrete objectives regarding its composition and shall prepare a profile of skills and expertise. The objectives regarding its composition shall, inter alia, also take into account potential conflicts of interest. Further, information shall be provided about what the supervisory board regards as the appropriate number of independent supervisory board members, and the names of those members. Our independent Supervisory Board members within the meaning of the German Corporate Governance Code are Mr. Rolf A. Classon, Mr. William P. Johnston, Dr. Dorothea Wenzel, Ms. Pascale Witz and Prof. Dr. Gregor Zünd. Similarly, if a substantial and not merely temporary conflict of interest between a company and a member of its supervisory board arises, the German Corporate Governance Code recommends that the term of that member be terminated. The German Corporate Governance Code further recommends that at any given time not more than two former members of the management board shall serve on the supervisory board. The Company's Supervisory Board includes three members who also serve on the supervisory board of the General Partner, two of whom serve on our Audit and Governance Committee and are independent under a specific provision of SEC Rule 10A-3 and NYSE rule 303A.06 (the audit committee rules of the SEC and the NYSE, respectively) relating to such dual board service. While we are exempt from both the NYSE requirement to have a majority of independent directors on our Supervisory Board and the independence criteria in the NYSE governance rules in addition to those in the audit committee rule, our pooling agreement requires that at least one-third (but not less than two) members of the General Partner's supervisory board be "independent" within the meaning of the pooling agreement. See Item 6.A, "Directors, senior management and employees – Directors and senior management – The General Partner's Supervisory Board" and "Description of the pooling agreement" above. We are not subject to the disclosure requirements of the SEC proxy rules, which require U.S. issuers to include in SEC filings a discussion of the specific experience, qualifications, attributes or skills that led to directors' inclusion as board members. However, under the German Corporate Governance Code, the composition of the supervisory board has to ensure that its members collectively have the knowledge, skills, and professional expertise required to properly perform all duties.

Recommendations of the German Corporate Governance Code with which we do not currently comply include Code number 4.2.3 paragraph 2 sentence 6 and Code number 4.2.5 paragraph 3 of the German Corporate Governance Code pursuant to which the amount of compensation for Management Board members shall be capped, both overall and for variable compensation components, and the maximum and minimum achievable compensation for variable compensation components shall be presented for each individual member of the Management Board in the compensation report by using corresponding model tables. The service agreements with members of the Management Board do not provide for caps regarding specific amounts for all compensation components and accordingly not for caps regarding specific amounts for the overall compensation. The performance-oriented short-term compensation (the variable bonus) is capped. As regards stock options, phantom stock and performance shares as compensation components with long-term incentives, the service agreements with members of the Management Board do provide for a possibility of limitation but not for caps regarding specific amounts. Introducing caps regarding specific amounts in relation to such stock-based compensation components would contradict the basic idea of the members of the Management Board participating appropriately in the economic risks and opportunities of the Company. Instead of that, we pursue a flexible concept considering each individual case. In situations of extraordinary developments in relation to the stock-based compensation which are not related to the performance of the Management Board, the stock-based compensation may be capped. Irrespective thereof, we continue to present the compensation system and the amounts paid to members of the Management Board in the compensation report in a comprehensive and transparent manner. The compensation report includes tables relating to the value of the benefits granted as well as to the allocation in the year under review which follow the structure and largely also the specifications of the model tables.

Furthermore, we do not fully comply with Code number 4.2.3 paragraph 4 of the German Corporate Governance Code according to which care shall be taken to ensure that payments made to a Management Board member on premature termination of his/her contract, including fringe benefits, do not exceed the value of two years' compensation (severance payment cap) and compensate no more than the remaining term of the employment contract. The severance payment cap shall be calculated on the basis of the total compensation for the past full financial year and, if appropriate, also the expected total compensation for the current financial year. The employment contracts of the members of the Management Board do not contain severance payment arrangements for the case of premature termination of the contract and consequentially do partially not contain a limitation of any severance payment amount insofar. Uniform severance payment arrangements of this kind would contradict the concept practiced by us in accordance with the AktG according to which employment contracts of the members of the Management Board are, in

principle, concluded for the period of their appointment. They would also not allow for a well-balanced assessment in the individual case.

Pursuant to Code number 5.1.2 paragraph 2 sentence 3 of the German Corporate Governance Code, an age limit shall be specified for members of the Management Board. As in the past, we will refrain from determining an age limit for members of the Management Board in the future. Complying with this recommendation would unduly limit the selection of qualified candidates.

Finally, pursuant to Code number 5.4.1 paragraph 2 and paragraph 3 of the German Corporate Governance Code, the Supervisory Board shall specify concrete objectives regarding its composition and shall prepare a profile of skills and expertise for the entire Supervisory Board. Within the company-specific situation the composition of the Supervisory Board shall reflect appropriately the international activities of the company, potential conflicts of interest, the number of independent Supervisory Board members within the meaning of Code number 5.4.2, an age limit and a regular limit to Supervisory Board members' term of office, both to be specified, as well as diversity. Proposals by the Supervisory Board to the General Meeting shall take these targets into account, while simultaneously aiming at fulfilling the profile of skills and expertise of the entire Supervisory Board. The status of the implementation shall be published in the Corporate Governance Report. These recommendations are partly not met. The composition of the Supervisory Board needs to be aligned to the enterprise's interest and has to ensure the effective supervision and consultation of the Management Board. Hence, it is a matter of principle and of prime importance that each member is suitably qualified. When discussing its election proposals to the General Meeting, the Supervisory Board will take into account the international activities of the enterprise, potential conflicts of interest, the number of independent Supervisory Board members within the meaning of Code number 5.4.2, and diversity, while simultaneously aiming at fulfilling the profile of skills and expertise of the entire Supervisory Board. In the enterprise's interest not to limit the selection of qualified candidates in a general way, the Supervisory Board, however, confines itself to pursue self-defined targets for the representation of female Supervisory Board members and particularly refrains from an age limit and from a duration limit on the term of membership. Instead, the Supervisory Board shall also consist of members with long-term experience and thus individuals who are generally older in order to ensure a balanced ratio of Supervisory Board members of diverse age and various terms of membership.

Pursuant to the act on the equal participation of women and men in executive positions in private companies, the Supervisory Board of Fresenius Medical Care AG & Co. KGaA is required to define targets for the inclusion of women on the Supervisory Board as well as an adequate implementation period to achieve these targets. The Supervisory Board of Fresenius Medical Care AG & Co. KGaA resolved to set the target for women as Supervisory Board members at two until June 30, 2017. By resolution passed on May 9, 2017, the Supervisory Board of Fresenius Medical Care AG & Co. KGaA has set this target at 30% and has defined an implementation period ending on May 9, 2022. With Dr. Dorothea Wenzel and Ms. Pascale Witz serving as members of the Supervisory Board of Fresenius Medical Care & Co. KGaA, the Supervisory Board is currently achieving its target. See Item 6, "Directors, senior management and employees." The legislation does not require that companies in our legal form define targets for women's participation on the Management Board.

As noted in the Introduction, as a company listed on the NYSE, we are required to maintain an audit committee in accordance with Rule 10A-3 under the Exchange Act. The NYSE's listing standards applicable to U.S. domestic listed companies, which do not apply to us, require that such companies also maintain a nominating committee to select nominees to the board of directors and a compensation committee, each consisting solely of directors who are "independent" as defined in the NYSE's governance rules.

In contrast to U.S. practice, with one exception, German corporate law does not mandate the creation of specific supervisory board committees, independent or otherwise. In certain cases, German corporations are required to establish what is called a mediation committee with a charter to resolve any disputes among the members of the supervisory board that may arise in connection with the appointment or dismissal of members of the management board. The AktG provides that the supervisory board may establish, and the German Corporate Governance Code recommends that a supervisory board establish, an audit committee to handle the formal engagement of the company's independent auditors once they have been approved by the general meeting of shareholders. Under the AktG, an audit committee should supervise the monitoring of the accounting process, the effectiveness of the internal control system, the risk management system and the internal audit function as well as the annual auditing, in particular the selection and the independence of the external auditor and the additional services rendered by the external auditor.

Pursuant to Section 319a paragraph 3 of the German Commercial Code, the audit committee is responsible for the pre-approval of legally permitted non-audit services by the auditor. Under the German Corporate Governance Code, the audit committee shall – unless another committee is entrusted therewith – also handle, inter alia, the monitoring of the accounting and the accounting process, the effectiveness of the internal control system, the audit and compliance. Most of these functions are also the responsibility of the audit committee under the NYSE and SEC audit committee rules. Our Audit and Corporate Governance Committee within the Supervisory Board, which functions in each of these areas, also serves as our audit committee as required by SEC Rule 10A-3 and the NYSE rules. It also conducted, with the assistance of independent counsel, an investigation into allegations of conduct in countries outside the U.S. and Germany that resulted in the U.S. government seeking monetary penalties including disgorgement of profits and other remedies, and with respect to which, on March 29, 2019, we entered into a non-prosecution agreement with the U.S. Department of Justice and a separate agreement with the SEC intended to resolve fully and finally the government’s claims against the Company arising from the investigations. See “Item 15.B. Management’s annual report on internal control over financial reporting” and note 22 of the notes to our consolidated financial statements included in this report.

In practice, the supervisory boards of many German companies have also constituted other committees to facilitate the work of the supervisory board. For example, a presidential committee is frequently constituted to deal with executive compensation and nomination issues as well as service agreements with members of the supervisory board. Under the NYSE compensation committee rule, as adopted to implement SEC Rule 10C-1 adopted under the Dodd-Frank Act, NYSE-listed companies must maintain a compensation committee consisting solely of independent directors. Unlike the SEC Audit Committee Rule, which identifies specific factors that preclude independence, under Rule 10C-1, independence is to be determined considering all relevant factors. Under the NYSE rules, foreign private issuers such as FMC-AG & Co. KGaA continue to be exempt from all requirements to maintain an independent compensation committee. At the present time, we do not maintain a compensation committee. These functions are carried out by our General Partner’s supervisory board, as a whole, assisted with respect to compensation matters by its Human Resources Committee which is also responsible for the tasks of a compensation committee. See Item 6.B, “Directors, senior management and employees – Compensation – Compensation of the Management Board” and Item 6.C, “Directors, senior management and employees – Board practices.” We have also established a nomination committee and the Joint Committee (*Gemeinsamer Ausschuss*), the latter being a joint committee of Management AG and FMC-AG & Co. KGaA consisting of two members of each supervisory board to advise and decide on certain extraordinary management measures.

For information regarding the members of our Audit and Corporate Governance Committee as well as the functions of the Audit and Corporate Governance Committee, the Joint Committee, the Nomination Committee, and our General Partner’s Regulatory and Reimbursement Assessment Committee, see Item 6.C, “Directors, senior management and employees – Board practices.”

Item 16H. Mine safety disclosure

Not applicable.

Part III

Item 17. Financial statements

Not applicable. See “Item 18. Financial statements.”

Item 18. Financial statements

The information called for by this item commences on Page F-1.

Item 19. Exhibits

A listing of our exhibits can be found immediately following the notes to the consolidated financial statements included in this report.

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

DATE: February 20, 2020

FRESENIUS MEDICAL CARE AG & Co. KGaA
a partnership limited by shares, represented by:

FRESENIUS MEDICAL CARE MANAGEMENT AG,
its General Partner

By: /s/ RICE POWELL

Name: Rice Powell

Title: Chief Executive Officer and
Chairman of the Management Board of the
General Partner

By: /s/ HELEN GIZA

Name: Helen Giza

Title: Chief Financial Officer and
member of the Management Board of the General
Partner

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Report of Independent Registered Public Accounting Firm

To the Shareholders and Supervisory Board of
Fresenius Medical Care AG & Co. KGaA:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Fresenius Medical Care AG & Co. KGaA and subsidiaries (the “Company”) as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, shareholders’ equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company’s internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 20, 2020 expressed an adverse opinion on the effectiveness of the Company’s internal control over financial reporting.

Change in Accounting Principles

As discussed in Note 1 y) to the consolidated financial statements, the Company has changed its method of accounting for leases as of January 1, 2019 due to the adoption of IFRS 16, *Leases*.

Also, as discussed in Note 1 k) and Note 1 h) to the consolidated financial statements, the Company changed its method of accounting for revenue from contracts with customers and financial instruments as of January 1, 2018 due to the adoption of IFRS 15, *Revenue From Contracts With Customers*, and IFRS 9, *Financial Instruments*, respectively.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Evaluation of goodwill impairment assessment—Latin America

As discussed in Note 11 to the Company's consolidated financial statements, the goodwill balance as of December 31, 2019 was €14,017,255 thousand, representing approximately 43% of total assets. The goodwill associated with the Latin America cash-generating unit ("CGU") was €195,069 thousand. The Company performs an impairment test of goodwill on an annual basis for each cash-generating unit ("CGU") or more frequently if the Company becomes aware of events that occur or if circumstances change that would indicate the carrying value may not be recoverable. The recoverable amount is determined as value in use using a discounted cash flow method, based on the expected cash flows of the CGU.

We identified the evaluation of goodwill impairment assessment of the Latin America CGU as a critical audit matter. A high degree of subjective auditor judgment was needed in evaluating the Company's significant assumptions, including the revenue growth and residual value growth rates, the operating income margins and the after-tax weighted average cost of capital ("WACC") used to calculate the value in use.

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls relating to the Company's goodwill impairment assessment process, including controls over the determination of the estimated revenue growth and residual value growth rates, operating income margins and the after-tax WACC. We compared the Company's historical forecasted budgets with the actual results to assess the Company's ability to accurately forecast. We also assessed the revenue growth and residual value growth rates, and operating income margins by comparing the development of those assumptions to underlying documentation, including patient growth. We performed sensitivity analyses over the revenue growth and residual value growth rates, operating income margin, and the after-tax WACC to evaluate the impact of changes on the recoverable amount. In addition, we involved valuation professionals with specialized skills and knowledge, who assisted in (1) evaluating the Company's after-tax WACC, by comparing it against an after-tax WACC range that was independently developed using publicly available data for comparable entities; and (2) developing an estimate of the recoverable amount using the cash flow forecast for the Latin America CGU and the independently developed after-tax WACC range and comparing the result to the Company's carrying amount.

Assessment of the valuation of the technology intangible assets acquired through NxStage purchase

As discussed in Note 3 to the consolidated financial statements, the Company completed its acquisition of NxStage Medical, Inc. ("NxStage") on February 21, 2019. The total acquisition value of this business combination, net of cash acquired, was \$1,976,236 thousand (€1,740,563 thousand at date of closing). The transaction was accounted for using the acquisition method of accounting for business combinations, and the fair value of the technology intangible assets acquired was \$660,300 thousand.

We identified the assessment of the valuation of the technology intangible assets acquired through the NxStage purchase as a critical audit matter. Due to the estimation uncertainty, there was a high degree of complex auditor judgment and specialized skills and knowledge required in evaluating the fair value of the technology intangible assets, specifically, assumptions relating to revenue growth rates, cost of goods sold as a percentage of revenue ("gross margin") adjusted for market participant synergy assumptions associated with manufacturing savings.

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls relating to the valuation of the acquired technology intangible assets, including controls over the development of the significant assumptions listed above. We evaluated the Company's revenue growth rate and gross margin by comparing those assumptions to the historical revenue and gross margin results of the acquired business and those of the Company's comparable entities and industry reports within the medical device and healthcare industry. We tested forecasted synergies associated with manufacturing savings by (i) examining the underlying invoices and unit prices in the perpetual inventory listing for select products; (ii) inspecting the Company's meeting presentations discussing detailed plans for a selection of product improvements; and (iii) comparing expected volumes to be produced to actual production volume in the current year.

We have served as the Company's auditor since 1996.

/s/ KPMG AG Wirtschaftsprüfungsgesellschaft

Frankfurt am Main, Germany

February 20, 2020

Report of Independent Registered Public Accounting Firm

To the Shareholders and Supervisory Board of
Fresenius Medical Care AG & Co. KGaA:

Opinion on Internal Control Over Financial Reporting

We have audited Fresenius Medical Care AG & Co. KGaA's and subsidiaries' (the "Company") internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, because of the effect of the material weakness, described below, on the achievement of the objectives of the control criteria, the Company has not maintained effective internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the "consolidated financial statements"), and our report dated February 20, 2020 expressed an unqualified opinion on those consolidated financial statements.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. A material weakness related to revenue recognition specific to estimating the transaction price on certain fee-for-service revenue arrangements, has been identified and included in management's assessment. The material weakness was considered in determining the nature, timing, and extent of audit tests applied in our audit of the 2019 consolidated financial statements, and this report does not affect our report on those consolidated financial statements.

The Company acquired NxStage Medical, Inc. ("NxStage") on February 21, 2019, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2019, NxStage's internal control over financial reporting associated with less than 1% of consolidated total assets, excluding goodwill and intangible assets recorded in connection with the acquisition, and less than 1% of consolidated revenues in the consolidated financial statements of the Company as of and for the year ended December 31, 2019. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of NxStage.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's annual report on internal control over financial reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG AG Wirtschaftsprüfungsgesellschaft

Frankfurt am Main, Germany

February 20, 2020

FRESENIUS MEDICAL CARE AG & Co. KGaA

**Consolidated statements of income
in € thousands (“THOUS”), except per share data**

	<u>Note</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Revenue:				
Health care services		13,872,219	13,264,289	14,531,636
Health care products		<u>3,604,336</u>	<u>3,282,584</u>	<u>3,251,936</u>
	4a, 26	17,476,555	16,546,873	17,783,572
Costs of revenue:				
Health care services		10,483,822	9,899,714	10,347,512
Health care products		<u>1,596,882</u>	<u>1,492,416</u>	<u>1,417,806</u>
		12,080,704	11,392,130	11,765,318
Gross profit		5,395,851	5,154,743	6,018,254
Operating (income) expenses:				
Selling, general and administrative	4b	3,060,732	2,885,220	3,637,780
(Gain) loss related to divestitures of Care				
Coordination activities	4c	(28,788)	(809,003)	(25,763)
Research and development	4d	168,028	114,074	110,997
Income from equity method investees	26	<u>(73,679)</u>	<u>(73,346)</u>	<u>(67,199)</u>
Operating income		2,269,558	3,037,798	2,362,439
Other (income) expense:				
Interest income	4g	(61,617)	(147,409)	(51,375)
Interest expense	4g	<u>491,061</u>	<u>448,471</u>	<u>416,199</u>
Income before income taxes		1,840,114	2,736,736	1,997,615
Income tax expense	4h	401,614	511,079	443,081
Net income		1,438,500	2,225,657	1,554,534
Net income attributable to noncontrolling interests		238,881	243,733	274,746
Net income attributable to shareholders of FMC-AG &Co. KGaA		<u>1,199,619</u>	<u>1,981,924</u>	<u>1,279,788</u>
Basic earnings per share	19	<u>3.96</u>	<u>6.47</u>	<u>4.17</u>
Diluted earnings per share	19	<u>3.96</u>	<u>6.45</u>	<u>4.16</u>

The following notes are an integral part of the consolidated financial statements.

FRESENIUS MEDICAL CARE AG & Co. KGaA
Consolidated statements of comprehensive income
in € THOUS

	<u>Note</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Net income		1,438,500	2,225,657	1,554,534
Other comprehensive income (loss):				
Components that will not be reclassified to profit or loss:				
Actuarial gains (losses) on defined benefit pension plans . .	16,24	(99,613)	(28,070)	6,840
Income tax (expense) benefit related to components of other comprehensive income not reclassified	24	<u>30,245</u>	<u>7,713</u>	<u>(27,393)</u>
		<u>(69,368)</u>	<u>(20,357)</u>	<u>(20,553)</u>
Components that may be reclassified subsequently to profit or loss:				
Gain (loss) related to foreign currency translation	24	263,835	327,317	(1,284,173)
Gain (loss) related to cash flow hedges ⁽¹⁾	23,24	(11,633)	23,560	27,983
Income tax (expense) benefit related to components of other comprehensive income that may be reclassified	24	<u>2,674</u>	<u>(6,734)</u>	<u>(8,407)</u>
		<u>254,876</u>	<u>344,143</u>	<u>(1,264,597)</u>
Other comprehensive income (loss), net of tax		<u>185,508</u>	<u>323,786</u>	<u>(1,285,150)</u>
Total comprehensive income		<u>1,624,008</u>	<u>2,549,443</u>	<u>269,384</u>
Comprehensive income attributable to noncontrolling interests		<u>259,184</u>	<u>285,691</u>	<u>150,611</u>
Comprehensive income attributable to shareholders of FMC-AG & Co. KGaA		<u>1,364,824</u>	<u>2,263,752</u>	<u>118,773</u>

(1) Including cost of hedging in the amount of €(1,962) and €(1,335) for the twelve months ended December 31, 2019 and 2018.

The following notes are an integral part of the consolidated financial statements.

FRESENIUS MEDICAL CARE AG & Co. KGaA

**Consolidated balance sheets
in € THOUS, except share data**

	Note	2019	2018
Assets			
Cash and cash equivalents	6	1,007,723	2,145,632
Trade accounts and other receivables	7	3,421,346	3,231,500
Accounts receivable from related parties	5	159,196	198,868
Inventories	8	1,663,278	1,466,803
Other current assets	9	913,603	804,083
Total current assets		7,165,146	7,846,886
Property, plant and equipment	10	4,190,281	3,836,010
Right-of-use assets	21	4,325,115	—
Intangible assets	11	1,426,330	681,331
Goodwill	11	14,017,255	12,209,606
Deferred taxes	4h	361,196	345,686
Investment in equity method investees		696,872	649,780
Other non-current assets		752,540	672,969
Total non-current assets		25,769,589	18,395,382
Total assets		32,934,735	26,242,268
Liabilities			
Accounts payable		716,526	641,271
Accounts payable to related parties	5	118,663	153,781
Current provisions and other current liabilities	12	2,812,419	2,904,288
Short-term debt	13	1,149,988	1,205,294
Short-term debt from related parties	13	21,865	188,900
Current portion of long-term debt	14	1,447,239	1,106,519
Current portion of long-term lease liabilities	21	622,227	—
Current portion of long-term lease liabilities from related parties	5	16,514	—
Income tax payable		101,793	68,229
Total current liabilities		7,007,234	6,268,282
Long-term debt, less current portion	14	6,458,318	5,045,515
Long-term lease liabilities, less current portion	21	3,959,865	—
Long-term lease liabilities from related parties, less current portion	5	106,432	—
Non-current provisions and other non-current liabilities	15	668,747	750,738
Pension liabilities	16	689,195	551,930
Income tax payable		78,005	97,324
Deferred taxes	4h	739,702	626,521
Total non-current liabilities		12,700,264	7,072,028
Total liabilities		19,707,498	13,340,310
Shareholders' equity:			
Ordinary shares, no par value, €1.00 nominal value, 374,165,226 shares authorized, 304,436,876 issued and 298,329,247 outstanding as of December 31, 2019 and 384,822,972 shares authorized, 307,878,652 issued and 306,878,701 outstanding as of December 31, 2018			
	17	304,437	307,879
Treasury stock, at cost	17	(370,502)	(50,993)
Additional paid-in capital	17	3,607,662	3,873,345
Retained earnings	17	9,454,861	8,831,930
Accumulated other comprehensive income (loss)	24	(1,038,545)	(1,203,750)
Total FMC-AG & Co. KGaA shareholders' equity		11,957,913	11,758,411
Noncontrolling interests	17	1,269,324	1,143,547
Total equity		13,227,237	12,901,958
Total liabilities and equity		32,934,735	26,242,268

The following notes are an integral part of the consolidated financial statements.

FRESENIUS MEDICAL CARE AG & Co. KGaA

**Consolidated statements of cash flows
in € THOUS**

	Note	2019	2018	2017
Operating activities				
Net income		1,438,500	2,225,657	1,554,534
Adjustments to reconcile net income to net cash provided by operating activities:				
Depreciation, amortization and impairment loss	10, 11, 21, 26	1,593,160	789,566	735,479
Change in deferred taxes, net		64,266	89,171	(203,046)
(Gain) loss from the sale of fixed assets, right-of-use assets, investments and divestitures		(99,074)	(807,106)	(94,123)
Compensation expense related to share-based plans	20	1,992	10,745	46,811
Cash inflow (outflow) from hedging		(12,744)	—	—
Investments in equity method investees, net		(27,657)	(28,369)	(57,009)
Interest expense, net	4 g	429,444	301,062	364,824
Changes in assets and liabilities, net of amounts from businesses acquired:				
Trade accounts and other receivables		(105,828)	(164,685)	(131,676)
Inventories		(117,504)	(157,092)	(62,692)
Other current and non-current assets		(46,132)	(12,561)	227,490
Accounts receivable from related parties		41,717	(5,805)	32,614
Accounts payable to related parties		(35,861)	4,480	(110,375)
Accounts payable, provisions and other current and non-current liabilities		(128,906)	(84,561)	222,302
Paid interest		(470,223)	(311,971)	(340,632)
Received interest		49,453	56,809	37,601
Income tax payable		380,067	514,957	644,866
Paid income taxes		(387,719)	(358,386)	(675,157)
Net cash provided by (used in) operating activities		<u>2,566,951</u>	<u>2,061,911</u>	<u>2,191,811</u>
Investing activities				
Purchases of property, plant and equipment		(1,124,791)	(1,057,276)	(944,460)
Proceeds from sale of property, plant and equipment		11,535	54,529	103,225
Acquisitions and investments, net of cash acquired, and purchases of intangible assets	3, 25	(2,232,671)	(925,267)	(565,694)
Proceeds from divestitures	3, 25	59,940	1,682,975	415,388
Net cash provided by (used in) investing activities		<u>(3,285,987)</u>	<u>(245,039)</u>	<u>(991,541)</u>
Financing activities				
Proceeds from short-term debt		737,409	650,634	443,996
Repayments of short-term debt		(807,807)	(205,790)	(241,309)
Proceeds from short-term debt from related parties		281,200	217,646	122,079
Repayments of short-term debt from related parties		(448,311)	(37,746)	(116,079)
Proceeds from long-term debt		3,460,805	612,388	582,311
Repayments of long-term debt		(2,217,005)	(1,076,204)	(1,099,329)
Repayments of lease liabilities		(671,403)	—	—
Repayments of lease liabilities from related parties		(16,340)	—	—
Increase (decrease) of accounts receivable securitization program		381,430	(298,912)	157,564
Proceeds from exercise of stock options		15,864	47,404	47,591
Purchase of treasury stock	17	(599,796)	(37,221)	(57,938)
Dividends paid	17	(354,636)	(324,838)	(293,973)
Distributions to noncontrolling interests		(296,168)	(296,293)	(386,340)
Contributions from noncontrolling interests		68,125	67,196	42,797
Net cash provided by (used in) financing activities		<u>(466,633)</u>	<u>(681,736)</u>	<u>(798,630)</u>
Effect of exchange rate changes on cash and cash equivalents		47,760	32,387	(132,413)
Cash and cash equivalents:				
Net increase (decrease) in cash and cash equivalents		(1,137,909)	1,167,523	269,227
Cash and cash equivalents at beginning of period		2,145,632	978,109	708,882
Cash and cash equivalents at end of period	6	<u>1,007,723</u>	<u>2,145,632</u>	<u>978,109</u>

The following notes are an integral part of the consolidated financial statements.

FRESENIUS MEDICAL CARE AG & Co. KGaA

**Consolidated statements of shareholders' equity
in € THOUS, except share data**

	Note	Ordinary shares		Treasury stock		Additional paid in capital	Retained earnings	Accumulated other comprehensive income (loss)			Total FMC-AG & Co. KGaA shareholders' equity	Noncontrolling interests	Total equity
		Number of shares	No par value	Number of shares	Amount			Foreign currency translation	Cash flow hedges	Pensions			
Balance at December 31, 2016		<u>307,221,791</u>	<u>307,222</u>	<u>(999,951)</u>	<u>(50,993)</u>	<u>3,960,115</u>	<u>6,085,876</u>	<u>(26,019)</u>	<u>(38,107)</u>	<u>(260,437)</u>	<u>9,977,657</u>	<u>1,073,475</u>	<u>11,051,132</u>
Proceeds from exercise of options and related tax effects	20	889,209	889	—	—	42,944	—	—	—	—	43,833	—	43,833
Compensation expense related to stock options	20	—	—	—	—	11,736	—	—	—	—	11,736	—	11,736
Purchase of treasury stock	17	—	—	(660,000)	(57,938)	—	—	—	—	—	(57,938)	—	(57,938)
Dividends paid	17	—	—	—	—	—	(293,973)	—	—	—	(293,973)	—	(293,973)
Purchase/ sale of noncontrolling interests	—	—	—	—	—	(45,550)	—	—	—	—	(45,550)	28,421	(17,129)
Contributions from/ to noncontrolling interests	—	—	—	—	—	—	—	—	—	—	—	(244,423)	(244,423)
Noncontrolling interests subject to put provisions	23	—	—	—	—	—	65,564	—	—	—	65,564	—	65,564
Net Income	—	—	—	—	—	—	1,279,788	—	—	—	1,279,788	274,746	1,554,534
Other comprehensive income (loss) related to:													
Foreign currency translation	24	—	—	—	—	—	—	(1,177,885)	195	17,652	(1,160,038)	(124,135)	(1,284,173)
Cash flow hedges, net of related tax effects	24	—	—	—	—	—	—	—	19,576	—	19,576	—	19,576
Pensions, net of related tax effects	16	—	—	—	—	—	—	—	—	(20,553)	(20,553)	—	(20,553)
Comprehensive income		—	—	—	—	—	—	—	—	—	118,773	150,611	269,384
Balance at December 31, 2017		<u>308,111,000</u>	<u>308,111</u>	<u>(1,659,951)</u>	<u>(108,931)</u>	<u>3,969,245</u>	<u>7,137,255</u>	<u>(1,203,904)</u>	<u>(18,336)</u>	<u>(263,338)</u>	<u>9,820,102</u>	<u>1,008,084</u>	<u>10,828,186</u>
Adjustment due to initial application of IFRS 9		—	—	—	—	—	(5,076)	—	—	—	(5,076)	—	(5,076)
Adjusted balance at December 31, 2017		<u>308,111,000</u>	<u>308,111</u>	<u>(1,659,951)</u>	<u>(108,931)</u>	<u>3,969,245</u>	<u>7,132,179</u>	<u>(1,203,904)</u>	<u>(18,336)</u>	<u>(263,338)</u>	<u>9,815,026</u>	<u>1,008,084</u>	<u>10,823,110</u>
Proceeds from exercise of options and related tax effects	20	858,652	859	—	—	37,918	—	—	—	—	38,777	—	38,777
Compensation expense related to stock options	20	—	—	—	—	6,713	—	—	—	—	6,713	—	6,713
Purchase of treasury stock	17	—	—	(431,000)	(37,221)	—	—	—	—	—	(37,221)	—	(37,221)
Withdrawal of treasury stock	17	(1,091,000)	(1,091)	1,091,000	95,159	(94,068)	—	—	—	—	—	—	(324,838)
Dividends paid	17	—	—	—	—	—	(324,838)	—	—	—	(324,838)	—	(324,838)
Purchase/ sale of noncontrolling interests	—	—	—	—	—	(46,463)	—	—	—	—	(46,463)	63,939	17,476
Contributions from/ to noncontrolling interests	—	—	—	—	—	—	—	—	—	—	—	(214,167)	(214,167)
Noncontrolling interests subject to put provisions	23	—	—	—	—	—	42,665	—	—	—	42,665	—	42,665
Net Income	—	—	—	—	—	—	1,981,924	—	—	—	1,981,924	243,733	2,225,657
Other comprehensive income (loss) related to:													
Foreign currency translation	24	—	—	—	—	—	—	292,431	(18)	(7,054)	285,359	41,958	327,317
Cash flow hedges, net of related tax effects	24	—	—	—	—	—	—	—	16,826	—	16,826	—	16,826
Pensions, net of related tax effects	16	—	—	—	—	—	—	—	—	(20,357)	(20,357)	—	(20,357)
Comprehensive income		—	—	—	—	—	—	—	—	—	2,263,752	285,691	2,549,443
Balance at December 31, 2018		<u>307,878,652</u>	<u>307,879</u>	<u>(999,951)</u>	<u>(50,993)</u>	<u>3,873,345</u>	<u>8,831,930</u>	<u>(911,473)</u>	<u>(1,528)</u>	<u>(290,749)</u>	<u>11,758,411</u>	<u>1,143,547</u>	<u>12,901,958</u>
Adjustment due to initial application of IFRS 16		—	—	—	—	—	(120,809)	—	—	—	(120,809)	(15,526)	(136,335)
Adjusted balance at December 31, 2018		<u>307,878,652</u>	<u>307,879</u>	<u>(999,951)</u>	<u>(50,993)</u>	<u>3,873,345</u>	<u>8,711,121</u>	<u>(911,473)</u>	<u>(1,528)</u>	<u>(290,749)</u>	<u>11,637,602</u>	<u>1,128,021</u>	<u>12,765,623</u>
Proceeds from exercise of options and related tax effects	20	328,996	329	—	—	16,866	—	—	—	—	17,195	—	17,195
Compensation expense related to stock options	20	—	—	—	—	1,992	—	—	—	—	1,992	—	1,992
Purchase of treasury stock	17	—	—	(8,878,450)	(589,305)	—	—	—	—	—	(589,305)	—	(589,305)
Withdrawal of treasury stock	17	(3,770,772)	(3,771)	3,770,772	269,796	(266,025)	—	—	—	—	—	—	(354,636)
Dividends paid	17	—	—	—	—	—	(354,636)	—	—	—	(354,636)	—	(354,636)
Purchase/ sale of noncontrolling interests	—	—	—	—	—	(18,516)	—	—	—	—	(18,516)	102,341	83,825
Contributions from/ to noncontrolling interests	—	—	—	—	—	—	—	—	—	—	—	(220,222)	(220,222)
Noncontrolling interests subject to put provisions	23	—	—	—	—	—	(101,243)	—	—	—	(101,243)	—	(101,243)
Net Income	—	—	—	—	—	—	1,199,619	—	—	—	1,199,619	238,881	1,438,500
Other comprehensive income (loss) related to:													
Foreign currency translation	24	—	—	—	—	—	—	246,486	27	(2,981)	243,532	20,303	263,835
Cash flow hedges, net of related tax effects	24	—	—	—	—	—	—	—	(8,959)	—	(8,959)	—	(8,959)
Pensions, net of related tax effects	16	—	—	—	—	—	—	—	—	(69,368)	(69,368)	—	(69,368)
Comprehensive income		—	—	—	—	—	—	—	—	—	1,364,824	259,184	1,624,008
Balance at December 31, 2019		<u>304,436,876</u>	<u>304,437</u>	<u>(6,107,629)</u>	<u>(370,502)</u>	<u>3,607,662</u>	<u>9,454,861</u>	<u>(664,987)</u>	<u>(10,460)</u>	<u>(363,098)</u>	<u>11,957,913</u>	<u>1,269,324</u>	<u>13,227,237</u>

The following notes are an integral part of the consolidated financial statements.

FRESENIUS MEDICAL CARE AG & Co. KGaA
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(in THOUS, except share and per share data)

1. The Company, basis of presentation and significant accounting policies

The Company

Fresenius Medical Care AG & Co. KGaA (“FMC-AG & Co. KGaA” or the “Company”), a German partnership limited by shares (Kommanditgesellschaft auf Aktien) registered in the commercial registry of Hof an der Saale under HRB 4019, with its business address at Else-Kröner-Str. 1, 61352 Bad Homburg v. d. Höhe, is the world’s largest kidney dialysis company, based on publicly reported revenue and number of patients treated. The Company provides dialysis treatment and related dialysis care services to persons who suffer from End-Stage Renal Disease (“ESRD”), as well as other health care services. The Company also develops, manufactures and distributes a wide variety of health care products, which includes dialysis and non-dialysis products. The Company’s dialysis products include hemodialysis machines, peritoneal cyclers, dialyzers, peritoneal solutions, hemodialysis concentrates, solutions and granulates, bloodlines, renal pharmaceuticals and systems for water treatment. The Company’s non-dialysis products include acute cardiopulmonary and apheresis products. The Company supplies dialysis clinics it owns, operates or manages with a broad range of products and also sells dialysis products to other dialysis service providers. The Company describes certain of its other health care services as “Care Coordination.” Care Coordination currently includes, but is not limited to, value and risk-based arrangements, pharmacy services, vascular, cardiovascular and endovascular specialty services as well as ambulatory surgery center services, physician nephrology services, urgent care services and ambulant treatment services. All of these Care Coordination services together with dialysis care and related services represent the Company’s health care services.

In these notes, “FMC-AG & Co. KGaA,” the “Company” or the “Group” refers to the Company or the Company and its subsidiaries on a consolidated basis, as the context requires. “Fresenius SE” and “Fresenius SE & Co. KGaA” refer to Fresenius SE & Co. KGaA. “Management AG” and the “General Partner” refer to Fresenius Medical Care Management AG which is FMC-AG & Co. KGaA’s general partner and is wholly owned by Fresenius SE. “Management Board” refers to the members of the management board of Management AG and, except as otherwise specified, “Supervisory Board” refers to the supervisory board of FMC-AG & Co. KGaA. The term “North America Segment” refers to the 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 the Asia-Pacific operating segment, and the term “Latin America Segment” refers to the Latin America operating segment. For further discussion of the Company’s operating segments, see note 26.

Basis of presentation

The consolidated financial statements and other financial information included in the Company’s Annual Report on Form 20-F are prepared solely in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”), using the euro as the Company’s reporting currency. At December 31, 2019, there were no IFRS or International Financial Reporting Interpretations Committee (“IFRIC”) interpretations as endorsed by the European Union relevant for reporting that differed from IFRS as issued by the IASB.

The Company is included in the IFRS consolidated financial statements of Fresenius SE & Co. KGaA, Bad Homburg v. d. Höhe, pursuant to Section 315e of the German Commercial Code (“HGB”), published in the Federal Gazette and drawn up for the smallest circle of companies. The consolidated financial statements for the largest circle of companies are drawn up by Fresenius Management SE, Bad Homburg v. d. Höhe, and also published in the Federal Gazette.

The preparation of consolidated financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Such financial statements reflect all adjustments that, in the opinion of management, are necessary for a fair presentation of the results of the periods presented. All such adjustments are of a normal recurring nature. Estimates and underlying assumptions are reviewed on an ongoing basis.

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Revisions to accounting estimates are recognized in the period in which the estimates are revised and in all future periods affected.

In order to improve clarity of presentation, various items are aggregated in the consolidated balance sheets and consolidated statements of income. These items are analyzed separately in the notes where this provides useful information to the users of the consolidated financial statements.

The consolidated balance sheets contain all information required to be disclosed by IAS 1 (Presentation of Financial Statements) and are in accordance with Accounting Interpretation 1 (“AIC 1”, Balance Sheet Classification according to current/ non-current Distinction in compliance with IAS 1) classified on the basis of the liquidity of assets and liabilities following the consolidated balance sheets. The consolidated statements of income are classified using the cost-of-sales accounting format.

Starting on July 1, 2018, the Company’s subsidiaries in Argentina applied IAS 29, Financial Reporting in Hyperinflationary Economies, due to the inflation in Argentina. Pursuant to IAS 29, the Company recorded a loss on its net monetary position of €23,672 for the year ended December 31, 2019 (2018: €12,297). The Company calculated the loss with the use of the Consumer Price Index (Índice de precios al consumidor) as published by the Argentine Statistics and Census Institute for the year ended December 31, 2019, which lists the level at 283.4 index points, a 54% increase since January 1, 2019.

As a result of the implementation of IFRS 16, Leases, the Company updated its accounting policies. Refer to “Significant accounting policies – f) Leases” and “– y) Recent pronouncements” below for further details on the updated policies.

In the consolidated statements of income “Research and development” expense in the amount of €19,541 and €19,707 for the years ended December 31, 2018 and 2017, respectively, has been reclassified to “Selling, general and administrative” expense to conform to the current year’s presentation.

In the consolidated balances sheets, receivables from ESRD Seamless Care Organizations (“ESCOs”) in the amount of €106,206 as of December 31, 2018 have been reclassified from line item “Trade accounts and other receivables” to line item “Accounts receivable from related parties” to conform to the current year’s presentation. Additionally, the corresponding receivables have been reclassified within the consolidated statements of cash flows from line item “Trade accounts and other receivables” to line item “Accounts receivable from related parties” in the amount of €24,181 and €62,411 for the periods ended December 31, 2018 and 2017, respectively, to conform to the current year’s presentation.

As of December 31, 2018, “Property, plant and equipment” included leased fixed assets of €36,402 recognized in accordance with IAS 17, Leases. These are transferred to the line item “Right-of-use assets” as of the beginning of fiscal year 2019.

As of December 31, 2018, “Current portion of long-term debt” included current lease liabilities from capital leases in accordance with IAS 17 of €9,387. From 2019, these are included in the balance sheet item “Current portion of long-term lease liabilities.”

As of December 31, 2018, “Long-term debt, less current portion” included non-current lease liabilities from capital leases in accordance with IAS 17 of €26,757. From 2019, these are included in the balance sheet item “Long-term lease liabilities, less current portion.”

In the consolidated statement of cash flows, in the comparative information for the period from January 1, 2018 to December 31, 2018, impairment losses in the amount of €64,719 have been reclassified from line item “Other current and non-current assets” to line item “Depreciation, amortization and impairment loss” to conform to the current year’s presentation.

In the consolidated statement of cash flows, in the comparative information for the periods from January 1, 2018 to December 31, 2018, and from January 1, 2017 to December 31, 2017, the line item “Repayments of long-term debt” included repayments of lease liabilities from capital leases in accordance with IAS 17 of €10,015 and €11,717, respectively. In the previous periods this line item was labeled as “Repayments of long-term debt and capital lease obligations.” From 2019, these repayments are included in the line item “Repayments of lease liabilities” in accordance with IFRS 16.

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Certain other items in the prior year's comparative consolidated financial statements have been adjusted to conform to the current year's presentation.

At February 19, 2020, the Management Board authorized the consolidated financial statements for issue and passed it through to the Supervisory Board for review and authorization.

Significant accounting policies

a) Principles of consolidation and composition of the group

The financial statements of consolidated entities have been prepared using uniform accounting methods in accordance with IFRS 10, Consolidated Financial Statements ("IFRS 10"). Acquisitions of companies are accounted for under the purchase method.

Besides FMC-AG & Co. KGaA, the consolidated financial statements include all material subsidiaries according to IFRS 10 and IFRS 11, Joint Arrangements ("IFRS 11"), over which the Company has control. FMC-AG & Co. KGaA controls an entity if it has power over the entity through existing rights that give the Company the current ability to direct the activities that significantly affect the Company's return. In addition, the Company is exposed to, or has rights to, variable returns from the involvement with the entity and the Company has the ability to use its power over the entity to affect the amount of the Company's return.

The equity method is applied in accordance with IAS 28, Investments in Associates and Joint Ventures ("IAS 28"). Generally, equity method investees are entities in which FMC-AG & Co. KGaA, directly or indirectly, holds 50% or less of the voting power and can exercise significant influence over their financial and operating policies.

The disclosure of business acquisitions is performed according to IFRS 3, Business Combinations ("IFRS 3") by offsetting investments in subsidiaries against the underlying revaluated equity at the date of acquisition. The identifiable assets and liabilities of subsidiaries as well as the noncontrolling interests are recognized at their fair values. Any remaining debit balance is recognized as goodwill and is tested at least once a year for impairment. Any excess of the net fair value of identifiable assets and liabilities over cost still existing after reassessing the purchase price allocation is recognized immediately in profit or loss.

All significant intercompany revenues, expenses, income, receivables and payables are eliminated. Profits and losses on items of property, plant and equipment and inventory acquired from other group entities are also eliminated.

Deferred tax assets and liabilities are recognized on temporary differences resulting from consolidation procedures.

Noncontrolling interest ("NCI") is the portion of equity in a subsidiary not attributable, directly or indirectly, to a parent and is recognized at its fair value at the date of first consolidation. Profits and losses attributable to the noncontrolling interests are separately disclosed in the consolidated statements of income.

The Company writes put options on NCI mainly for dialysis clinics in which nephrologists or nephrology groups own an equity interest. While in certain of the dialysis clinics the Company is generally the majority owner, other non-affiliated parties, such as groups of nephrologists or a single nephrologist, hold an NCI position. Generally, the put options associated with this business model are valid for an unlimited time. Accordingly, they do not constrain a long-term investment into a dialysis clinic by the NCI holder. The put options provide for settlement in cash. For these put options, IAS 32, Financial Instruments: Presentation ("IAS 32") paragraph 23 requires the Company to recognize a liability for the present value of the exercise price of the option. The potential purchase price liability is recorded in other current provisions and other current liabilities and other non-current provisions and other non-current liabilities at fair value at the balance sheet date. The exercise price of the option is generally based on fair value which is approximated by a multiple of earnings, e.g. a multiple of the proportionate earnings before interest, taxes, depreciation and amortization of the dialysis clinic, and is therefore affected by the periodic changes in the profitability of such a clinic. The Company believes the accounting treatment of the change in fair value of the put

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liability under IFRS to this date has not been finally clarified. In the absence of an IFRS that specifically applies to the accounting for put options on NCI, the Company, in line with IAS 8, Accounting Policies, Changes in Accounting Estimates and Errors (“IAS 8”) paragraph 10, applied the present access method. According to the present access method, NCI are further recorded in equity. The initial recognition of the purchase price liability, as well as valuation differences, is recorded neutral to profit or loss in equity (see note 1 h). This presentation results in information that is relevant to the economic decision-making needs of users and to provide reliable financial information as the Company sees these NCI with written put options as equity holders and accordingly attributes net income to NCI.

The consolidated financial statements for 2019 include FMC-AG & Co. KGaA as well as 2,215 companies. In 2019, 51 companies were accounted for by the equity method. During 2019, 195 companies were first-time consolidations and 16 companies were deconsolidated.

The complete list of participations in affiliated and associated companies of FMC-AG & Co. KGaA will be submitted to the electronic Federal Gazette and the electronic companies register.

For 2019, the following fully consolidated German subsidiaries of the Company will apply the exemption provided in Section 264 (3) or Section 264b of the HGB and therefore will be exempt from applying certain legal requirements to prepare notes to the statutory standalone financial statements and a management report as well as the requirements of an independent audit and public disclosure.

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Companies exempt from applying certain legal requirements

Name of the company	Registered office of the company
Ärztliches Versorgungszentrum Ludwigshafen GmbH im Lusanum	Ludwigshafen am Rhein, Germany
DiZ München Nephrocare GmbH	Munich, Germany
ET Software Developments GmbH	Heidelberg, Germany
Fresenius Medical Care Beteiligungsgesellschaft mbH	Bad Homburg v. d. Höhe, Germany
Fresenius Medical Care Deutschland GmbH	Bad Homburg v. d. Höhe, Germany
Fresenius Medical Care EMEA Management GmbH	Bad Homburg v. d. Höhe, Germany
Fresenius Medical Care Frankfurt am Main GmbH	Frankfurt am Main, Germany
Fresenius Medical Care GmbH	Bad Homburg v. d. Höhe, Germany
Fresenius Medical Care Investment GmbH	Bad Homburg v. d. Höhe, Germany
Fresenius Medical Care US Beteiligungsgesellschaft mbH	Bad Homburg v. d. Höhe, Germany
Fresenius Medical Care US Vermögensverwaltungs GmbH & Co. KG	Bad Homburg v. d. Höhe, Germany
Fresenius Medical Care US Zwei Vermögensverwaltungs GmbH & Co. KG	Bad Homburg v. d. Höhe, Germany
Fresenius Medical Care Ventures GmbH	Bad Homburg v. d. Höhe, Germany
Medizinisches Versorgungszentrum Berchtesgaden GmbH	Berchtesgaden, Germany
MVZ Gelsenkirchen-Buer GmbH	Gelsenkirchen, Germany
Nephrocare Ahrensburg GmbH	Ahrensburg, Germany
Nephrocare Augsburg GmbH	Augsburg, Germany
Nephrocare Berlin-Weißensee GmbH	Berlin, Germany
Nephrocare Betzdorf GmbH	Betzdorf, Germany
Nephrocare Bielefeld GmbH	Bielefeld, Germany
Nephrocare Buchholz GmbH	Buchholz, Germany
Nephrocare Daun GmbH	Daun, Germany
Nephrocare Deutschland GmbH	Bad Homburg v. d. Höhe, Germany
Nephrocare Döbeln GmbH	Döbeln, Germany
Nephrocare Dortmund, GmbH	Dortmund, Germany
Nephrocare Friedberg GmbH	Friedberg, Germany
Nephrocare Grevenbroich GmbH	Grevenbroich, Germany
Nephrocare Hagen GmbH	Hagen, Germany
Nephrocare Hamburg-Altona GmbH	Hamburg, Germany
Nephrocare Hamburg-Barmbek GmbH	Hamburg, Germany
Nephrocare Hamburg-Süderelbe GmbH	Hamburg, Germany
Nephrocare Ingolstadt GmbH	Ingolstadt, Germany
Nephrocare Kaufering GmbH	Kaufering, Germany
Nephrocare Krefeld GmbH	Krefeld, Germany
Nephrocare Lahr GmbH	Lahr, Germany
Nephrocare Leverkusen GmbH	Leverkusen, Germany
Nephrocare Ludwigshafen GmbH	Ludwigshafen am Rhein, Germany
Nephrocare Mannheim GmbH	Mannheim, Germany
Nephrocare Mönchengladbach GmbH	Mönchengladbach, Germany
Nephrocare Mühlhausen GmbH	Mühlhausen, Germany
Nephrocare München-Ost GmbH	Munich, Germany
Nephrocare Münster GmbH	Münster, Germany
Nephrocare MVZ Aalen GmbH	Aalen, Germany
Nephrocare Oberhausen GmbH	Oberhausen, Germany
Nephrocare Papenburg GmbH	Papenburg, Germany
Nephrocare Pirmasens GmbH	Pirmasens, Germany
Nephrocare Püttlingen GmbH	Püttlingen, Germany
Nephrocare Recklinghausen GmbH	Recklinghausen, Germany
Nephrocare Rostock GmbH	Rostock, Germany
Nephrocare Salzgitter GmbH	Salzgitter, Germany
Nephrocare Schrobenhausen GmbH	Schrobenhausen, Germany
Nephrocare Starnberg GmbH	Starnberg, Germany
Nephrocare Wetzlar GmbH	Wetzlar, Germany
Nephrocare Witten GmbH	Witten, Germany
Nephrologisch-Internistische Versorgung Ingolstadt GmbH	Ingolstadt, Germany
Nova Med GmbH Vertriebsgesellschaft für medizintechnische Geräte und Verbrauchsartikel	Bad Homburg v. d. Höhe, Germany
VIVONIC GmbH	Sailauf, Germany
Zentrum für Nieren- und Hochdruckkrankheiten Bensheim GmbH	Bensheim, Germany

b) Cash and cash equivalents

Cash and cash equivalents comprise cash funds and all short-term investments with original maturities of up to three months. Short-term investments are highly liquid and readily convertible into known amounts of cash. The risk of changes in value is insignificant.

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c) Trade accounts and other receivables

Trade accounts and other receivables are posted at the nominal value less individual allowances for doubtful accounts. For information regarding allowance for doubtful accounts see note 2 c).

d) Inventories

Inventories are stated at the lower of cost (determined by using the average or first-in, first-out method) or net realizable value (see note 8). Costs included in inventories are based on invoiced costs and/or production costs as applicable. Included in production costs are material, direct labor and production overhead, including depreciation charges.

e) Property, plant and equipment

Property, plant, and equipment are stated at cost less accumulated depreciation (see note 10). Maintenance and repair costs (day-to-day servicing) are expensed as incurred. The Company recognizes in the carrying amount of an item of property, plant and equipment the cost of replacing parts and major inspections if it is probable that the future economic benefits associated with the item will flow to the Company and the cost can be measured reliably. Depreciation on property, plant and equipment is calculated using the straight-line method over the estimated useful lives of the assets ranging from 4 to 50 years for buildings and improvements with a weighted average life of 14 years and 3 to 19 years for machinery and equipment with a weighted average life of 10 years. Internal use platform software that is integral to the computer equipment it supports is included in property, plant and equipment.

In fiscal years until 2018, prior to the implementation of IFRS 16, property, plant and equipment under capital leases was stated at the present value of future minimum lease payments at the inception of the lease, less accumulated depreciation. Equipment held under capital leases and leasehold improvements was amortized using the straight-line method over the shorter of the lease term or the estimated useful life of the asset.

f) Leases

A lease is defined as a contract that conveys the right to use an underlying asset for a period of time in exchange for consideration. A contract is or contains a lease if:

- the underlying asset is identified in the contract, and
- the customer has both the right to direct the identified asset's use and to obtain substantially all the economic benefits from that use.

Under IFRS 16, the Company is required to recognize a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments for almost all leases.

The Company decided not to apply the guidance within IFRS 16 to leases with a total maximum term of twelve months (short-term leases) and leases for underlying assets of low-value. These leases are exempt from balance sheet recognition and lease payments will be recognized as expenses over the lease term.

IFRS 16 is not applied to leases of intangible assets.

Lease liabilities

Lease liabilities are initially recognized at the present value of the following payments:

- fixed lease payments (including in-substance fixed payments), less any lease incentives receivable,
- variable lease payments (linked to an index or interest rate),
- expected payments under residual value guarantees,
- the exercise price of purchase options, where exercise is reasonably certain,

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- lease payments in optional renewal periods, where exercise of extension options is reasonably certain, and
- penalty payments for the termination of a lease, if the lease term reflects the exercise of the respective termination option.

Lease payments are discounted using the implicit interest rate underlying the lease if this rate can be readily determined. Otherwise, the incremental borrowing rate is used as the discount rate.

Lease liabilities are subsequently measured at amortised cost using the effective interest method. Furthermore, lease liabilities may be remeasured due to lease modifications or reassessments of the lease. A lease modification is any change in lease terms that was not part of the initial terms and conditions of the lease, including increases of the scope of the lease by adding the right to use one or more underlying assets or extending the contractual lease term, decreases of the scope of the lease by removing the right to use one or more underlying assets or shortening the contractual lease term or changes in the consideration. Reassessments are changes in estimates or changes triggered by a clause that was part of the initial lease contract, including changes in future lease payments arising from a change in an index or rate, change in the Company's estimate of the amount expected to be payable under residual value guarantees or change in the Company's assessment of whether it will exercise purchase, extension or termination options.

A lease modification is accounted for as a separate lease if the modification increases the scope of the lease by adding the right to use one or more underlying assets and the consideration for the lease increases by an amount commensurate with the stand-alone price for the increase in scope. Where a lease modification is accounted for as a separate lease, the respective new lease is recognized at the effective date of the modification based on the illustrated recognition and valuation principles with the initial lease remaining unchanged. Where a lease modification is not accounted for as a separate lease, the initial lease is remeasured.

For most reassessments and lease modifications that are not accounted for a separate lease, lease liabilities are remeasured by discounting the revised lease payments at a revised discount rate. For specific reassessments, the historical interest rate is used.

The revised discount rate is determined at the effective date of the lease modification or the reassessment. When lease liabilities are remeasured in this way, a corresponding remeasurement is made to the carrying amount of the right-of-use asset. Where a lease modification results in a decrease of the scope of the lease, any gain or loss is recognized in profit or loss to reflect the respective partial or full termination of the lease.

For lease contracts that include both lease and non-lease components that are not separable from lease components, no allocation is performed. Each lease component and any associated non-lease components are accounted for as a single lease.

Right-of-use assets

The Company recognises right-of-use asset at the commencement date of the respective lease. Right-of-use asset are stated at cost less accumulated depreciation. Upon initial recognition, cost comprises of:

- the initial lease liability amount,
- initial direct costs incurred when entering into the lease,
- (lease) payments before commencement date of the respective lease, and
- an estimate of costs to dismantle and remove the underlying asset,
- less any lease incentives received.

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Right-of-use assets are depreciated over the shorter of the lease term or the useful life of the underlying asset using the straight-line method. Where a lease agreement includes a transfer of ownership at the end of the lease term or the exercise of a purchase option is deemed reasonably certain, right-of-use assets are depreciated over the useful life of the underlying asset using the straight-line method. In addition, right-of-use assets are reduced by impairment losses, if any, and adjusted for certain remeasurements.

For reassessments and lease modifications that are not accounted for as separate leases, a remeasurement corresponding to the respective remeasurement of the lease liability is recognized (for lease modifications and reassessments, as well as for partial or full termination of a lease please see guidance on “Lease liabilities” above). If the carrying amount of a right-of-use asset is reduced to zero by such remeasurements, the exceeding amount is recorded in profit or loss.

Right-of-use assets are classified into right-of-use assets relating to land, buildings and improvements or machinery and equipment. In addition, prepayments on right-of-use assets are presented separately (see note 21).

g) Intangible assets and goodwill

Intangible assets such as non-compete agreements, technology, distribution rights, patents, licenses to treat, licenses to manufacture, distribute and sell pharmaceutical drugs, exclusive contracts and exclusive licenses, trade names, management contracts, application software, acute care agreements and customer relationships are recognized and reported apart from goodwill (see note 11). Patient relationships, however, are not reported as separate intangible assets due to the missing contractual basis but are part of goodwill.

Goodwill and identifiable intangibles with indefinite useful lives are not amortized but tested for impairment annually or when an event becomes known that could trigger an impairment. The Company identified trade names and certain qualified management contracts as intangible assets with indefinite useful lives because, there is no foreseeable limit to the period over which those assets are expected to generate net cash inflows for the Company.

Intangible assets with finite useful lives are amortized over their respective useful lives to their residual values. The Company amortizes non-compete agreements over their useful life which on average is 8 years. Technology is amortized over its useful life of 12 years. Internally developed intangibles are amortized on a straight-line basis over a useful life of 8 years. Licenses to manufacture, distribute and sell pharmaceutical drugs, exclusive contracts and exclusive licenses are amortized over their useful life which on average is 12 years. Customer relationships are amortized over their useful life of 10 years. All other intangible assets are amortized over their weighted average useful lives of 7 years. The weighted average useful life of all amortizable intangible assets is 10 years. Intangible assets with finite useful lives are evaluated for impairment when events have occurred that may give rise to an impairment (see note 1 o).

To perform the annual impairment test of goodwill, the Company identified its groups of cash generating units (CGUs) and determined their carrying value by assigning the assets and liabilities, including the existing goodwill and intangible assets, to those CGUs. CGUs reflect the lowest level on which goodwill is monitored for internal management purposes.

One CGU was identified in the North America Segment, in the EMEA Segment, in the Asia-Pacific Segment and in the Latin America Segment. For the purpose of goodwill impairment testing, all corporate assets and liabilities are allocated to the CGUs. At least once a year, the Company compares the recoverable amount of each CGU to the CGU's carrying amount. The recoverable amount (value in use) of a CGU is determined using a discounted cash flow approach based upon the cash flow expected to be generated by the CGU. In case that the value in use of the CGU is less than its carrying amount, the difference is at first recorded as an impairment of the carrying amount of the goodwill.

To evaluate the recoverability of intangible assets with indefinite useful lives, the Company compares the fair values of intangible assets with their carrying values. An intangible asset's fair value is determined using a discounted cash flow approach or other methods, if appropriate.

For further information see note 2 a).

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h) Financial instruments

The Company classifies its financial instruments in accordance with IFRS 9 in the following measurement categories: at amortized cost, at fair value through profit and loss (“FVPL”) and at fair value through other comprehensive income (“FVOCI”).

Financial assets are classified depending on the business model in which the financial assets are held and the contractual terms of the cash flows. Financial assets are only reclassified when the business model for managing those assets changes. During the reporting period no financial instruments were reclassified. Purchases and sales of financial assets are accounted for on the trading day. The Company does not make use of the fair value option, which allows financial liabilities to be classified at FVPL upon initial recognition. At initial recognition financial asset and financial liabilities are measured at fair value. Excluded are trade accounts receivables. At initial recognition trade accounts receivables (in accordance with IFRS 15) are measured at their transaction price. Subsequent measurement is either at cost, FVPL or FVOCI.

In general, financial liabilities are classified and subsequently measured at amortized cost, with the exception of contingent considerations resulting from a business combination, noncontrolling interests subject to put provisions as well as derivative financial liabilities.

Investments in equity instruments are recognized and subsequently measured at fair value. The Company’s equity investments are not held for trading. In general, changes in the fair value of equity investments are recognized in the income statement. However, at initial recognition the Company elected, on an instrument-by-instrument basis, to represent subsequent changes in the fair value of individual strategic equity investments in other comprehensive income (loss) (“OCI”).

The Company invested in several debt securities, with the objective to achieve both collecting contractual cash flows and selling the financial assets. All debt securities are consequently measured at fair value. Some of these securities give rise on specified dates to cash flows that are solely payments of principle and interest. These securities are subsequently measured at FVOCI. Other securities are measured at FVPL.

The Company, as option writer on behalf of existing put options, can be obligated to purchase the noncontrolling interests held by third parties. The obligations are in the form of put provisions and are exercisable at the third-party owners’ discretion within specified periods as outlined in each specific put provision. If these put provisions were exercised, the Company would be required to purchase all or part of third-party owners’ noncontrolling interests at the appraised fair value at the time of exercise. The initial recognition and subsequent measurement are recognized in equity. For further information related to the estimation of these fair values, see note 23.

Derivative financial instruments which primarily include foreign currency forward contracts and interest rate swaps are recognized as assets or liabilities at fair value in the balance sheet (see note 23). From time to time, the Company may enter into other types of derivative instruments which are dealt with on a transaction by transaction basis.

Changes in the fair value of derivative financial instruments classified as cash flow hedges are recognized in accumulated OCI (“AOCI”) in shareholders’ equity. The Company only designated the change in fair value of the spot element of foreign exchange forward contracts as the hedging instrument in cash flow hedging relationships. The forward elements are separately accounted for as cost of hedging in a separate component within AOCI. The ineffective portion of cash flow hedge is recognized in the income statement. The change in fair value of derivatives that do not qualify for hedge accounting is recorded in the income statement and usually offsets the changes in value recorded in the income statement for the underlying asset or liability.

Derivatives embedded in host contracts are accounted for as separate derivatives if their economic characteristics and risks are not closely related to those of the host contracts. These embedded derivatives are measured at fair value with changes in fair value recognized in the income statement.

Before January 1, 2018, the following categories according to IAS 39, Financial Instruments: Recognition and Measurement (“IAS 39”) were relevant for the Company: loans and receivables, financial liabilities

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measured at amortized cost, available for sale financial assets as well as financial assets/liabilities measured at fair value through profit or loss. All other categories were immaterial or not existing.

The Company regularly reviewed if objective substantial evidence occurred that would indicate an impairment of a financial asset or a portfolio of financial assets. After testing the recoverability of these assets, a possible impairment loss was recorded in the consolidated statement of income. Gains and losses of available for sale financial assets were recognized in AOCI in shareholders' equity until the financial asset was disposed of or if it was considered to be impaired. In these cases, the accumulated net loss recorded in AOCI was transferred to the income statement.

Changes in the fair value of derivative financial instruments classified as fair value hedges and in the corresponding underlying assets and liabilities were recognized periodically in earnings, while the effective portion of changes in fair value of derivative financial instruments classified as cash flow hedges were recognized in AOCI in shareholders' equity. All amounts recorded in AOCI were subsequently reclassified and recorded in the consolidated statement of income.

i) Impairment of financial assets

The impairment of financial assets is based on the expected credit loss approach, as introduced by IFRS 9. Prior to the introduction of IFRS 9, the incurred loss model of IAS 39 required the recognition of an allowance once a loss event occurred. An additional allowance was recorded based on individual country risk for receivables overdue by more than one year. IFRS 9 replaces the incurred loss model under IAS 39 with an expected credit loss approach.

The expected credit loss approach requires that all impacted financial assets will carry a loss allowance based on their expected credit losses. Expected credit losses are a probability-weighted estimate of credit losses over the contractual life of the financial assets.

This model comprises a three-stage approach. Upon recognition, the Company shall recognize losses that are expected within the next 12 months. If credit risk deteriorates significantly, from that time, impairment losses shall amount to lifetime expected losses. When assessing for significant increases in credit risk, the Company shall compare the risk of a default occurring on the financial instrument at the reporting date with the risk of a default occurring on the financial instrument at the date of initial recognition. The Company should consider reasonable and supportable information including historic loss rates, present developments such as liquidity issues and information about future economic conditions, to ensure foreseeable changes in the customer-specific or macroeconomic environment are considered. Separately, there is the rebuttable presumption that the credit risk has increased significantly since the initial recognition when contractual payments are overdue by more than 30 days.

In case of objective evidence of impairment there is an assignment to stage 3. The assignment of a financial asset to stage 3 should rely on qualitative knowledge on the customers' unfavorable financial position (for example bankruptcy, lawsuits with private or public payers), or quantitative criteria, based on an individual maturity analysis. Independently, there is an assignment to stage 3 if the contractual payments are overdue by more than 360 days. When a counterpart defaults, all financial assets against this counterpart are considered impaired. The definition of default is mainly based on payment practices specific to individual regions and businesses.

The Company recognizes a loss allowance for expected credit losses on financial assets measured at amortized cost, contract assets and lease receivables as well as in investments in debt securities measured at fair value through other comprehensive income. The financial assets mainly comprise trade accounts and other receivables as well as cash and cash equivalents. The amount of expected credit losses is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective instrument. Financial assets whose expected credit loss is not assessed individually are grouped on the basis of geographical regions and the impairment is generally assessed on the basis of macroeconomic indicators such as credit default swaps.

For trade accounts receivable, the Company uses the simplified method which requires recognizing lifetime expected credit losses at inception. However, expected credit losses on cash and cash equivalents

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are measured according to the general method which is based on 12-month expected credit losses. Due to the short maturity term of the financial instruments this corresponds with the lifetime expected loss.

Based on the external credit ratings of the counterparties the Company considers that its cash and cash equivalents have a low credit risk.

j) Foreign currency translation

For purposes of these consolidated financial statements, the euro is the reporting currency. The requirement to report in euro arises from Section 315e and Section 244 HGB. Substantially all assets and liabilities of foreign subsidiaries, that use a functional currency other than the euro, are translated at year-end exchange rates, while revenues and expenses are translated at average exchange rates. Adjustments for foreign currency translation fluctuations are excluded from net earnings and are reported in AOCI. In addition, the translation adjustments of certain intercompany borrowings, which are of a long-term nature, are reported in AOCI.

The exchange rates of the U.S. dollar affecting foreign currency translation developed as follows:

<u>Exchange rates</u>	<u>December 31, 2019 spot exchange rate in €</u>	<u>December 31, 2018 spot exchange rate in €</u>	<u>2019 average exchange rate in €</u>	<u>2018 average exchange rate in €</u>	<u>2017 average exchange rate in €</u>
1 U.S. dollar	0.89015	0.87336	0.89328	0.84678	0.88519

k) Revenue recognition

The Company has adopted IFRS 15 as of January 1, 2018, which resulted in changes in accounting policies. In accordance with the transition provisions in IFRS 15, the new rules have been adopted only to those contracts that are not considered completed contracts as of January 1, 2018 following the cumulative effect method with no restatement of the comparative periods presented.

For both health care services revenue and health care products revenue, patients, third party payors and customers are billed at our standard rates net of contractual allowances, discounts or rebates to reflect the estimated amounts to be receivable from these payors.

Health care services

Health care services revenue, other than the hospitalist and insurance revenues discussed below, are recognized on the date the patient receives treatment and includes amounts related to certain services, products and supplies utilized in providing such treatment. The patient is obligated to pay for health care services at amounts estimated to be receivable based upon the Company's standard rates or at rates determined under reimbursement arrangements. In the U.S., these arrangements are generally with third party payors, such as Medicare, Medicaid or commercial insurers. Outside the U.S., the reimbursement is usually made through national or local government programs with reimbursement rates established by statute or regulation.

Prior to the divestiture of the Company's controlling interest in Sound Inpatient Physicians, Inc. ("Sound") on June 28, 2018, hospitalist revenues in the U.S. were reported at the estimated net realizable amount from third-party payors, client hospitals, and others at the time services were provided. Third-party payors included federal and state agencies (under the Medicare and Medicaid programs), managed care health plans, and commercial insurance companies. Inpatient acute care services rendered to Medicare and Medicaid program beneficiaries were paid according to a fee-for-service schedule. These rates varied according to a patient classification system that was based on clinical, diagnostic and other factors. Inpatient acute services generated through payment arrangements with managed care health plans and commercial insurance companies were recorded on an accrual basis in the period in which services were provided at established rates.

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For services performed for patients where the collection of the billed amount or a portion of the billed amount cannot be determined at the time services are performed the Company concludes that the consideration is variable (“implicit price concession”) and records the difference between the billed amount and the amount estimated to be collectible as a reduction to health care services revenue, whereas prior to the adoption of IFRS 15 it was recorded as part of selling, general and administrative expenses as an allowance for doubtful accounts. Implicit price concessions include such items as amounts due from patients without adequate insurance coverage, patient co-payment and deductible amounts due from patients with health care coverage. The Company determines implicit price concessions based primarily upon past collection history. Upon receipt of new information relevant for the determination of the implicit price concession, the Company constrains, or adjusts the constraints for the variable consideration of the transaction price.

In the U.S., the Company generates revenue from insurance contracts in accordance with IFRS 4, Insurance Contracts (“IFRS 4”). Insurance premium revenue is recognized as earned each month and risk adjustments are offset against revenue. Prior to January 1, 2019, in the U.S the Company provided Medicare Advantage ESRD Chronic Conditions Special Needs Plan products. These were Medicare Advantage health plans offered by the Company that contracted with the Centers for Medicare and Medicaid Services (“CMS”) to provide patients with Medicare benefits and receive capitated payments from CMS. Furthermore, the Company has also entered into sub-capitation and other shared savings arrangements with certain payors.

Revenue from insurance contracts is disclosed as part of “Other revenue” separately from “Revenue from contracts with customers” in the notes to the consolidated financial statements.

Health care products

In the health care product business, major revenues are generated from the sale of dialysis machines and water treatment systems, home hemodialysis products, disposable products and maintenance agreements for the Company’s health care products. Revenues from the sale of dialysis machines and water treatment system are typically recognized upon installation and provision of the necessary technical instructions as only thereafter the customer obtains control of the medical device whereas prior to the adoption of IFRS 15 revenues were recorded upon transfer of title to the customer, either at the time of shipment, upon receipt or upon any other terms that clearly define passage of title. A small portion of the Company’s revenue is recognized from sales of dialysis machines, home hemodialysis products and other products used for in-center hemodialysis treatment to distributors. When the distributor is the principal in the contract, the revenue allocated to the machine or the products will be recognized upon transfer of title to the distributor. In case the Company is committed to perform the installation, revenue allocated to the installation would be recorded separately upon installation of the machine at the end-customers’ premises. In case the distributor is only an agent in the contract, revenue for sale of the machine would be recorded upon installation.

Under consignment arrangements revenue is recognized upon withdrawal of the products by the customer.

Maintenance is provided over time, and as such revenue is typically recognized on a straight-line basis.

All other dialysis and non-dialysis product revenues are recognized upon transfer of title to the customer. Product revenues are normally based upon pre-determined rates that are established by contractual arrangement.

A portion of dialysis product revenues is generated from arrangements which give the customer, typically a health care provider, the right to use dialysis machines. In the same contract the customer agrees to purchase the related treatment disposables at a price marked up from the standard price list. If the right to use the machine is conveyed through an operating lease and the customer agrees to purchase a minimum number of related treatment disposables, FMC-AG & Co. KGaA does not recognize revenue upon delivery of the dialysis machine but recognizes revenue on the sale of disposables upon transfer of control with revenue for the use of dialysis machines recognized straight-line over the term of the lease contract. When there is no such agreement that the customer purchases a minimum number of related treatment

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disposables, revenue is recognized only on the sale of disposables unless the timing of the first purchase order of related treatment disposables justifies a combination of contracts according to IFRS 15.

If the lease of the machines is a finance lease, ownership of the dialysis machine is transferred to the user upon installation of the dialysis machine at the customer site. In this type of contract, revenue is recognized in accordance with the accounting principles for finance leases.

For certain home-dialysis products the Company offers month-to month rental arrangements, where revenue is recognized on a monthly basis.

In addition, for some licensing agreements and equipment sales to dialysis clinic customers in the area of home-dialysis, the Company recognizes upfront fees received as lease revenue on a straight-line basis over the term of the contract.

IFRS 15 specifically excludes leases from the scope of the revenue standard. Therefore, the transaction price is allocated in accordance with IFRS 15, and revenue is recognized separately for the lease and the non-lease components of the contract in accordance with IFRS 16.

Revenue from lease contracts is disclosed as part of “Other revenue” separately from “Revenue from contracts with customers” in the notes to the consolidated financial statements.

l) Capitalized interest

The Company includes capitalized interest as part of the cost of the asset if it is directly attributable to the acquisition, construction or manufacture of qualifying assets. For the fiscal years 2019, 2018 and 2017, interest of €7,240, €5,724 and €4,758, based on an average interest rate of 3.84%, 4.03% and 4.19%, respectively, was recognized as a component of the cost of assets.

m) Research and development expenses

Research is the original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge. Development is the technical and commercial implementation of research results and takes place before the start of commercial production or use. Research costs are expensed as incurred. Development costs that fully meet the criteria for the recognition of an intangible asset set out in IAS 38, Intangible Assets (“IAS 38”) are capitalized as intangible asset.

n) Income taxes

Current taxes are calculated based on the profit (loss) of the fiscal year and in accordance with local tax rules of the respective tax jurisdictions. Expected and executed additional tax payments and tax refunds for prior years are also taken into account.

Deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the single entity’s financial statement carrying amounts of existing assets and liabilities and their respective tax basis, tax credits and tax loss carryforwards which are probable to be utilized. Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates that have been enacted or substantially enacted by the end of the reporting period. A change in tax rate for the calculation of deferred tax assets and liabilities is recognized in the period the new laws are enacted or substantively enacted. The effects of the adjustment are generally recognized in the income statement. The effects of the adjustment are recognized in equity, if the temporary differences are related to items directly recognized in equity.

Deferred tax liabilities are not recognized if they arise from the initial recognition of goodwill. In addition, deferred tax assets and liabilities are not recognized if they arise from the initial recognition of an asset or a liability in a transaction other than a business combination that at the time of the transaction affects neither accounting profit nor taxable profit or loss.

The carrying amount of a deferred tax asset is reviewed at each balance sheet date. A deferred tax asset is recognized to the extent that the utilization of parts or all of it is probable because sufficient taxable profit

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will be available (see note 4 h). The determination of future taxable income is based on assumptions on future market conditions and future profits of FMC-AG & Co. KGaA and considers all currently available information as well as the level of historical taxable income. In addition, the determination of the recoverable amount of deferred tax assets considers implemented tax strategies.

The Company recognizes assets and liabilities for uncertain tax treatments to the extent it is probable the tax will be recovered or that the tax will be payable, respectively.

In North America and Germany, interest and penalties related to income taxes, including uncertain tax treatments, do not meet the definition of income taxes, and therefore are accounted for under IAS 37. All other jurisdictions account for interest and penalties related to income taxes in accordance with local tax rules of the respective tax jurisdiction either under IAS 37 or as income tax expense under IAS 12.

o) Impairment

The Company reviews the carrying amount of its property, plant and equipment, its intangible assets with definite useful lives, its right-of-use assets as well as other non-current assets for impairment whenever events or changes in circumstances indicate that the carrying amount is higher than the asset's net realizable value or its value in use in accordance with IAS 36, Impairment of Assets ("IAS 36"). The net realizable value of an asset is defined as its fair value less costs to sell. The value in use is the present value of future cash flows expected to be derived from the relevant asset. If it is not possible to estimate the future cash flows from the individual assets, impairment is tested on the basis of the future cash flows of the corresponding CGUs.

Impairment losses, except impairment losses recognized on goodwill, are reversed up to the amount of the amortised acquisition cost, as soon as the reasons for impairment no longer exist.

Long-lived assets to be disposed of by sale are reported at the lower of carrying value or fair value less cost to sell and depreciation is ceased. Long-lived assets to be disposed of other than by sale are considered to be held and used until disposal.

p) Debt issuance costs

Debt issuance costs related to a recognized debt liability are presented on the balance sheet as a direct deduction from the carrying amount of that debt liability. These costs are amortized over the term of the related obligation (see note 14).

q) Self-insurance programs

See note 2 d).

r) Concentration of risk

The Company is engaged in the manufacture and sale of products for all forms of kidney dialysis, principally to health care providers throughout the world, and in providing kidney dialysis treatment. The Company also provides additional health care services under Care Coordination. The Company performs ongoing evaluations of its customers' financial condition and, generally, requires no collateral.

Revenues which were earned and subject to regulations under Medicare and Medicaid, governmental health care programs administered by the United States government, were approximately 33%, 33%, and 34% of the Company's worldwide revenues in 2019, 2018 and 2017, respectively.

See note 2 c) for concentration risks of debtors or group of debtors as well as note 8 for discussion of suppliers with long-term purchase commitments.

s) Legal contingencies

See note 2 b).

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t) Other provisions

In accordance with IAS 12 and IAS 37, accruals for taxes and other obligations are recognized when there is a present obligation to a third party arising from past events, it is probable that the obligation will be settled in the future and the required amount can be reliably estimated. Provisions by their nature are more uncertain than most other items in the statement of financial position.

Tax accruals include obligations for the current year and for prior periods.

Non-current provisions with a remaining period of more than one year are discounted to the present value of the expenditures expected to settle the obligation.

u) Earnings per share

Basic earnings per share is calculated in accordance with IAS 33, Earnings per Share (“IAS 33”). Basic earnings per share is calculated by dividing net income attributable to shareholders by the weighted average number of shares outstanding during the year. Diluted earnings per share include the effect of all potentially dilutive instruments on shares that would have been outstanding during the years presented had the dilutive instruments been issued. For the calculation of basic earnings per share, treasury stock is not considered outstanding and is therefore deducted from the number of shares outstanding.

Equity-settled awards granted under the Company’s stock incentive plans (see note 20), are potentially dilutive equity instruments.

v) Treasury stock

The Company may, from time to time, acquire its own shares (“Treasury Stock”) as approved by its shareholders. The acquisition, sale or retirement of its Treasury Stock is recorded separately in equity. The value of such Treasury Stock is shown as a reduction of the Company’s equity.

w) Employee benefit plans

Pension obligations for post-employment benefits are measured in accordance with IAS 19 (revised 2011), Employee Benefits (“IAS 19”), using the projected unit credit method, taking into account future salary and trends for pension increase.

The Company uses December 31 as the measurement date when measuring the deficit or surplus of all plans.

For the Company’s funded benefit plans the defined benefit obligation is offset against the fair value of plan assets (deficit or surplus). A pension liability is recognized in the consolidated balance sheet if the defined benefit obligation exceeds the fair value of plan assets. A pension asset is recognized (and reported under “Other non-current assets” in the consolidated balance sheet) if the fair value of plan assets exceeds the defined benefit obligation and if the Company has a right of reimbursement against the fund or a right to reduce future payments to the fund.

Net interest costs are calculated by multiplying the benefit obligation (fair value of plan assets) at beginning of the year with the discount rate utilized in determining the benefit obligation.

Remeasurements include actuarial gains and losses resulting from the evaluation of the defined benefit obligation as well as from the difference between actual investment returns and the return implied by the net interest cost. In the event of a surplus for a defined benefit pension plan remeasurements can also contain the effect from asset ceiling, as far as this effect is not included in net interest costs.

Remeasurements are recognized in AOCI completely. It is not allowed to reclassify the remeasurements in subsequent periods. Components of net periodic benefit cost are recognized in profit and loss of the period.

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x) Share-based plans

The grant date fair value of stock options and convertible equity instruments that are settled by delivering equity instruments granted to the Management Board and executive employees of the Group entities by FMC-AG & Co. KGaA is measured in accordance with IFRS 2, Share-based Payment (“IFRS 2”) using the binominal option pricing model and recognized as expense over the vesting period of the stock option plans. For certain exceptions a shorter vesting period may apply after which the stock options will not forfeit in any way. In such cases the vesting period is shortened accordingly.

The balance sheet date fair value of cash-settled phantom stock granted to the Management Board and executive employees of the Company is calculated in accordance with IFRS 2 using the binominal option pricing model. The corresponding liability based on the balance sheet date fair value is accrued over the vesting period of the phantom stock plans. For certain exceptions a shorter vesting period may apply after which the phantom stock will not forfeit in any way. In such cases the vesting period is shortened accordingly.

The balance sheet date fair value of cash-settled performance shares granted to the Management Board and executive employees of the Company is calculated using the Monte Carlo pricing model in accordance with IFRS 2. The corresponding liability based on the balance sheet date fair value is accrued over the vesting periods of the performance share plans. For certain exceptions a shorter vesting period may apply after which the performance shares will not forfeit in any way. In such cases the vesting period is shortened accordingly.

y) Recent pronouncements

Recently implemented accounting pronouncements

The Company has prepared its consolidated financial statements at December 31, 2019 in conformity with IFRS that have to be applied for fiscal years beginning on January 1, 2019. In 2019, the Company applied the following new standard relevant for its business for the first time:

IFRS 16

In January 2016, the IASB issued IFRS 16, which supersedes the current standard on lease-accounting, IAS 17, as well as the interpretations IFRIC 4, Determining whether an arrangement contains a lease, Standard Interpretations Committee (“SIC”)-15, Operating leases – incentives and SIC-27, Evaluating the substance of transactions in the legal form of a lease.

IFRS 16 significantly changes lessee accounting. For almost all leases, a lessee is required to recognize a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments. Leases with a total maximum term of twelve months (short-term leases) and leases for underlying assets of low-value may be exempt from balance sheet recognition by applying an accounting policy choice.

Depreciation of the right-of-use asset and interest on the lease liability must be recognized in the income statement for every on-balance lease contract. Therefore, straight-line rental expenses will no longer be shown for the vast majority of the leases. The lessor accounting requirements in IAS 17 are substantially carried forward.

The Company applies the modified retrospective method in accordance with IFRS 16 as the transition method. Accordingly, the cumulative effect from first-time application is recognized in the opening balance of retained earnings as of January 1, 2019 without adjustments to the comparative information of the previous period. In the application of the modified retrospective method, the carrying amount of the lease liability at the date of the initial application is determined by discounting the remaining lease payments of lease agreements that were classified as operating leases under IAS 17 using the term-, country-, and currency-specific incremental borrowing rate at date of initial application. Furthermore, right-of-use assets are to be recognized. In the application of the modified retrospective method, the carrying amount of the right-of-use asset equals the carrying amount of the lease liability adjusted for any prepaid or accrued lease payments. For a part of the existing contracts, the Company recognizes the right-of-use asset with its carrying amount assuming the new standard had been applied since the commencement date of the lease discounted using its term-, country-, and currency-specific incremental borrowing rate at the date of initial application.

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Regarding the options and exemptions available upon the initial application of IFRS 16, the Company adopted the following approach:

- IFRS 16 is only applied to contracts that were previously identified as leases under IAS 17 and IFRIC 4.
- Recognition, valuation and disclosure principles of IFRS 16 are not applied to lease contracts with a lease term ending in less than 12 months from the date of the initial application. The respective lease contracts are accounted for as if they were short term leases and recognized as an expense accordingly.
- Material initial direct costs are included in the measurement of a right-of-use asset with the carrying amount assuming the new standard was applied since the commencement date of the lease.
- Upon initial recognition no impairment review is performed. The right-of-use assets are adjusted for onerous contract provisions, recognized on the consolidated balance sheet immediately before the date of initial application.

Right-of-use assets from lease contracts are classified in accordance with the Company's classification of property, plant and equipment:

- Right-of-use assets: Land
- Right-of-use assets: Buildings and improvements
- Right-of-use assets: Machinery and equipment

In addition to the right-of-use asset categories above, prepayments on right-of-use assets are presented separately. Right-of-use assets from lease contracts and lease obligations are presented separately from property, plant and equipment and other financial debt in the consolidated balance sheet.

For lease contracts that include both lease and non-lease components that are not separable from lease components, no allocation is performed. Each lease component and any associated non-lease components are accounted for as a single lease.

Upon the initial application of IFRS 16 as of January 1, 2019, the Company recognized right-of-use assets of €4,276,532 and lease liabilities from third and related parties of €4,552,431. The cumulative effect from the first-time application is recognized in the opening balance of retained earnings (€120,809) as well as in noncontrolling interests (€15,526) as of January 1, 2019.

The following table shows a reconciliation of the future minimum rental payments as of December 31, 2018 to the lease liabilities as of January 1, 2019:

Reconciliation of lease liabilities upon the initial application of IFRS 16	
in € THOUS	
Future minimum rental payments as of December 31, 2018 (IAS 17)	5,527,638
less short-term leases	(21,936)
less leases of low-value assets	(34,145)
other	(25,169)
Gross lease liabilities as of January 1, 2019	5,446,388
Discounting	(893,957)
Lease liabilities as a result of the initial application of IFRS 16 as of January 1, 2019	4,552,431
Lease liabilities from capital leases as of December 31, 2018 (IAS 17)	36,144
Lease liabilities as of January 1, 2019	4,588,575

The lease liabilities were discounted using the term-, country-, and currency-specific incremental borrowing rate as of January 1, 2019. The weighted average discount rate was 3.69%.

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For the impacts of IFRS 16 please see note 21.

Recent accounting pronouncements not yet adopted

The IASB issued the following new standard which is relevant for the Company:

IFRS 17, Insurance Contracts

In May 2017, the IASB issued IFRS 17, Insurance Contracts. IFRS 17 establishes principles for the recognition, measurement, presentation and disclosure related to the issuance of insurance contracts. IFRS 17 replaces IFRS 4, Insurance Contracts, which was brought in as an interim standard in 2004. IFRS 4 permitted the use of national accounting standards for the accounting of insurance contracts under IFRS. As a result of the varied application for insurance contracts there was a lack of comparability among peer groups. IFRS 17 eliminates this diversity in practice by requiring all insurance contracts to be accounted for using current values. The frequent updates to the insurance values are expected to provide more useful information to users of financial statements. IFRS 17 is effective for fiscal years beginning on or after January 1, 2021. Earlier adoption is permitted for entities that have also adopted IFRS 9, Financial Instruments and IFRS 15, Revenue from Contracts with Customers. The Company is evaluating the impact of IFRS 17 on the consolidated financial statements.

In the Company's view, all other pronouncements issued by the IASB do not have a material impact on the consolidated financial statements, as expected.

2. Discretionary decisions and sources of estimation uncertainties

The Company's reported results of operations, financial position and net assets are sensitive to discretionary decisions, assumptions and estimates that are the basis for its financial statements. The critical accounting policies, the judgements made in the creation and application of these policies and the sensitivities of reported results to changes in accounting policies, discretionary decisions and estimates are factors to be considered along with the Company's financial statements. In the opinion of the Management of the Company, the following accounting policies, discretionary decisions and sources of estimation uncertainties are critical for the consolidated financial statements in the present economic environment.

a) Recoverability of goodwill and intangible assets

The growth of the business through acquisitions has created a significant amount of intangible assets, including goodwill, trade names, management contracts, non-compete agreements, technology and customer relationships as well as licences and distribution agreements. In addition, the Company recognizes internally developed intangible assets related to research and development and software development projects. At December 31, 2019, the carrying amount of goodwill and non-amortizable intangible assets amounted to €14,247,709 (€12,395,641 at December 31, 2018) representing approximately 43% and 47% of the Company's total assets at December 31, 2019 and 2018, respectively.

In accordance with IAS 36, the Company performs an impairment test of goodwill and non-amortizable intangible assets at least once a year for each cash-generating unit or more frequently if the Company becomes aware of events that occur or if circumstances change that would indicate the carrying value may not be recoverable (see also note 1 g).

To comply with IFRS to determine possible impairments of these assets, the value in use of the CGUs is first compared to the CGUs' carrying amount.

The value in use of each CGU is determined using estimated future cash flows for the unit discounted by a weighted average cost of capital ("WACC") specific to that CGU. The Company's WACC consists of a basic rate adjusted by a weighted average country risk rate and, if appropriate, by a factor to reflect higher risks associated with the cash flows from recent material acquisitions within each CGU, until they are appropriately integrated. Estimating the future cash flows involves significant assumptions, especially regarding future reimbursement rates and sales prices, number of treatments, sales volumes and costs. The key assumptions represent management's assessment of future trends and have been based on historical

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data from both external and internal sources. In determining discounted cash flows, the Company utilizes for every CGU its three-year budget, projections for years four to ten and a representative growth rate for all remaining years. Projections for up to ten years are possible due to the non-discretionary nature of the health care services the Company provides, the need for health care products utilized to provide such services and the availability of government reimbursement for a substantial portion of its services.

A substantial portion of the Company's profit is generated in North America. The Company expects a stable operating income margin with a higher margin in dialysis business compensating a lower margin in Care Coordination.

The following table shows the key assumptions of value-in-use calculations:

Key assumptions

in %	North America		EMEA		Asia-Pacific		Latin America	
	2019	2018	2019	2018	2019	2018	2019	2018
Average revenue growth in ten year projection period	mid-single-digit	mid-single-digit	mid-single-digit	mid-single-digit	high-single-digit	high-single-digit	mid-single-digit	mid-single-digit
Residual value growth	1.00	1.00	1.00	1.00	4.00	4.00	2.95	3.45
Pre-tax WACC	7.71	7.42	8.73	9.46	6.79	7.81	10.45 - 20.02	11.93 - 16.75
After-tax WACC	6.00	5.99	6.25	6.86	6.04	6.61	8.06 - 17.63	8.70 - 13.52

An overview of the carrying amounts of goodwill and intangibles with indefinite useful life for each CGU is shown in note 11. To evaluate the recoverability of intangible assets with indefinite useful lives, the Company compares the fair values of intangible assets with their carrying values and intangible asset's fair value is determined using a discounted cash flow approach or other methods, if appropriate.

A prolonged downturn in the health care industry with lower than expected increases in reimbursement rates and/or higher than expected costs for providing health care services and for procuring and selling health care products could adversely affect the Company's estimated future cash flows. Future adverse changes in a cash-generating unit's economic environment of a CGU could affect the country specific risk rate and therefore the discount rate. Equally an increase of the general interest rate level could affect the base rate and therefore the discount rate. A decrease in the estimated future cash flows and/or a decline in the cash-generating units economic environment could result in impairment charges to goodwill and other intangible assets with indefinite useful life which could materially and adversely affect the Company's future financial position and operating results.

In 2019, the recoverable amount of Latin America exceeds the carrying amount by €217,815. The following table shows the amounts by which the key assumptions would need to change individually that the recoverable amount equals the carrying amount:

Sensitivity analysis

Change in percentage points	Latin America	
	2019	2018
Pre-tax WACC	1.87	0.27
Operating income margin of each projection year	(2.03)	(0.32)
Residual value growth	(2.13)	(0.47)

b) Legal contingencies

From time to time, during the ordinary course of operations, the Company is party to litigation and arbitration and is subject to investigations relating to various aspects of its business (see note 22). The Company regularly analyzes current information about such claims for probable losses and provides accruals for such matters, including the estimated legal expenses and consulting services in connection with these matters, as appropriate. The Company utilizes its internal legal department as well as external

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resources for these assessments. In making the decision regarding the need for loss accrual, the Company considers the degree of probability of an unfavorable outcome and its ability to make a reasonable estimate of the amount of loss.

The filing of a suit or formal assertion of a claim or assessment, or the disclosure of any such suit or assertion, does not necessarily indicate that accrual of a loss is appropriate.

The outcome of these matters may have a material effect on the results of operations, financial position and net assets of the Company.

c) Trade accounts and other receivables and allowance for doubtful accounts

Trade accounts and other receivables are a substantial asset of the Company and the allowance for doubtful accounts is based upon a significant estimate made by management. Trade accounts and other receivables were €3,421,346 and €3,231,500 at December 31, 2019 and 2018, respectively, net of allowances for doubtful accounts of €141,358 at December 31, 2019 and €118,015 at December 31, 2018.

The Company sells health care products directly or through distributors in around 150 countries and provides health care services in around 50 countries. Most payors are government institutions or government-sponsored programs with significant variations between the countries and even between payors within one country in local payment and collection practices.

Receivables resulting from health care services are recognized and billed at amounts estimated to be collectable under government reimbursement programs and reimbursement arrangements with third party payors. U.S. Medicare and Medicaid government programs are billed at pre-determined net realizable rates per treatment that are established by statute or regulation. Revenues for non-governmental payors with which the Company has contracts or letters of agreement in place are recognized at the prevailing contract rates. The remaining non-governmental payors are billed at the Company's standard rates for services and, in the Company's North America segment, a contractual adjustment is recorded to recognize revenues based on historic reimbursement. The contractual adjustment and the allowance for doubtful accounts are reviewed quarterly for their adequacy. No material changes in estimates were recorded for the contractual allowance in the periods presented. The collectability of receivables is reviewed locally on a regular basis, generally monthly. For further information, see note 1 k).

In the Company's North America Segment operations, the collection process is usually initiated shortly after service is provided or upon the expiration of the time provided by contract. For Medicare and Medicaid, once the services are approved for payment, the collection process begins upon the expiration of a period of time based upon experience with Medicare and Medicaid. In all cases where co-payment is required the collection process usually begins within 30 days after service has been provided. In those cases where claims are approved for amounts less than anticipated or if claims are denied, the collection process usually begins upon notice of approval of the lesser amounts or upon denial of the claim. The collection process can be confined to internal efforts, including the accounting and sales staffs and, where appropriate, local management staff. If appropriate, external collection agencies may be engaged.

Public health institutions in a number of countries outside the U.S. require a significant amount of time until payment is made because a substantial number of payors are government entities whose payments are often determined by local laws and regulations and budget constraints. Depending on local facts and circumstances, the period of time to collect can be quite lengthy. In those instances where there are commercial payors, the same type of collection process is initiated as in the North America Segment.

Due to the number of subsidiaries and different countries that the Company operates in, the Company's policy of determining when an individual allowance is required considers the appropriate individual local facts and circumstances that apply to an account. While payment and collection practices vary significantly between countries and even agencies within one country, government payors usually represent low to moderate credit risks. It is the Company's policy to determine when receivables should be classified as bad debt on a local basis taking into account local payment practices and local collection experience. An individual allowance is calculated locally if specific circumstances indicate that amounts will not be collectible.

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Receivables where the expected credit losses are not assessed individually are grouped based on geographical regions and the impairment is assessed based on macroeconomic indicators such as credit default swaps. For more information regarding the impairment on trade accounts and other receivables please refer to note 1 i).

When all efforts to collect a receivable, including the use of outside sources where required and allowed, have been exhausted, and after appropriate management review, a receivable deemed to be uncollectible is considered a bad debt and written off.

Write offs are taken on a claim-by-claim basis. Due to the fact that a large portion of its reimbursement is provided by public health care organizations and private insurers, the Company expects that most of its accounts receivables will be collectible, albeit potentially more slowly outside the North America Segment. A significant change in the Company's collection experience, deterioration in the aging of receivables and collection difficulties could require that the Company increases its estimate of the allowance for doubtful accounts. Any such additional bad debt charges could materially and adversely affect the Company's future operating results.

If, in addition to the Company's existing allowances, 1% of the gross amount of the Company's trade accounts receivable as of December 31, 2019 were uncollectible through either a change in the Company's estimated contractual adjustment or revised estimate of the collectability, the Company's operating income for 2019 would have been reduced by approximately 1.6%.

The following table shows the portion of major debtors or debtor groups of trade accounts and other receivables as at December 31, 2019 and 2018. No single debtor, other than U.S. Medicare and Medicaid, accounted for more than 5% of total trade accounts and other receivables in any of these years.

Composition of trade accounts and other receivables

	December 31,	
	2019	2018
U.S. Government health care programs	30%	31%
U.S. commercial payors	15%	14%
U.S. hospitals	4%	4%
Self-pay of U.S. patients	2%	3%
Other North America segment payors	4%	3%
Product customers and health care payors outside the North America Segment	45%	45%
Total	100%	100%

d) Self-insurance programs

Under the Company's insurance programs for professional, product and general liability, auto liability, worker's compensation and medical malpractice claims, the Company's largest subsidiary which is located in the U.S. is partially self-insured for professional liability claims. For all other coverages, the Company assumes responsibility for incurred claims up to predetermined amounts above which third party insurance applies. Reported liabilities for the year represent estimated future payments of the anticipated expense for claims incurred (both reported and incurred but not reported) based on historical experience and existing claim activity. This experience includes both the rate of claims incidence (number) and claim severity (cost) and is combined with individual claim expectations to estimate the reported amounts.

e) Level 3 financial instruments

Noncontrolling interests subject to put provisions, variable payments outstanding for acquisitions and equity investments are recognized at their fair value. For further information related to the estimation of these fair values, see notes 1 h) and 23.

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f) Income taxes

The Company is subject to ongoing and future tax audits in the U.S., Germany and other jurisdictions. Different interpretations of tax laws may lead to potential additional tax payments or tax refunds for prior years. To consider income tax provisions or income tax receivables of uncertain tax assessments management's estimations are based on local tax rules of the respective tax jurisdiction and the interpretation of such. Estimates are revised in the period in which there is sufficient evidence to revise the assumption. For further information to estimates related to the recoverability of deferred taxes, see note 1 n).

g) Business combinations

The Company measures the noncontrolling interest in an acquisition at fair value and classifies costs related to its business combinations within general and administrative expense. In determining whether an intangible asset related to a business combination is identifiable and should be separated from goodwill, significant judgment is required. Additionally, estimation of the acquisition-date fair values of identifiable assets acquired and liabilities assumed also involves significant judgment. The applicable measurements and inputs used in this estimation (including revenue growth rates, gross profit margin adjusted for synergy assumptions associated with manufacturing savings and the discount rate) are based upon information available at the acquisition date using expectations and assumptions that management deems reasonable. Such judgments, estimates and assumptions could materially affect the Company's business, results of operations and financial condition, primarily due to:

- Fair values assigned to assets subject to depreciation and amortization directly impact the depreciation and amortization recorded in the Company's consolidated statements of income in periods subsequent to a related acquisition.
- Any subsequent measurement resulting in a decrease in the estimated fair values of assets acquired may result in impairment.
- Subsequent changes resulting in an increase or decrease to the estimated fair values of liabilities assumed may result in additional expense or income, respectively.

For further information on business combinations, see note 3.

3. Acquisitions, investments, purchases of intangible assets and divestitures

The Company completed acquisitions, investments and the purchase of intangible assets in the amount of €2,297,173, €956,803 and €682,676 in 2019, 2018 and 2017, respectively. In 2019, €2,232,671 was paid in cash and €64,502 were assumed obligations and non-cash consideration. In 2018, €925,267 was paid in cash and €31,536 were assumed obligations and non-cash consideration. In 2017, €565,694 was paid in cash and €116,982 were assumed obligations and non-cash consideration.

Acquisitions

The Company made acquisitions of €2,224,599, €280,643 and €638,307 in 2019, 2018 and 2017, respectively in order to expand the scope of its services and to increase its market shares in the respective countries. In 2019, €2,160,097 was paid in cash and €64,502 were assumed obligations and non-cash consideration. In 2018, €249,965 was paid in cash and €30,678 were assumed obligations and non-cash consideration. In 2017, €521,325 was paid in cash and €116,982 were assumed obligations and non-cash consideration.

The Company's acquisition spending was driven primarily by the purchase of dialysis clinics in the normal course of its operations in 2019, 2018 and 2017 as well as the acquisition of NxStage Medical, Inc. ("NxStage") in 2019 and the acquisition of an operator of day hospitals in Australia in 2017.

Impacts on consolidated financial statements from acquisitions

The assets and liabilities of all acquisitions were recorded at their estimated fair value at the date of the acquisition and are included in the Company's financial statements and operating results from the effective

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date of acquisition. The measurement period adjustments from the previous year's acquisitions did not have a significant impact on the consolidated financial statements in 2019.

The excess of the total acquisition costs over the fair value of the net assets acquired resulted in goodwill of €1,607,559 and €328,702 at December 31, 2019 and 2018, respectively.

The purchase price allocation for the acquisition of NxStage was finalized during the year. In 2019, the Company recorded €1,607,559 of goodwill and €685,047 of intangible assets, which represent the share of both controlling and noncontrolling interests. Goodwill arose principally due to the fair value of the established streams of future cash flows for these acquisitions versus building similar franchises.

Business combinations during 2019 decreased the Company's net income (net income attributable to shareholders of FMC-AG & Co. KGaA) by €68,599, excluding the costs of the acquisitions, and revenue increased by €364,892. Total assets increased €2,639,432 due to business combinations.

Acquisition of NxStage Medical, Inc.

On February 21, 2019, the Company acquired all of the outstanding shares of NxStage for \$30.00 per common share. The total acquisition value of this business combination, net of cash acquired, is \$1,976,235 (€1,740,563 at date of closing). NxStage is a leading medical technology company that develops, produces and markets an innovative product portfolio of medical devices for use in home dialysis and in the critical care setting. This acquisition is part of the Company's stated strategy to expand and complement its existing business through acquisitions. Generally, these acquisitions do not change the Company's business model and can be integrated without disruption to its existing business, requiring little or no realignment of its structures. The NxStage acquisition is consistent in this regard as it supplements the Company's existing business.

The following table summarizes the fair values, as of the date of acquisition based upon information available, as of December 31, 2019, of assets acquired and liabilities assumed at the date of the acquisition:

Fair Values of Assets Acquired and Liabilities Assumed

in \$ THOUS

Cash and cash equivalents	47,203
Trade accounts and other receivables	34,062
Inventories	63,735
Other current assets	15,819
Property, plant and equipment	104,533
Right-of-use assets	21,603
Intangible assets and other assets	761,734
Goodwill	1,201,613
Accounts payable, current provisions and other current liabilities	(72,429)
Deferred taxes	(100,485)
Lease liabilities	(22,065)
Other liabilities	(27,822)
Noncontrolling interests	(4,063)
Total acquisition cost	<u>2,023,438</u>
Less:	
Cash acquired	(47,203)
Net Cash paid	<u>1,976,235</u>

As of the acquisition date amortizable intangible assets (primarily technology in the amount of \$660,300) acquired in this acquisition have weighted average useful lives of 13 years.

Goodwill in the amount of \$1,201,613 was acquired as part of the NxStage acquisition and is allocated to the North America Segment.

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NxStage's results have been included in the Company's consolidated statement of income since February 21, 2019. Specifically, NxStage has contributed revenue and an operating loss in the amount of \$294,281 (€262,875) and \$31,145 (€27,821) respectively, to the Company's consolidated operating income. This operating loss amount does not include synergies which may have resulted at consolidated entities outside NxStage since the acquisition closed.

Pro forma financial information

The following financial information, on a pro forma basis, reflects the consolidated results of operations for the twelve months ended December 31, 2019 as if the NxStage acquisition had been consummated on January 1, 2019 and excludes related transaction costs. The pro-forma financial information is not necessarily indicative of the results of operations as it would have been had the transactions been consummated on January 1, 2019.

Pro forma financial Information

in € THOUS, except per share data

	2019
Pro forma revenue	17,521,432
Pro forma net income attributable to shareholders of FMC-AG & Co. KGaA	1,186,516
Basic earnings per share	3.92
Diluted earnings per share	3.92

Investments and purchases of intangible assets

Investments and purchases of intangible assets were €72,574, €676,160 and €44,369 in 2019, 2018 and 2017, respectively. These amounts were primarily driven by investments in debt securities as well as equity investments in 2019, investments in debt securities and an equity investment in Humacyte, Inc. ("Humacyte") in 2018 as well as purchases of intangible assets and an investment in debt securities in 2017. Of this amount €72,574, €675,302 and €44,369 were paid in cash in 2019, 2018 and 2017, respectively.

Divestitures

Proceeds from divestitures were €79,427, €1,683,292 and €437,031 in 2019, 2018 and 2017, respectively. These amounts mainly related to the divestment of MedSpring Urgent Care Centers in Texas, a California based cardiovascular business, sales of debt securities as well as B.Braun Medical Inc.'s purchase of NxStage's bloodlines business in connection with our acquisition of NxStage in 2019, the divestiture of the controlling interest in Sound (see notes 4 c) and 25) as well as divestitures of debt securities in 2018, the sale of a provider of non-dialysis laboratory testing services as well as a provider of outsourced clinical services in the North America Segment and divestitures of debt securities in 2017. In 2019, €59,940 was received in cash and €19,487 were non-cash components. In 2018, €1,682,975 was received in cash and €317 were non-cash components. In 2017, €415,388 was received in cash and €21,643 were non-cash components.

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4. Notes to the consolidated statements of income

a) Revenue

The Company has recognized the following revenue in the consolidated statement of income for the year ended December 31, 2019 and 2018:

Revenue						
in € THOUS						
	2019			2018		
	Revenue from contracts with customers	Other revenue	Total	Revenue from contracts with customers	Other revenue	Total
Health care services						
Dialysis services	12,447,092	—	12,447,092	11,420,415	—	11,420,415
Care Coordination . .	1,176,227	248,900	1,425,127	1,622,862	221,012	1,843,874
	<u>13,623,319</u>	<u>248,900</u>	<u>13,872,219</u>	<u>13,043,277</u>	<u>221,012</u>	<u>13,264,289</u>
Health care products						
Dialysis products . . .	3,402,987	125,519	3,528,506	3,115,753	93,068	3,208,821
Non-dialysis products	75,830	—	75,830	73,763	—	73,763
	<u>3,478,817</u>	<u>125,519</u>	<u>3,604,336</u>	<u>3,189,516</u>	<u>93,068</u>	<u>3,282,584</u>
Total	<u>17,102,136</u>	<u>374,419</u>	<u>17,476,555</u>	<u>16,232,793</u>	<u>314,080</u>	<u>16,546,873</u>

The Company has recognized the following amounts as receivables and contract liabilities relating to contracts with customers for the year ended December 31, 2019 and 2018:

Trade accounts receivables and contract liabilities		
in € THOUS		
	2019	2018
Trade accounts receivables	3,341,111	3,284,712
Contract liabilities	22,802	37,632

Impairment losses in the amount of €41,982 and €16,981 for the years ended December 31, 2019 and 2018, respectively, relate to receivables arising from contracts with customers.

The change in the contract liability balance during the period results from the ordinary course of business.

Contract liabilities primarily relate to advance payments from customers and to sales of dialysis machines where revenue is recognized upon installation and provision of the necessary technical instructions whereas a receivable is recognized once the machine is billed to the customer.

Contract liabilities are shown in the consolidated balance sheet in line item “Current provisions and other current liabilities”.

At December 31, 2019, revenue recognized that was included in the contract liability balance at the beginning of the period was €12,608.

At December 31, 2019, performance obligations of €1,160,077 (2018: €1,157,314) are unsatisfied (or partially unsatisfied).

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Expected recognition of the transaction price allocated to unsatisfied performance obligations as revenue for the next five years and in the aggregate for the five years thereafter are as follows:

Unsatisfied performance obligations	
in € THOUS	
1 year	278,090
1 - 3 years	455,774
3 - 5 years	359,721
5 - 10 years	66,492
Total	<u>1,160,077</u>

b) Selling, general and administrative expenses

Selling, general and administrative expenses are generated in the administrative, logistic and selling functions which are not attributable to production or research and development. Furthermore, general and administrative expenses included realized and unrealized foreign exchange gains and losses. In addition, in 2019 general and administrative expenses included net gains from changes in the fair value of investments of €97,375, mainly related to equity investments, income attributable to a consent agreement on certain pharmaceuticals of €60,471, a net gain related to variable payments outstanding for acquisitions of €41,537 mainly due to revaluation, a net loss from the sale of fixed assets of €28,911, a gain from the settlement of pension plans in the US in the amount of €4,754 (see note 16), an impairment loss on intangible assets of €932 as well as a net loss from the sale of investments of €68. General and administrative expenses also included costs for restructuring activities related to the Company’s cost optimization program in the amount of €91,689, mainly for the impairment of right-of-use assets, the sale of fixed assets as well as severance payments. In 2018, general and administrative expenses included a Foreign Corrupt Practices Act (“FCPA”) related charge of €77,200 (see note 22), an impairment loss on intangible assets of €64,719, income attributable to a consent agreement on certain pharmaceuticals of €53,283, a net gain from the revaluation of variable payments outstanding for acquisitions of €36,327, a net gain from the sale of fixed assets of €6,041, net losses from changes in the fair value of investment of €9,762 and a net gain from the sale of investments of €1,824. In 2017, general and administrative expenses included a FCPA related charge of €200,000 (see note 22), a net gain from the sale of fixed assets of €31,959, a net gain from the sale of investments of €36,402 income attributable to a consent agreement on certain pharmaceuticals of €17,524 and a net gain from the revaluation of variable payments outstanding for acquisitions of €2,685.

c) (Gain) loss related to divestitures of Care Coordination activities

On June 28, 2018, the Company divested its controlling interest in Sound to an investment consortium led by Summit Partners, L.P. The total transaction proceeds were \$1,770,516 (€1,531,109), net of related tax payments. The pre-tax gain related to divestitures for Care Coordination activities was €809,003, which primarily related to this divestiture, the effect of the six month impact from the increase in valuation of Sound’s share based payment program, incentive compensation expense and other costs caused by the divestment of Sound. Sound was included in Care Coordination within the North America Segment. The Company’s history with Sound, prior to divestment, includes the following milestones:

- In July 2014, the Company made an investment for a majority interest in Sound, a physician services organization focused on hospitalist, emergency, intensivist and post-acute care services, furthering its strategic investments and expanding the health care services we offer.
- In November 2014, Sound acquired Cogent Healthcare, expanding Sound to serve over 180 hospitals in 35 states with more than 1,750 providers.
- In 2017, the Company increased its interest in Sound raising the Company majority interest to almost 100% during the first half of 2017.

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d) Research and development expenses

Research and development expenses of €168,028 (2018: €114,074 and 2017: €110,997) included research and non-capitalizable development costs as well as depreciation and amortization expenses related to capitalized development costs of €3,052 (2018: €341 and 2017: €432).

e) Cost of materials

The cost of materials for the year ended December 31, 2019, 2018 and 2017 consisted of the following:

Cost of materials			
in € THOUS			
	<u>2019</u>	<u>2018</u>	<u>2017</u>
Cost of raw materials, supplies and purchased components	4,031,371	3,395,895	3,605,316
Cost of purchased services	258,959	233,638	229,806
Cost of materials	<u>4,290,330</u>	<u>3,629,533</u>	<u>3,835,122</u>

f) Personnel expenses

Included within costs of revenue, selling, general and administrative expenses and research and development expenses are personnel expenses in the amount of €6,799,358, €6,439,653 and €6,900,023 for the year ended December 31, 2019, 2018 and 2017, respectively. Personnel expenses consisted of the following:

Personnel expenses			
in € THOUS			
	<u>2019</u>	<u>2018</u>	<u>2017</u>
Wages and salaries	5,448,662	5,025,128	5,396,339
Social security contributions and cost of retirement benefits and social assistance	1,350,696	1,414,525	1,503,684
thereof retirement benefits	174,009	156,581	147,332
Personnel expenses	<u>6,799,358</u>	<u>6,439,653</u>	<u>6,900,023</u>

The Company employed the following personnel on a full-time equivalents basis, on average, for the following years:

Employees by function			
	<u>2019</u>	<u>2018</u>	<u>2017</u>
Production and Services	103,896	97,971	98,547
Administration	11,634	10,510	9,962
Sales and Marketing	3,253	3,360	3,272
Research and Development	1,050	881	804
Total employees	<u>119,833</u>	<u>112,722</u>	<u>112,585</u>

g) Net interest

Net interest in the amount of €429,444 (2018: €301,062 and 2017: €364,824) included interest expense of €491,061 (2018: €448,471 and 2017: €416,199) and interest income of €61,617 (2018: €147,409 and 2017: €51,375). Interest expense resulted mainly from the Company's financial liabilities which are not accounted for at fair value through profit and loss (see note 13 and note 14), lease liabilities and lease liabilities from related parties (see note 21) as well as interest expense related to uncertain tax treatments. In 2019, interest income primarily results from the valuation of the derivatives embedded in the equity-neutral convertible bonds ("Convertible Bonds"), as well as interest on overdue receivables and lease receivables. In 2018, interest income primarily results from the valuation of the derivatives embedded in the

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Convertible Bonds, interest on overdue receivables and lease receivables as well as interest related to uncertain tax treatments. In 2017, interest income was mainly attributable to the valuation of the Share Options, interest on overdue receivables and lease receivables as well as interest income related to uncertain tax treatment.

h) Income taxes

Income before income taxes is attributable to the following geographic locations:

Income before income taxes			
in € THOUS	<u>2019</u>	<u>2018</u>	<u>2017</u>
Germany	101,734	161,861	(20,363)
United States	1,149,149	2,191,834	1,589,501
Other	589,231	383,041	428,477
Total	<u>1,840,114</u>	<u>2,736,736</u>	<u>1,997,615</u>

Income tax expense (benefit) for the years ended December 31, 2019, 2018 and 2017 consisted of the following:

Income tax expense (benefit)			
in € THOUS	<u>2019</u>	<u>2018</u>	<u>2017</u>
Current			
Germany	(59,928)	45,136	77,934
United States	168,503	261,211	437,201
Other	228,773	115,561	130,992
	<u>337,348</u>	<u>421,908</u>	<u>646,127</u>
Deferred			
Germany	48,313	(34,685)	(36,022)
United States	57,352	145,700	(156,704)
Other	(41,399)	(21,844)	(10,320)
	<u>64,266</u>	<u>89,171</u>	<u>(203,046)</u>
Total	<u>401,614</u>	<u>511,079</u>	<u>443,081</u>

A reconciliation between the expected and actual income tax expense is shown below. The expected corporate income tax expense is computed by applying the German corporation tax rate (including the solidarity surcharge) and the trade tax rate on income before income taxes. The German combined

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statutory tax rates were 30.21%, 30.18% and 29.90% for the fiscal years ended December 31, 2019, 2018 and 2017, respectively.

Reconciliation of income taxes

in € THOUS

	2019	2018	2017
Expected corporate income tax expense	555,898	825,810	597,187
Tax free income	(65,889)	(50,747)	(44,302)
Income from equity method investees	(23,683)	(18,185)	(18,706)
Tax rate differentials	(58,386)	(106,258)	139,122
Non-deductible expenses	44,283	60,721	106,125
Taxes for prior years	(5,454)	(91,138)	(20,573)
Noncontrolling partnership interests	(60,724)	(61,936)	(105,832)
Tax on divestitures	—	(74,560)	—
Tax rate changes	2,743	(219)	(238,130)
Change in realizability of deferred tax assets and tax credits	8,519	3,211	7,254
Withholding taxes	13,083	4,564	6,606
Other	(8,776)	19,816	14,330
Income tax expense	401,614	511,079	443,081
Effective tax rate	21.8%	18.7%	22.2%

The tax effects of the temporary differences and net operating losses that give rise to deferred tax assets and liabilities at December 31, 2019 and 2018, are presented below:

Deferred income tax assets and liabilities

in € THOUS

	2019	2018
Deferred tax assets		
Trade accounts receivable	13,392	25,090
Inventories	71,915	70,223
Intangible assets	4,994	6,980
Property, plant and equipment and other non-current assets	72,769	62,124
Lease Liabilities	1,164,620	—
Provisions and other liabilities	50,819	93,637
Pension liabilities	135,356	98,278
Net operating loss carryforwards, tax credit carryforwards and interest carryforwards	175,394	93,890
Derivatives	3,027	2,160
Compensation expense related to stock options	3,426	3,732
Other	36,403	15,390
Total deferred tax assets	1,732,115	471,504
Deferred tax liabilities		
Trade accounts receivable	30,310	29,596
Inventories	19,324	12,598
Intangible assets	632,984	433,228
Property, plant and equipment and other non-current assets	165,082	136,392
Right-of-use assets	1,068,409	—
Provisions and other liabilities	92,756	14,678
Derivatives	372	1,978
Other	101,384	123,870
Total deferred tax liabilities	2,110,621	752,340
Net deferred tax liabilities	(378,506)	(280,836)

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In the consolidated balance sheets, the accumulated amounts of deferred tax assets and liabilities are shown as follows:

Net deferred income tax assets and liabilities		
in € THOUS		
	2019	2018
Deferred tax assets	361,196	345,685
Deferred tax liabilities	739,702	626,521
Net deferred tax liabilities	(378,506)	(280,836)

The change in the balance of deferred tax assets and deferred tax liabilities does not equal the deferred tax expense/(benefit). This is due to deferred taxes that are booked directly to equity, the effects of exchange rate changes on tax assets and liabilities denominated in currencies other than euro, the acquisition and disposal of entities as part of ordinary activities and the reclassification of deferred tax assets and liabilities which are presented on the face of the balance sheet as components of other assets and liabilities.

The net operating losses included in the table below reflect U.S. federal tax, German corporate income tax, and other tax loss carryforwards in the various countries in which the Company operates, and expire as follows:

Net operating loss carryforwards	
in € THOUS	
2020	11,264
2021	15,032
2022	7,476
2023	9,959
2024	42,970
2025	16,181
2026	61,553
2027	48,654
2028	29,091
2029 and thereafter	160,236
Without expiration date	238,203
Total	640,619

Included in the balance of net operating loss carryforwards at December 31, 2019 are €204,476 not expected to be absorbed. Deferred tax assets regarding this portion are not recognized.

In assessing the realizability of deferred tax assets, management considers to which extent it is probable that the deferred tax asset will be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences and tax loss carryforwards become deductible. Management considers the expected reversal of deferred tax liabilities and projected future taxable income in making this assessment. Based upon the level of historical taxable income and projections for future taxable income over the periods in which the deferred tax assets are deductible, management believes it is probable the Company will realize the benefits of these deferred tax assets at December 31, 2019.

The Company provides for income taxes and foreign withholding taxes on the cumulative earnings of foreign subsidiaries and foreign subsidiaries in which the Company has ownership of less than 100% that will not be reinvested. At December 31, 2019, the Company provided for €6,645 (2018: €10,656) of deferred tax liabilities associated with earnings that are likely to be distributed in 2020 and the following years. Provision has not been made for additional taxes on €8,867,422 (2018: €8,240,031) undistributed earnings of foreign subsidiaries as these earnings are considered indefinitely reinvested. The earnings could become subject to additional tax if remitted or deemed remitted as dividends; however, calculation of such additional tax is not practicable. These taxes would predominantly comprise foreign withholding

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tax on dividends of foreign subsidiaries, and German income tax; however, those dividends and capital gains would generally be 95% tax free for German tax purposes.

In the U.S., tax reform was enacted by the Tax Cuts and Jobs Act by signature of the president on December 22, 2017. The Act reduced the U.S. corporate income tax rate from 35% to 21% effective from January 1, 2018. Deferred tax assets and liabilities expected to reverse in 2018 and beyond, were remeasured using the corporate income tax rate that was enacted by the balance sheet date and will apply for future financial years. For the year ended December 31, 2017, the remeasurement of deferred tax assets and liabilities resulted in a deferred tax benefit of €235,692 which was recognized in tax expense affecting profit and loss and included in the balance of €238,130 in the reconciling item “tax rate changes” in the table “reconciliation of income taxes” above.

5. Related party transactions

Fresenius SE is the Company’s largest shareholder and owns 31.64% of the Company’s outstanding shares, excluding treasury shares held by the Company, at December 31, 2019. The Company has entered into certain arrangements for services and products with Fresenius SE or its subsidiaries and with certain of the Company’s equity method investees as described in item a) below. The arrangements for leases with Fresenius SE or its subsidiaries are described in item b) below. The Company’s terms related to the receivables or payables for these services, leases and products are generally consistent with the normal terms of the Company’s ordinary course of business transactions with unrelated parties and the Company believes that these arrangements reflect fair market terms. The Company utilizes various methods to verify the commercial reasonableness of its related party arrangements. Financing arrangements as described in item c) below have agreed upon terms which are determined at the time such financing transactions occur and reflect market rates at the time of the transaction. The relationship between the Company and its key management personnel who are considered to be related parties is described in item d) below. Our related party transactions are settled through Fresenius SE’s cash management system where appropriate.

a) Service agreements and products

The Company is party to service agreements with Fresenius SE and certain of its affiliates (collectively the “Fresenius SE Companies”) to receive services, including, but not limited to: administrative services, management information services, employee benefit administration, insurance, information technology services, tax services and treasury management services. The Company also provides central purchasing services to the Fresenius SE Companies. These related party agreements generally have a duration of 1 to 5 years and are renegotiated on an as needed basis when the agreement comes due. The Company provides administrative services to one of its equity method investees.

The Company sold products to the Fresenius SE Companies and made purchases from the Fresenius SE Companies and equity method investees. In addition, Fresenius Medical Care Holdings, Inc. (“FMCH”) purchases heparin supplied by Fresenius Kabi USA, Inc. (“Kabi USA”), through an independent group purchasing organization (“GPO”). Kabi USA is an indirect, wholly-owned subsidiary of Fresenius SE. The Company has no direct supply agreement with Kabi USA and does not submit purchase orders directly to Kabi USA. FMCH acquires heparin from Kabi USA, through the GPO contract, which was negotiated by the GPO at arm’s length on behalf of all members of the GPO.

In May 2019, the Company entered into a ten-year agreement with one of the Fresenius SE Companies for the manufacturing of infusion bags. In order to establish the new production line, the Company purchased machinery from one of the Fresenius SE Companies in the amount of €7,183 during the year ended December 31, 2019 and €4,497 during the year ended December 31, 2018.

In December 2010, the Company and Galenica Ltd. (now known as Vifor Pharma Ltd.) formed the renal pharmaceutical company Vifor Fresenius Medical Care Renal Pharma Ltd., an equity method investee of which the Company owns 45%. The Company has entered into exclusive supply agreements to purchase certain pharmaceuticals from Vifor Fresenius Medical Care Renal Pharma Ltd. Under the terms of certain unconditional purchase agreements, the Company is obligated to purchase approximately €752,837 of

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pharmaceuticals, of which €423,545 is committed at December 31, 2019 for 2020. The terms of these agreements run up to five years.

Under the CMS' Comprehensive ESRD Care Model, the Company and participating physicians formed entities known as ESCOs as part of a payment and care delivery model that seeks to deliver better health outcomes for Medicare ESRD patients while lowering CMS' costs. The Company has entered into participation/services agreements with these ESCOs, which are accounted for as equity method investees.

Below is a summary, including the Company's receivables from and payables to the indicated parties resulting from the above described transactions with related parties.

Service agreements and products with related parties

in € THOUS

	2019		2018		2017		December 31, 2019		December 31, 2018	
	Sales of goods and services	Purchases of goods and services	Sales of goods and services	Purchases of goods and services	Sales of goods and services	Purchases of goods and services	Accounts receivable	Accounts payable	Accounts receivable	Accounts payable
Service agreements⁽¹⁾										
Fresenius SE	153	29,114	445	24,456	381	21,704	35	360	378	4,019
Fresenius SE affiliates	4,420	105,832	3,819	101,590	11,111	81,491	2,003	6,416	681	8,470
Equity method investees	49,052	—	58,362	—	82,628	—	68,300	—	108,655	—
Total	53,625	134,946	62,626	126,046	94,120	103,195	70,338	6,776	109,714	12,489
Products										
Fresenius SE	3	—	—	—	1	—	—	—	—	—
Fresenius SE affiliates	44,771	37,279	33,564	39,181	30,529	40,467	16,803	3,405	8,750	3,658
Equity method investees	—	469,474	—	399,667	—	399,180	—	36,262	—	57,975
Total	44,774	506,753	33,564	438,848	30,530	439,647	16,803	39,667	8,750	61,633

(1) In addition to the above shown accounts payable, accrued expenses for service agreements with related parties amounted to €8,352 and €9,376 at December 31, 2019 and 2018.

b) Lease agreements

In addition to the above-mentioned product and service agreements, the Company is a party to real estate lease agreements with the Fresenius SE Companies, which mainly include leases for the Company's corporate headquarters in Bad Homburg, Germany and production sites in Schweinfurt and St. Wendel, Germany. The majority of the leases expire at the end of 2026.

Below is a summary resulting from the above described lease agreements with related parties. For information on the implementation of IFRS 16, see note 1.

Lease agreements with related parties

in € THOUS

	2019			2018		2017		December 31, 2019	
	Depreciation	Interest expense	Lease expense ⁽¹⁾	Lease income	Lease expense	Lease income	Lease expense	Right-of-use asset	Lease liability
Fresenius SE	4,580	501	4,005	—	8,745	—	8,456	30,336	30,820
Fresenius SE affiliates	12,589	1,396	452	—	15,852	—	13,676	91,879	92,126
Total	17,169	1,897	4,457	—	24,597	—	22,132	122,215	122,946

(1) Short-term leases and expenses relating to variable lease payments are exempted from balance sheet recognition.

c) Financing

The Company receives short-term financing from and provides short-term financing to Fresenius SE. The Company also utilizes Fresenius SE's cash management system for the settlement of certain intercompany receivables and payables with its subsidiaries and other related parties. As of December 31, 2019 and December 31, 2018, the Company had accounts receivable from Fresenius SE related to short-term financing in the amount of €71,078 and €80,228, respectively. As of December 31, 2019 and December 31, 2018, the Company had accounts payable to Fresenius SE related to short-term financing in the amount of

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€38,050 and €32,454, respectively. The interest rates for these cash management arrangements are set on a daily basis and are based on the then-prevailing overnight reference rate, with a floor of zero, for the respective currencies.

On August 19, 2009, the Company borrowed €1,500 from the General Partner on an unsecured basis at 1.335%. The loan repayment has been extended periodically and is currently due on August 21, 2020 with an interest rate of 0.930%. On November 28, 2013, the Company borrowed an additional €1,500 with an interest rate of 1.875% from the General Partner. The loan repayment has been extended periodically and is currently due on November 23, 2020 with an interest rate of 0.930%.

At December 31, 2018, a subsidiary of Fresenius SE held unsecured bonds issued by the Company in the amount of €6,000. One bond was issued in 2012 with a coupon of 5.25% and interest paid semiannually until maturity in 2019. At December 31, 2019, the subsidiary of Fresenius SE held another unsecured bond issued by the Company in the amount of €1,000. This bond was issued in 2011 with a coupon of 5.25% and interest payable semiannually until maturity in 2021. For further information on these bonds, see note 14.

At December 31, 2019 and December 31, 2018, the Company borrowed from Fresenius SE in the amount of €18,865 at an interest rate of 0.930% and €185,900 at an interest rate of 0.825%, respectively. For further information on this loan agreement, see note 13.

d) Key management personnel

Due to the Company's legal form of a German partnership limited by shares, the General Partner holds a key management position within the Company. In addition, as key management personnel, members of the Management Board and the Supervisory Board, as well as their close relatives, are considered related parties.

The Company's Articles of Association provide that the General Partner shall be reimbursed for any and all expenses in connection with management of the Company's business, including remuneration of the members of the General Partner's supervisory board and the members of the Management Board. The aggregate amount reimbursed to the General Partner was €23,905, €14,612 and €25,995, respectively, for its management services during 2019, 2018 and 2017 and included an annual fee of €120 as compensation for assuming liability as general partner. The annual fee is set at 4% of the amount of the General Partner's share capital (€3,000 as of December 31, 2019). As of December 31, 2019 and December 31, 2018, the Company had accounts receivable from the General Partner in the amount of €977 and €176, respectively. As of December 31, 2019 and December 31, 2018, the Company had accounts payable to the General Partner in the amount of €34,170 and €47,205, respectively.

The Chairman of the Company's Supervisory Board, Dr. Dieter Schenk, is also Vice Chairman of the supervisory board of the general partner of Fresenius SE as well as the Vice Chairman of the supervisory board of the Company's General Partner. He is also Chairman of the Advisory Board of a charitable foundation that is the sole shareholder of the general partner of Fresenius SE. He was also a partner in a law firm which provided services to the Company and certain of its subsidiaries until December 31, 2017. While Dr. Dieter Schenk was a partner in the law firm, the Company incurred expenses in the amount of €2,337 for services during 2017. The Chairman of the supervisory board of Fresenius SE and of the general partner of Fresenius SE, Dr. Gerd Krick, is also a member of the supervisory board of the Company's General Partner. Three of the six members of the Company's Supervisory Board, including the Chairman Dr. Dieter Schenk and the Vice Chairman Rolf A. Classon, are also members of the supervisory board of the Company's General Partner.

The Chairman of the supervisory board of the Company's General Partner, Stephan Sturm, is also the Chairman of the management board of the general partner of Fresenius SE. Rachel Empey is a member of the supervisory board of the Company's General Partner as well as a member of the management board of the general partner of Fresenius SE. Additionally, the Chairman and Chief Executive Officer of the Management Board of the Company's General Partner, Rice Powell, is a member of the Management Board of the general partner of Fresenius SE.

For information regarding compensation of the Management Board and the Supervisory Board of the Company see note 28.

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6. Cash and cash equivalents

As of December 31, 2019 and 2018, cash and cash equivalents are as follows:

Cash and cash equivalents		
in € THOUS		
	2019	2018
Cash	768,706	831,885
Securities and time deposits	239,017	1,313,747
Cash and cash equivalents	1,007,723	2,145,632

The cash and cash equivalents disclosed in the table above, and respectively in the consolidated statement of cash flows, include at December 31, 2019 an amount of €18,820 (2018: €5,002) from collateral requirements towards an insurance company in North America that are not available for use.

7. Trade accounts and other receivables

As of December 31, 2019 and December 31, 2018, trade accounts and other receivables are as follows:

Trade accounts and other receivables				
in € THOUS				
	December 31, 2019		December 31, 2018	
		thereof credit-Impaired		thereof credit-Impaired
Trade accounts and other receivables, gross	3,562,704	366,497	3,349,515	325,240
<i>thereof finance lease receivables</i>	57,398	—	28,726	—
less allowances	(141,358)	(102,269)	(118,015)	(85,775)
Trade accounts and other receivables	3,421,346	264,228	3,231,500	239,465

The other receivables in the amount of €100,613 include receivables from finance leases, operating leases and insurance contracts (December 31, 2018: €66,496).

All trade accounts and other receivables are due within one year. A small portion of the trade account receivables are subject to factoring agreements.

Trade accounts receivables and finance lease receivables with a term of more than one year in the amount of €132,144 (December 31, 2018: €120,668) are included in the balance sheet item “Other non-current assets”.

The following table shows the development of the allowance for doubtful accounts in the fiscal years 2019, 2018 and 2017:

Development of allowance for doubtful accounts			
in € THOUS			
	2019	2018	2017
Allowance for doubtful accounts as of January 1	118,015	474,891	482,461
Change in valuation allowances as recorded in the consolidated statements of income	42,315	19,112	549,631
Write-offs and recoveries of amounts previously written-off	(18,587)	(378,201)	(501,229)
Foreign currency translation	(385)	2,213	(55,972)
Allowance for doubtful accounts as of December 31	141,358	118,015	474,891

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The following tables show the ageing analysis of trade accounts and other receivables and the allowance for doubtful accounts as of December 31, 2019 and as of December 31, 2018:

Ageing analysis of trade accounts and other receivables 2019

in € THOUS						
	<u>not overdue</u>	<u>up to 3 months overdue</u>	<u>3 to 6 months overdue</u>	<u>6 to 12 months overdue</u>	<u>more than 12 months overdue</u>	<u>Total</u>
Trade accounts and other receivables	1,997,671	899,987	229,012	184,768	251,266	3,562,704
less allowance for doubtful accounts	<u>(9,385)</u>	<u>(8,411)</u>	<u>(6,267)</u>	<u>(13,325)</u>	<u>(103,970)</u>	<u>(141,358)</u>
Trade accounts and other receivables, net	<u>1,988,286</u>	<u>891,576</u>	<u>222,745</u>	<u>171,443</u>	<u>147,296</u>	<u>3,421,346</u>

Ageing analysis of trade accounts and other receivables 2018

in € THOUS						
	<u>not overdue</u>	<u>up to 3 months overdue</u>	<u>3 to 6 months overdue</u>	<u>6 to 12 months overdue</u>	<u>more than 12 months overdue</u>	<u>Total</u>
Trade accounts receivable	1,863,149	848,092	217,024	175,079	246,171	3,349,515
less allowance for doubtful accounts	<u>(8,043)</u>	<u>(4,711)</u>	<u>(5,209)</u>	<u>(5,946)</u>	<u>(94,106)</u>	<u>(118,015)</u>
Trade accounts receivable, net	<u>1,855,106</u>	<u>843,381</u>	<u>211,815</u>	<u>169,133</u>	<u>152,065</u>	<u>3,231,500</u>

8. Inventories

At December 31, 2019 and December 31, 2018, inventories consisted of the following:

Inventories

in € THOUS		
	<u>2019</u>	<u>2018</u>
Finished goods	940,407	774,133
Health care supplies	399,585	391,593
Raw materials and purchased components	233,609	224,054
Work in process	<u>89,677</u>	<u>77,023</u>
Inventories	<u>1,663,278</u>	<u>1,466,803</u>

Under the terms of certain unconditional purchase agreements, the Company is obligated to purchase approximately €443,744 of materials, of which €208,841 is committed at December 31, 2019 for 2020. The terms of these agreements run 1 to 5 years. Further unconditional purchase agreements exist with an equity method investee of the Company. For further information on these agreements, see note 5.

Allowances on Inventories amounted to €69,427 and €62,990 for the years ended December 31, 2019 and 2018, respectively.

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9. Other current assets

At December 31, 2019 and 2018, other current assets consisted of the following:

Other current assets in € THOUS	2019	2018
Income taxes receivable	209,545	159,290
Debt securities	133,322	99,592
Other taxes receivable	127,880	107,708
Payments on account	110,078	104,817
Receivables for supplier rebates	51,296	68,203
Prepaid rent	26,374	57,319
Deposit / Guarantee / Security	22,226	19,915
Prepaid insurance	19,796	23,632
Derivatives	2,513	7,837
Other	210,573	155,770
Other current assets	913,603	804,083

The item “Other” in the table above primarily includes loans to customers, receivables from employees and notes receivables.

10. Property, plant and equipment

At December 31, 2019 and 2018, the acquisition or manufacturing costs and the accumulated depreciation of property, plant and equipment consisted of the following:

Acquisition or manufacturing costs in € THOUS							
	January 1, 2019	Foreign currency translation	Changes in consolidation group	Additions	Reclassifications	Disposals	December 31, 2019
Land	58,887	802	2,824	466	3,153	(2,140)	63,992
Buildings and improvements	3,311,704	65,782	10,648	43,560	296,276	(83,533)	3,644,437
Machinery and equipment	4,541,906	59,529	86,743	569,352	127,613	(245,487)	5,139,656
Machinery, equipment and rental equipment under capitalized leases	89,734	2,151	—	—	(91,885)	—	—
Construction in progress	505,168	7,692	(1,167)	368,577	(366,895)	(4,093)	509,282
Property, plant and equipment	8,507,399	135,956	99,048	981,955	(31,738)	(335,253)	9,357,367

Acquisition or manufacturing costs in € THOUS							
	January 1, 2018	Foreign currency translation	Changes in consolidation group	Additions	Reclassifications	Disposals	December 31, 2018
Land	56,540	2,299	358	605	490	(1,405)	58,887
Buildings and improvements	2,881,688	108,998	692	67,272	328,718	(75,664)	3,311,704
Machinery and equipment	4,174,027	96,766	(2,576)	465,117	29,325	(220,753)	4,541,906
Machinery, equipment and rental equipment under capitalized leases	80,916	3,880	(98)	6,259	665	(1,888)	89,734
Construction in progress	462,226	6,759	4,519	419,347	(387,131)	(552)	505,168
Property, plant and equipment	7,655,397	218,702	2,895	958,600	(27,933)	(300,262)	8,507,399

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Depreciation

in € THOUS

	January 1, 2019	Foreign currency translation	Changes in consolidation group	Additions	Reclassifications	Disposals	December 31, 2019
Land	1,295	19	—	20	—	(2)	1,332
Buildings and improvements	1,818,053	32,818	(8,312)	255,683	8,805	(54,227)	2,052,820
Machinery and equipment	2,798,709	34,291	(7,023)	461,947	24,591	(199,581)	3,112,934
Machinery, equipment and rental equipment under capitalized leases	53,332	1,334	—	—	(54,666)	—	—
Construction in progress	—	—	—	—	—	—	—
Property, plant and equipment	4,671,389	68,462	(15,335)	717,650	(21,270)	(253,810)	5,167,086

Depreciation

in € THOUS

	January 1, 2018	Foreign currency translation	Changes in consolidation group	Additions	Reclassifications	Disposals	December 31, 2018
Land	1,239	38	—	—	—	18	1,295
Buildings and improvements	1,580,103	65,251	(1,484)	221,866	(786)	(46,897)	1,818,053
Machinery and equipment	2,538,436	58,817	(4,278)	400,439	(13,986)	(180,719)	2,798,709
Machinery, equipment and rental equipment under capitalized leases	43,848	2,485	(289)	9,118	30	(1,860)	53,332
Construction in progress	—	—	—	—	—	—	—
Property, plant and equipment	4,163,626	126,591	(6,051)	631,423	(14,742)	(229,458)	4,671,389

Book value

in € THOUS

	December 31, 2019	December 31, 2018
Land	62,660	57,592
Buildings and improvements	1,591,617	1,493,651
Machinery and equipment	2,026,722	1,743,197
Machinery, equipment and rental equipment under capitalized leases	—	36,402
Construction in progress	509,282	505,168
Property, plant and equipment	4,190,281	3,836,010

Depreciation expense for property, plant and equipment amounted to €717,650, €631,423 and €622,706 for the years ended December 31, 2019, 2018, and 2017, respectively. These expenses are allocated within costs of revenue, selling, general and administrative and research and development expenses depending upon the area in which the asset is used.

Under the terms of certain unconditional purchase agreements, the Company is obligated to purchase approximately €62,787 of property, plant and equipment, of which €60,190 is committed at December 31, 2019 for 2020. The terms of these agreements run 1 to 5 years.

Included in machinery and equipment at December 31, 2019 and 2018 were €775,601 and €731,427, respectively, of peritoneal dialysis cyclers machines which the Company leases to customers with end-stage renal disease on a month-to-month basis and hemodialysis machines which the Company leases to physicians under operating leases.

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At December 31, 2019 and 2018, the hyperinflationary effects on property, plant and equipment consisted of the following:

Effect of hyperinflation in Argentina

in € THOUS

	Acquisition or manufacturing costs	Accumulated depreciation	December 31, 2019
Land	2,307	—	2,307
Buildings and improvements	20,652	7,802	12,850
Machinery and equipment	33,237	21,470	11,767
Machinery, equipment and rental equipment under capitalized leases	—	—	—
Construction in progress	1,108	—	1,108
Property, plant and equipment	57,304	29,272	28,032

	Acquisition or manufacturing costs	Accumulated depreciation	December 31, 2018
Land	1,581	—	1,581
Buildings and improvements	13,575	5,454	8,121
Machinery and equipment	21,821	15,321	6,500
Machinery, equipment and rental equipment under capitalized leases	—	—	—
Construction in progress	656	—	656
Property, plant and equipment	37,633	20,775	16,858

11. Intangible assets and goodwill

At December 31, 2019 and 2018, the acquisition or manufacturing costs and the accumulated amortization of intangible assets and goodwill consisted of the following:

Acquisition or manufacturing costs

in € THOUS

	January 1, 2019	Foreign currency translation	Changes in consolidation group	Additions	Reclassifications	Disposals	December 31, 2019
Amortizable intangible assets							
Non-compete agreements	324,910	6,012	4,744	25	(274)	(2,695)	332,722
Technology	153,164	(376)	589,833	—	—	—	742,621
Licenses and distribution agreements	235,625	4,678	(38,126)	783	5,093	(5,766)	202,287
Customer relationships	23,847	(116)	47,880	—	(2,680)	—	68,931
Construction in progress	148,002	1,208	36,892	171,446	(86,898)	(3,247)	267,403
Internally developed intangibles	217,033	971	—	9,105	71,152	(222)	298,039
Other	381,390	6,852	(1,949)	11,007	17,763	(6,722)	408,341
	1,483,971	19,229	639,274	192,366	4,156	(18,652)	2,320,344
Non-amortizable intangible assets							
Tradename	182,901	3,326	41,002	—	—	—	227,229
Management contracts	3,134	91	—	—	—	—	3,225
	186,035	3,417	41,002	—	—	—	230,454
Intangible assets	1,670,006	22,646	680,276	192,366	4,156	(18,652)	2,550,798
Goodwill	12,209,606	217,996	1,589,653	—	—	—	14,017,255

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Acquisition or manufacturing costs

in € THOUS

	January 1, 2018	Foreign currency translation	Changes in consolidation group	Additions	Reclassifications	Disposals	December 31, 2018
Amortizable intangible assets							
Non-compete agreements	310,163	12,427	6,339	720	(2)	(4,737)	324,910
Technology	149,191	3,973	—	—	—	—	153,164
Licenses and distribution agreements	173,713	3,049	—	61,166	(3)	(2,300)	235,625
Customer relationships	147,096	2,015	(125,264)	—	—	—	23,847
Construction in progress	78,757	2,785	—	107,097	(23,050)	(17,587)	148,002
Internally developed intangibles . .	169,095	2,158	(9,763)	17,501	38,643	(601)	217,033
Other	358,092	9,490	(3,368)	9,881	12,883	(5,588)	381,390
	<u>1,386,107</u>	<u>35,897</u>	<u>(132,056)</u>	<u>196,365</u>	<u>28,471</u>	<u>(30,813)</u>	<u>1,483,971</u>
Non-amortizable intangible assets							
Tradename	174,689	8,212	—	—	—	—	182,901
Management contracts	3,038	96	—	—	—	—	3,134
	<u>177,727</u>	<u>8,308</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>186,035</u>
Intangible assets	<u>1,563,834</u>	<u>44,205</u>	<u>(132,056)</u>	<u>196,365</u>	<u>28,471</u>	<u>(30,813)</u>	<u>1,670,006</u>
Goodwill	<u>12,103,921</u>	<u>441,972</u>	<u>(336,287)</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>12,209,606</u>

Amortization

in € THOUS

	January 1, 2019	Foreign currency translation	Changes in consolidation group	Additions	Impairment loss	Reclassifications	Disposals	December 31, 2019
Amortizable intangible assets								
Non-compete agreements	282,296	5,235	(166)	11,868	—	26	(3,136)	296,123
Technology	124,605	1,140	—	49,265	—	—	—	175,010
Licenses and distribution agreements	131,492	2,607	—	14,293	—	—	(4,680)	143,712
Customer relationships	7,245	12	—	4,099	—	—	—	11,356
Construction in progress	—	—	—	—	—	—	—	—
Internally developed intangibles	138,343	1,328	—	28,722	932	360	(500)	169,185
Other	304,694	4,795	(3,606)	27,235	—	1,410	(5,446)	329,082
	<u>988,675</u>	<u>15,117</u>	<u>(3,772)</u>	<u>135,482</u>	<u>932</u>	<u>1,796</u>	<u>(13,762)</u>	<u>1,124,468</u>

Amortization

in € THOUS

	January 1, 2018	Foreign currency translation	Changes in consolidation group	Additions	Impairment loss	Reclassifications	Disposals	December 31, 2018
Amortizable intangible assets								
Non-compete agreements	262,381	11,338	(1,468)	14,675	—	17	(4,647)	282,296
Technology	64,563	2,995	(356)	10,740	46,663	—	—	124,605
Licenses and distribution agreements	119,819	577	—	12,673	726	(3)	(2,300)	131,492
Customer relationships	50,572	727	(53,247)	9,226	—	—	(33)	7,245
Construction in progress	—	—	—	—	16,750	—	(16,750)	—
Internally developed intangibles	108,906	2,927	(2,475)	20,357	—	9,202	(574)	138,343
Other	274,535	8,003	(6,375)	25,753	580	6,064	(3,866)	304,694
	<u>880,776</u>	<u>26,567</u>	<u>(63,921)</u>	<u>93,424</u>	<u>64,719</u>	<u>15,280</u>	<u>(28,170)</u>	<u>988,675</u>

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Book value in € THOUS	December 31, 2019	December 31, 2018
Amortizable intangible assets		
Non-compete agreements	36,599	42,614
Technology	567,611	28,559
Licenses and distribution agreements	58,575	104,133
Customer relationships	57,575	16,602
Construction in progress	267,403	148,002
Internally developed intangibles	128,854	78,690
Other	79,259	76,696
	<u>1,195,876</u>	<u>495,296</u>
Non-amortizable intangible assets		
Tradenname	227,229	182,901
Management contracts	3,225	3,134
	<u>230,454</u>	<u>186,035</u>
Intangible assets	<u>1,426,330</u>	<u>681,331</u>
Goodwill	<u>14,017,255</u>	<u>12,209,606</u>

The amortization of intangible assets amounted to €135,482, €93,424 and €112,773 for the years ended December 31, 2019, 2018, and 2017, respectively. These expenses are allocated within costs of revenue, selling, general and administrative and research and development expenses depending upon the area in which the asset is used.

At December 31, 2019 and 2018, the hyperinflationary effects on intangible assets and goodwill consisted of the following:

Effect of hyperinflation in Argentina			
in € THOUS	Acquisition or manufacturing costs	Accumulated depreciation	December 31, 2019
Amortizable intangible assets			
Internally developed intangibles	1,971	1,281	690
Other	1,697	727	970
	<u>3,668</u>	<u>2,008</u>	<u>1,660</u>
Intangible assets	<u>3,668</u>	<u>2,008</u>	<u>1,660</u>
Goodwill	<u>28,057</u>	<u>2,926</u>	<u>25,131</u>
	Acquisition or manufacturing costs	Accumulated depreciation	December 31, 2018
Amortizable intangible assets			
Internally developed intangibles	142	129	13
Other	1,889	1,209	680
	<u>2,031</u>	<u>1,338</u>	<u>693</u>
Intangible assets	<u>2,031</u>	<u>1,338</u>	<u>693</u>
Goodwill	<u>20,197</u>	<u>2,118</u>	<u>18,079</u>

Goodwill and intangible assets with indefinite useful lives

The increase in the carrying amount of goodwill during 2019 is mainly a result of the acquisition of NxStage, the impact of foreign currency translations and the purchase of clinics in the normal course of operations.

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The carrying amount of goodwill and intangibles with indefinite useful life is allocated to the CGUs at December 31, 2019 and 2018 as follows:

Allocation of the carrying amount to CGUs

in € THOUS	North America		EMEA		Asia-Pacific		Latin America	
	2019	2018	2019	2018	2019	2018	2019	2018
	Goodwill	11,762,791	10,128,309	1,342,730	1,282,632	716,665	662,097	195,069
Management contracts with indefinite useful life .	—	—	—	—	3,225	3,134	—	—
Trade name with indefinite useful life	226,692	182,329	—	—	—	—	537	572

The recoverability of goodwill and other separable intangible assets with indefinite useful lives recorded in the Company's consolidated balance sheets was verified. As a result, the Company did not record any impairment losses in 2019 and 2018.

12. Current provisions and other current liabilities

Current provisions

The following table shows a reconciliation of the current provisions for 2019:

Development of current provisions

in € THOUS	January 1, 2019	Foreign currency translation	Changes in consolidation group					December 31, 2019
				Utilized	Reversed	Additions	Reclassifications	
Self-insurance programs .	198,307	3,751	—	—	—	17,808	—	219,866
Personnel expenses	42,430	359	215	(25,436)	(293)	32,487	40,764	90,526
Risk of lawsuit	32,304	246	507	(15,049)	(50)	3,023	—	20,981
FCPA related charge	223,980	—	—	(219,588)	(4,000)	3,844	—	4,236
Other current provisions	27,495	218	742	(3,976)	(839)	12,807	—	36,447
Current provisions	524,516	4,574	1,464	(264,049)	(5,182)	69,969	40,764	372,056

Self-insurance programs

See note 2 d).

Personnel expenses

Personnel expenses mainly refer to provisions for share-based plans, the current portion of the provisions for accrued severance payments and provisions for jubilee payments. As at December 31, 2019 and 2018 the provisions for share-based plans amounted to €63,447 and €15,478, respectively. See note 20.

Risk of lawsuit

See note 22.

FCPA related charge

On March 29, 2019, the Company entered into a non-prosecution agreement with the United States Department of Justice (“DOJ”) and a separate agreement with the Securities and Exchange Commission (“SEC”) intended to resolve fully and finally the government's claims against the Company arising from the investigations. The Company paid a combined total in penalties and disgorgement of approximately \$231,700 to the DOJ and the SEC in connection with these agreements. For further information on these investigations see note 22.

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Other current provisions

The item “Other current provisions” in the table above includes provisions for warranties, physician compensation and return of goods.

Other current liabilities

As at December 31, 2019 and 2018 other current liabilities consisted of the following:

Other current liabilities	2019	2018
in € THOUS		
Personnel liabilities	647,508	654,457
Noncontrolling interests subject to put provisions	603,132	494,576
Unapplied cash and receivable credits	482,682	364,657
Invoices outstanding	178,209	160,112
Withholding tax and VAT	104,388	100,086
Interest liabilities	73,593	92,961
Variable payments outstanding for acquisitions	34,253	57,217
Legal matters, advisory and audit fees	27,979	38,778
Bonuses, commissions	27,510	26,831
Contract liabilities	22,795	37,628
Rent and lease obligations	176	138,210
Other liabilities	238,138	214,259
Other current liabilities	<u>2,440,363</u>	<u>2,379,772</u>

Personnel liabilities

The personnel liabilities mainly refer to liabilities for wages and salaries, bonuses and vacation payments.

Contract liabilities

Contract liabilities primarily relate to advance payments from customers and to sales of dialysis machines where revenue is recognized upon installation and provision of the necessary technical instructions whereas a receivable is recognized once the machine is billed to the customer.

Other liabilities

The item “Other liabilities” in the table above includes derivatives, deferred income, the current portion of pension liabilities as well as liabilities for severance payments related to the Company’s cost optimization program.

13. Short-term debt and short-term debt from related parties

At December 31, 2019 and December 31, 2018, short-term debt and short-term debt from related parties consisted of the following:

Short-term debt and short-term debt from related parties	2019	2018
in € THOUS		
Commercial paper program	999,732	999,873
Borrowings under lines of credit	143,875	204,491
Other	6,381	930
Short-term debt	1,149,988	1,205,294
Short-term debt from related parties (see note 5 c)	21,865	188,900
Short-term debt and short-term debt from related parties	<u>1,171,853</u>	<u>1,394,194</u>

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Commercial paper program

The Company maintains a commercial paper program under which short-term notes of up to €1,000,000 can be issued. At December 31, 2019 and 2018, the outstanding commercial paper amounted to €1,000,000 and €1,000,000, respectively.

Borrowings under lines of credit and further availabilities

Borrowings under lines of credit in the amount of €143,875 and €204,491 at December 31, 2019 and 2018, respectively, represented amounts borrowed by the Company and its subsidiaries under lines of credit with commercial banks. The average interest rates on these borrowings at December 31, 2019 and 2018 were 0.86% and 1.21%, respectively.

Excluding amounts available under the Amended 2012 Credit Agreement (see note 14 below), at December 31, 2019 and 2018, the Company had €517,926 and €386,619 available under other commercial bank agreements. In some instances, lines of credit are secured by assets of the Company's subsidiary that is party to the agreement or may require the Company's guarantee. In certain circumstances, the subsidiary may be required to meet certain covenants.

The Company and certain consolidated entities operate a multi-currency notional pooling cash management system. The Company met the conditions to offset balances within this cash pool for reporting purposes. At December 31, 2019 and 2018, cash and borrowings under lines of credit in the amount of €152,598 and €122,256 were offset under this cash management system.

Other

At December 31, 2019 and 2018, the Company had €6,381 and €930 of other debt outstanding related to fixed payments outstanding for acquisitions.

Short-term debt from related parties

On July 31, 2019, the Company and one of its subsidiaries, as borrowers, and Fresenius SE, as lender, amended and restated an unsecured loan agreement to increase the aggregate amount from \$400,000 to €600,000. The Company and one of its subsidiaries may request and receive one or more short-term advances until maturity on July 31, 2022. For further information on short-term debt from related parties, see note 5 c).

14. Long-term debt

As of December 31, 2019 and 2018, long-term debt consisted of the following:

Long-term debt		
in € THOUS	2019	2018
Amended 2012 Credit Agreement	1,901,372	1,887,357
Bonds	4,966,619	3,700,446
Convertible Bonds	399,939	393,232
Accounts Receivable Facility	379,570	—
Capital lease obligations ⁽¹⁾	—	36,144
Other	258,057	134,855
Long-term debt ⁽²⁾	7,905,557	6,152,034
Less current portion	(1,447,239)	(1,106,519)
Long-term debt, less current portion⁽²⁾	6,458,318	5,045,515

(1) As of December 31, 2018, this line item included lease liabilities from capital leases in accordance with IAS 17. From 2019, these amounts are transferred to balance sheet items "Current portion of long-term lease liabilities" and "Long-term lease liabilities, less current portion" (see note 1).

(2) Labeled as "Long-term debt and capital lease obligations, less current portion" as of December 31, 2018, this line item included lease liabilities from capital leases in accordance with IAS 17. From 2019, these amounts are transferred to balance sheet item "Long-term lease liabilities, less current portion" (see note 1).

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The Company's long-term debt as of December 31, 2019, all of which ranks equally in rights of payment, are described as follows:

Amended 2012 credit agreement

The Company originally entered into a syndicated credit facility of \$3,850,000 and a 5-year tenor (the "2012 Credit Agreement") on October 30, 2012. On November 26, 2014, the 2012 Credit Agreement was amended to increase the total credit facility to approximately \$4,400,000 and extend the term for an additional two years until October 30, 2019 ("Amended 2012 Credit Agreement"). On July 11, 2017, the Company further amended and extended the Amended 2012 Credit Agreement.

As of December 31, 2019, the Amended 2012 Credit Agreement consists of:

- Revolving credit facilities of \$900,000 and €600,000 which will be due and payable on July 31, 2022.
- A term loan of \$1,230,000, also scheduled to mature on July 31, 2022. Quarterly repayments of \$30,000 began on October 31, 2017 with the remaining balance outstanding due on the maturity date.
- A term loan of €287,000 scheduled to mature on July 31, 2022. Quarterly repayments of €7,000 began on October 31, 2017 with the remaining balance outstanding due on the maturity date.
- A non-amortizing term loan of €400,000 which is scheduled to mature on July 30, 2020.

Interest on the credit facilities is floating at a rate equal to EURIBOR / LIBOR (as applicable) plus an applicable margin. The applicable margin is variable and depends on the Company's consolidated net leverage ratio, which is a ratio of its consolidated funded debt less cash and cash equivalents to consolidated EBITDA (as these terms are defined in the Amended 2012 Credit Agreement). At December 31, 2019 and 2018, the dollar-denominated tranches outstanding under the Amended 2012 Credit Agreement had a weighted average interest rate of 3.24% and 3.53%, respectively. At December 31, 2019 and 2018, the euro-denominated tranches had a weighted average interest rate of 0.93% and 0.81%, respectively.

The Amended 2012 Credit Agreement contains affirmative and negative covenants with respect to the Company and its subsidiaries. Under certain circumstances these covenants limit indebtedness and restrict the creation of liens. Under the Amended 2012 Credit Agreement the Company is required to comply with a maximum consolidated net leverage ratio.

The following table shows the available and outstanding amounts under the Amended 2012 Credit Agreement at December 31, 2019 and 2018:

Amended 2012 Credit Agreement – Maximum amount available and balance outstanding

in THOUS	Maximum amount available 2019		Balance outstanding 2019 ⁽¹⁾	
Revolving credit USD 2017 / 2022	\$ 900,000	€ 801,139	\$ 138,700	€ 123,464
Revolving credit EUR 2017 / 2022	€ 600,000	€ 600,000	€ —	€ —
USD term loan 2017 / 2022	\$1,230,000	€1,094,891	\$1,230,000	€1,094,891
EUR term loan 2017 / 2022	€ 287,000	€ 287,000	€ 287,000	€ 287,000
EUR term loan 2017 / 2020	€ 400,000	€ 400,000	€ 400,000	€ 400,000
		<u>€3,183,030</u>		<u>€1,905,355</u>

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	<u>Maximum amount available 2018</u>		<u>Balance outstanding 2018⁽¹⁾</u>	
Revolving credit USD 2017 / 2022	\$ 900,000	€ 786,026	\$ —	€ —
Revolving credit EUR 2017 / 2022	€ 600,000	€ 600,000	€ —	€ —
USD term loan 2017 / 2022	\$1,350,000	€1,179,039	\$1,350,000	€1,179,039
EUR term loan 2017 / 2022	€ 315,000	€ 315,000	€ 315,000	€ 315,000
EUR term loan 2017 / 2020	€ 400,000	€ 400,000	€ 400,000	€ 400,000
		<u>€3,280,065</u>		<u>€1,894,039</u>

(1) Amounts shown are excluding debt issuance costs.

At December 31, 2019 and 2018, the Company had letters of credit outstanding in the amount of \$1,135 and \$1,690 (€1,010 and €1,476), respectively, under the USD revolving credit facility, which are not included above as part of the balance outstanding at those dates but which reduce available borrowings under the applicable revolving credit facility.

Bonds

At December 31, 2019 and 2018, the Company's bonds consisted of the following:

Bonds					
in THOUS					
<u>Issuer/Transaction</u>	<u>Face amount</u>	<u>Maturity</u>	<u>Coupon</u>	<u>Book value 2019 in €</u>	<u>Book value 2018 in €</u>
FMC US Finance II, Inc. 2012	\$800,000	July 31, 2019	5.625%	—	698,167
FMC Finance VIII S.A. 2012	€250,000	July 31, 2019	5.25%	—	249,773
FMC US Finance II, Inc. 2014	\$500,000	October 15, 2020	4.125%	444,507	435,376
FMC US Finance, Inc. 2011	\$650,000	February 15, 2021	5.75%	577,069	564,882
FMC Finance VII S.A. 2011	€300,000	February 15, 2021	5.25%	299,498	299,035
FMC US Finance II, Inc. 2012	\$700,000	January 31, 2022	5.875%	622,135	609,532
Fresenius Medical Care AG & Co. KGaA, 2019 . .	€650,000	November 29, 2023	0.25%	646,936	—
FMC US Finance II, Inc. 2014	\$400,000	October 15, 2024	4.75%	354,338	347,297
Fresenius Medical Care AG & Co. KGaA, 2018 . .	€500,000	July 11, 2025	1.50%	496,138	496,384
Fresenius Medical Care AG & Co. KGaA, 2019 . .	€600,000	November 30, 2026	0.625%	593,216	—
FMC US Finance III, Inc. 2019	\$500,000	June 15, 2029	3.75%	435,673	—
Fresenius Medical Care AG & Co. KGaA, 2019 . .	€500,000	November 29, 2029	1.25%	497,109	—
				<u>4,966,619</u>	<u>3,700,446</u>

All bonds issued before 2018, as well as the bonds issued by FMC US Finance III in 2019, are guaranteed by the Company and by FMCH and may be redeemed at the option of the respective issuers at any time at 100% of principal plus accrued interest and a premium calculated pursuant to the terms of the indenture. The holders of our bonds have the right to request that the issuers repurchase the bonds at 101% of principal plus accrued interest upon the occurrence of a change of control of the Company followed by a decline in the ratings of the respective bonds.

The Company has agreed to a number of covenants to provide protection to the holders which, under certain circumstances and with certain exceptions for the bonds issued since 2018, limit the ability of the Company and its subsidiaries to, among other things, incur debt, incur liens, engage in sale-leaseback transactions and merge or consolidate with other companies or sell assets. The limitation on incurrence of debt in the bonds issued before 2018 was suspended automatically as the rating of the respective bonds reached investment grade status. At December 31, 2019, the Company was in compliance with all of its covenants under the bonds.

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The bonds issued by FMC Finance VIII S.A. in the amount of €250,000 and the bonds issued by Fresenius Medical Care US Finance II, Inc. in the amount of \$800,000, which were due on July 31, 2019, were redeemed at maturity.

Convertible bonds

On September 19, 2014, the Company issued €400,000 principal amount of equity-neutral convertible bonds with a coupon of 1.125%. The bonds were issued at par and repaid as planned on January 31, 2020. In November 2019, the conversion feature expired and no conversions occurred. The call options on its shares that the Company purchased in 2014 to fully offset the economic exposure from the conversion feature also expired in November 2019.

Accounts Receivable Facility

The Company refinanced the Accounts Receivable Facility on December 20, 2018 increasing the facility to \$900,000 and extending it until December 20, 2021.

The following table shows the available and outstanding amounts under the Accounts Receivable Facility at December 31, 2019 and December 31, 2018:

Accounts Receivable Facility – Maximum amount available and balance outstanding
in THOUS

	<u>Maximum amount available 2019⁽¹⁾</u>		<u>Balance outstanding 2019⁽²⁾</u>	
Accounts Receivable Facility	<u>\$900,000</u>	<u>€801,139</u>	<u>\$427,000</u>	<u>€380,096</u>
	<u>Maximum amount available 2018⁽¹⁾</u>		<u>Balance outstanding 2018⁽²⁾</u>	
Accounts Receivable Facility	<u>\$900,000</u>	<u>€786,026</u>	<u>\$ —</u>	<u>€ —</u>

(1) Subject to availability of sufficient accounts receivable meeting funding criteria.

(2) Amounts shown are excluding debt issuance costs.

The Company also had letters of credit outstanding under the Accounts Receivable Facility in the amount of \$23,460 at December 31, 2019 and \$26,631 at December 31, 2018 (€20,883 and €23,259). These letters of credit are not included above as part of the balance outstanding at December 31, 2019 and 2018; however, they reduce available borrowings under the Accounts Receivable Facility.

Under the Accounts Receivable Facility, certain receivables are sold to NMC Funding Corporation (“NMC Funding”), a wholly-owned subsidiary. NMC Funding then assigns percentage ownership interests in the accounts receivable to certain bank investors. Under the terms of the Accounts Receivable Facility, NMC Funding retains the right, at any time, to recall all the then outstanding transferred interests in the accounts receivable. Consequently, the receivables remain on the Company’s consolidated balance sheet and the proceeds from the transfer of percentage ownership interests are recorded as long-term debt.

NMC Funding pays interest to the bank investors calculated based on the commercial paper rates for the particular tranches selected. At December 31, 2019, the interest rate was 1.98%. At December 31, 2018, this facility was not utilized by the Company. Refinancing fees, which include legal costs and bank fees, are amortized over the term of the facility.

Other

At December 31, 2019 and 2018, in conjunction with certain acquisitions and investments, the Company had fixed payments outstanding for acquisitions totaling approximately €27,611 and €16,713, respectively, of which €12,456 and €7,621, respectively, were classified as the current portion of long-term debt.

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15. Non-current provisions and other non-current liabilities

Of the total amount of non-current provisions and other non-current liabilities amounting to €668,747 at December 31, 2019 (2018: €750,738), €219,129 (2018: €457,382) are due in between more than one and three years, €34,762 (2018: €107,080) are due in between three to five years and €414,856 (2018: €186,276) are due after five years.

The item “Other non-current liabilities” in the amount of €559,944 at December 31, 2019 (2018: €622,291) includes, among others, noncontrolling interests subject to put provisions of €331,293 (2018: €324,295), variable payments outstanding for acquisitions of €55,424 (2018: €115,061) and derivatives of €50 (2018: €11,820).

The following table shows the development of non-current provisions in the fiscal year:

Development of non-current provisions

in € THOUS

	January 1, 2019	Foreign currency translation	Changes in consolidation group	Utilized	Reversed	Additions	Reclassifications	December 31, 2019
Personnel expenses . . .	84,439	1,203	430	(3,294)	(713)	19,065	(40,764)	60,366
Interest payable related to income taxes	29,231	150	—	—	(5,447)	2,177	—	26,111
Other non-current provisions	14,777	66	6,066	(283)	(249)	1,949	—	22,326
Non-current provisions	128,447	1,419	6,496	(3,577)	(6,409)	23,191	(40,764)	108,803

Personnel expenses mainly refer to provisions for share-based plans and provisions for severance payments. As at December 31, 2019, the provisions for share-based plans amounted to €47,411 (2018: €71,784). See note 20.

The item “Other non-current provisions” in the table above includes provisions for asset retirement obligations.

The increase during the period in the discounted amount arising from the passage over time and the effect of any change in the discount rate is not material.

16. Employee benefit plans

General

FMC-AG & Co. KGaA recognizes pension costs and related pension liabilities for current and future benefits to qualified current and former employees of the Company. The Company’s pension plans are structured in accordance with the differing legal, economic and fiscal circumstances in each country. The Company currently has two types of plans, defined benefit and defined contribution plans. In general, plan benefits in defined benefit plans are based on all or a portion of the employees’ years of services and final salary. Plan benefits in defined contribution plans are determined by the amount of contribution by the employee and the employer, both of which may be limited by legislation, and the returns earned on the investment of those contributions.

Upon retirement under defined benefit plans, the Company is required to pay defined benefits to former employees when the defined benefits become due. Defined benefit plans may be funded or unfunded. The Company has five major defined benefit plans, one funded plan in the U.S. and one in France as well as one unfunded plan in Germany and two in France.

In the fourth quarter of 2019, FMC North America offered a lump-sum payout for its defined benefit pension plan to former employees. This settlement reduced the benefit obligation and resulted in a gain.

Actuarial assumptions generally determine benefit obligations under defined benefit plans. The actuarial calculations require the use of estimates. The main factors used in the actuarial calculations affecting the level of the benefit obligations are: assumptions on life expectancy, the discount rate and future salary and

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benefit levels. Under the Company's funded plans, assets are set aside to meet future payment obligations. An estimated return on the plan assets is recognized as income in the respective period. Actuarial gains and losses are generated when there are variations in the actuarial assumptions and by differences between the actual and the estimated projected benefit obligations and the return on plan assets for that year. The Company's pension liability is impacted by these actuarial gains or losses.

Under defined contribution plans, the Company pays defined contributions to an independent third party as directed by the employee during the employee's service life, which satisfies all obligations of the Company to the employee. The employee retains all rights to the contributions made by the employee and to the vested portion of the Company paid contributions upon leaving the Company. The Company has a defined contribution plan in the U.S.

Defined benefit pension plans

During the first quarter of 2002 FMCH, the Company's U.S. subsidiary, curtailed its defined benefit and supplemental executive retirement plans. Under the curtailment amendment for substantially all employees eligible to participate in the plan, benefits have been frozen as of the curtailment date and no additional defined benefits for future services will be earned. The Company has retained all employee benefit obligations as of the curtailment date. Each year FMCH contributes at least the minimum amount required by the Employee Retirement Income Security Act of 1974, as amended. In 2019, FMCH did not have a minimum funding requirement. The Company voluntarily provided €1,131 to the defined benefit plan. Expected funding for 2020 is €1,139.

The benefit obligation for all defined benefit plans at December 31, 2019, was €976,467 (2018: €842,601) which consists of the gross benefit obligation of €399,339 (2018: €388,518) for the U.S. plan and of €5,498 (2018: €4,626) for the French plan, which are partially funded by plan assets, and the benefit obligation of €560,255 (2018: €439,677) for the German unfunded plan and the benefit obligation of €11,375 (2018: €9,780) for the two French unfunded plans.

Related to defined benefit plans the Company is exposed to certain risks. Besides general actuarial risks, e.g. the longevity risk and the interest rate risk, the Company is exposed to market risk as well as to investment risk.

The following table shows the changes in benefit obligations, the changes in plan assets and the deficit or surplus of the pension plans. Benefits paid as shown in the changes in benefit obligations represent

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payments made from both the funded and unfunded plans while the benefits paid as shown in the changes in plan assets include only benefit payments from the Company's funded benefit plan.

Deficit or surplus		
in € THOUS	<u>2019</u>	<u>2018</u>
Change in benefit obligation:		
Benefit obligation at beginning of year	842,601	792,739
Foreign currency translation (gains) losses	7,459	17,957
Changes in consolidation group	—	123
Current service cost	30,070	25,467
Interest cost	28,016	24,364
Transfer of plan participants	194	80
Actuarial (gains) losses arising from changes in financial assumptions	140,923	(9,760)
Actuarial (gains) losses arising from changes in demographic assumptions	(2,306)	3,497
Actuarial (gains) losses arising from experience adjustments	(4,873)	11,117
<i>Remeasurements</i>	133,744	4,854
Benefits paid	(60,863)	(22,983)
Settlements	(4,754)	—
Benefit obligation at end of year	<u>976,467</u>	<u>842,601</u>
Change in plan assets:		
Fair value of plan assets at beginning of year	317,585	291,256
Foreign currency translation gains (losses)	6,130	14,189
Interest income from plan assets	14,108	11,308
Actuarial gains (losses) arising from experience adjustments	34,131	(23,216)
<i>Actual return on plan assets</i>	48,239	(11,908)
Employer contributions	1,131	43,393
Benefits paid	(56,961)	(19,345)
Fair value of plan assets at end of year	<u>316,124</u>	<u>317,585</u>
Deficit (surplus) at end of year	<u>660,343</u>	<u>525,016</u>

For the years 2019 and 2018, there were no effects from the asset ceiling.

At December 31, 2019, the weighted average duration of the defined benefit obligation was 19 years (2018: 18 years).

The net pension liability as of December 31, 2019 and 2018 is calculated as follows:

Net pension liability		
in € THOUS	<u>2019</u>	<u>2018</u>
Deficit (surplus) at end of year	660,343	525,016
Benefit plans offered by other subsidiaries	39,147	35,424
Net pension liability	<u>699,490</u>	<u>560,440</u>

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Benefit plans offered by the Company in the U.S., Germany and France contain a pension liability of €660,343 and €525,016 at December 31, 2019 and 2018, respectively. The pension liability consists of a current portion of €6,190 (2018: €5,384) which is recorded in the line item “Current provisions and other current liabilities” in the consolidated balance sheets. The non-current portion of €654,153 (2018: €519,632) is recorded in non-current liabilities as “Pension liabilities” in the consolidated balance sheets.

As of December 31, 2019, €83,323 related to the U.S. pension plan, €560,255 related to the German plan and €16,765 related to the French plans. At December 31, 2018, €71,031 related to the U.S. pension plan, €439,677 related to the German plan and €14,308 related to the French plans. Approximately 67% of the beneficiaries are located in the U.S. and 7% in France with the majority of the remaining 26% located in Germany.

Benefit plans offered by other subsidiaries outside of the U.S., Germany and France contain separate benefit obligations. The total net pension liability for these other plans was €39,147 and €35,424 at December 31, 2019 and 2018 and consists of a current pension liability of €4,105 (2018: €3,126), which is recognized in the line item “Current provisions and other current liabilities.” The non-current pension liability of €35,042 (2018: €32,298) for these plans is recorded in non-current liabilities as “Pension liabilities” in the consolidated balance sheets.

The discount rates for all plans are based upon yields of portfolios of highly rated debt instruments with maturities that mirror each plan’s benefit obligation. The Company’s discount rates at December 31, 2019 and 2018 are the weighted average of these plans based upon their benefit obligations.

The following weighted-average assumptions were utilized in determining benefit obligations at December 31, 2019 and 2018:

Weighted average assumptions

in %	<u>2019</u>	<u>2018</u>
Discount rate	2.35	3.27
Rate of compensation increase	3.18	3.21
Rate of pension increase	1.70	1.69

Sensitivity analysis

Increases and decreases in principal actuarial assumptions by 0.5 percentage points would affect the pension liability at December 31, 2019 as follows:

Sensitivity analysis

in € THOUS	<u>0.5% increase</u>	<u>0.5% decrease</u>
Discount rate	(89,298)	104,053
Rate of compensation increase	16,040	(15,793)
Rate of pension increase	46,089	(41,222)

The sensitivity analysis was calculated based on the average duration of the pension obligations determined at December 31, 2019. The calculations were performed isolated for each significant actuarial parameter, in order to show the effect on the fair value of the pension liability separately.

The sensitivity analysis for compensation increases and for pension increases excludes the U.S. pension plan because it is frozen and therefore is not affected by changes from these two actuarial assumptions.

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The defined benefit pension plans' net periodic benefit costs are comprised of the following components for the years ended December 31, 2019, 2018 and 2017:

Components of net periodic benefit cost

in € THOUS	<u>2019</u>	<u>2018</u>	<u>2017</u>
Service cost	30,070	25,467	28,607
Net interest cost	13,908	13,056	11,087
(Gains) losses from settlements	(4,754)	—	—
Net periodic benefit costs	<u>39,224</u>	<u>38,523</u>	<u>39,694</u>

Service cost and net interest cost are allocated as personnel expense within costs of revenues; selling, general and administrative expense; or research and development expense. This is depending upon the area in which the beneficiary is employed. The gain from settlement is included in selling, general and administrative expense.

The following weighted-average assumptions were used in determining net periodic benefit cost for the years ended December 31, 2019, 2018 and 2017:

Weighted average assumptions

in %	<u>2019</u>	<u>2018</u>	<u>2017</u>
Discount rate	3.27	3.08	3.25
Rate of compensation increase	3.21	3.22	3.23
Rate of pension increase	1.69	1.45	1.45

Expected benefit payments are as follows:

Defined benefit pension plans: cash outflows

in € THOUS	<u>2019</u>	<u>2018</u>
1 year	28,706	24,111
1 - 3 years	56,577	53,662
3 - 5 years	62,441	61,415
5 - 10 years	183,896	184,929
Total	<u>331,620</u>	<u>324,117</u>

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Plan Assets

The following table presents the fair values of the Company's pension plan assets at December 31, 2019 and 2018:

Fair values of plan assets

in € THOUS

Asset category	Total	Quoted prices in active markets for identical assets	Significant observable inputs	Significant unobservable inputs	Total	Quoted prices in active markets for identical assets	Significant observable inputs
		(Level 1)	(Level 2)	(Level 3)		(Level 1)	(Level 2)
		2019			2018		
Equity investments							
Index funds ⁽¹⁾	85,321	8,440	76,881	—	77,718	1,972	75,746
Fixed income investments							
Government securities ⁽²⁾	2,875	2,547	328	—	9,241	8,880	361
Corporate bonds ⁽³⁾	202,642	—	202,642	—	186,500	—	186,500
Other bonds ⁽⁴⁾	10,179	—	2,762	7,417	3,518	—	3,518
U.S. treasury money market funds ⁽⁵⁾	14,999	14,999	—	—	40,510	40,510	—
Other types of investments							
Cash, money market and mutual funds ⁽⁶⁾	108	108	—	—	98	98	—
Total	316,124	26,094	282,613	7,417	317,585	51,460	266,125

(1) This category comprises low-cost equity index funds not actively managed that track the S&P 500, S&P 400, Russell 2000, MSCI Emerging Markets Index and the Morgan Stanley International EAFE Index.

(2) This Category comprises fixed income investments by the U.S. government and government sponsored entities.

(3) This Category primarily represents investment grade bonds of U.S. issuers from diverse industries.

(4) This Category comprises private placement bonds as well as collateralized mortgage obligations.

(5) This Category represents funds that invest in U.S. treasury obligations directly or in U.S. treasury backed obligations.

(6) This Category represents cash, money market funds as well as mutual funds comprised of high grade corporate bonds.

The methods and inputs used to measure the fair value of plan assets at the balance sheet date are as follows:

- Common stocks are valued at their market prices.
- Index funds are valued based on market quotes.
- Government bonds are valued based on both market prices and market quotes.
- Corporate bonds and other bonds are valued based on market quotes.
- Cash is stated at nominal value which equals the fair value.
- U.S. Treasury money market funds as well as other money market and mutual funds are valued at their market price.

Plan investment policy and strategy in the U.S.

The Company periodically reviews the assumption for long-term expected return on pension plan assets. As part of the assumptions review, a range of reasonable expected investment returns for the pension plan

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as a whole was determined based on an analysis of expected future returns for each asset class weighted by the allocation of the assets. The range of returns developed relies both on forecasts, which include the actuarial firm's expected long-term rates of return for each significant asset class or economic indicator, and on broad-market historical benchmarks for expected return, correlation, and volatility for each asset class.

The Company's overall investment strategy is to achieve a mix of approximately 99% of investments for long-term growth and income and 1% in cash or cash equivalents. Investment income and cash or cash equivalents are used for near-term benefit payments. Investments are governed by the plan investment policy and include well diversified index funds or funds targeting index performance.

The plan investment policy, utilizing a revised target investment allocation in a range around 26% equity and 74% fixed income investments, considers that there will be a time horizon for invested funds of more than 5 years. The total portfolio will be measured against a custom index that reflects the asset class benchmarks and the target asset allocation. The plan investment policy does not allow investments in securities of the Company or other related party securities. The performance benchmarks for the separate asset classes include: S&P 500 Index, S&P 400 Mid-Cap Index, Russell 2000 Index, MSCI EAFE Index, MSCI Emerging Markets Index, Barclays Capital Long-Corporate Bond Index, Bloomberg Barclays U.S. Corporate High Yield Index, and Bloomberg Barclays U.S. High Yield Fallen Angel 3% Capped Index.

Defined contribution plans

Most FMCH employees are eligible to join a 401(k) savings plan. Employees can deposit up to 75% of their pay up to a maximum of \$19.5 if under 50 years old (\$25.6 if 50 or over) under this savings plan. The Company will match 50% of the employee deposit up to a maximum Company contribution of 3% of the employee's pay. The Company's total expense under this defined contribution plan for the years ended December 31, 2019, 2018, and 2017, was €53,290, €53,872 and €48,746 respectively.

Additionally, the Company contributed for the years ended December 31, 2019, 2018, and 2017 €25,950, €24,721 and €24,329 to state pension plans.

17. Shareholders' equity

Capital stock

At December 31, 2019, the Company's share capital consists of 304,436,876 bearer shares without par value (*Stückaktien*) and a nominal value of €1.00 each. The Company's share capital has been fully paid in.

The General Partner of FMC-AG & Co. KGaA, Fresenius Medical Care Management AG, Hof an der Saale, is not obliged to make a capital contribution and has not made a capital contribution. It does not participate in the profits and losses or in the assets of the Company. The General Partner receives for the assumption of the management of the Company and the liability an annual remuneration independent of profit and loss in the amount of 4% of its share capital (see note 5 d). The General Partner shall be reimbursed for any and all expenses in connection with management of the Company's business, which includes remuneration of the members of its Management Board and its Supervisory Board.

Pursuant to Sections 33 and 34 of the German Securities Trading Act ("WpHG") any party subject to the notification requirement shall notify the Company when certain mandatory reportable thresholds for voting rights, also by taking account the attribution provisions, are reached, exceeded or fallen below. Section 38 WpHG also stipulates a notification requirement when certain thresholds are reached, exceeded or have fallen below through directly or indirectly held instruments and also, according to Section 39 WpHG when certain thresholds are reached, exceeded or have fallen below through the addition of voting rights according to Section 33 WpHG and instruments according to Section 38 WpHG. Notifications received by the Company subject to the notification requirements were published in accordance with the applicable legal provisions, including publication in the Investors section of the Company's website at www.freseniusmedicalcare.com.

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In a notification dated February 8, 2011, Fresenius SE disclosed to the Company pursuant to Section 21 of the WpHG at the date of notification (predecessor provision to Section 33 of the WpHG) that it held 35.74% of the voting rights in FMC-AG & Co. KGaA. At December 31, 2019, Fresenius SE held 31.00% of the Company's voting rights. Net of treasury shares held by FMC-AG & Co. KGaA in accordance with Section 16 (2) sentence 2 of the German Stock Corporation Act (AktG), Fresenius SE held 31.64% of the Company's voting rights. In addition, Fresenius SE is the sole stockholder of the General Partner.

On October 30, 2019, FIL Limited, Pembroke, Bermuda, including attributed subsidiaries, disclosed pursuant to Section 33, 34 of the WpHG that 2.98% of the voting rights of FMC-AG & Co. KGaA were held as of October 29, 2019. On May 13, 2019, BlackRock, Inc., Wilmington, DE, U.S., ("BlackRock") including attributed subsidiaries disclosed pursuant to Section 33, 34 of the WpHG that 4.83% of the voting rights of FMC-AG & Co. KGaA and instruments relating to 0.07% of the voting rights of FMC-AG & Co. KGaA were held as of May 8, 2019.

On June 7, 2019, BlackRock filed an amended Schedule 13G under the U.S. Securities Exchange Act of 1934, as amended, reporting beneficial ownership of 4.96% of the Company's ordinary shares.

The general meeting of a partnership limited by shares may approve Authorized Capital (*genehmigtes Kapital*). The resolution creating Authorized Capital requires the affirmative vote of a majority of three quarters of the capital represented at the vote and may authorize the General Partner and its Management Board to issue new shares up to a stated amount for a period of up to five years. The nominal value of any proposed increase of the Authorized Capital may not exceed half of the issued capital stock at the time of the authorization.

In addition, the general meeting of a partnership limited by shares may create Conditional Capital (*bedingtes Kapital*) for the purpose of issuing (i) new shares to holders of convertible bonds or other securities which grant a right to shares, (ii) new shares as the consideration in a merger with another company, or (iii) new shares offered to management or employees. In each case, the authorizing resolution requires the affirmative vote of a majority of three quarters of the capital represented at the vote. The nominal value for any proposed increase of the Conditional Capital may not exceed half or, in the case of Conditional Capital created for the purpose of issuing shares to management and employees, 10% of the Company's issued capital at the time of the resolution.

All resolutions increasing the capital of a partnership limited by shares also require the consent of the General Partner in order for the resolutions to go into effect.

The subscribed capital comprised solely ordinary shares due to the conversion of all outstanding preference shares into ordinary shares (approved at FMC-AG & Co. KGaA's Annual General Meeting and Preference Shareholder Meeting held on May 16, 2013) as well as the options associated with the preference shares on a 1:1 basis.

Authorized capital

By resolution of the Company's Annual General Meeting ("AGM") on May 19, 2015, the General Partner was authorized, with the approval of the Supervisory Board, to increase, on one or more occasions, the Company's share capital until May 18, 2020 up to a total of €35,000 through issue of new bearer ordinary shares for cash contributions, "Authorized Capital 2015/I". Additionally, the newly issued shares may be taken up by a credit and/or financial institution or a consortium of such credit and/or financial institutions retained by the General Partner with the obligation to offer them to the shareholders of the Company. The General Partner is entitled, subject to the approval of the supervisory board, to exclude the pre-emption rights of the shareholders. However, such an exclusion of pre-emption rights will be permissible only for fractional amounts. No Authorized Capital 2015/I has been issued at December 31, 2019.

In addition, by resolution of the AGM of shareholders on May 19, 2015, the General Partner was authorized, with the approval of the Supervisory Board, to increase, on one or more occasions, the share capital of the Company until May 18, 2020 up to a total of €25,000 through the issue of new bearer ordinary shares for cash contributions or contributions in kind, "Authorized Capital 2015/II". The new shares can also be obtained by a credit and/or financial institution or a consortium of such credit and/or

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financial institutions retained by the General Partner with the obligation to offer the shares to the Company's shareholders for subscription. The General Partner is entitled, subject to the approval of the Supervisory Board, to exclude the pre-emption rights of the shareholders. However, such exclusion of pre-emption rights will be permissible only if (i) in case of a capital increase against cash contributions, the nominal value of the issued shares does not exceed 10% of the nominal share value of the Company's share capital and the issue price for the new shares is at the time of the determination by the General Partner not significantly lower than the stock price of the existing listed shares of the same class and with the same rights or, (ii) in case of a capital increase against contributions in kind, the purpose of such increase is to acquire an enterprise, parts of an enterprise or an interest in an enterprise. No Authorized Capital 2015/II has been issued at December 31, 2019.

Authorized Capital 2015/I and Authorized Capital 2015/II became effective upon registration with the commercial register of the local court in Hof an der Saale on June 10, 2015.

Conditional capital

By resolution of the Company's AGM on May 12, 2011, the Company's share capital was conditionally increased with regards to the Stock Option Plan 2011 ("2011 SOP") by up to €12,000 subject to the issue of up to 12 million no par value bearer ordinary shares with a nominal value of €1.00 each ("Conditional Capital 2011/I"), (see note 20). The Conditional Capital increase is only executed to the extent subscription rights were awarded under the 2011 SOP, the holders of the subscription rights exercise their right and the Company does not use treasury shares to fulfill the subscription rights with each stock option awarded exercisable for one ordinary share (see note 20). The Company has the right to deliver ordinary shares that it owns or purchases in the market in lieu of increasing capital by issuing new shares.

At December 31, 2019, 3,488,989 options remained outstanding with a remaining average term of 3.23 years under the 2011 SOP. For the year ending December 31, 2019, 328,996 options had been exercised under the 2011 SOP (see note 20).

Conditional capital at December 31, 2019 was €9,728 in total, all relating to the 2011 SOP (see note 20).

A total of 328,996 shares were issued out of Conditional Capital 2011/I during 2019 (2018: 858,652 shares), increasing the Company's capital stock by €329 (2018: €859).

Treasury stock

On the basis of the authorization granted by the Company's AGM on May 12, 2011 to conduct a share buy-back program, the Company repurchased 7,548,951 shares in 2013 for an average weighted stock price of €51.00 per share. The Company redeemed 6,549,000 of these repurchased shares on February 16, 2016 in order to decrease its share capital at an average weighted price of €51.00 per share.

By resolution of the Company's AGM on May 12, 2016, the General Partner is authorized to purchase treasury shares up to a maximum amount of 10% of the registered share capital existing at the time of this resolution until May 11, 2021. The shares acquired, together with other treasury shares held by the Company or attributable to the Company pursuant to sections 71a et seqq. AktG, must at no time exceed 10% of the registered share capital. The purchase will be made through the stock exchange, by way of a public tender offer, or a public invitation to shareholders to submit an offer for sale. This authorization is not applicable for the purpose of trading in treasury shares. The General Partner is authorized to use treasury shares purchased on the basis of this authorization or any other earlier authorization for any legally permissible purpose, in particular (i) to redeem shares without requiring any further resolution by the General Meeting, (ii) to sell treasury shares to third parties against contributions in kind, (iii) to award treasury shares, in lieu of the utilization of conditional capital of the Company, to employees of the Company and companies affiliated with the Company, including members of the management of affiliated companies, and use them to service options or obligations to purchase shares of the Company, and (iv) to use treasury shares to service bonds carrying warrant and/or conversion rights or conversion obligations issued by the Company or companies affiliated with the Company pursuant to section 17 AktG.

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On the basis of the authorization granted by the Company's Annual General Meeting on May 12, 2016 to conduct a share buy-back program, the Company repurchased treasury shares for the purpose of capital reduction. The total number of shares purchased as of December 31, 2019 will be used solely to either reduce the registered share capital of the Company by cancellation of the acquired shares, or to fulfill employee participation programs of the Company.

The following tabular disclosure provides the number of shares acquired in the context of the share buy-back programs as well as the repurchased treasury stock:

Treasury Stock

Period	Average price per share in €	Total number of shares purchased and retired as part of publicly announced plans or programs	Total value of shares ⁽¹⁾ in € THOUS
December 31, 2016	51.00	999,951	50,993
Purchase of Treasury Stock			
December 2017	87.79	660,000	57,938
December 31, 2017	65.63	1,659,951	108,931
Purchase of Treasury Stock			
May 2018	86.69	173,274	15,020
June 2018	86.14	257,726	22,201
Repurchased Treasury Stock	86.37	431,000	37,221
Retirement of repurchased Treasury Stock			
December 2018	87.23	1,091,000	95,159
December 31, 2018	51.00	999,951	50,993
Purchase of Treasury Stock			
March 2019	69.86	1,629,240	113,816
April 2019	72.83	1,993,974	145,214
May 2019	72.97	147,558	10,766
Repurchased Treasury Stock	71.55	3,770,772	269,796
Retirement of repurchased Treasury Stock			
June 2019	71.55	3,770,772	269,796
Purchase of Treasury Stock			
June 2019	67.11	504,672	33,870
July 2019	66.77	1,029,655	68,748
August 2019	57.53	835,208	48,050
September 2019	59.67	627,466	37,445
October 2019	57.85	692,910	40,084
November 2019	64.78	852,859	55,245
December 2019	63.85	564,908	36,067
Repurchased Treasury Stock⁽²⁾	62.55	5,107,678	319,509
TOTAL	60.66	6,107,629	370,502

(1) The value of shares repurchased in 2017, 2018 and 2019 is inclusive of fees (net of taxes) paid in the amount of approximately €12, €8 and €11 (in € THOUS), respectively, for services rendered.

(2) At December 31, 2019, the maximum number of shares that may be purchased pursuant to the buy-back program expiring on June 17, 2020 is 6,892,322

Additional paid-in capital

Additional paid-in capital is comprised of the premium paid on the issue of shares and stock options, the tax effects from stock options, the compensation expense from stock options, which is recognized according to IFRS 2 as well as changes in ownership interest in a subsidiary that does not result in a loss of control.

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Retained earnings

Retained earnings is comprised of earnings generated by group entities in prior years to the extent that they have not been distributed as well as changes of the noncontrolling interests subject to put provisions.

Dividends

Under German law, the amount of dividends available for distribution to shareholders is based upon the unconsolidated retained earnings of the Company as reported in its balance sheet determined in accordance with the German Commercial Code (*Handelsgesetzbuch*).

Cash dividends of €354,636 for 2018 in the amount of €1.17 per share were paid on May 21, 2019.

Cash dividends of €324,838 for 2017 in the amount of €1.06 per share were paid on May 23, 2018.

Cash dividends of €293,973 for 2016 in the amount of €0.96 per share were paid on May 16, 2017.

Noncontrolling interests

Noncontrolling interests represent the proportion of the net assets of consolidated subsidiaries owned by minority shareholders. The Company has purchase obligations under options held by the holders of noncontrolling interests in certain of its subsidiaries. These obligations result from contractual put options and are exercisable by the owners of the noncontrolling interests. In addition to noncontrolling interests the potential obligations under these put options are recognized at fair value in other current or non-current liabilities by profit or loss neutral reclassification from equity.

18. Supplementary information on capital management

The principle objectives of the Company's capital management strategy are to optimize the weighted average cost of capital and to achieve a balanced mix of total equity and debt. The dialysis industry, in which the Company has a strong market position in global, growing and largely non-cyclical markets, is characterized by stable cash flows. Due to the Company's payors' mostly high credit quality, it is able to generate high, stable, predictable and sustainable cash flows. These generated cash flows allow a reasonable proportion of debt, through the employment of an extensive mix of debt.

As of December 31, 2019 and December 31, 2018, total equity and debt were as follows:

Total equity, debt and total assets
in € THOUS

	2019	2018
Total equity including noncontrolling interests	13,227,237	12,901,958
Debt and lease liabilities	13,782,448	7,546,228
Total assets	32,934,735	26,242,268
Debt and lease liabilities in % of total assets	41.8%	28.8%
Total equity in % of total assets (equity ratio)	40.2%	49.2%

The Company is not subject to any capital requirements provided for in its Articles of Association. The Company has obligations to issue shares out of the conditional capital relating to the exercise of stock options on the basis of the existing 2011 SOP stock option plan (see note 20).

The Company conducts a share buy-back program. The repurchased shares will be used solely to either reduce the registered share capital of the Company by cancellation of the acquired shares or to fulfill employee participation programs (see note 17).

Assuring financial flexibility is a top priority in the Company's financing strategy. This flexibility is achieved through a wide range of financing instruments and a high degree of diversification of investors. The Company's maturity profile displays a broad spread of maturities with a high proportion of medium and long-term financings. In the choice of financing instruments market capacity, investor diversification, flexibility, credit conditions and the existing maturity profile are taken into account (see note 14).

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The Company's financing structure and business model are reflected in the investment grade ratings. The Company is covered and rated investment grade by the three leading rating agencies, Moody's, Standard & Poor's and Fitch.

Rating⁽¹⁾

	<u>Standard & Poor's</u>	<u>Moody's</u>	<u>Fitch</u>
Corporate credit rating	BBB	Baa3	BBB –
Outlook	stable	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.

19. Earnings per share

The following table contains reconciliations of the numerators and denominators of the basic and diluted earnings per share computations for 2019, 2018 and 2017:

Reconciliation of basic and diluted earnings per share

in € THOUS, except share and per share data

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Numerators:			
Net income attributable to shareholders of FMC-AG & Co. KGaA	1,199,619	1,981,924	1,279,788
Denominators:			
Weighted average number of shares outstanding	302,691,397	306,541,706	306,563,400
Potentially dilutive shares	57,892	684,681	719,912
Basic earnings per share	3.96	6.47	4.17
Diluted earnings per share	3.96	6.45	4.16

20. Share-based plans

The Company accounts for its share-based plans in accordance with IFRS 2. As of December 31, 2019, the Company has various share-based compensation plans, which may either be equity- or cash-settled.

Fresenius Medical Care AG & Co. KGaA long-term incentive plans during 2016-2019

As of May 11, 2016, the issuance of stock options and Phantom Stock under the FMC-AG & Co. KGaA Long-Term Incentive Program 2011 ("LTIP 2011") is no longer possible. Furthermore, as of January 1, 2019, the issuance of Performance Shares under the FMC-AG & Co. KGaA Long-Term Incentive Plan 2016 ("LTIP 2016") is no longer possible. In order to continue to enable the members of the Management Board, the members of the management boards of affiliated companies and managerial staff members to adequately participate in the long-term, sustained success of the Company, successor programs effective January 1, 2019 were introduced. For members of the Management Board, the Supervisory Board of the Management AG has approved and adopted the Fresenius Medical Care Management AG Management Board Long-Term Incentive Plan 2019 ("MB LTIP 2019"). For the members of the management boards of affiliated companies and managerial staff members, the Management Board of the Management AG has approved and adopted the Fresenius Medical Care AG & Co. KGaA Long-Term Incentive Plan 2019 ("LTIP 2019"). Additionally, the Management Board of the Management AG has approved and adopted the Fresenius Medical Care AG & Co. KGaA NxStage Long-Term Incentive Plan ("NxStage LTIP") for the management board and managerial staff members of NxStage in the course of the integration of NxStage into the Company.

The MB LTIP 2019, the LTIP 2019, the NxStage LTIP and the LTIP 2016 are variable compensation programs with long-term incentive effects. Similar to the LTIP 2016, which granted so-called "Performance Shares" annually or semiannually from 2016 to 2018, pursuant to the MB LTIP 2019 and the LTIP 2019,

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plan participants may be granted Performance Shares once or twice during 2019 for the MB LTIP 2019 and throughout 2019 to 2021 for the LTIP 2019. Pursuant to the NxStage LTIP, plan participants were granted Performance Shares in February 2019. Performance Shares are non-equity, cash-settled virtual compensation instruments which may entitle plan participants to receive a cash payment depending on the achievement of pre-defined performance targets further defined below as well as the Company's share price development.

For members of the Management Board, the Supervisory Board of the Management AG will, in due exercise of its discretion and taking into account the individual responsibility and performance of each Management Board member, determine an initial value for each grant for any awards to Management Board members. For plan participants other than the members of the Management Board, such determination will be made by the Management Board. The initial grant value is determined in the currency in which the respective participant receives his or her base salary at the time of the grant. In order to determine the number of Performance Shares each plan participant receives, the respective grant value will be divided by the value per Performance Share at the time of the grant, which is mainly determined based on the average price of the Company's shares over a period of thirty calendar days prior to the respective grant date.

The number of granted Performance Shares may change over the performance period of three years, depending on the level of achievement of the following: (i) revenue growth at constant currency ("Revenue Growth"), (ii) growth of the net income attributable to the shareholders of FMC-AG & Co. KGaA at constant currency ("Net Income Growth") and (iii) return on invested capital ("ROIC"). For the LTIP 2019 exclusively, the level of achievement for Performance Shares granted in fiscal year 2019 may be subject to an increase if certain targets in relation to the second phase of the Company's Global Efficiency Program are achieved ("GEP-II targets").

Revenue, net income and ROIC are determined according to the Company's consolidated reported and audited figures in Euro for the financial statements prepared in accordance with IFRS, applying the respective plan terms. Revenue Growth, Net Income Growth and the fulfillment of the GEP-II targets, for the purpose of the relevant plan, are determined at constant currency.

An annual target achievement level of 100% will be reached for the Revenue Growth performance target if Revenue Growth is 7% in each individual year of the three-year performance period; Revenue Growth of 0% will lead to a target achievement level of 0% and the maximum target achievement level of 200% will be reached in case of Revenue Growth of at least 16%. If Revenue Growth ranges between these values, the degree of target achievement will be linearly interpolated between these values.

An annual target achievement level of 100% for the Net Income Growth performance target will be reached if Net Income Growth is 7% in each individual year of the three-year performance period. In case of Net Income Growth of 0%, the target achievement level will also be 0%; the maximum target achievement of 200% will be reached in the case of Net Income Growth of at least 14%. Between these values, the degree of target achievement will be determined by means of linear interpolation.

With regard to ROIC, an annual target achievement level of 100% will be reached if the target ROIC as defined for the respective year is reached. For the MB LTIP 2019 and the LTIP 2019, the target ROIC is 7.9% for 2019 (LTIP 2016: 7.3% in 2016 and increased by 0.2 percentage points for each consecutive year until 2020; NxStage LTIP: 7.7% in 2018 and increased by 0.2 percentage points for each consecutive year until 2020). A target achievement level of 0% will be reached if the ROIC falls below the target ROIC for the respective year by 0.2 percentage points or more, whereas the maximum target achievement level of 200% will be reached if the target ROIC for the respective year is exceeded by 0.2 percentage points or more. The degree of target achievement will be determined by means of linear interpolation if the ROIC ranges between these values. In case the annual ROIC target achievement level in the third year of a performance period is equal or higher than the ROIC target achievement level in each of the two previous years of such performance period, the ROIC target achievement level of the third year is deemed to be achieved for all years of the respective performance period.

The achievement level for each of the three performance targets will be weighted annually at one-third to determine the yearly target achievement for each year of the three-year performance period. The level of

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overall target achievement over the three-year performance period will then be determined on the basis of the mean of these three average yearly target achievements. The overall target achievement can be in a range of 0% to 200%. For the LTIP 2019, the overall target achievement for Performance Shares granted in fiscal year 2019 shall be increased by 20 percentage points if the GEP-II targets achievement is 100%. In case of a GEP-II targets achievement between 0% and 100%, the respective increase of the overall target achievement will be calculated by means of linear interpolation. The overall target achievement increased by the GEP-II targets achievement shall not exceed 200%.

The number of Performance Shares granted to the plan participants at the beginning of the performance period will each be multiplied by the level of overall target achievement in order to determine the final number of Performance Shares.

For the MB LTIP 2019, the final number of Performance Shares is generally deemed earned four years after the day of a respective grant (the four-year vesting period). The number of such vested Performance Shares is then multiplied by the average Company share price over a period of thirty days prior to the lapse of this four-year vesting period. The respective resulting amount will then be paid to the plan participants as cash compensation.

For plan participants of the LTIP 2019, the final number of Performance Shares is generally deemed earned three years after the day of a respective grant (the three-year vesting period). The number of such vested Performance Shares is then multiplied by the average Company share price over a period of thirty days prior to the lapse of this three-year vesting period. The respective resulting amount, which is capped in total at an amount equaling 400% of the grant value received by the participant, will then be paid to the plan participants as cash compensation.

For plan participants of the NxStage LTIP, the final number of Performance Shares granted in February 2019 is generally deemed earned in December 2022 (the vesting period). The number of such vested Performance Shares is then multiplied by the average Company share price over a period of thirty days prior to the lapse of this vesting period. The respective resulting amount will then be paid to the plan participants as cash compensation.

For plan participants of the LTIP 2016, the final number of Performance Shares is generally deemed earned four years after the day of a respective grant (the four-year vesting period). The number of such vested Performance Shares is then multiplied by the average Company share price over a period of thirty days prior to the lapse of this four-year vesting period. The respective resulting amount will then be paid to the plan participants as cash compensation.

During 2019, the Company awarded 114,999 Performance Shares under the MB LTIP 2019 at a measurement date weighted average fair value of €60.70 each and a total fair value of €6,980, which will be revalued if the fair value changes. The total fair value will be amortized over the four-year vesting period.

During 2019, the Company awarded 817,089 Performance Shares under the LTIP 2019 at a measurement date weighted average fair value of €62.16 each and a total fair value of €50,790, which will be revalued if the fair value changes. The total fair value will be amortized over the three-year vesting period.

During 2019, the Company awarded 55,978 Performance Shares under the NxStage LTIP at a measurement date weighted average fair value of €62.17 each and a total fair value of €3,480, which will be revalued if the fair value changes. The total fair value will be amortized over the vesting period.

During 2018, the Company awarded 632,804 Performance Shares under the LTIP 2016 including 73,315 Performance Shares to the members of the Management Board at a measurement date weighted average fair value of €51.99 each and a total fair value of €32,900, which will be revalued if the fair value changes. The total fair value will be amortized over the four-year vesting period.

During 2017, the Company awarded 614,985 Performance Shares under the LTIP 2016 including 73,746 Performance Shares to the members of the Management Board at a measurement date weighted average fair value of €83.40 each and a total fair value of €51,290, which will be revalued if the fair value changes. The total fair value will be amortized over the four-year vesting period.

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Fresenius Medical Care AG & Co. KGaA long-term incentive program 2011

On May 12, 2011, the 2011 SOP was established by resolution of the Company's AGM. The 2011 SOP, together with the Phantom Stock Plan 2011, which was established by resolution of the General Partner's Management and supervisory boards, forms the Company's LTIP 2011. Under the LTIP 2011, participants were granted awards, which consisted of a combination of stock options and Phantom Stock. The final grant under the LTIP 2011 was made in December 2015. Awards under the LTIP 2011 were subject to a four-year vesting period. Vesting of the awards granted was subject to achievement of pre-defined performance targets. The 2011 SOP was established with a conditional capital increase up to €12,000 subject to the issue of up to twelve million non-par value bearer ordinary shares with a nominal value of €1.00 per share.

Stock options granted under the LTIP 2011 have an eight-year term and can be exercised for the first time after a four-year vesting period. The exercise price of stock options granted under the LTIP 2011 shall be the average stock exchange price on the Frankfurt Stock Exchange of the Company's shares during the 30 calendar days immediately prior to each grant date. Stock options granted under the LTIP 2011 to U.S. participants are non-qualified stock options under the United States Internal Revenue Code of 1986, as amended. Stock options under the LTIP 2011 are not transferable by a participant or a participant's heirs, and may not be transferred, pledged, assigned, or disposed of otherwise.

Phantom Stock awards under the LTIP 2011 entitle the holders to receive payment in euro from the Company upon exercise of the Phantom Stock. The payment per Phantom Stock in lieu of the issuance of such stock shall be based upon the share price on the Frankfurt Stock Exchange of one of the Company's shares on the exercise date. Phantom Stock awards have a five-year term and can be exercised for the first time after a four-year vesting period. For participants who are U.S. taxpayers, the Phantom Stock is deemed to be exercised in any event in the month of March following the end of the vesting period.

New incentive bonus plan

In 2019, the members of the Management Board were eligible for performance-related compensation that depended upon achievement of pre-defined targets. The targets are measured based on the adjusted net income growth attributable to the shareholders of FMC-AG & Co. KGaA at constant currency ("Adjusted Net Income Growth"), adjusted net cash provided by (used in) operating activities after capital expenditures, before acquisitions and investments ("Adjusted Free Cash Flow") in percent of revenues and adjusted operating margin ("Adjusted Operating Margin"), and are derived from the comparison of targeted and actually achieved current year figures. Targets are divided into Group level targets and those to be achieved in individual regions and areas of responsibility.

Performance-related bonuses for 2019 consist proportionately of a cash component and a share-based component which will be paid in cash. Upon meeting the annual targets, the cash component for the year 2019 will be paid in the following year, after the consolidated financial statements for 2019 have been approved. The share-based component is subject to a three-year vesting period, although a shorter period may apply in special cases (e.g. occupational disability, retirement and employment contracts which were not extended by the Company). The amount of cash for the payment relating to the share-based component shall be based on the share price of Fresenius Medical Care AG & Co. KGaA ordinary shares upon exercise. For each of the members of the Management Board, the amount of the achievable pay component as well as of the allocation value of the cash-settled share-based compensation is capped.

Share-based compensation related to this plan for fiscal years ended 2019, 2018 and 2017 was €2,623, €3,414 and €3,418, respectively.

Information on holdings under share-based plans

At December 31, 2019, the members of the Management Board held 102,435 Performance Shares under the MB LTIP 2019. Former members of the Management Board held 12,564 Performance Shares under the MB LTIP 2019.

At December 31, 2019, the plan participants held 797,659 Performance Shares under the LTIP 2019.

At December 31, 2019, the plan participants held 45,007 Performance Shares under the NxStage LTIP.

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At December 31, 2019, the members of the Management Board held 211,878 Performance Shares and plan participants other than the members of the Management Board held 1,747,142 Performance Shares under the LTIP 2016.

At December 31, 2019, the members of the Management Board held 23,336 Phantom Stock and plan participants other than the members of the Management Board held 311,650 Phantom Stock under the LTIP 2011.

At December 31, 2019, the members of the Management Board held 452,989 stock options and plan participants other than the members of the Management Board held 3,036,000 stock options under the 2011 SOP.

Additional information on share-based plans

The table below provides reconciliations for stock options outstanding at December 31, 2019, as compared to December 31, 2018.

Transactions

	Options (in THOUS)	Weighted Average Exercise Price in €
Stock options for shares		
Balance at December 31, 2018	3,896	68.85
Granted	—	—
Exercised ⁽¹⁾	329	51.72
Forfeited	78	75.08
Balance at December 31, 2019	<u>3,489</u>	<u>70.32</u>

(1) The average share price at the date of exercise of the options was €67.62.

The following table provides a summary of fully vested options outstanding and exercisable at December 31, 2019:

Share Options

Range of exercise prices in €	Outstanding			Exercisable	
	Number of options	Weighted average remaining contractual life	Weighted average exercise price in €	Number of options	Weighted average exercise price in €
45.01 - 50.00	767,001	2.38	49.90	767,001	49.90
50.01 - 55.00	825	0.93	52.27	825	52.27
55.01 - 60.00	133,375	1.24	57.68	133,375	57.68
60.01 - 65.00	—	—	—	—	—
65.01 - 70.00	—	—	—	—	—
70.01 - 75.00	—	—	—	—	—
75.01 - 80.00	<u>2,587,788</u>	<u>3.58</u>	<u>77.03</u>	<u>2,587,788</u>	<u>77.03</u>
	<u>3,488,989</u>	<u>3.23</u>	<u>70.32</u>	<u>3,488,989</u>	<u>70.32</u>

At December 31, 2019, there were no total unrecognized compensation costs related to non-vested options.

During the fiscal years ended December 31, 2019, 2018, and 2017, the Company received cash of €17,014, €43,508 and €42,234, respectively, from the exercise of stock options (see note 17). The intrinsic value of

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stock options exercised for the twelve-month periods ended December 31, 2019, 2018, and 2017 was €5,231, €29,440 and €31,580, respectively.

The compensation expense related to equity-settled stock option programs is determined based upon the fair value on the grant date and the number of stock options granted which will be recognized over the four-year vesting period. In connection with the 2011 SOP, the Company incurred compensation expense of €1,992, €6,713 and €11,736 for the fiscal years ended December 31, 2019, 2018 and 2017, respectively.

The compensation expense related to cash-settled share-based payment transactions is determined based upon the fair value at the measurement date and the number of Phantom Stock or Performance Shares granted which will be recognized over the vesting period. In connection with cash-settled share-based payment transactions, the Company recognized compensation expense of:

- €656, €0 and €0 related to Performance Shares under the MB LTIP 2019 for the fiscal years ended December 31, 2019, 2018 and 2017, respectively,
- €4,771, €0 and €0 related to Performance Shares under the LTIP 2019 for the fiscal years ended December 31, 2019, 2018 and 2017, respectively,
- €572, €0 and €0 related to Performance Shares under the NxStage LTIP for the fiscal years ended December 31, 2019, 2018 and 2017, respectively,
- €30,304, €4,152 and €38,882 related to Performance Shares under the LTIP 2016 for the fiscal years ended December 31, 2019, 2018 and 2017, respectively, and
- €5,724, -€8,799 and €21,576 related to Phantom Stock for the fiscal years ended December 31, 2019, 2018 and 2017, respectively.

Care Coordination stock incentive plans

In 2014, the Company established two subsidiary stock incentive plans for the acquisitions of Sound and National Cardiovascular Partners. The Company divested its controlling interest in Sound on June 28, 2018, see note 4 c) for information. For the year ended December 31, 2019, the Company did not record stock compensation expense associated with the Sound subsidiary stock incentive plan (2018: €87,157 and 2017: €35,250). The remaining subsidiary stock incentive plan related to National Cardiovascular Partners is immaterial to the Company.

21. Leases

The Company leases land, buildings and improvements, machinery and equipment, as well as IT- and office equipment under various lease agreements.

Leasing in the consolidated statements of income

The following table shows the effects from lease agreements on the consolidated statements of income for the year ended December 31, 2019:

Leasing in the consolidated statements of income

in € THOUS

	2019
Depreciation on right-of-use assets	700,276
Impairments on right-of-use assets	38,820
Expenses relating to short-term leases	52,108
Expenses relating to leases of low-value assets	25,239
Expenses relating to variable lease payments	10,814
Income from subleasing right-of-use asset	4,367
Interest expense on lease liabilities	171,724

For information regarding leases with related parties, see note 5 b).

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Leases in the consolidated balance sheets

At December 31, 2019, the acquisition costs and the accumulated depreciation of right-of-use assets consisted of the following:

Acquisition costs

in € THOUS

	January 1, 2019	Foreign currency translation	Changes in consolidation group	Additions	Reclassifications	Disposals	December 31, 2019
Right-of-use assets: Land . . .	28,717	447	(14)	2,300	512	(1,387)	30,575
Right-of-use assets: Buildings and improvements	3,840,380	65,603	(3,577)	694,031	15,074	(20,816)	4,590,695
Right-of-use assets: Machinery and equipment	407,436	7,639	3,257	23,243	18,002	(24,859)	434,718
Right-of-use assets: Advance Payments	—	—	—	24	—	—	24
Right-of-use assets	4,276,533	73,689	(334)	719,598	33,588	(47,062)	5,056,012

Depreciation

in € THOUS

	January 1, 2019	Foreign currency translation	Changes in consolidation group	Additions	Impairment loss	Reclassifications	Disposals	December 31, 2019
Right-of-use assets: Land	—	14	(4)	3,936	134	128	294	4,502
Right-of-use assets: Buildings and improvements	—	(1,364)	(1,768)	581,081	38,686	3,424	(6,133)	613,926
Right-of-use assets: Machinery and equipment	—	(291)	(105)	115,259	—	21,930	(24,324)	112,469
Right-of-use assets: Advance Payments	—	—	—	—	—	—	—	—
Right-of-use assets	—	(1,641)	(1,877)	700,276	38,820	25,482	(30,163)	730,897

Book value

in € THOUS

	December 31, 2019
Right-of-use assets: Land	26,073
Right-of-use assets: Buildings and improvements	3,976,769
Right-of-use assets: Machinery and equipment	322,249
Right-of-use assets: Advance Payments	24
Right-of-use assets	4,325,115

Depreciation expense for right-of-use assets amounted to €700,276 for the year ended December 31, 2019. These expenses are allocated within costs of revenue, selling, general and administrative and research and development expenses depending upon the area in which the asset is used.

Impairment losses for right-of-use assets amounted to €38,820 for the year ended December 31, 2019. These losses are allocated within costs of revenue and selling, general and administrative expense, depending upon the area in which the asset is used.

For a maturity analysis of lease liabilities and lease liabilities from related parties see note 23.

Leasing in the consolidated statements of cash flows

Total cash outflows from leases were €945,169 for the year ended December 31, 2019.

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Leases that the Company entered into as a lessee that have not yet begun will result in future cash outflows of €254,171.

Potential future cash outflows resulting from purchase options of €56,507 were not reflected in the measurement of the lease liabilities, as the exercise of the respective options is not reasonably certain.

Potential future cash outflows resulting from extension options of €6,691,551 were not reflected in the measurement of the lease liabilities, as the exercise of the respective options is not reasonably certain. The major part of these potential future cash outflows relates to extension options in real estate lease agreements, primarily for dialysis clinics in the North America Segment. Individual lease agreements include multiple extension options. The Company uses extension options to obtain a high degree of flexibility in performing its business. These extension options held are exercisable solely by the Company.

Potential future cash outflows resulting from termination options of €3,493 were not reflected in the measurement of the lease liabilities, as the exercise of the respective options is not reasonably certain.

22. Commitments and contingencies

Legal and regulatory matters

The Company is routinely involved in claims, lawsuits, regulatory and tax audits, investigations and other legal matters arising, for the most part, in the ordinary course of its business of providing health care services and products. Legal matters that the Company currently deems to be material or noteworthy are described below. The Company records its litigation reserves for certain legal proceedings and regulatory matters to the extent that the Company determines an unfavorable outcome is probable and the amount of loss can be reasonably estimated. For the other matters described below, 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. The outcome of litigation and other legal matters is always difficult to predict accurately and outcomes that are not consistent with the Company's view of the merits can occur. The Company believes that it has valid defenses to the legal matters pending against it and is defending itself vigorously. Nevertheless, it is possible that the resolution of one or more of the legal matters currently pending or threatened could have a material adverse effect on its business, results of operations and 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 conducted investigations with the assistance of outside counsel and, in a continuing dialogue, advised the SEC and the DOJ about these investigations. The DOJ and the SEC also conducted their own investigations, in which the Company cooperated.

In the course of this dialogue, the Company identified and reported to the DOJ and the SEC, and took remedial actions with respect to, conduct that resulted in the DOJ and the SEC seeking monetary penalties including disgorgement of profits and other remedies. This conduct revolved principally around the Company's products business in countries outside the United States.

The Company recorded charges of €200,000 in 2017 and €77,200 in 2018 encompassing estimates for the claims from the DOJ and the SEC 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 DOJ and the SEC 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 totaled €223,980 as of December 31, 2018.

On March 29, 2019, the Company entered into a non-prosecution agreement with the DOJ and a separate agreement with the SEC intended to resolve fully and finally the claims against the Company arising from the investigations. The Company paid a combined total in penalties and disgorgement of approximately \$231,700 to the DOJ and the SEC in connection with these agreements. The entire amount paid to the DOJ and the SEC was reserved for in charges that the Company recorded in 2017 and 2018 and announced in 2018. As part of the settlement, the Company agreed to retain an independent compliance

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monitor for a period of at least two years and to an additional year of self-reporting. As of July 26, 2019, the monitor was appointed and the monitorship period commenced.

In 2015, the Company self-reported to the German prosecutor conduct with a potential nexus to Germany and continues to cooperate with government authorities in Germany in their review of the conduct that prompted the Company's and government investigations.

Since 2012, the Company has made and continues to make further significant investments in its compliance and financial controls and in its compliance, legal and financial organizations. The Company's remedial actions included separation from those employees responsible for the above-mentioned conduct. The Company is dealing with post-FCPA review matters on various levels. The Company continues to be fully committed to compliance with the FCPA and other applicable anti-bribery laws.

Personal injury litigation involving the FMCH's acid concentrate product, labeled as Granuflo® or Naturalyte®, first arose in 2012 and was substantially resolved by settlement agreed in principle in February 2016 and consummated in November 2017. Remaining individual personal injury cases do not present material risk.

FMCH's affected insurers agreed to the settlement of the acid concentrate personal injury litigation and funded \$220,000 of the settlement fund under a reciprocal reservation of rights encompassing certain coverage issues raised by insurers and the FMCH's claims for indemnification of defense costs. FMCH accrued a net expense of \$60,000 in connection with the settlement, including legal fees and other anticipated costs. Following entry into the settlement, FMCH's insurers in the AIG group and FMCH each initiated litigation against the other relating to the AIG group's coverage obligations under applicable policies. In the coverage litigation, the AIG group seeks to be indemnified by FMCH for some or all of its \$220,000 outlay; FMCH seeks to confirm the AIG group's \$220,000 funding obligation, to recover defense costs already incurred by FMCH, and to compel the AIG group to honor defense and indemnification obligations required for resolution of cases not participating in the settlement. As a result of decisions on issues of venue, the coverage litigation is proceeding in the New York state trial court for Manhattan. (National Union Fire Insurance v. Fresenius Medical Care, 2016 Index No. 653108 (Supreme Court of New York for New York County)).

Four institutional plaintiffs filed complaints against FMCH or its affiliates under state deceptive practices statutes resting on certain background allegations common to the GranuFlo®/NaturaLyte® personal injury litigation but seeking as a remedy the repayment of sums paid to FMCH that are attributable to the GranuFlo®/NaturaLyte® products. These cases implicate different legal standards, theories of liability and forms of potential recovery from those in the personal injury litigation and their claims were not extinguished by the personal injury litigation settlement described above. All of the institutional cases have been resolved by settlement except for the claims by the State of Louisiana through its Attorney General and Blue Cross Blue Shield Louisiana, which remain active in the combined proceeding. State of Louisiana ex re. Caldwell and Louisiana Health Service & Indemnity Company v. Fresenius Medical Care Airline, et al 2016 Civ. 11035 (U.S.D.C. D. Mass.). The Caldwell and Blue Cross Louisiana cases remain unresolved and are proceeding together in federal court in Boston but are subject to undecided motions for severance and remand. There is no trial date in either case. FMCH has increased its litigation reserves to account for anticipated resolution of these claims. However, at the present time there are no agreements in principle for resolving either case and litigation through final adjudication may be required in them.

On September 6, 2018, a special-purpose entity organized under Delaware law for the purpose of pursuing litigation filed a Pure Bill of Discovery in a Florida county court seeking discovery from FMCH related to the personal injury settlement, but no other relief. MSP Recovery Claims Series LLC v. Fresenius Medical Care Holdings, No. 2018-030366-CA-01 (11th Judicial Circuit, Dade County, Florida). The Pure Bill was thereafter removed to federal court and transferred into the multidistrict Fresenius Granuflo/Naturalyte Dialysate Products Liability Litigation in Boston. No.1:13-MD-02428-DPW (D. Mass. 2013). On March 12, 2019, plaintiff amended its Pure Bill by filing a complaint claiming rights to recover monetary damages on behalf of various persons and entities who are alleged to have assigned to plaintiff their rights to recover monetary damages arising from their having provided or paid for medical services for dialysis patients

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receiving treatments using FMCH's acid concentrate product. FMCH is responding to the amended complaint.

In August 2014, FMCH received a subpoena from the United States Attorney for the District of Maryland inquiring into FMCH's contractual arrangements with hospitals and physicians involving contracts relating to the management of in-patient acute dialysis services. FMCH is cooperating in the investigation.

In July 2015, the Attorney General for Hawaii issued a civil complaint under the Hawaii False Claims Act alleging a conspiracy pursuant to which certain Liberty Dialysis subsidiaries of FMCH overbilled Hawaii Medicaid for Liberty's Epogen[®] administrations to Hawaii Medicaid patients during the period from 2006 through 2010, prior to the time of FMCH's acquisition of Liberty. *Hawaii v. Liberty Dialysis – Hawaii, LLC et al.*, Case No. 15-1-1357-07 (Hawaii 1st Circuit). The State alleges that Liberty acted unlawfully by relying on incorrect and unauthorized billing guidance provided to Liberty by Xerox State Healthcare LLC, which acted as Hawaii's contracted administrator for its Medicaid program reimbursement operations during the relevant period. The amount of the overpayment claimed by the State is approximately \$8,000, but the State seeks civil remedies, interest, fines, and penalties against Liberty and FMCH under the Hawaii False Claims Act substantially in excess of the overpayment. After prevailing on motions by Xerox to preclude it from doing so, FMCH is pursuing third-party claims for contribution and indemnification against Xerox. The State's False Claims Act complaint was filed after Liberty initiated an administrative action challenging the State's recoupment of alleged overpayments from sums currently owed to Liberty. The civil litigation and administrative action are proceeding in parallel. Trial in the civil litigation is scheduled for July 13, 2020.

On August 31, 2015, FMCH received a subpoena under the False Claims Act from the United States Attorney for the District of Colorado (Denver) inquiring into FMCH's participation in and management of dialysis facility joint ventures in which physicians are partners. FMCH continues to cooperate in the Denver United States Attorney's Office ("USAO") investigation, which has come to focus on purchases and sales of minority interests in ongoing outpatient facilities between FMCH and physician groups.

On November 25, 2015, FMCH received a subpoena under the False Claims Act from the United States Attorney for the Eastern District of New York (Brooklyn) also inquiring into FMCH's involvement in certain dialysis facility joint ventures in New York. On September 26, 2018, the Brooklyn USAO declined to intervene on the qui tam complaint filed under seal in 2014 that gave rise to this investigation. *CKD Project LLC v. Fresenius Medical Care*, 2014 Civ. 6646 (E.D.N.Y. November 12, 2014). The court unsealed the complaint, allowing the relator to serve and proceed on its own. The relator – a special-purpose entity formed by law firms to pursue qui tam proceedings – has served its complaint and litigation is proceeding.

Beginning October 6, 2015, the United States Attorney for the Eastern District of New York (Brooklyn) has led an investigation, through subpoenas issued under the False Claims Act, of utilization and invoicing by FMCH's subsidiary Azura Vascular Care for a period beginning after FMCH's acquisition of American Access Care LLC ("AAC") in October 2011. FMCH is cooperating in the Brooklyn USAO investigation. The Brooklyn USAO has indicated that its investigation is nationwide in scope and is focused on whether certain access procedures performed at Azura facilities have been medically necessary and whether certain physician assistants employed by Azura exceeded their permissible scope of practice. Allegations against AAC arising in districts in Connecticut, Florida and Rhode Island relating to utilization and invoicing were settled in 2015.

On June 30, 2016, FMCH received a subpoena from the United States Attorney for the Northern District of Texas (Dallas) seeking information under the False Claims Act about the use and management of pharmaceuticals including Velphoro[®]. The investigation encompasses DaVita, Amgen, Sanofi, and other pharmaceutical manufacturers and includes inquiries into whether certain compensation transfers between manufacturers and pharmacy vendors constituted unlawful kickbacks. FMCH understands that this investigation is substantively independent of the \$63,700 settlement by DaVita Rx announced on December 14, 2017 in the matter styled *United States ex rel. Gallian v. DaVita Rx*, 2016 Civ. 0943 (N.D. Tex.). FMCH has cooperated in the investigation.

On November 18, 2016, FMCH received a subpoena under the False Claims Act from the United States Attorney for the Eastern District of New York (Brooklyn) seeking documents and information relating to

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the operations of Shiel Medical Laboratory, Inc. (“Shiel”), which FMCH acquired in October 2013. In the course of cooperating in the investigation and preparing to respond to the subpoena, FMCH identified falsifications and misrepresentations in documents submitted by a Shiel salesperson that relate to the integrity of certain invoices submitted by Shiel for laboratory testing for patients in long term care facilities. On February 21, 2017, FMCH terminated the employee and notified the United States Attorney of the termination and its circumstances. The terminated employee’s conduct is expected to result in demands for FMCH to refund overpayments and to pay related penalties under applicable laws, but the monetary value of such payment demands cannot yet be reasonably estimated. FMCH contends that, under the asset sale provisions of its 2013 Shiel acquisition, it is not responsible for misconduct by the terminated employee or other Shiel employees prior to the date of the acquisition. The Brooklyn USAO continues to investigate a range of issues involving Shiel, including allegations of improper compensation (kickbacks) to physicians, and has disclosed that multiple sealed qui tam complaints underlie the investigation.

On December 12, 2017, FMCH sold to Quest Diagnostics certain Shiel operations that are the subject of this Brooklyn subpoena, including the misconduct reported to the United States Attorney. Under the Quest Diagnostics sale agreement, FMCH retains responsibility for responding to the Brooklyn investigation and for liabilities arising from conduct occurring after its 2013 acquisition of Shiel and prior to its sale of Shiel to Quest Diagnostics. FMCH is cooperating in the investigation.

On December 14, 2016, CMS, which administers the federal Medicare program, published an Interim Final Rule (“IFR”) titled “Medicare Program; Conditions for Coverage for End-Stage Renal Disease Facilities-Third Party Payment.” The IFR would have amended the Conditions for Coverage for dialysis providers, like FMCH and would have effectively enabled insurers to reject premium payments made by or on behalf of patients who received grants for individual market coverage from the American Kidney Fund (“AKF” or “the Fund”). The IFR could thus have resulted in those patients losing individual insurance market coverage. The loss of coverage for these patients would have had a material and adverse impact on the operating results of FMCH.

On January 25, 2017, a federal district court in Texas responsible for litigation initiated by a patient advocacy group and dialysis providers including FMCH preliminarily enjoined CMS from implementing the IFR. *Dialysis Patient Citizens v. Burwell*, 2017 Civ. 0016 (E.D. Texas, Sherman Div.). The preliminary injunction was based on CMS’ failure to follow appropriate notice-and-comment procedures in adopting the IFR. The injunction remains in place and the court retains jurisdiction over the dispute.

On June 22, 2017, CMS requested a stay of proceedings in the litigation pending further rulemaking concerning the IFR. CMS stated, in support of its request, that it expects to publish a Notice of Proposed Rulemaking in the Federal Register and otherwise pursue a notice-and-comment process. Plaintiffs in the litigation, including FMCH, consented to the stay, which was granted by the court on June 27, 2017.

On January 3, 2017, FMCH received a subpoena from the United States Attorney for the District of Massachusetts under the False Claims Act inquiring into FMCH’s interactions and relationships with the AKF, including FMCH’s charitable contributions to the Fund and the Fund’s financial assistance to patients for insurance premiums. FMCH cooperated in the investigation, which was part of a broader investigation into charitable contributions in the medical industry. On August 1, 2019, the United States District Court for the District of Massachusetts entered an order announcing that the United States had declined to intervene on a qui tam complaint underlying the USAO Boston investigation and unsealing the relator’s complaint so as to permit the relator to serve the complaint and proceed on his own. The relator did not serve the complaint within the time allowed, but the court has not yet dismissed the relator’s complaint.

On April 8, 2019, United Healthcare served a demand for arbitration against FMCH. The demand asserts that FMCH unlawfully “steered” patients by waiving co-payments and other means away from coverage under government-funded insurance plans including Medicare into United Healthcare’s commercial plans, including Affordable Care Act exchange plans. FMCH is contesting United Healthcare’s claims and demands. A final hearing date has been scheduled in the arbitration for August 23, 2021.

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In early May 2017, the United States Attorney for the Middle District of Tennessee (Nashville) issued identical subpoenas to FMCH and two subsidiaries under the False Claims Act concerning FMCH's retail pharmaceutical business. The investigation is exploring allegations related to improper inducements to dialysis patients to fill oral prescriptions through FMCH's pharmacy service, improper billing for returned pharmacy products and other allegations similar to those underlying the \$63,700 settlement by DaVita Rx in Texas announced on December 14, 2017. United States ex rel. Gallian, 2016 Civ. 0943 (N.D. Tex.). FMCH is cooperating in the investigation.

On March 12, 2018, Vifor Fresenius Medical Care Renal Pharma Ltd. and Vifor Fresenius Medical Care Renal Pharma France S.A.S. (collectively, "VFMCRP") (the joint venture between Vifor Pharma and FMC-AG & Co. KGaA), filed a complaint for patent infringement against Lupin Atlantis Holdings SA and Lupin Pharmaceuticals Inc. (collectively, "Lupin"), and Teva Pharmaceuticals USA, Inc. ("Teva") in the U.S. District Court for the District of Delaware (Case 1:18-cv-00390-LPS). The patent infringement action is in response to Lupin and Teva's filings of Abbreviated New Drug Applications ("ANDA") with the U.S. Food and Drug Administration ("FDA") for generic versions of Velphoro®. Velphoro® is protected by patents listed in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, also known as the Orange Book. The complaint was filed within the 45-day period provided for under the Hatch-Waxman legislation, and triggered a stay of FDA approval of the ANDAs for 30 months (2.5 years) (specifically, up to July 29, 2020 for Lupin's ANDA; and August 6, 2020 for Teva's ANDA), or a shorter time if a decision in the infringement suit is reached that the patents-at-issue are invalid or not infringed. In response to another ANDA being filed for a generic Velphoro®, VFMCRP filed a complaint for patent infringement against Annora Pharma Private Ltd., and Hetero Labs Ltd. (collectively, "Annora"), in the U.S. District Court for the District of Delaware on December 17, 2018. A 30-month stay of FDA approval of Annora's ANDA will run through to May 30, 2021.

On December 17, 2018, FMCH was served with a subpoena under the False Claims Act from the United States Attorney for the District of Colorado (Denver) as part of an investigation of allegations against DaVita, Inc. involving transactions between FMCH and DaVita. The subject transactions include sales and purchases of dialysis facilities, dialysis-related products and pharmaceuticals, including dialysis machines and dialyzers, and contracts for certain administrative services. FMCH is cooperating in the investigation.

On June 28, 2019, certain FMCH subsidiaries filed a complaint against the United States seeking to recover monies owed to them by the United States Department of Defense under the Tricare program, and to preclude Tricare from recouping monies previously paid. Bio-Medical Applications of Georgia, Inc., et al. v. United States, CA 19-947, United States Court of Federal Claims. Tricare provides reimbursement for dialysis treatments and other medical care provided to members of the military services, their dependents and retirees. The litigation challenges unpublished administrative actions by Tricare administrators reducing the rate of compensation paid for dialysis treatments provided to Tricare beneficiaries based on a recasting or "crosswalking" of codes used and followed in invoicing without objection for many years. Tricare administrators have acknowledged the unpublished administrative action and declined to change or abandon it. The Tricare administrators have filed a motion to dismiss the complaint, but are not yet required to articulate, and have not yet presented, a substantive defense to the complaint. FMCH intends to oppose the motion to dismiss. FMCH has imposed a constraint on revenue for accounts receivable in legal dispute otherwise recognized from the Tricare program that it believes, in consideration of facts currently known, sufficient to account for the possibility of not prevailing in the litigation.

From time to time, the Company is a party to or may be threatened with other litigation or arbitration, claims or assessments arising in the ordinary course of its business. Management regularly analyzes current information including, as applicable, the Company's defenses and insurance coverage and, as necessary, provides accruals for probable liabilities for the eventual disposition of these matters.

The Company, like other health care providers, insurance plans and suppliers, conducts its operations under intense government regulation and scrutiny. It must comply with regulations which relate to or govern the safety and efficacy of medical products and supplies, the marketing and distribution of such products, the operation of manufacturing facilities, laboratories, dialysis clinics and other health care facilities, and environmental and occupational health and safety. With respect to its development,

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manufacture, marketing and distribution of medical products, if such compliance is not maintained, the Company could be subject to significant adverse regulatory actions by the FDA and comparable regulatory authorities outside the U.S. These regulatory actions could include warning letters or other enforcement notices from the FDA, and/or comparable foreign regulatory authority which may require the Company to expend significant time and resources in order to implement appropriate corrective actions. If the Company does not address matters raised in warning letters or other enforcement notices to the satisfaction of the FDA and/or comparable regulatory authorities outside the U.S., these regulatory authorities could take additional actions, including product recalls, injunctions against the distribution of products or operation of manufacturing plants, civil penalties, seizures of the Company's products and/or criminal prosecution. FMCH is currently engaged in remediation efforts with respect to one pending FDA warning letter. The Company must also comply with the laws of the United States, including the federal Anti-Kickback Statute, the federal False Claims Act, the federal Stark Law, the federal Civil Monetary Penalties Law and the federal Foreign Corrupt Practices Act as well as other federal and state fraud and abuse laws. Applicable laws or regulations may be amended, or enforcement agencies or courts may make interpretations that differ from the Company's interpretations or the manner in which it conducts its business. Enforcement has become a high priority for the federal government and some states. In addition, the provisions of the False Claims Act authorizing payment of a portion of any recovery to the party bringing the suit encourage private plaintiffs to commence whistleblower actions. By virtue of this regulatory environment, the Company's business activities and practices are subject to extensive review by regulatory authorities and private parties, and continuing audits, subpoenas, other inquiries, claims and litigation relating to the Company's compliance with applicable laws and regulations. The Company may not always be aware that an inquiry or action has begun, particularly in the case of whistleblower actions, which are initially filed under court seal.

The Company operates many facilities and handles the personal data ("PD") of its patients and beneficiaries throughout the United States and other parts of the world and engages with other business associates to help it carry out its health care activities. In such a decentralized system, it is often difficult to maintain the desired level of oversight and control over the thousands of individuals employed by many affiliated companies and its business associates. On occasion, the Company or its business associates may experience a breach under the Health Insurance Portability and Accountability Act Privacy Rule and Security Rules, the EU's General Data Protection Regulation and or other similar laws ("Data Protection Laws") when there has been impermissible use, access, or disclosure of unsecured PD or when the Company or its business associates neglect to implement the required administrative, technical and physical safeguards of its electronic systems and devices, or a data breach that results in impermissible use, access or disclosure of personal identifying information of its employees, patients and beneficiaries. On those occasions, the Company must comply with applicable breach notification requirements.

The Company relies upon its management structure, regulatory and legal resources, and the effective operation of its compliance program to direct, manage and monitor the activities of its employees. On occasion, the Company may identify instances where employees or other agents deliberately, recklessly or inadvertently contravene the Company's policies or violate applicable law. The actions of such persons may subject the Company and its subsidiaries to liability under the Anti-Kickback Statute, the Stark Law, the False Claims Act, Data Protection Laws, the Health Information Technology for Economic and Clinical Health Act and the Foreign Corrupt Practices Act, among other laws and comparable state laws or laws of other countries.

Physicians, hospitals and other participants in the health care industry are also subject to a large number of lawsuits alleging professional negligence, malpractice, product liability, worker's compensation or related claims, many of which involve large claims and significant defense costs. The Company has been and is currently subject to these suits due to the nature of its business and expects that those types of lawsuits may continue. Although the Company maintains insurance at a level which it believes to be prudent, it cannot assure that the coverage limits will be adequate or that insurance will cover all asserted claims. A successful claim against the Company or any of its subsidiaries in excess of insurance coverage could have a material adverse effect upon it and the results of its operations. Any claims, regardless of their merit or eventual outcome, could have a material adverse effect on the Company's reputation and business.

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The Company has also had claims asserted against it and has had lawsuits filed against it relating to alleged patent infringements or businesses that it has acquired or divested. These claims and suits relate both to operation of the businesses and to the acquisition and divestiture transactions. The Company has, when appropriate, asserted its own claims, and claims for indemnification. A successful claim against the Company or any of its subsidiaries could have a material adverse effect upon its business, financial condition, and the results of its operations. Any claims, regardless of their merit or eventual outcome, could have a material adverse effect on the Company's reputation and business.

In Germany, the tax audits for the years 2006 through 2009 have been substantially completed. The German tax authorities have indicated a re-qualification of dividends received in connection with intercompany mandatorily redeemable preferred shares into fully taxable interest payments for these and subsequent years until 2013. The Company has defended its position and will avail itself of appropriate remedies. The Company is also subject to ongoing and future tax audits in the U.S., Germany and other jurisdictions in the ordinary course of business. Tax authorities routinely pursue adjustments to the Company's tax returns and disallowances of claimed tax deductions. When appropriate, the Company defends these adjustments and disallowances and asserts its own claims. A successful tax related claim against the Company or any of its subsidiaries could have a material adverse effect upon its business, financial condition and results of operations.

Other than those individual contingent liabilities mentioned above, as well as in note 8, the current estimated amount of the Company's other known individual contingent liabilities is immaterial.

23. Financial instruments

The following tables show the carrying amounts and fair values of the Company's financial instruments at December 31, 2019 and December 31, 2018:

Carrying amount and fair value of financial instruments
in € THOUS

	Carrying amount				Fair value			
	Amortized cost	FVPL	FVOCI	Not classified	Total	Level 1	Level 2	Level 3
December 31, 2019								
Cash and cash equivalents ⁽¹⁾	768,706	239,017	—	—	1,007,723	—	239,017	—
Trade accounts and other receivables	3,343,873	—	—	77,473	3,421,346	—	—	—
Accounts receivable from related parties	159,196	—	—	—	159,196	—	—	—
Derivatives – cash flow hedging instruments	—	—	—	107	107	—	107	—
Derivatives – not designated as hedging instruments	—	2,406	—	—	2,406	—	2,406	—
Equity investments	—	186,273	50,975	—	237,248	13,110	41,084	183,054
Debt securities	—	107,988	261,833	—	369,821	365,170	4,651	—
Other financial assets	141,355	—	—	111,649	253,004	—	—	—
Other current and non-current assets	141,355	296,667	312,808	111,756	862,586	—	—	—
Financial assets	4,413,130	535,684	312,808	189,229	5,450,851	—	—	—
Accounts payable	716,526	—	—	—	716,526	—	—	—
Accounts payable to related parties	118,663	—	—	—	118,663	—	—	—
Short-term debt and short-term debt from related parties	1,171,853	—	—	—	1,171,853	—	—	—
Long-term debt	7,905,557	—	—	—	7,905,557	5,555,475	2,537,932	—
Long-term lease liabilities and long-term lease liabilities from related parties	—	—	—	4,705,038	4,705,038	—	—	—
Derivatives – cash flow hedging instruments	—	—	—	2,534	2,534	—	2,534	—
Derivatives – not designated as hedging instruments	—	10,762	—	—	10,762	—	10,762	—
Variable payments outstanding for acquisitions	—	89,677	—	—	89,677	—	—	89,677
Noncontrolling interest subject to put provisions	—	—	—	934,425	934,425	—	—	934,425
Other financial liabilities	1,414,464	—	—	—	1,414,464	—	—	—
Other current and non-current liabilities	1,414,464	100,439	—	936,959	2,451,862	—	—	—
Financial liabilities	11,327,063	100,439	—	5,641,997	17,069,499	—	—	—

(1) Highly liquid short-term investments are categorized in level 2 of the fair value hierarchy. Other cash and cash equivalents is not categorized.

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Carrying amount and fair value of financial instruments

in € THOUS

December 31, 2018	Carrying amount					Fair value		
	Amortized cost	FVPL	FVOCI	Not classified	Total	Level 1	Level 2	Level 3
Cash and cash equivalents ⁽¹⁾	831,885	1,313,747	—	—	2,145,632	—	1,313,747	—
Trade accounts and other receivables	3,182,052	—	—	49,448	3,231,500	—	—	—
Accounts receivable from related parties	198,868	—	—	—	198,868	—	—	—
Derivatives – cash flow hedging instruments	—	—	—	1,492	1,492	—	1,492	—
Derivatives – not designated as hedging instruments	—	18,222	—	—	18,222	—	18,222	—
Equity investments	—	106,350	34,377	—	140,727	13,869	126,858	—
Debt securities	—	83,213	250,822	—	334,035	329,821	4,214	—
Other financial assets	144,838	—	—	107,125	251,963	—	—	—
Other current and non-current assets	144,838	207,785	285,199	108,617	746,439	—	—	—
Financial assets	4,357,643	1,521,532	285,199	158,065	6,322,439	—	—	—
Accounts payable	641,271	—	—	—	641,271	—	—	—
Accounts payable to related parties	153,781	—	—	—	153,781	—	—	—
Short-term debt and short-term debt from related parties	1,394,194	—	—	—	1,394,194	—	—	—
Long-term debt and capital lease obligations	6,115,890	—	—	36,144	6,152,034	4,227,684	2,022,057	—
Derivatives – cash flow hedging instruments	—	—	—	1,125	1,125	—	1,125	—
Derivatives – not designated as hedging instruments	—	18,911	—	—	18,911	—	18,911	—
Variable payments outstanding for acquisitions	—	172,278	—	—	172,278	—	—	172,278
Noncontrolling interest subject to put provisions	—	—	—	818,871	818,871	—	—	818,871
Other financial liabilities	1,467,767	—	—	—	1,467,767	—	—	—
Other current and non-current liabilities	1,467,767	191,189	—	819,996	2,478,952	—	—	—
Financial liabilities	9,772,903	191,189	—	856,140	10,820,232	—	—	—

(1) Highly liquid short-term investments are categorized in level 2 of the fair value hierarchy. Other cash and cash equivalents is not categorized.

Derivative and non-derivative financial instruments are categorised in the following three-tier fair value hierarchy that reflects the significance of the inputs in making the measurements. Level 1 is defined as observable inputs, such as quoted prices in active markets. Level 2 is defined as inputs other than quoted prices in active markets that are directly or indirectly observable. Level 3 is defined as unobservable inputs for which little or no market data exists, therefore requiring the Company to develop its own assumptions. Fair value information is not provided for financial instruments, if the carrying amount is a reasonable estimate of fair value due to the relatively short period of maturity of these instruments. Transfers between levels of the fair value hierarchy have not occurred as of December 31, 2018. The Company accounts for transfers at the end of the reporting period. At September 30, 2019 the Company transferred its Humacyte investment with a carrying amount of €186,427 from Level 2 to Level 3, because the Company remeasured the fair value using a discounted cash flow model after events or changes in circumstances were identified that had a significant effect on the fair value of the investment.

Non-derivative financial instruments

The significant methods and assumptions used for the classification and measurement of non-derivative financial instruments are as follows:

The Company assessed its business models and the cash flow characteristics of its financial assets. The vast majority of the non-derivative financial assets are held in order to collect the contractual cash flows. The contractual terms of the financial assets allow the conclusion that the cash flows represent payment of principle and interest only. Trade accounts and other receivables, Accounts receivable from related parties and Other financial assets are consequently measured at amortized cost.

Cash and cash equivalents are comprised of cash funds and other short-term investments. Cash funds are measured at amortized cost. Short-term investments are highly liquid and readily convertible to known amounts of cash. Short-term investments are measured at FVPL. The risk of changes in fair value is insignificant.

Equity investments are not held for trading. At initial recognition the Company elected, on an instrument-by-instrument basis, to represent subsequent changes in the fair value of individual strategic

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investments in OCI. If equity instruments are quoted in an active market, the fair value is based on price quotations at the period-end-date. From time to time the Company engages external valuation firms to determine the fair value of Level 3 equity investments. The external valuation uses a discounted cash flow model, which includes significant unobservable inputs such as investment specific forecasted financial statements, weighted average cost of capital, that reflects current market assessments as well as a terminal growth rate.

The majority of the debt securities are held within a business model whose objective is achieving both contractual cash flows and sell the securities. The standard coupon bonds give rise on specified dates to cash flows that are solely payments of principal and interest on the outstanding principal amount. Subsequently these financial assets have been classified as FVOCI. The smaller part of debt securities do not give rise to cash flows that are solely payments of principle and interest. Consequently, these securities are measured at FVPL. In general most of the debt securities are quoted in an active market.

Long-term debt is recognized at its carrying amount. The fair values of major long-term debt are calculated on the basis of market information. Liabilities for which market quotes are available are measured using these quotes. The fair values of the other long-term debt are calculated at the present value of the respective future cash flows. To determine these present values, the prevailing interest rates and credit spreads for the Company as of the balance sheet date are used.

Variable payments outstanding for acquisitions are recognized at their fair value. The estimation of the individual fair values is based on the key inputs of the arrangement that determine the future contingent payment as well as the Company's expectation of these factors. The Company assesses the likelihood and timing of achieving the relevant objectives. The underlying assumptions are reviewed regularly.

Noncontrolling interests subject to put provisions are recognized at their fair value. The methodology the Company uses to estimate the fair values assumes the greater of net book value or a multiple of earnings, based on historical earnings, development stage of the underlying business and other factors. From time to time the Company engages external valuation firms for the valuation of the put provisions. The external valuation estimates the fair values using a combination of discounted cash flows and a multiple of earnings and/or revenue. When applicable, the obligations are discounted at a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the liability. The estimated fair values of the noncontrolling interests subject to these put provisions can also fluctuate, and the discounted cash flows as well as the implicit multiple of earnings and/or revenue at which these noncontrolling interest obligations may ultimately be settled could vary significantly from the Company's current estimates depending upon market conditions.

At December 31, 2019, 2018 and 2017 the Company's potential obligations under these put provisions, which are recorded in other current liabilities and other non-current liabilities, were €934,425, €818,871 and €830,773, respectively. At December 31, 2019, 2018 and 2017, put provisions with an aggregate purchase obligation of €385,924, €408,525 and €324,814, respectively, were exercisable. In the last three fiscal years ending December 31, 2019, 30 such put provisions have been exercised for a total consideration of €143,109.

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Following is a roll forward of Level 3 financial instruments at December 31, 2019, 2018 and 2017:

Reconciliation from beginning to ending balance of level 3 financial instruments

in € THOUS

	2019			2018		2017	
	Equity investments	Variable payments outstanding for acquisitions	Noncontrolling interests subject to put provisions	Variable payments outstanding for acquisitions	Noncontrolling interests subject to put provisions	Variable payments outstanding for acquisitions	Noncontrolling interests subject to put provisions
Beginning balance at January 1, . . .	—	172,278	818,871	205,792	830,773	223,504	1,007,733
Transfer from Level 2	186,427	—	—	—	—	—	—
Increase	2,233	4,828	109,109	19,051	53,731	21,128	85,322
Decrease	—	(43,941)	(20,269)	(15,734)	(50,706)	(32,764)	(121,057)
(Gain) loss recognized in profit or loss	128	(41,537)	154,436	(36,327)	142,279	(2,685)	160,916
(Gain) loss recognized in equity . . .	—	—	13,701	—	(50,612)	—	(20,012)
Dividends	—	—	(153,614)	—	(139,742)	—	(164,404)
Foreign currency translation and other changes	(5,734)	(1,951)	12,191	(504)	33,148	(3,391)	(117,725)
Ending balance at December 31, . .	183,054	89,677	934,425	172,278	818,871	205,792	830,773

Derivative financial instruments

Derivative financial risks

The Company is exposed to effects related to foreign exchange fluctuations in connection with its international business activities that are denominated in various currencies. In order to finance its business operations, the Company issues bonds and enters mainly into long-term credit agreements with banks. Due to these financing activities, the Company is exposed to changes in the interest rate as well as to price risks of balance sheet items with a fixed interest rate.

In order to manage the risk of currency exchange rate and interest rate fluctuations, the Company enters into various hedging transactions by means of derivative instruments with highly rated financial institutions as authorized by the Company's General Partner. On a quarterly basis, the Company performs an assessment of its counterparty credit risk. The Company currently considers this risk to be low. The Company's policy, which has been consistently followed, is that financial derivatives be used only for the purpose of hedging foreign currency and interest rate exposure.

In certain instances, the Company enters into derivative contracts that do not qualify for hedge accounting but are utilized for economic purposes ("economic hedges"). The Company does not use financial instruments for trading purposes. The Company established guidelines for risk assessment procedures and controls for the use of financial instruments. They include a clear segregation of duties with regard to execution on one side and administration, accounting and controlling on the other.

To reduce the credit risk arising from derivatives the Company entered into Master Netting Agreements with banks. Through such agreements, positive and negative fair values of the derivative contracts could be offset against one another if a partner becomes insolvent. This offsetting is valid for transactions where the aggregate amount of obligations owed to and receivable from are not equal. If insolvency occurs, the party which owes the larger amount is obliged to pay the other party the difference between the amounts owed in the form of one net payment.

These master netting agreements do not provide a basis for offsetting the fair values of derivative financial instruments in the statement of financial position as the offsetting criteria under IFRS are not satisfied.

At December 31, 2019 and December 31, 2018, the Company had €2,108 and €7,547 of derivative financial assets subject to netting arrangements and €12,355 and €8,111 of derivative financial liabilities subject to netting arrangements. Offsetting these derivative financial instruments would have resulted in net assets of €137 and €4,048 as well as net liabilities of €10,384 and €4,612 at December 31, 2019 and December 31, 2018, respectively.

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The Company calculates benchmarks for individual exposures in order to quantify interest and foreign exchange risks. The benchmarks are derived from achievable and reasonable market rates. Depending on the individual benchmarks, hedging strategies are agreed on and implemented.

In connection with the issuance of the Convertible Bonds in September 2014, the Company purchased Share Options. Any change in the Company's share price above the conversion price would be offset by a corresponding value change in the Share Options. The Share Options expired in November 2019.

Market risk

Foreign exchange risk management

The Company conducts business on a global basis in various currencies, though a majority of its operations are in Germany and the United States. For financial reporting purposes, the Company reports in euro pursuant to Section 315e and Section 244 HGB. Therefore, changes in the rate of exchange between the euro and the local currencies in which the financial statements of the Company's international operations are maintained, affect its results of operations and financial position as reported in its consolidated financial statements.

Additionally, individual subsidiaries are exposed to transactional risks mainly resulting from intercompany purchases between production sites and other subsidiaries with different functional currencies. This exposes the subsidiaries to fluctuations in the rate of exchange between the invoicing currencies and the currency in which their local operations are conducted. For the purpose of hedging existing and foreseeable foreign exchange transaction exposures the Company enters into foreign exchange forward contracts.

Changes in the fair value of the effective portion of foreign exchange forward contracts designated and qualifying as cash flow hedges of forecasted product purchases and sales are reported in AOCI. Additionally, in connection with intercompany loans in foreign currency, the Company uses foreign exchange swaps to assure that no foreign exchange risks arise from those loans, which, if they qualify for cash flow hedge accounting, are also reported in AOCI. The Company only designates the change in fair value of the spot element of foreign exchange forward contracts as the hedging instrument in cash flow hedging relationships and uses a hedge ratio for designated risks of 1:1. The forward elements are separately accounted for as cost of hedging in a separate component within AOCI.

The amounts recorded in AOCI are subsequently reclassified into earnings as a component of revenue for those contracts that hedge sales or as an adjustment of cost of revenue for those contracts that hedge intercompany product purchases. Foreign exchange forward contracts that hedge loans are subsequently reclassified from AOCI to interest income/expense. The amounts recorded in AOCI are reclassified in the same period in which the hedged transaction affects earnings. Amounts recorded in AOCI for cash flow hedges related to product purchases from third parties are removed from AOCI and included directly in the carrying amount of the asset at initial recognition. Product purchases and sales designated in a cash flow hedging relationship are expected to affect profit and loss in the same period in which the cash flows occur.

The critical terms of the forward exchange contracts generally align with the hedged item. The economic relationship between forward exchange contracts and the hedged forecast transaction is based on the timing, currency and amount of the hedged cash flows. Ineffectiveness could arise in case the timing of the hedged transaction or the credit default risk changes. Earnings of the Company were not materially affected by hedge ineffectiveness in the reporting period since the critical terms of the interest and foreign exchange derivatives matched mainly the critical terms of the underlying exposures. The notional amounts of foreign exchange contracts in place that are designated and qualify as cash flow hedges totalled €115,263 and €129,153 at December 31, 2019 and December 31, 2018, respectively. At December 31, 2019, the Company had foreign exchange derivatives with maturities of up to 14 months.

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The Company also enters into derivative contracts for forecasted product purchases and sales and for intercompany loans in foreign currencies which do not qualify for hedge accounting but are utilized for economic hedges as defined above. In these two cases, the change in value of the economic hedge is recorded in the income statement and usually offsets the change in value recorded in the income statement for the underlying asset or liability. The notional amounts of economic hedges that do not qualify for hedge accounting totalled €626,585 and €913,683 at December 31, 2019 and December 31, 2018, respectively.

The Company uses a Cash-Flow-at-Risk (CFaR) model in order to estimate and quantify transaction risks from foreign currencies. The basis for the analysis of the currency risks are the foreign currency cash flows that are reasonably expected to arise within the following twelve months, less any hedges. Under the CFaR approach, the potential currency fluctuations of these net exposures are shown as probability distributions based on historical volatilities and correlations of the preceding 250 business days. The calculation is made assuming a confidence level of 95% and a holding period of up to one year. The aggregation of currency risks has risk-mitigating effects due to correlations between the transactions concerned, i.e. the overall portfolio's risk exposure is generally less than the sum total of the underlying individual risks. Based on a net exposure of €1,381,399, the Company's CFaR amounts to €41,342 at December 31, 2019, this means with a probability of 95% a potential loss in relation to the forecasted foreign exchange cash flows of the next twelve months will be not higher than €41,342.

The following table shows the average hedging rate and the nominal amount of the foreign exchange forward contracts for the currencies with highest hedging volume at December 31, 2019:

Significant currency pairs

in € THOUS

	Nominal amount	Average hedging rate
EUR/AUD	168,395	1.6314
EUR/USD	122,305	1.1373
EUR/GBP	49,308	0.8798

Interest rate risk management

The Company's interest rate risks mainly arise from money market and capital market transactions of the group for financing its business activities.

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 Company determines the existence of an economic relationship between the hedging instrument and hedged item based on the reference interest rates, maturities and the notional amounts. The effective portion of gains and losses of derivatives designated as cash flow hedges is deferred in AOCI; the amount of gains and losses reclassified from AOCI are recorded in interest income and interest expenses.

For purposes of analysing the impact of changes in the relevant reference interest rates on the Company's results of operations, the Company calculates the portion of financial debt which bears variable interest rate and which has not been hedged by means of interest rate swaps or options against rising interest rates. For this particular part of its liabilities, the Company assumes an increase in the reference rates of 0.5% compared to the actual rates as of the balance sheet date. The corresponding additional annual interest expense is then compared to the Company's net income. This analysis shows that an increase of 0.5% in the relevant reference rates would have an effect of approximately 1% on the consolidated net income and less than 1% on the shareholder's equity of the Company.

At December 31, 2019 no interest rate swaps were in place. At December 31, 2018, the notional amount of the euro-denominated interest rate swaps in place was €204,000.

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In addition, the Company also enters into interest rate hedges (“pre-hedges”) in anticipation of future long-term debt issuance. These pre-hedges are used to hedge interest rate exposures with regard to interest rates which are relevant for the future long-term debt issuance and which could rise until the respective debt is actually issued. These pre-hedges were settled at the issuance date of the corresponding long-term debt with the settlement amount recorded in AOCI amortized to interest expense over the life of the debt. At December 31, 2019 and December 31, 2018, the Company had €9,249 and €1,131, respectively, related to settlements of pre-hedges deferred in AOCI, net of tax.

Derivative financial instruments valuation

The following table shows the carrying amounts of the Company’s derivatives at December 31, 2019 and December 31, 2018:

Derivative financial instruments valuation				
in € THOUS				
	2019		2018	
	<u>Assets</u>	<u>Liabilities</u>	<u>Assets</u>	<u>Liabilities</u>
Current				
Foreign exchange contracts	107	(2,484)	1,434	(711)
Interest rate contracts	—	—	—	(414)
Non-current				
Foreign exchange contracts	—	(50)	58	—
Derivatives in cash flow hedging relationships	<u>107</u>	<u>(2,534)</u>	<u>1,492</u>	<u>(1,125)</u>
Current				
Foreign exchange contracts	2,406	(10,762)	6,402	(7,091)
Non-current				
Derivatives embedded in the Convertible Bonds	—	—	—	(11,820)
Share Options to secure the Convertible Bonds	—	—	11,820	—
Derivatives not designated as hedging instruments	<u>2,406</u>	<u>(10,762)</u>	<u>18,222</u>	<u>(18,911)</u>

The significant methods and assumptions used in estimating the fair values of derivative financial instruments are as follows:

The fair value of interest rate swaps is calculated by discounting the future cash flows on the basis of the market interest rates applicable for the remaining term of the contract as of the balance sheet date. To determine the fair value of foreign exchange forward contracts, the contracted forward rate is compared to the current forward rate for the remaining term of the contract as of the balance sheet date. The result is then discounted on the basis of the market interest rates prevailing at the balance sheet date for the applicable currency. The fair value of the embedded derivative of the Convertible Bonds is calculated using the difference between the market value of the Convertible Bonds and the market value of an adequate straight bond discounted with the market interest rates as of the reporting date.

The Company’s own credit risk is incorporated in the fair value estimation of derivatives that are liabilities. Counterparty credit risk adjustments are factored into the valuation of derivatives that are assets. The Company monitors and analyses the credit risk from derivative financial instruments on a regular basis. For the valuation of derivative financial instruments, the credit risk is considered in the fair value of every individual instrument. The default probability is based upon the credit default swap spreads of each counterparty appropriate for the duration. The calculation of the credit risk considered in the valuation is performed by multiplying the default probability appropriate for the duration with the expected discounted cash flows of the derivative financial instrument.

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The effect of financial instruments on the consolidated statements of income

The effects of financial instruments recorded in the consolidated statements of income consist of interest income of €59,448 (2018: €141,491), interest expense of €486,039 (2018: €437,957) as well as allowances for doubtful accounts of €42,315 (2018: €19,112).

In the fiscal year 2019 net losses from foreign currency transactions amount to €4,901 (2018: net losses €21,391).

The following table shows the effect of derivatives in cash flow hedging relationship on the consolidated financial statement:

The effect of derivatives in cash flow hedging relationships on the consolidated financial statements

in € THOUS

	Fair value gain (loss) recognized in AOCI on hedging instrument (hedge reserve)	Fair value gain (loss) recognized in AOCI on hedging instrument (cost of hedging)	Location of reclassified amounts from AOCI	Amount reclassified from hedge reserve	Amount reclassified from cost of hedging
For the year ended December 31, 2019					
Interest rate contracts	(12,807)	—	Interest income/ expense	2,753	—
Foreign exchange contracts	(3,189)	(1,473)	thereof: Revenue	1,331	1,480
			Costs of revenue	2,509	(1,913)
			Inventories	(269)	(55)
Total	(15,996)	(1,473)		6,324	(488)
For the year ended December 31, 2018					
Interest rate contracts	(105)	—	Interest income/ expense	22,249	—
Foreign exchange contracts	5,029	(2,244)	thereof: Revenue	(423)	132
			Costs of revenue	(1,839)	799
			Inventories	(17)	(21)
Total	4,924	(2,244)		19,970	910

The following table shows the effect of derivatives not designated as hedging instruments on the consolidated financial statements:

The effect of derivatives not designated as hedging instruments on the consolidated financial statements

in € THOUS

	Location of (gain) loss recognized in income on derivatives	Amount of (gain) loss recognized in income on derivatives for the year ended, December 31,	
		2019	2018
Foreign exchange contracts	Selling, general and administrative expenses	7,686	(12,841)
Foreign exchange contracts	Interest income/expense	16,491	14,809
Derivatives embedded in the Convertible Bonds	Interest income/expense	(11,820)	(90,614)
Share Options to secure the Convertible Bonds	Interest income/expense	11,820	90,614
Derivatives not designated as hedging instruments		24,177	1,968

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The following table shows when the cash flow from derivative financial instruments is expected to occur:

Cash Flow from derivative financial instruments

in € THOUS

	Expected in period of			
	Less than 1 year	1 - 3 years	3 - 5 years	Over 5 years
2019				
Designated as hedging instrument	(2,377)	(50)	—	—
Not designated as hedging instrument	(8,356)	—	—	—
2018				
Designated as hedging instrument	87	58	—	—
Not designated as hedging instrument	(689)	—	—	—

Credit risk

The Company is exposed to potential losses in the event of non-performance by counterparties. With respect to derivative financial instruments it is not expected that any counterparty fails to meet its obligations as the counterparties are highly rated financial institutions. The maximum credit exposure of derivatives is represented by the fair value of those contracts with a positive fair value at the balance sheet date. The maximum credit exposure of all derivatives amounted to €2,513 at December 31, 2019 (2018: €19,714). The maximum credit risk resulting from the use of non-derivative financial instruments is defined as the total amount of all financial assets. In order to control this credit risk, the Management of the Company carries out an ageing analysis of trade accounts and other receivables. For details on the ageing analysis and on the allowance for doubtful accounts, please see note 7.

Liquidity risk

The liquidity risk is defined as the risk that a company is potentially unable to meet its financial obligations. The Management 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, net cash provided by operating activities and additional short-term debt are sufficient to meet the Company's foreseeable demand for liquidity (see note 13).

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The following table shows all non-discounted payments agreed by contract concerning financial liabilities and derivative financial instruments recorded in the consolidated balance sheets:

Payments agreed by contracts

in € THOUS

	Payments due by period of			
	Less than 1 year	1 - 3 years	3 - 5 years	Over 5 years
2019				
Accounts payable	716,526	—	—	—
Accounts payable to related parties	118,663	—	—	—
Other current financial liabilities	1,414,464	—	—	—
Short-term debt ⁽¹⁾	1,171,853	—	—	—
Amended 2012 Credit Agreement ⁽²⁾	577,115	1,424,798	—	—
Bonds and Convertible Bonds	1,004,042	1,686,586	1,109,894	2,166,434
Accounts Receivable Facility ⁽²⁾	7,518	387,468	—	—
Other long-term debt	68,078	66,531	74,131	49,467
Long-term lease liabilities ⁽¹⁾	789,145	1,479,119	1,112,401	2,190,926
Variable payments outstanding for acquisitions	34,253	26,710	26,325	9,503
Noncontrolling interests subject to put provisions	603,132	114,950	136,163	121,021
Letters of credit	21,893	—	—	—
Derivative financial instruments – in cash flow hedging relationships	2,484	50	—	—
Derivative financial instruments – not designated as hedging instrument	10,762	—	—	—
2018				
Accounts payable	641,271	1	—	—
Accounts payable to related parties	153,781	—	—	—
Other current financial liabilities	1,467,766	—	—	—
Short-term debt ⁽¹⁾	1,394,194	—	—	—
Amended 2012 Credit Agreement ⁽²⁾	178,170	740,024	1,126,183	—
Bonds and Convertible Bonds	1,132,032	1,917,239	677,500	880,939
Accounts Receivable Facility ⁽²⁾	—	—	—	—
Other long-term debt and capital lease obligations ⁽²⁾	26,519	68,976	19,796	63,734
Variable payments outstanding for acquisitions	57,217	69,918	33,221	30,576
Noncontrolling interests subject to put provisions	494,576	183,396	66,324	107,857
Letters of credit	12,413	12,322	—	—
Derivative financial instruments – in cash flow hedging relationships	1,347	—	—	—
Derivative financial instruments – not designated as hedging instrument	7,091	11,820	—	—

(1) Includes amounts from related parties.

(2) Future interest payments for financial liabilities with variable interest rates were calculated using the latest interest rates fixed prior to December 31, 2019 and 2018.

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24. Other comprehensive income (loss)

The changes in the components of other comprehensive income (loss) for the years ended December 31, 2019, 2018, and 2017 are as follows:

Other comprehensive income (loss)

in € THOUS

	2019			2018			2017		
	Pretax	Tax effect	Net	Pretax	Tax effect	Net	Pretax	Tax effect	Net
Components that will not be reclassified to profit or loss:									
Actuarial gain (loss) on defined benefit pension plans	(99,613)	30,245	(69,368)	(28,070)	7,713	(20,357)	6,840	(27,393)	(20,553)
Components that may be reclassified subsequently to profit or loss:									
Foreign currency translation adjustment	263,835	—	263,835	327,317	—	327,317	(1,284,173)	—	(1,284,173)
Other comprehensive income (loss) relating to cash flow hedges:									
Changes in fair value of cash flow hedges during the period	(17,469)	4,352	(13,117)	2,680	(698)	1,982	1,613	(430)	1,183
Reclassification adjustments	5,836	(1,678)	4,158	20,880	(6,036)	14,844	26,370	(7,977)	18,393
Total other comprehensive income (loss) relating to cash flow hedges	(11,633)	2,674	(8,959)	23,560	(6,734)	16,826	27,983	(8,407)	19,576
Other comprehensive income (loss)	<u>152,589</u>	<u>32,919</u>	<u>185,508</u>	<u>322,807</u>	<u>979</u>	<u>323,786</u>	<u>(1,249,350)</u>	<u>(35,800)</u>	<u>(1,285,150)</u>

25. Supplementary cash flow information

The following additional information is provided with respect to net cash provided by (used in) investing activities for the years ended December 31, 2019, 2018 and 2017:

Details for net cash provided by (used in) investing activities

in € THOUS

	2019	2018	2017
Details for acquisitions			
Assets acquired	(2,639,432)	(360,375)	(758,720)
Liabilities assumed	260,120	21,122	128,552
Noncontrolling interests subject to put provisions	72,151	11,901	68,069
Noncontrolling interests	65,217	45,319	14,293
Non-cash consideration	26,637	28,530	8,851
Cash paid	(2,215,307)	(253,503)	(538,955)
Less cash acquired	55,210	3,538	17,630
Net cash paid for acquisitions	<u>(2,160,097)</u>	<u>(249,965)</u>	<u>(521,325)</u>
Cash paid for investments	<u>(34,602)</u>	<u>(590,199)</u>	<u>(17,999)</u>
Cash paid for intangible assets	<u>(37,972)</u>	<u>(85,103)</u>	<u>(26,370)</u>
Total cash paid for acquisitions and investments, net of cash acquired, and purchases of intangible assets	<u>(2,232,671)</u>	<u>(925,267)</u>	<u>(565,694)</u>
Details for divestitures			
Cash received from sale of subsidiaries or other businesses, less cash disposed ⁽¹⁾	43,317	1,532,724	157,025
Cash received from divestitures of debt securities	16,623	150,172	256,136
Cash received from repayment of loans	—	79	2,227
Proceeds from divestitures	<u>59,940</u>	<u>1,682,975</u>	<u>415,388</u>

(1) In 2018, cash received from sale of subsidiaries or other businesses, less cash disposed included a cash payment of €142,593 relating to tax payments in connection with the divestiture of Sound.

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In connection with divestitures which occurred during 2018, the Company divested, in aggregate, assets, excluding cash, of €1,100,315, liabilities of €296,857, noncontrolling interests subject to put provisions of €469 and noncontrolling interests of €16,540.

The following table shows a reconciliation of debt to net cash provided by (used in) financing activities for 2019:

Reconciliation of debt to net cash provided by (used in) financing activities

in € THOUS

	January 1, 2019 ⁽¹⁾	Cash Flow	Non-cash changes				December 31, 2019
			Acquisitions (net of divestitures)	Foreign currency translation	Amortization of debt issuance costs	Other ⁽²⁾	
Short-term debt	1,205,294	(70,398)	14,611	618	—	(137)	1,149,988
Short-term debt from related parties	188,900	(167,111)	—	—	—	76	21,865
Long-term debt (excluding Accounts Receivable Facility) ⁽³⁾	6,115,890	1,285,603	22,815	85,424	15,147	1,108	7,525,987
Accounts Receivable Facility	—	381,430	—	(2,435)	575	—	379,570
Lease liabilities	4,451,081	(671,403)	2,141	81,817	—	718,456	4,582,092
Lease liabilities from related parties	137,494	(16,340)	—	35	—	1,757	122,946

(1) Line item “Long-term Debt (excluding Accounts Receivable Facility)” as of December 31, 2018, was labeled as “Long-term debt and capital lease obligations (excluding Accounts Receivable Facility)” and included liabilities from capital leases in accordance with IAS 17 of €36,144; As of January 1, 2019, these liabilities have been transferred to the line item “Lease liabilities”. Furthermore, upon the initial application of IFRS 16 as of January 1, 2019, Lease liabilities of €4,414,937 and Lease liabilities from related parties of €137,494 were recognized.

(2) Includes newly concluded leases, lease modifications and reassessments of leases with third parties and related parties.

(3) Cash Flow excluding repayments of variable payments outstanding for acquisitions in the amount of €41,803.

The following table shows a reconciliation of debt to net cash provided by (used in) financing activities for 2018:

Reconciliation of debt to net cash provided by (used in) financing activities

in € THOUS

	January 1, 2018	Cash Flow	Non-cash changes					December 31, 2018
			Acquisitions (net of divestitures)	Foreign currency translation	Amortization of debt issuance costs	New leases	Other	
Short-term debt	760,279	444,844	3,046	(2,860)	—	—	(15)	1,205,294
Short-term debt from related parties	9,000	179,900	—	—	—	—	—	188,900
Long-term debt (excluding Accounts Receivable Facility) ⁽¹⁾	6,384,734	(453,717)	8,652	188,165	15,975	6,517	1,708	6,152,034
Accounts Receivable Facility	293,673	(298,912)	—	4,883	356	—	—	—

(1) Cash Flow excluding repayments of variable payments outstanding for acquisitions in the amount of €10,099.

26. Segment and corporate information

The Company’s operating segments are the North America Segment, the EMEA Segment, the Asia-Pacific Segment and the Latin America Segment. The operating segments are determined based upon how the Company manages its businesses with geographical responsibilities. All segments are primarily engaged in

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providing health care services and the distribution of products and equipment for the treatment of ESRD and other extracorporeal therapies.

Management evaluates each segment using measures that reflect all of the segment's controllable revenues and expenses. With respect to the performance of business operations, management believes that the most appropriate measures are revenue, operating income and operating income margin. The Company does not include income taxes as it believes this is outside the segments' control. Financing is a corporate function, which the Company's segments do not control. Therefore, the Company does not include interest expense relating to financing as a segment measurement. Similarly, the Company does not allocate certain costs, which relate primarily to certain headquarters' overhead charges, including accounting and finance, because the Company believes that these costs are also not within the control of the individual segments. Production of products, production asset management, quality management and procurement related to production are centrally managed. The Company's global research and development is also centrally managed. These corporate activities ("Corporate") do not fulfill the definition of a segment according to IFRS 8, Operating Segments. Products are transferred to the segments at cost; therefore, no internal profit is generated. The associated internal revenue for the product transfers and their elimination are recorded as corporate activities. Capital expenditures for production are based on the expected demand of the segments and consolidated profitability considerations. In addition, certain revenues, investments and intangible assets, as well as any related expenses, are not allocated to a segment but are accounted for as Corporate.

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Information pertaining to the Company's segment and Corporate activities for the twelve-month periods ended December 31, 2019, 2018 and 2017 is set forth below:

Segment and corporate information

in € THOUS

	North America Segment	EMEA Segment	Asia-Pacific Segment	Latin America Segment	Total Segment	Corporate	Total
2019							
Revenue from contracts with customers . . .	11,931,396	2,652,943	1,792,020	705,636	17,081,995	20,141	17,102,136
Other revenue external customers	263,777	40,530	66,750	3,362	374,419	—	374,419
Revenue external customers	12,195,173	2,693,473	1,858,770	708,998	17,456,414	20,141	17,476,555
Inter – segment revenue	3,067	686	504	251	4,508	(4,508)	—
Revenue	12,198,240	2,694,159	1,859,274	709,249	17,460,922	15,633	17,476,555
Operating income	1,794,101	448,062	328,996	42,508	2,613,667	(344,109)	2,269,558
Interest							(429,444)
Income before income taxes							1,840,114
Depreciation and amortization	(992,526)	(188,580)	(98,599)	(33,352)	(1,313,057)	(240,351)	(1,553,408)
Impairment loss	(36,411)	(3,341)	—	—	(39,752)	—	(39,752)
Income (loss) from equity method investees	75,941	(4,414)	2,551	1,152	75,230	(1,551)	73,679
Total assets	21,700,202	4,058,523	2,852,271	917,184	29,528,180	3,406,555	32,934,735
thereof investment in equity method investees	400,514	171,704	99,815	24,839	696,872	—	696,872
Additions of property, plant and equipment, intangible assets and right-of-use assets	1,097,517	212,282	190,591	36,595	1,536,985	356,934	1,893,919
2018							
Revenue from contracts with customers . . .	11,347,963	2,559,485	1,627,715	682,894	16,218,057	14,736	16,232,793
Other revenue external customers	221,769	27,073	61,638	3,600	314,080	—	314,080
Revenue external customers	11,569,732	2,586,558	1,689,353	686,494	16,532,137	14,736	16,546,873
Inter – segment revenue	1,609	304	633	240	2,786	(2,786)	—
Revenue	11,571,341	2,586,862	1,689,986	686,734	16,534,923	11,950	16,546,873
Operating income	2,665,187	398,683	303,956	28,848	3,396,674	(358,876)	3,037,798
Interest							(301,062)
Income before income taxes							2,736,736
Depreciation and amortization	(377,836)	(116,384)	(45,475)	(22,344)	(562,039)	(162,808)	(724,847)
Impairment loss	—	(64,719)	—	—	(64,719)	—	(64,719)
Income (loss) from equity method investees	75,279	(4,322)	2,125	264	73,346	—	73,346
Total assets	16,936,646	3,612,800	2,322,284	719,334	23,591,064	2,651,204	26,242,268
thereof investment in equity method investees	348,096	178,886	98,741	24,057	649,780	—	649,780
Additions of property, plant and equipment and intangible assets	598,988	158,974	53,962	26,894	838,818	316,147	1,154,965
2017							
Revenue from contracts with customers . . .	12,878,665	2,547,055	1,623,312	719,792	17,768,824	14,748	17,783,572
Inter – segment revenue	1,898	16	356	374	2,644	(2,644)	—
Revenue	12,880,563	2,547,071	1,623,668	720,166	17,771,468	12,104	17,783,572
Operating income	2,086,391	443,725	313,042	58,349	2,901,507	(539,068)	2,362,439
Interest							(364,824)
Income before income taxes							1,997,615
Depreciation and amortization	(398,235)	(119,044)	(45,401)	(17,929)	(580,609)	(154,870)	(735,479)
Income (loss) from equity method investees	71,739	(7,159)	1,919	700	67,199	—	67,199
Total assets	15,556,146	3,585,486	2,074,150	670,126	21,885,908	2,139,307	24,025,215
thereof investment in equity method investees	342,462	181,870	98,281	24,396	647,009	—	647,009
Additions of property, plant and equipment and intangible assets	526,652	130,755	52,861	41,637	751,905	241,052	992,957

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For the geographic presentation, revenues are attributed to specific countries based on the end user's location for products and the country in which the service is provided. Information with respect to the Company's geographic operations is set forth in the table below:

Geographic presentation

in € THOUS	<u>Germany</u>	<u>North America</u>	<u>Rest of the world</u>	<u>Total</u>
2019				
Revenue external customers	474,750	12,195,173	4,806,632	17,476,555
Long-lived assets	1,311,786	19,112,827	4,335,569	24,760,182
2018				
Revenue external customers	426,327	11,569,732	4,550,814	16,546,873
Long-lived assets	948,355	13,260,913	3,290,930	17,500,198
2017				
Revenue external customers	433,105	12,878,665	4,471,802	17,783,572
Long-lived assets	905,571	13,037,452	3,122,590	17,065,613

27. Subsequent events

No significant activities have taken place subsequent to the balance sheet date December 31, 2019 that have a material impact on the key figures and earnings presented. Currently, there are no other significant changes in the Company's structure, management, legal form or personnel.

28. Compensation of the Management Board and the Supervisory Board

Compensation of the Management Board of the General Partner

The total compensation of the members of the Management Board of Fresenius Medical Care Management AG for the fiscal year 2019 amounted to €24,773 (2018: €24,166) and consisted of non-performance-based compensation (including fringe benefits) in the total amount of €7,122 (2018: €6,532), short-term performance-based compensation in the total amount of €7,869 (2018: €8,437) and components with long-term incentive effects (multi-year variable compensation) in the total amount of €9,782 (2018: €9,197). Components with long-term incentive effects, which were granted in or for the fiscal year 2019, include exclusively share-based compensation with cash settlement.

Under the MB LTIP 2019, in the fiscal year 2019, a total of 114,999 Performance Shares (2018: 73,315 under the LTIP 2016) were granted to the members of the Management Board of Fresenius Medical Care Management AG. The fair value of the Performance Shares granted in July of the fiscal year 2019 was on the grant date €62.10 (2018: €80.55 under the LTIP 2016) each for grants denominated in euro and \$69.71 (2018: \$94.11 under the LTIP 2016) for grants denominated in US-Dollar. Ms. Helen Giza (member of the Management Board since November 1, 2019) was granted Performance Shares in December of the fiscal year 2019 whose fair value on the grant date was €60.58 (2018: €69.05 for Dr. Katarzyna Mazur-Hofsäß under the LTIP 2016).

Based on the target achievement in the fiscal year 2019, in addition to the Performance Shares granted under the MB LTIP 2019, the Management Board members of Fresenius Medical Care Management AG were entitled to further share-based compensation with cash settlement (so-called Share Based Award) in the amount of €2,623 (2018: €3,414).

At the end of fiscal year 2019, the members of the Management Board of Fresenius Medical Care Management AG being in office on December 31 of the fiscal year held a total of 314,313 Performance Shares (2018: 204,693) and 23,336 Phantom Stock (2018: 54,711). In addition, they held a total of 452,989 stock options at the end of the fiscal year 2019 (2018: 602,389 stock options).

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As of December 31, 2019, aggregate pension obligations of €24,252 (December 31, 2018: €24,535) existed relating to existing pension commitments. In the fiscal year 2019, the appropriation to the pension reserves amounted to €6,751 (2018: €5,071).

In the fiscal year, no loans or advance payments for future compensation components were made to the members of the Management Board of Fresenius Medical Care Management AG.

To the extent permitted by law, Fresenius Medical Care Management AG undertook to indemnify the members of the Management Board from claims against them arising out of their work for the Company and its affiliates, to the extent such claims exceed their liability under German law. To secure such obligations, a Directors & Officers liability insurance exists with a deductible that corresponds to the specifications according to the German Stock Corporation Act.

Mr. Michael Brosnan was a member of the Management Board until the end of October 31, 2019. In his termination agreement, it was agreed with respect to the compensation components he is contractually entitled to for the period from November 1, 2019 to December 31, 2020 that he will receive a base salary of \$850 p.a. (pro rata for the period from November 1, 2019 to December 31, 2019). For the period from January 1, 2020 to December 31, 2020 Mr. Michael Brosnan has an entitlement to fringe benefits in the form of contributions to financial planning, insurance benefits, contributions to pension, accident, life and health insurances and housing, rent and relocation supplements as well as tax burden compensation due to varying tax rates in Germany and the U.S. (net compensation) and a car allowance in the total amount of approximately \$257. For the period from November 1, 2019 to December 31, 2019 these fringe benefits amounted to \$17. Additionally, Mr. Michael Brosnan will participate in the U.S.-based 401(k) savings plan until December 31, 2020. For the period from January 1, 2020 to December 31, 2020, Mr. Michael Brosnan will also receive an amount equivalent to 30% of his base salary. The compensation components granted to Mr. Michael Brosnan under the LTIP 2016, the MB LTIP 2019 and in the form of Share Based Awards are payable or exercisable in accordance with the respective plan conditions. With the exception of the Share Based Award for 2019, Mr. Michael Brosnan will no longer be granted any further components with long-term incentive effects as from (and including) the year 2020. As of January 1, 2021, Mr. Michael Brosnan will receive an annual compensation for the agreed post-employment non-competition covenant in the amount of \$553 p.a. for a period of two years. It was agreed with Mr. Michael Brosnan that he is entitled to receive a company pension on the basis of the individual contractual pension commitment of Fresenius Medical Care Management AG in the annual amount of \$405 from January 1, 2021. The compensation for the agreed post-employment non-competition covenant is credited against the company pension.

Mr. Dominik Wehner was a member of the Management Board until the end of December 31, 2017. In his termination agreement, it was agreed with respect to the compensation components he is entitled to by contract for the period from January 1, 2018 to March 31, 2022 that he will annually receive a base salary of €425 and an amount of 30% of his base salary. In addition, Mr. Dominik Wehner is entitled to fringe benefits such as the private use of his company car, contributions to financial planning, insurance benefits and contributions to pension and health insurance in a total amount of approximately €30 p.a. The compensation components granted to Mr. Dominik Wehner under the LTIP 2011, the LTIP 2016 and in form of Share Based Awards are payable or can be exercised, as the case may be, upon the relevant regular vesting date in accordance with the respective plan conditions. Except for the Share Based Award for 2017, Mr. Dominik Wehner is no longer eligible to be granted any components with long-term incentive effects since the year 2018 (including). As of the completion of the age of 65, Mr. Dominik Wehner will receive a Company-funded retirement pension in accordance with the individual contractual pension commitment by Fresenius Medical Care Management AG.

Mr. Ronald Kuerbitz, who was a member of the Management Board until February 17, 2017, received an annual non-compete compensation from February 17, 2017 for a period of two years; this compensation amounted in the fiscal year 2019 to €90 (2018: €515). It was also agreed with him that, after the end of his employment contract, he would act as an advisor to National Medical Care, Inc. from August 14, 2017 until the end of August 13, 2019. The consideration to be granted for such services (including reimbursement of expenses) amounts to €167 (2018: €212) for the fiscal year 2019. As of the completion of the age of 65, Mr. Ronald Kuerbitz will receive a Company-funded retirement pension of €130 per year.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (in THOUS, except share and per share data)

Mr. Roberto Fusté, who was a member of the Management Board until March 31, 2016, received pension payments in the amount of approximately €274 (2018: €261) in the fiscal year 2019. On the occasion of the termination of his employment contract with effect as of December 31, 2016 as a member of the Management Board, it was agreed with Mr. Roberto Fusté that he would be subject to a post-employment non-compete obligation lasting until the end of December 31, 2018 and that he would act as an advisor to the Chairman of the Management Board. For this, he did neither receive a non-compete compensation (2018: €377) nor an advisory fee (2018: €377) in the fiscal year 2019.

Prof. Emanuele Gatti, who was a member of the Management Board until March 31, 2014, received pension payments in the amount of €355 in the fiscal year 2019 (2018: €338).

A consulting agreement was entered into with Dr. Rainer Runte, who was a member of the Management Board until March 31, 2014, effective March 1, 2017, the term of which in the meantime was extended until December 31, 2018. Under this consulting agreement, Dr. Rainer Runte provided consulting services on certain fields. The consideration (including the reimbursement of expenses) to be granted by Fresenius Medical Care Management AG for such services amounts to €0 for the fiscal year 2019 (2018: €226).

Instead of a pension provision, a consulting agreement was entered into with Dr. Ben Lipps, the Chairman of the Management Board until December 31, 2012, for the period January 1, 2013 to December 31, 2021. Under this consulting agreement, Dr. Ben Lipps will provide consulting services on certain fields and within a specified time frame and will be subject to a non-compete covenant. The consideration to be granted by Fresenius Medical Care Management AG for such services (including reimbursement of expenses) amounts for the fiscal year to €568 (2018: €522). In 2019, an amendment to the agreement was made which provides for a one-off payment of €1,129 for the remaining term of the agreement. This payment was also made in the fiscal year. All payments for services to be performed by him under the consulting agreement have thus been made.

Former members of the Management Board did not receive any compensation in the fiscal year other than mentioned herein. As of December 31 of the fiscal year 2019, pension obligations towards this group of persons exist in an amount of €37,373 (December 31, 2018: €25,163).

A post-employment non-competition covenant was agreed upon with all members of the Management Board. If such covenant becomes applicable, the members of the Management Board for a period of up to two years receive compensation amounting to half of their respective annual base salary and an amount equivalent to 30% of their respective base salary for each year of respective application of the non-competition covenant. The employment contracts of the members of the Management Board contain no express provisions that are triggered by a change of control.

The new or extended employment contracts concluded with individual members of the Management Board effective from or after January 1, 2018 provide for a severance payment cap. Under this cap, payments in connection with the early termination of a Management Board activity in the event of dismissal for cause (*Abberufung aus wichtigem Grund*) may not exceed the value of two years' compensation and may not compensate more than the remaining term of the contract. For the calculation of the relevant annual compensation, only the non-performance-based compensation components are applied. If there is good cause for the termination of the employment contract, no severance payments are made.

In addition, already earned and paid compensation components, in particular in case of relevant violations of internal guidelines or undutiful conduct, can be reclaimed (claw back) on the basis of the MB LTIP 2019 and the LTIP 2016 plan conditions and in accordance with the employment contracts concluded with individual members of the Management Board as from January 1, 2018.

Compensation of the Supervisory Board

In the fiscal year the total compensation fees to all members of the Supervisory Board of FMC-AG & Co. KGaA amounted to €626 (2018: €773). This includes a fixed compensation of €439 (2018: €361) and compensation components for the work in the Committees of €187 (2018: €148). For the fiscal year, no entitlement to a payment of variable performance-related compensation (2018: €264) was achieved. In

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accordance with section 13e para. 3 of the Articles of Association of FMC-AG & Co. KGaA, the members of the Joint Committee are entitled to receive an attendance fee in the amount of \$3.5.

The compensation of the supervisory board of the Fresenius Medical Care Management AG and the compensation of its Committees was, in compliance with article 7 para. 3 of the Articles of Association of FMC-AG & Co. KGaA, charged to FMC-AG & Co. KGaA. In the fiscal year the total compensation for the members of the supervisory board of the Fresenius Medical Care Management AG amounted to €937 (2018: €1,110). This includes fixed compensation components for the work in the supervisory board in the amount of €432 (2018: €402) and compensation components for the work in the Committees of €505 (2018: €428). For the fiscal year, no entitlement to a payment of variable performance-related compensation (2018: €280) was achieved.

For the benefit of the members of the Supervisory Board of FMC-AG & Co. KGaA a Directors & Officers liability insurance exists with a deductible that corresponds to the specifications according to the German Stock Corporation Act.

29. Principal accountant fees and services

In 2019, 2018 and 2017, fees for the auditor KPMG AG Wirtschaftsprüfungsgesellschaft, Berlin, and its affiliates were expensed as follows:

Fees in € THOUS	<u>Consolidated group</u> 2019	<u>thereof Germany</u>	<u>Consolidated group</u> 2018	<u>thereof Germany</u>	<u>Consolidated group</u> 2017	<u>thereof Germany</u>
Audit fees	10,113	1,665	7,845	1,322	8,629	1,232
Audit-related fees	615	525	320	316	59	18
Tax fees	318	—	1,069	115	830	169
Other fees	41	—	251	234	716	110

Audit fees are the aggregate fees billed by KPMG for the audit of the Company's consolidated financial statements and the statutory financial statements of FMC-AG & Co. KGaA and certain of its subsidiaries, reviews of interim financial statements and attestation services that are provided in connection with statutory and regulatory filings or engagements. Fees related to the audit of internal control over financial reporting are included in audit fees. Audit-related fees are fees charged by KPMG for assurance and related services that are reasonably related to the performance of the audit or review of the Company's financial statements and are not reported under audit fees. This category comprises fees billed for comfort letters, consultation on accounting issues, agreed-upon procedure engagements and other attestation services subject to regulatory requirements. Tax fees are fees for professional services rendered by KPMG for tax compliance, tax advice on implications for actual or contemplated transactions, tax consulting associated with international transfer prices, and expatriate employee tax services, as well as support services related to tax audits. Other fees include amounts related to services in regard to the harmonization of the IT-landscape as well as amounts related to supply chain consulting fees.

Fees billed by KPMG for non-audit services in Germany include fees for the services described above within the audit-related fees, tax fees and other fees.

Exhibits

Pursuant to the provisions of the Instructions for the filings of Exhibits to Annual Reports on Form 20-F, Fresenius Medical Care AG & Co. KGaA (the “Registrant”) is filing the following exhibits:

- 1.1 Convenience translation of the Articles of Association (Satzung) of the Registrant (filed herewith).
- 2.1 Description of Registrant’s Ordinary Shares (incorporated by reference to Item 10B of FMC-AG & Co. KGaA’s Annual Report on Form 20-F for the year ended December 31, 2018, available at <https://www.sec.gov/Archives/edgar/data/1333141/000104746919000562/a2237687z20-f.htm>)
- 2.2 Amended and Restated Deposit Agreement dated as of April 30, 2018 between The Bank of New York Mellon and the Registrant relating to ordinary share ADSs (incorporated by reference to Exhibit 2.1 to the Registrant’s Report on Form 6-K for the month of May 2018, furnished May 3, 2018).
- 2.3 Form of American Depositary Receipt for American Depositary Shares representing ordinary shares (incorporated by reference to Exhibit A to the Amended and Restated Deposit Agreement dated as of April 30, 2018 furnished on May 3, 2018).
- 2.4 Pooling Agreement dated February 13, 2006 by and between Fresenius AG, Fresenius Medical Care Management AG and the individuals acting from time to time as Independent Directors. (incorporated by reference to Exhibit 2.3 to the Registrant’s Annual Report on Form 20-F for the year ended December 31, 2005, filed March 2, 2006).
- 2.5 Amendment to the Pooling Agreement dated September 28, 2016 by and between Fresenius AG, Fresenius Medical Care Management AG acting for itself and in its capacity as general partner of Fresenius Medical Care AG & Co. KGaA, Mr. William P. Johnston in his capacity as a GP Independent Director and Mr. Rolf A. Classon in his capacity as a GP Independent Director. (incorporated by reference to Exhibit 2.3 to the Registrant’s Report on Form 6-K for the month of October 2016, furnished October 27, 2016).
- 2.6 Indenture (euro denominated) dated as of February 2, 2011 by and among FMC Finance VII S.A., the Registrant and the other Guarantors party thereto and U.S. Bank National Association, as Trustee, and Deutsche Bank Aktiengesellschaft, as Paying Agent, related to the 5.25% Senior Notes due 2021 of FMC Finance VII S.A. (incorporated by reference to Exhibit 2.20 to the Registrant’s Annual Report on Form 20-F for the year ended December 31, 2010, filed February 23, 2011).
- 2.7 Form of Note Guarantee for 5.25% Senior Notes due 2021 (included in Exhibit 2.5) (incorporated by reference to Exhibit 2.21 to the Registrant’s Annual Report on Form 20-F for the year ended December 31, 2010, filed February 23, 2011).
- 2.8 Indenture (dollar denominated) dated as of February 2, 2011 by and among Fresenius Medical Care US Finance, Inc., the Registrant and the other Guarantors party thereto and U.S. Bank National Association, as Trustee, related to the 5.75% Senior Notes due 2021 of Fresenius Medical Care US Finance, Inc. (incorporated by reference to Exhibit 2.22 to the Registrant’s Annual Report on Form 20-F for the year ended December 31, 2010, filed February 23, 2011).
- 2.9 Form of Note Guarantee for 5.75% Senior Notes due 2021 (included in Exhibit 2.7) (incorporated by reference to Exhibit 2.23 to the Registrant’s Annual Report on Form 20-F for the year ended December 31, 2010, filed February 23, 2011).
- 2.10 Indenture (dollar-denominated) dated as of January 26, 2012 by and among Fresenius Medical Care US Finance II, Inc., the Registrant and the other Guarantors party thereto and U.S. Bank National Association, as Trustee, related to the 5⁷/₈% Senior Notes due 2022 of Fresenius Medical Care US Finance II, Inc. (incorporated by reference to Exhibit 2.21 to the Registrant’s Annual Report on Form 20-F for the year ended December 31, 2011, filed February 23, 2012).
- 2.11 Form of Note Guarantee for 5⁷/₈% Senior Notes due 2022 (included in Exhibit 2.15) (incorporated by reference to Exhibit 2.22 to the Registrant’s Annual Report on Form 20-F for the year ended December 31, 2011, filed February 23, 2012).
- 2.12 Indenture (euro-denominated) dated as of January 26, 2012 by and among FMC Finance VIII S.A., the Registrant and the other Guarantors party thereto and U.S. Bank National Association, as Trustee, and Deutsche Bank Aktiengesellschaft, as Paying Agent, related to the 5.25% euro-denominated Senior Notes due 2019 of FMC Finance VIII S.A. (incorporated by reference to Exhibit 2.23 to the Registrant’s Annual Report on Form 20-F for the year ended December 31, 2011, filed February 23, 2012).

- 2.13 Form of Note Guarantee for 5.25% euro-denominated Senior Notes due 2019 (included in Exhibit 2.17) (incorporated by reference to Exhibit 2.24 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2011, filed February 23, 2012).
- 2.14 Indenture dated as of October 29, 2014 by and among Fresenius Medical Care US Finance II, Inc., the Company and the other Guarantors party thereto and U.S. Bank National Association, as Trustee, related to the 4.125% Senior Notes due 2020 of Fresenius Medical Care US Finance II, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Report on Form 6-K for the month of November 2014, furnished November 4, 2014).
- 2.15 Form of Note Guarantee for 4.125% Senior Notes due 2020 (included in Exhibit 2.19) (incorporated by reference to Exhibit 10.2 to the Registrant's Report on Form 6-K for the month of November 2014, furnished November 4, 2014).
- 2.16 Indenture dated as of October 29, 2014 by and among Fresenius Medical Care US Finance II, Inc., the Company and the other Guarantors party thereto and U.S. Bank National Association, as Trustee, related to the 4.75% Senior Notes due 2024 of Fresenius Medical Care US Finance II, Inc. (incorporated by reference to Exhibit 10.3 to the Registrant's Report on Form 6-K for the month of November 2014, furnished November 4, 2014).
- 2.17 Form of Note Guarantee for 4.75% Senior Notes due 2024 (included in Exhibit 2.21) ((incorporated by reference to Exhibit 10.4 to the Registrant's Report on Form 6-K for the month of November 2014, furnished November 4, 2014).
- 2.18 Indenture (including the Guarantee set forth therein) dated as of June 20, 2019 by and among Fresenius Medical Care US Finance III, Inc., the Company and Fresenius Medical Care Holdings, Inc., as Guarantors, and U.S. Bank National Association, as Trustee, related to the 3.750% Notes due 2029 of Fresenius Medical Care US Finance III, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's report on Form 6-K for the month of July 2019, furnished July 30, 2019).
- 2.19 Final Terms dated July 9, 2018 for EUR 500,000,000 Fixed Rate Euro-Denominated Bonds due 2025 (incorporated by reference to Exhibit 2.24 to the Registrant's Report on Form 6-K for the month of October 2018, furnished October 30, 2018).
- 2.20 Final Terms dated November 27, 2019 for EUR 650,000,000 0.250% Fixed Rate Euro-Denominated Bonds due 2023 (filed herewith).
- 2.21 Final Terms dated November 27, 2019 for EUR 600,000,000 0.625% Fixed Rate Euro-Denominated Bonds due 2026 (filed herewith).
- 2.22 Final Terms dated November 27, 2019 for EUR 550,000,000 1.250% Fixed Rate Euro-Denominated Bonds due 2029 (filed herewith).
- 2.23 Credit Agreement dated as of October 30, 2012 among the Registrant, Fresenius Medical Care Holdings, Inc., and certain subsidiaries of the Registrant as borrowers and guarantors, Bank of America N.A., as administrative agent, Deutsche Bank AG New York Branch, as sole syndication agent, Commerzbank AG, New York Branch, JPMorgan Chase Bank, National Association, The Bank of Nova Scotia, Suntrust Bank, Unicredit Bank AG, New York Branch, and Wells Fargo Bank, National Association, as co-documentation agents, and the lenders named therein (incorporated by reference to Exhibit 2.25 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2012, filed February 26, 2013).
- 2.24 Amendment No. 1 dated November 25, 2014 to Credit Agreement (incorporated by reference to Exhibit 2.31 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2014, filed February 25, 2015).
- 2.25 Amendment No. 2 dated July 11, 2017 to the 2012 Credit Agreement (incorporated by reference to Exhibit 2.34 to the Registrant's Report on Form 6-K for the month of November 2017, furnished November 2, 2017).

- 2.26 Seventh Amended and Restated Transfer and Administration Agreement dated as of November 24, 2014 by and among NMC Funding Corporation, as Transferor, National Medical Care, Inc., as initial collection agent, Liberty Street Funding LLC, and other conduit investors party thereto, the financial institutions party thereto, The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, Barclays Bank PLC, Credit Agricole Corporate and Investment Bank, New York, PNC Bank, National Association, Royal Bank of Canada, as administrative agents, and The Bank of Nova Scotia, as an administrative agent and as agent (incorporated by reference to Exhibit 2.33 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2014, filed February 25, 2015).
- 2.27 Amendment No. 1 dated December 6, 2016 to Seventh Amended and Restated Transfer and Administration Agreement (incorporated by reference to Exhibit 2.30 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2016, filed February 22, 2017).
- 2.28 Second Amended and Restated Receivables Purchase Agreement dated January 17, 2013 between National Medical Care, Inc. and NMC Funding Corporation (incorporated by reference to Exhibit 2.39 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2012, filed February 26, 2013).
- 2.29 Amendment No. 1 dated November 24, 2014 to Second Amended and Restated Receivables Purchase Agreement (incorporated by reference to Exhibit 2.35 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2014, filed February 25, 2015).
- 2.30 Amendment No. 2 dated December 6, 2016 to Second Amended and Restated Receivables Purchase Agreement (incorporated by reference to Exhibit 2.33 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2016, filed February 22, 2017).
- 2.31 Amendment No. 2 dated December 20, 2018 to Seventh Amended and Restated Transfer and Administration Agreement (incorporated by reference to Exhibit 2.29 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2018, filed February 20, 2019).
- 2.32 Amendment No. 3 dated December 20, 2018 to Second Amended and Restated Receivables Purchase Agreement (incorporated by reference to Exhibit 2.30 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2018, filed February 20, 2019).
- 2.33 Third Amended and Restated Loan Note dated July 31, 2019, among the Registrant and certain of its U.S. subsidiaries as borrowers and Fresenius SE & Co. KGaA or its specified subsidiary as lender ((incorporated by reference to Exhibit 10.2 to the Registrant's Report on Form 6-K for the month of October 2019, furnished October 31, 2019)
- 4.1 Lease Agreement for Manufacturing Facilities dated January 1, 2017 by and between Fresenius Immobilien-Verwaltungs-GmbH & Co. Objekt Schweinfurt KG and Fresenius Medical Care Deutschland GmbH (incorporated by reference to Exhibit 4.4 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2016, filed February 22, 2017).
- 4.2 Lease Agreement for Manufacturing Facilities dated January 1, 2017 by and between Fresenius Immobilien-Verwaltungs-GmbH & Co. Objekt St. Wendel KG and Fresenius Medical Care Deutschland GmbH (incorporated by reference to Exhibit 4.5 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2016, filed February 22, 2017).
- 4.3 Trademark License Agreement dated September 27, 1996 by and between Fresenius AG and FMC-AG. (Incorporated by reference to Exhibit 10.8 to FMC-AG's Registration Statement on Form F-1, Registration No. 333-05922, filed November 16, 1996).
- 4.4 English convenience translation of the Stock Option Plan 2011 of Fresenius Medical Care AG & Co. KGaA (incorporated by reference to Exhibit 10.2 to the Registrant's Report on Form 6-K for the month of August 2011, furnished August 2, 2011).
- 4.5 English convenience translation of the Phantom Stock Plan 2011 of Fresenius Medical Care AG & Co. KGaA (incorporated by reference to Exhibit 10.5 to the Registrant's Report on Form 6-K for the month of August 2011, furnished August 2, 2011).
- 4.6 English convenience translation of the Fresenius Medical Care & Co. KGaA Long Term Incentive Plan 2016 (incorporated by reference to Exhibit 4.25 of the Registrant's Report on Form 6-K for the month of October, furnished October 27, 2016).

- 4.07 Agreement and Plan of Merger by and among Bio-Medical Applications Management Company, Inc., PB Merger Sub, Inc., Liberty Dialysis Holdings, Inc., certain stockholders of Liberty Dialysis Holdings, Inc., LD Stockholder Representative, LLC, and Fresenius Medical Care Holdings, Inc. dated as of August 1, 2011 (incorporated by reference to Exhibit 10.5 to the Registrant's Report of Form 6 K for the month of November 2011, furnished November 3, 2011).⁽¹⁾
- 4.08 General Agreement 2013 (mainly related to information technology services) dated May 8, 2013 by and between FMC-AG and Fresenius Netcare GmbH. (incorporated by reference to Exhibit 4.32 to the Registrant's Report on Form 6-K for the month of July 2013, filed July 30, 2013).
- 4.09 Second Amended and Restated Loan Note dated November 30, 2017, among the Registrant and certain of its U.S. subsidiaries as borrowers and Fresenius SE & Co. KGaA or its specified subsidiary as lender (incorporated by reference to Exhibit 4.16 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2017, filed February 27, 2018).
- 4.10 Non-Prosecution Agreement with the U.S. Department of Justice dated February 25, 2019 (incorporated by references to Exhibit 4.15 to the Registrant's Report on Form 6-K for the month of May 2019, furnished May 2, 2019)
- 4.11 Corrected Order Instituting Cease-And-Desist Proceedings Pursuant to Section 21C of the Securities Exchange Act of 1934, Making Findings, And Imposing a Cease-And-Desist Order from the U.S. Securities and Exchange Commission (incorporated by references to Exhibit 4.15 to the Registrant's Report on Form 6-K for the month of May 2019, furnished May 2, 2019)
- 4.12 English convenience translation of the Fresenius Medical Care Long-Term Incentive Plan 2019 (incorporated by references to Exhibit 4.15 to the Registrant's Report on Form 6-K for the month of October 2019, furnished October 31, 2019)
- 4.13 English convenience translation of the Fresenius Medical Care Management Board Long-Term Incentive Plan 2019 (incorporated by references to Exhibit 4.15 to the Registrant's Report on Form 6-K for the month of October 2019, furnished October 31, 2019)
- 4.14 Fresenius Medical Care AG & Co. KGaA NxStage Long-Term Incentive Plan (filed herewith).
- 8.1 List of Significant Subsidiaries. Our significant subsidiaries are identified in "Item 4.C. Information on the Company – Organizational structure."
- 11.1 Code of Business Conduct. A copy of the Registrant's Code of Business Conduct is available on the Registrant's web site at: https://www.freseniusmedicalcare.com/fileadmin/data/com/pdf/About_us/Br_Code_of_Ethics_240x175mm_GB_w.pdf
- 12.1 Certification of Chief Executive Officer of the general partner of the Registrant Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
- 12.2 Certification of Chief Financial Officer of the general partner of the Registrant Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
- 13.1 Certification of Chief Executive Officer and Chief Financial Officer of the general partner of the Registrant Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith). (This Exhibit is furnished herewith, but not deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to liability under that section. Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that we explicitly incorporate it by reference.)
- 14.1 Consent of KPMG, independent registered public accounting firm (filed herewith).
- 99.1 Acknowledgment letter from KPMG AG Wirtschaftsprüfungsgesellschaft (filed herewith).
- 101 The following financial statements as of and for the twelve-month period ended December 31, 2019 from the Company's Annual Report on Form 20-F for the fiscal year ended December 31, 2019, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Statements of Income, (ii) Consolidated Statements of Comprehensive Income, (iii) Consolidated Balance Sheets, (iv) Consolidated Statements of Cash Flows, (v) Consolidated Statements of Shareholders' Equity and (vi) notes to consolidated financial statements (filed herewith).

(1) Confidential treatment has been granted as to certain portions of this document in accordance with the applicable rules of the Securities and Exchange Commission.

- (2) Schedules and exhibits have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The Registrant hereby undertakes to furnish supplemental copies of any of the omitted schedules and exhibits upon request by the Securities and Exchange Commission.
- * The schedules to the Merger Agreement have been omitted from this filing pursuant to Item 601(b)(2) of Regulation S-K. Copies of such schedules will be furnished to the SEC upon its request; provided, however, that confidential treatment may be requested pursuant to Rule 24b-2 of the Exchange Act for any schedule so furnished.
- (3) Schedules and exhibits have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The Registrant hereby undertakes to furnish supplemental copies of any of the omitted schedules and exhibits upon request by the Securities and Exchange Commission; provided, however, that confidential treatment may be requested pursuant to Rule 24b-2 of the Exchange Act for any schedule or exhibit so furnished.

**CERTIFICATION PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002**

I, Rice Powell, certify that:

1. I have reviewed this annual report on Form 20-F of Fresenius Medical Care AG & Co. KGaA (the "Report");
2. Based on my knowledge, this Report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this Report;
3. Based on my knowledge, the financial statements, and other financial information included in this Report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this Report;
4. The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this Report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this Report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this Report based on such evaluation; and
 - (d) Disclosed in this Report any change in the company's internal control over financial reporting that occurred during the period covered by the annual Report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: February 20, 2020

By: /s/ RICE POWELL

Rice Powell
Chief Executive Officer and
Chairman of the Management Board of
Fresenius Medical Care Management AG,
General Partner of
Fresenius Medical Care AG & Co. KGaA

**CERTIFICATION PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002**

I, Helen Giza, certify that:

1. I have reviewed this annual report on Form 20-F of Fresenius Medical Care AG & Co. KGaA (the “Report”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the company’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the company’s internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company’s internal control over financial reporting; and
5. The company’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company’s auditors and the audit committee of the company’s board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company’s ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company’s internal control over financial reporting.

Date: February 20, 2020

By: /s/ HELEN GIZA

Helen Giza
Chief Financial Officer and
Member of the Management Board of
Fresenius Medical Care Management AG,
General Partner of
Fresenius Medical Care AG & Co. KGaA

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 20-F of Fresenius Medical Care AG & Co. KGaA (the “Company”) for the year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), the undersigned, Rice Powell, Chief Executive Officer and Chairman of the Management Board of Fresenius Medical Care Management AG, the general partner of the Company, and Helen Giza, Chief Financial Officer and Member of the Management Board of Fresenius Medical Care Management AG, the general partner of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

By: /s/ RICE POWELL

Chief Executive Officer and
Chairman of the Management Board of
Fresenius Medical Care Management AG,
General Partner of
Fresenius Medical Care AG & Co. KGaA

February 20, 2020

By: /s/ HELEN GIZA

Chief Financial Officer and
Member of the Management Board of
Fresenius Medical Care Management AG,
General Partner of
Fresenius Medical Care AG & Co. KGaA

February 20, 2020