

GENERAL INFORMATION ABOUT THIS GROUP MANAGEMENT REPORT

The following discussion and analysis of the group management report of Fresenius Medical Care AG & Co. KGaA and its subsidiaries (together referred to as “we”, “our”, “FMC AG & Co. KGaA”, “Fresenius Medical Care”, “the Group” or “the Company”) was prepared in accordance with sections 315 of the German Commercial Code and German Accounting Standards No. 17 and 20, and should be read in conjunction with our consolidated financial statements and related notes contained elsewhere in this report. Some of the statements, including those concerning future revenue, costs and capital expenditures, possible changes in our industry as well as the competitive and financial conditions include forward-looking statements. We made these forward-looking statements based on the expectations and beliefs of the Management Board of the Company’s General Partner (Management Board) pertaining to future events that may affect us, but which we cannot assure that such events will occur or that the results will be as anticipated. Because these statements involve opportunities, risks and uncertainties, the actual results may differ materially (positive as well as negative) from the results which the forward-looking statements express or imply. The statements cover the content of and are subject to the uncertainties described in the discussions in this report in chapters “Outlook” starting on [PAGE 59](#) and “Risks and opportunities report” starting on [PAGE 62](#) as well as in [NOTE 2 AND 22](#) of the notes to the consolidated financial statements.

The non-financial group declaration is not part of the Group Management Report. It is part of a separate chapter of the Annual Report and will be disclosed as separate Non-Financial Group Report together with the Group Management Report. The Non-Financial Group Report can be found starting on [PAGE 80](#).

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

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

OVERVIEW OF THE GROUP

We provide high-quality health care solutions for patients with renal diseases. Our innovative products and therapies set high standards in dialysis treatment.

BUSINESS MODEL

Operations and company structure

Fresenius Medical Care is the world's leading provider of products and services for individuals with renal diseases based on publicly reported revenue and the number of patients treated. We provide dialysis care and related services to people with renal diseases, as well as other health care services. The health care services that we offer in addition to dialysis are described by the term "Care Coordination". Together with dialysis services, these constitute our health care services. We also develop and manufacture a full range of dialysis machines, systems and disposable products, which we sell to customers in around 150 countries as well as using them in our own health care service operations. Our dialysis business is therefore vertically integrated.

We continue to generate most of our revenue with dialysis products and dialysis care services. In our 4,092 proprietary dialysis clinics in around 50 countries worldwide, we provide care for over 346,000 dialysis patients. We are continuously expanding this network of clinics, which is the largest in the world based on the number of patients treated, to accommodate the ever-rising number of dialysis patients. At the same time, we operate 44 production sites in more than 20 countries. The most important plants for dialyzer production are in

St. Wendel (Germany), Ogden, Utah (U.S.), Changshu (China), L'Arbresle (France), and Buzen (Japan). Dialysis machines are manufactured in Schweinfurt (Germany) and in Concord, California (U.S.).

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

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

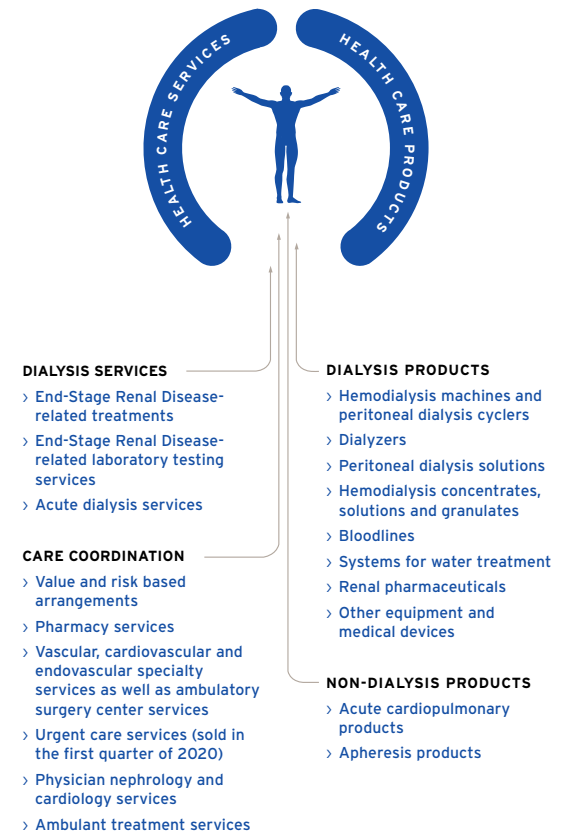
[CHART 2.2 ON PAGE 20](#) provides an overview of our most important production sites and headquarters.

Our products and services

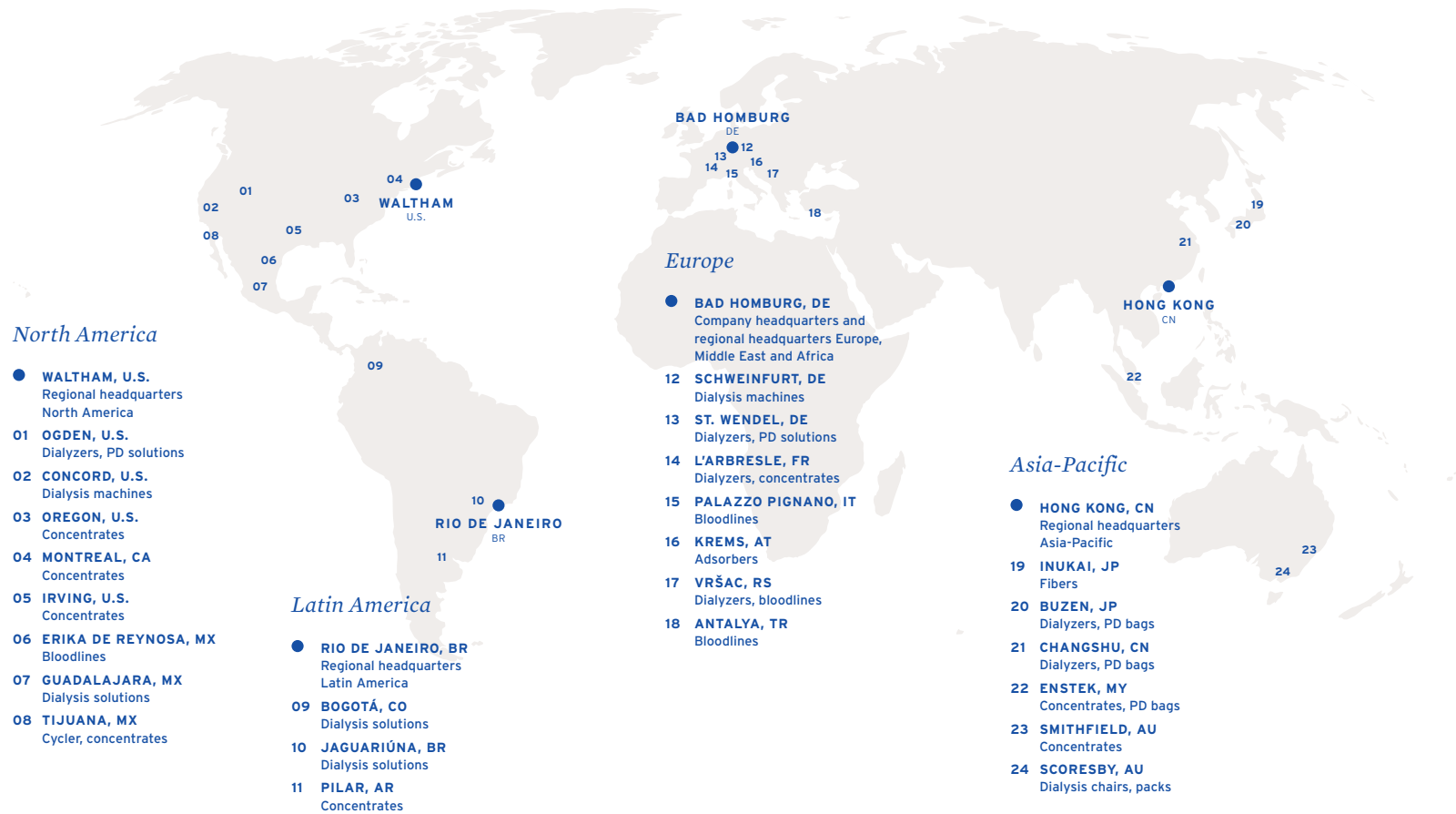
Fresenius Medical Care provides mainly dialysis products and services. We also offer non-dialysis services as part of Care Coordination as well as non-dialysis products. Our products and services for the fiscal year 2020 are shown in [CHART 2.1](#).

Approximately 3.7 M patients worldwide regularly underwent dialysis treatment at the end of 2020. Dialysis is a life-saving blood cleansing procedure that substitutes the function of the kidney in case of kidney failure. Healthy kidneys clean the blood of waste products, regulate water levels, and produce important hormones. If the kidneys are

C 2.1 OUR PRODUCTS AND SERVICES



C 2.2 MAJOR LOCATIONS



irreparably damaged and are therefore no longer able to function adequately over a longer period of time, this is known as chronic kidney failure or end-stage renal disease (ESRD). Many diseases can lead to chronic kidney failure, particularly diabetes, chronic nephritis or high blood pressure. There are currently two treatment options for ESRD: a kidney transplant and dialysis.

Our health care products

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

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

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

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

Our health care services

Dialysis services

Dialysis patients receive life-saving dialysis treatment and other associated services such as laboratory tests in our 4,092 (2019: 3,994) dialysis clinics worldwide. Dialysis treatment at our clinics is usually performed three times a week over a period of several hours by trained medical staff. We also provide advice on medical support and training for home dialysis patients in our dialysis centers.

In 2020, we treated most of our patients (61 %) in the North America Segment, followed by 19 % in the EMEA Segment, 11 % in the Latin America Segment and 9 % in the Asia-Pacific Segment.

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

Care Coordination

Care Coordination allows us to further enhance our business beyond dialysis, for example in markets where the privatized dialysis market is relatively well developed and we already have a high market share. Although our Care Coordination business is geared to different geographical markets, we currently provide non-dialysis services mainly in North America and Asia-Pacific. In recent years, the health care system in the U.S. has started to move away from reimbursement of individual services toward holistic and coordinated care. Our Care Coordination activities and our experience in dialysis mean that we can participate in the development of the U.S. health care system. At the same time, patients can benefit from coordinated care, and health care systems from lower costs.

Major markets and competitive position

According to our estimates, the number of dialysis patients worldwide reached around 3.7 M in 2020 (2019: 3.6 M) - a 3 % growth rate. In the same period, 346,553 patients were treated in Fresenius Medical Care's network of dialysis centers (2019: 345,096). This means that Fresenius Medical Care holds the leading position worldwide in dialysis care. More information on the number of patients can be found in [CHART 2.3 ON PAGE 22](#).

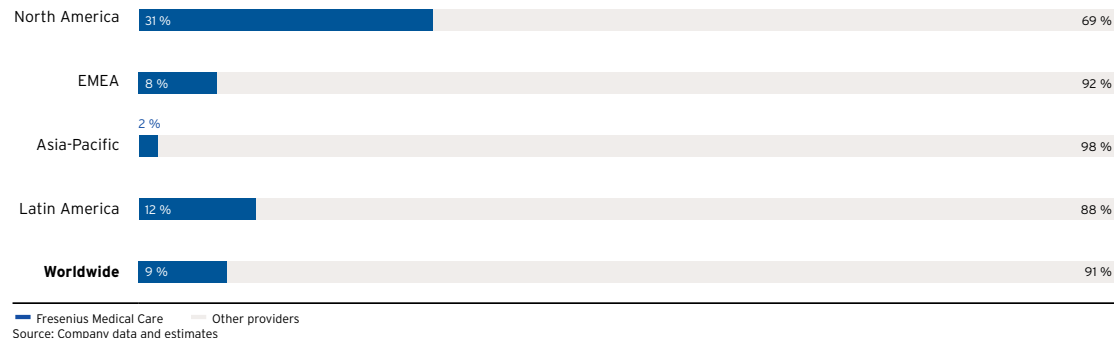
Fresenius Medical Care is also the global market leader for dialysis products. Products made by Fresenius Medical Care for use in our own dialysis centers or for sale to third-party customers accounted for a market share of 35 % in 2020 (2019: 36 %). In the case of hemodialysis products, we had a 40 % share of the global market (2019: 41 %), making us the world leader in this field as well.

Dialyzers for hemodialysis are the largest product group in the dialysis market with a worldwide sales volume of around 370 M units in 2020. Approximately 158 M (around 43 %) of these were made by Fresenius Medical Care, giving us by far the biggest market share. Hemodialysis machines constitute another key component of our product business. Here, too, we are the clear market leader. Of the estimated around 90,000 machines installed in 2020, approximately 42,000, or around 48 % (2019: more than 50 %), were produced by Fresenius Medical Care.

Furthermore, we hold a strong position in the market for peritoneal dialysis products: Around 16 % (2019: around 16 %) of all peritoneal dialysis patients use products made by Fresenius Medical Care.

Fresenius Medical Care is also the global leader in dialysis care, providing treatment to about 9 % of all dialysis patients. The

c 2.3 PATIENTS TREATED



overall market for dialysis care services in the U.S. is consolidated. Across all market segments, we treat around 38 % of all dialysis patients here.

Outside the U.S., the dialysis services business is much more fragmented. With over 1,460 dialysis centers and approximately 140,000 patients in around 50 countries, Fresenius Medical Care operates by far the largest network of clinics.

Global Manufacturing, Quality and Supply

Global Manufacturing, Quality and Supply (GMQS) is the operations division within Fresenius Medical Care that manages the procurement, production, distribution and supply of renal and multi-organ therapy products. GMQS strives to ensure reliable product quality and effective product supply at optimized total cost with efficient utilization of capital.

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

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

At the end of 2020, GMQS had 16,307 employees (full-time equivalents) (2019: 16,418).

CORPORATE STRATEGY AND OBJECTIVES

“Creating a future worth living. For patients. Worldwide. Every day.” This vision guides us in our efforts to give our patients around the world a better life by offering them high-quality products and outstanding health care.

At the same time, we expect to face a multitude of challenges in the coming years: an aging population, a rise in chronic diseases, fragmented care, staff shortages, cost pressure, digitalization, and the COVID-19 pandemic, all of which require new approaches and solutions in health care.

Renal care continuum

To meet the challenges of the future, we are leveraging our core strategic competencies: innovating products, operating outpatient facilities, standardizing medical procedures and coordinating patients effectively.

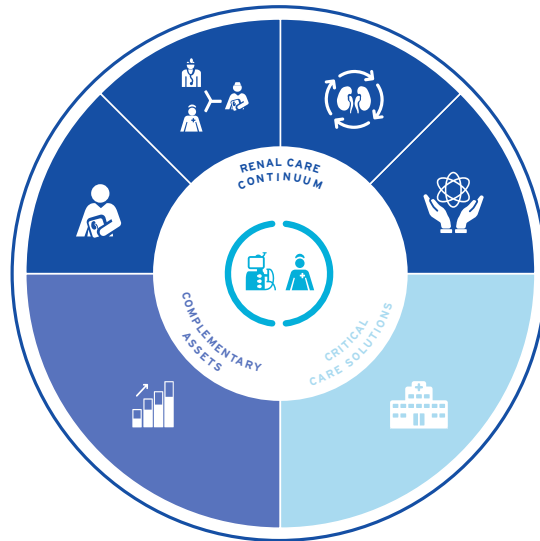
Between now and 2025, we intend to go a step further and take our strategy (SEE CHART 2.4 ON PAGE 23) to the next level to bring us closer to our goal of providing health care for chronically and critically ill patients across the renal care continuum. We aim to use our innovative, high-quality products and services to offer sustainable solutions at a reliable cost.

The renal care continuum encompasses the following aspects:

› New renal care models:

We intend to use digital technologies such as artificial intelligence and big data analytics to develop new care models for patients with kidney failure, including personalized dialysis and holistic home treatment.

C 2.4 OUR WAY FORWARD - STRATEGY 2025



› Value-based care models:

Value-based care models allow us to offer care that is not only better, but also affordable in the long term. Our aim is to establish sustainable partnerships with payors around the world to drive forward the transition from fee-for-service payment to pay-for-performance models.

› Chronic kidney disease and transplantation:

We want to provide patients with holistic care along their entire treatment path. To this end, we have extended our value-based care programs to include the treatment of chronic kidney disease with a view to slowing disease progression, enabling a smoother start to dialysis, and preventing

unnecessary hospital stays. We also intend to incorporate kidney transplants into value-based care models in the future.

› Future innovations:

Through our subsidiary, Fresenius Medical Care Ventures GmbH, we invest in start-ups and early-stage companies in the health care sector with the goal of gaining access to new and disruptive technologies and treatment concepts for our core business and complementary assets.

Critical care solutions

The number of patients requiring continuous renal replacement therapy to treat acute kidney failure is set to rise to 1.6 million per year by 2030. We will expand our existing acute care portfolio to include other extracorporeal critical care therapy areas, such as the treatment of acute heart, lung and multi-organ failure.

Complementary assets

We will supplement and strengthen our existing network where feasible through additional partnerships, investments and acquisitions. This will help us to create medical value added while saving costs, enabling us to build an even more solid foundation for our future growth to 2025 and beyond.

Global Sustainability Program

For us, sustainability is about being successful in the long term and creating lasting value - economically, ecologically and socially. Our Global Sustainability Program will allow us to step up our efforts to integrate sustainability into our business activities over the next three years. For example, we have introduced sustainability as a non-financial performance target for compensation. In November 2020, we were recognized for the

11th time as a sustainability leader with inclusion in the Dow Jones Sustainability Index (DJSI Europe).

For further information, see the separate Non-Financial Group Report starting on [PAGE 80](#) and the Compensation Report starting on [PAGE 124](#).

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 identical in 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, certain Legal costs, Global Research and Development, GMQS and costs attributable to the Global Medical Office, 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 financial measurements, is useful to our investors as it provides a basis for assessing our performance, payment obligations related to performance-based compensation, our compliance with financial covenants and enhanced transparency as well as comparability of our results. 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 (or "net income") 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 publications 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 not to consider these key measures in isolation, but to review them in conjunction with 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 included within "Results of operations, financial position and net assets" starting on [PAGE 45](#), we believe that a separate reconciliation would not provide any additional benefit.

Revenue growth

The management of our operating segments is based on revenue growth 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 1 K](#) of the notes to consolidated financial statements. Revenue growth is also benchmarked based on movement at Constant Exchange Rates.

T 2.5 DELIVERED OPERATING INCOME RECONCILIATION

IN € M

	2020	2019
North America Segment		
Operating income	2,120	1,794
less noncontrolling interests	(261)	(225)
Delivered Operating Income	1,859	1,569
Dialysis		
Operating income	2,002	1,737
less noncontrolling interests	(227)	(205)
Delivered Operating Income	1,775	1,532
Care Coordination		
Operating income	118	57
less noncontrolling interests	(34)	(20)
Delivered Operating Income	84	37
EMEA Segment		
Operating income	412	448
less noncontrolling interests	(3)	(5)
Delivered Operating Income	409	443

	2020	2019
Asia-Pacific Segment		
Operating income	344	329
less noncontrolling interests	(6)	(8)
Delivered Operating Income	338	321
Dialysis		
Operating income	321	300
less noncontrolling interests	(7)	(7)
Delivered Operating Income	314	293
Care Coordination		
Operating income	23	29
less noncontrolling interests	1	(1)
Delivered Operating Income	24	28
Latin America Segment		
Operating income	(157)	43
less noncontrolling interests	0	1
Delivered Operating Income	(157)	42
Total		
Operating income	2,304	2,270
less noncontrolling interests	(271)	(239)
DELIVERED OPERATING INCOME	2,033	2,031

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.

TABLE 2.5 shows the reconciliation of operating income to Delivered Operating Income on a consolidated basis and for our reporting segments.

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, acquisitions and investments

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 and capitalized development costs 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 internally 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 (which we define as 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.

TABLE 2.6 shows the cash flow key performance indicators for 2020 and 2019 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.

T 2.6 CASH FLOW MEASURES
IN € M

	2020	2019
Revenue	17,859	17,477
Net cash provided by (used in) operating activities	4,233	2,567
Capital expenditures	(1,052)	(1,125)
Proceeds from sale of property, plant and equipment	16	12
Capital expenditures, net	(1,036)	(1,113)
Free cash flow	3,197	1,454
Net cash provided by (used in) operating activities in % of revenue	23.7	14.7
Free cash flow in % of revenue	17.9	8.3

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.

TABLE 2.7 shows the reconciliation of adjusted EBITDA and net leverage ratio as of December 31, 2020 and 2019.

T 2.7 RECONCILIATION OF ADJUSTED EBITDA AND NET LEVERAGE RATIO TO THE MOST DIRECTLY COMPARABLE IFRS FINANCIAL MEASURE
IN € M, EXCEPT FOR NET LEVERAGE RATIO

	December 31, 2020	December 31, 2019
Debt and lease liabilities ¹	12,380	13,782
Minus: Cash and cash equivalents	(1,082)	(1,008)
Net debt	11,298	12,774
Net income	1,435	1,439
Income tax expense	501	402
Interest income	(42)	(62)
Interest expense	410	491
Depreciation and amortization	1,587	1,553
Adjustments ²	249	110
Adjusted EBITDA	4,140	3,933
NET LEVERAGE RATIO	2.7	3.2

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

² Acquisitions and divestitures made for the last twelve months with a purchase price above a €50 M threshold as defined in the Amended 2012 Credit Agreement (2019: -€71 M), transaction costs related to the acquisition of NxStage Medical Inc. (NxStage) on February 21, 2019 (2019: €95 M) (NxStage Costs), non-cash charges, primarily related to pension expense (2020: €50 M; 2019: €46 M), and impairment loss (2020: €199 M; 2019: €40 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 investment projects. Additionally, we have excluded the impairment of goodwill and trade names in the Latin America Segment driven by a macro-economic downturn and increasing risk adjustment rates for certain countries in the region (Impairment Loss) (SEE NOTE 2 A of the notes to the consolidated financial statements) to increase comparability of the underlying financial figures of certain Management Board compensation performance targets with the Company's operating performance and to adequately recognize the actual performance of the members of the Management Board. An adjustment to exclude amounts related to the implementation of IFRS 16, Leases, which replaced the straight-line operating lease expense for former leases under International Accounting Standard 17, Leases, 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 "Effect from IFRS 16") is included for the purpose of increasing the comparability of previously reported information in accordance with our long-term incentive plans in 2019 (see the Compensation Report starting on PAGE 124 for additional information regarding these adjustments).

TABLES 2.8 UNTIL 2.17 STARTING ON PAGE 28 are showing the reconciliation of average invested capital to total assets, which we believe to be the most directly comparable IFRS financial measure, and how ROIC is calculated.

TABLE 2.18 ON PAGE 33 provides an overview of our key performance indicators.

Operating performance excluding special items (Non-IFRS Measure)

Management believes that there are special items which should be excluded from certain metrics to enhance transparency and comparability. In the presentation of the expected development of our business in our outlook, we identified special items which, when excluded from the results disclosed, may provide a reader with further useful information in assessing our performance. These results excluding special items are presented as part of the comparison of the actual business results with the outlook and in our outlook, together with reconciliations of the key indicators for our consolidated financial statements prepared in accordance with IFRS to the key indicators excluding special items. These results excluding special items should only be viewed as a supplement to our results disclosed in accordance with IFRS.

Changes to the internal management system

In 2021, the internal management system will be updated due to adjustments in the remuneration of the Management Board and the way in which the Management Board will manage and represent the Company in the future. As a result, we have also adjusted the primary financial key performance indicators of the internal management system and included these metrics in our outlook for the 2021 financial year.

Based on these changes, operating income margin, Delivered Operating Income (Non-IFRS Measure), basic earnings per share growth at Constant Currency (Non-IFRS Measure), capital expenditures, net cash provided by (used in) operating activities in % of revenue, free cash flow in % of revenue (Non-IFRS Measure) and net leverage ratio (Non-IFRS Measure) will no longer be used as financial key performance indicators for internal management from January 1, 2021.

T 2.8 RECONCILIATION OF AVERAGE INVESTED CAPITAL AND ROIC (NON-IFRS MEASURE, UNADJUSTED)
IN € M, EXCEPT WHERE OTHERWISE SPECIFIED

2020	Dec. 31, 2020	Sept. 30, 2020	June 30, 2020	March 31, 2020	Dec. 31, 2019
Total assets	31,689	33,049	34,200	34,072	32,935
Plus: Cumulative goodwill amortization	583	405	421	430	420
Minus: Cash and cash equivalents	(1,082)	(1,599)	(1,890)	(1,405)	(1,008)
Minus: Loans to related parties	(1)	(51)	(49)	(40)	(72)
Minus: Deferred tax assets	(351)	(429)	(401)	(382)	(361)
Minus: Accounts payable to unrelated parties	(732)	(729)	(678)	(762)	(717)
Minus: Accounts payable to related parties	(95)	(132)	(135)	(134)	(119)
Minus: Provisions and other current liabilities ¹	(3,180)	(3,641)	(3,799)	(2,577)	(2,452)
Minus: Income tax payable	(197)	(269)	(212)	(200)	(180)
Invested capital	26,634	26,604	27,457	29,002	28,446
Average invested capital as of December 31, 2020	27,628				
Operating income	2,304				
Income tax expense ²	(688)				
NOPAT	1,616				
ROIC IN %	5.8				

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

² Adjusted for noncontrolling partnership interests.

T 2.9 ADJUSTMENTS TO AVERAGE INVESTED CAPITAL AND ROIC (EXCLUDING IMPAIRMENT LOSS)
IN € M, EXCEPT WHERE OTHERWISE SPECIFIED

2020	Dec. 31, 2020	Sept. 30, 2020	June 30, 2020	March 31, 2020	Dec. 31, 2019
Total assets	195	-	-	-	-
Plus: Cumulative goodwill amortization	(195)	-	-	-	-
Minus: Cash and cash equivalents	-	-	-	-	-
Minus: Loans to related parties	-	-	-	-	-
Minus: Deferred tax assets	-	-	-	-	-
Minus: Accounts payable to unrelated parties	-	-	-	-	-
Minus: Accounts payable to related parties	-	-	-	-	-
Minus: Provisions and other current liabilities ¹	-	-	-	-	-
Minus: Income tax payable	-	-	-	-	-
Invested capital	-	-	-	-	-
Average invested capital as of December 31, 2020	-				
Adjustment to operating income	195				
Adjustment to income tax expense	19				
Adjustment to NOPAT	214				

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

T 2.10 RECONCILIATION OF AVERAGE INVESTED CAPITAL AND ROIC (NON-IFRS MEASURE, EXCLUDING IMPAIRMENT LOSS)
IN € M, EXCEPT WHERE OTHERWISE SPECIFIED

2020	Dec. 31, 2020	Sept. 30, 2020	June 30, 2020	March 31, 2020	Dec. 31, 2019
Total assets	31,884	33,049	34,200	34,072	32,935
Plus: Cumulative goodwill amortization	389	405	421	430	420
Minus: Cash and cash equivalents	(1,082)	(1,599)	(1,890)	(1,405)	(1,008)
Minus: Loans to related parties	(1)	(51)	(49)	(40)	(72)
Minus: Deferred tax assets	(351)	(429)	(401)	(382)	(361)
Minus: Accounts payable to unrelated parties	(732)	(729)	(678)	(762)	(717)
Minus: Accounts payable to related parties	(95)	(132)	(135)	(134)	(119)
Minus: Provisions and other current liabilities ¹	(3,180)	(3,641)	(3,799)	(2,577)	(2,452)
Minus: Income tax payable	(197)	(269)	(212)	(200)	(180)
Invested capital	26,634	26,604	27,457	29,002	28,446
Average invested capital as of December 31, 2020	27,628				
Operating income	2,499				
Income tax expense ²	(669)				
NOPAT	1,830				
ROIC IN % (EXCLUDING IMPAIRMENT LOSS)	6.6				

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

² Adjusted for noncontrolling partnership interests.

T 2.11 ADJUSTMENTS TO AVERAGE INVESTED CAPITAL AND ROIC FOR THE EFFECT FROM IFRS 16
IN € M, EXCEPT WHERE OTHERWISE SPECIFIED

2020	Dec. 31, 2020	Sept. 30, 2020	June 30, 2020	March 31, 2020	Dec. 31, 2019
Total assets	(4,130)	(4,261)	(4,421)	(4,388)	(4,356)
Plus: Cumulative goodwill amortization	-	-	-	-	-
Minus: Cash and cash equivalents	-	-	-	-	-
Minus: Loans to related parties	-	-	-	-	-
Minus: Deferred tax assets	2	4	3	3	2
Minus: Accounts payable to unrelated parties	-	-	-	-	-
Minus: Accounts payable to related parties	-	-	-	-	-
Minus: Provisions and other current liabilities ¹	(128)	(134)	(140)	(143)	(140)
Minus: Income tax payable	1	-	-	-	-
Invested capital	(4,255)	(4,392)	(4,558)	(4,529)	(4,494)
Average invested capital as of December 31, 2020	(4,445)				
Adjustment to operating income	(134)				
Adjustment to income tax expense	40				
Adjustment to NOPAT	(94)				

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

T 2.12 RECONCILIATION OF AVERAGE INVESTED CAPITAL AND ROIC (NON-IFRS MEASURE, EXCLUDING IMPAIRMENT LOSS AND THE EFFECT FROM IFRS 16)
IN € M, EXCEPT WHERE OTHERWISE SPECIFIED

2020	Dec. 31, 2020	Sept. 30, 2020	June 30, 2020	March 31, 2020	Dec. 31, 2019
Total assets	27,754	28,788	29,779	29,684	28,579
Plus: Cumulative goodwill amortization	389	405	421	430	420
Minus: Cash and cash equivalents	(1,082)	(1,599)	(1,890)	(1,405)	(1,008)
Minus: Loans to related parties	(1)	(51)	(49)	(40)	(72)
Minus: Deferred tax assets	(349)	(426)	(398)	(380)	(359)
Minus: Accounts payable to unrelated parties	(732)	(729)	(678)	(762)	(717)
Minus: Accounts payable to related parties	(95)	(132)	(135)	(134)	(119)
Minus: Provisions and other current liabilities ¹	(3,309)	(3,775)	(3,940)	(2,720)	(2,592)
Minus: Income tax payable	(196)	(269)	(212)	(200)	(180)
Invested capital	22,379	22,212	22,899	24,473	23,952
Average invested capital as of December 31, 2020	23,183				
Operating income	2,365				
Income tax expense ²	(629)				
NOPAT	1,736				
ROIC IN % (EXCLUDING IMPAIRMENT LOSS AND THE EFFECT FROM IFRS 16)	7.5				

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

² Adjusted for noncontrolling partnership interests.

T 2.13 RECONCILIATION OF AVERAGE INVESTED CAPITAL AND ROIC (UNADJUSTED)
IN € M, EXCEPT WHERE OTHERWISE SPECIFIED

2019	Dec. 31, 2019	Sept. 30, 2019	June 30, 2019	March 31, 2019	Dec. 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 to unrelated parties	(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	28,446	28,586	27,528	27,740	20,395
Average invested capital as of December 31, 2019	26,539				
Operating income	2,270				
Income tax expense ²	(565)				
NOPAT	1,705				

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

² Adjusted for noncontrolling partnership interests.

GROUP MANAGEMENT REPORT

General information

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T 2.14 ADJUSTMENTS TO AVERAGE INVESTED CAPITAL AND ROIC IN € M, EXCEPT WHERE OTHERWISE SPECIFIED

2019	Dec. 31, 2019	Sept. 30, 2019 ²	June 30, 2019 ²	March 31, 2019 ²	Dec. 31, 2018 ²
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 to unrelated parties	-	-	-	-	(17)
Minus: Accounts payable to related parties	-	-	-	-	-
Minus: Provisions and other current liabilities ¹	-	(4)	(3)	(3)	(48)
Minus: Income tax payable	-	-	-	-	-
Invested capital	-	148	142	144	1,981
Adjustment to average invested capital as of December 31, 2019	483				
Adjustment to operating income ²	(79)				
Adjustment to income tax expense ²	20				
Adjustment to NOPAT	(59)				

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

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

T 2.15 RECONCILIATION OF AVERAGE INVESTED CAPITAL AND ROIC (NON-IFRS MEASURE) IN € M, EXCEPT WHERE OTHERWISE SPECIFIED

2019	Dec. 31, 2019	Sept. 30, 2019 ³	June 30, 2019 ³	March 31, 2019 ³	Dec. 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 to unrelated parties	(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	28,446	28,734	27,670	27,884	22,376
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				

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

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.

T 2.16 ADJUSTMENTS TO AVERAGE INVESTED CAPITAL AND ROIC FOR THE EFFECT FROM IFRS 16
IN € M, EXCEPT WHERE OTHERWISE SPECIFIED

2019	Dec. 31, 2019	Sept. 30, 2019	June 30, 2019	March 31, 2019	Dec. 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 to unrelated parties	-	-	-	-	-
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	(4,494)	(4,463)	(4,310)	(4,368)	-
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)				

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

T 2.17 RECONCILIATION OF AVERAGE INVESTED CAPITAL AND ROIC (NON-IFRS MEASURE, ADJUSTED FOR THE EFFECT FROM IFRS 16)
IN € M, EXCEPT WHERE OTHERWISE SPECIFIED

2019	Dec. 31, 2019	Sept. 30, 2019 ³	June 30, 2019 ³	March 31, 2019 ³	Dec. 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 to unrelated parties	(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	23,952	24,271	23,360	23,516	22,376
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**

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

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.

T 2.18 KEY PERFORMANCE INDICATORS

	Results 2020	Results 2019
Revenue growth at Constant Currency in %	5	2
Operating income in € M	2,304	2,270
Operating income margin in %	12.9	13.0
Delivered Operating Income in € M	2,033	2,031
Net income growth at Constant Currency in % ¹	(1)	(42)
Basic earnings per share growth at Constant Currency in % ¹	2	(41)
Capital expenditures and capitalized development costs in € BN	1.0	1.1
Acquisitions and investments in € BN ²	0.3	2.2
Net cash provided by (used in) operating activities in % of revenue	23.7	14.7
Free cash flow in % of revenue	17.9	8.3
Net leverage ratio	2.7	3.2
ROIC in %	5.8	6.1

¹ Net income attributable to shareholders of FMC AG & Co. KGaA.² Excluding investments in debt securities.

Net cash provided by (used in) operating activities and free cash flow as well as in % of revenue, capital expenditures and net leverage ratio (as described above) will continue to be included as secondary financial performance indicators, while Delivered Operating Income will no longer be reported as a financial performance indicator in future periods.

As a result, we are introducing new financial key performance indicators, which will be used for internal management and reported externally alongside the previous financial key performance indicators. In addition to revenue and net income growth as defined above, management will now focus on the absolute amount of revenue and net income to manage our business. Revenue and net income are also benchmarked based on Constant Exchange Rates. For the purposes of management compensation, these metrics are also benchmarked at the underlying exchange rates used in the calculation of our incentive compensation targets.

Primary key performance indicators for internal management from 2021 onwards are as follows:

- > revenue
- > revenue growth
- > operating income
- > net income
- > net income growth
- > ROIC

These metrics, with the exception of ROIC, will be presented both in accordance with IFRS and at Constant Currency. ROIC and each of these indicators presented at Constant Currency is considered a non-IFRS measure.

RESEARCH AND DEVELOPMENT

Developing innovative products and continuously improving our renal therapies 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 and renal therapies efficiently and to systematically promote the exchange of knowledge and technology between regions.

Global research and development strategy

Health care systems face major financial challenges. We aim to direct our research and development activities toward developing innovative products and renal therapies that not only meet high quality standards that improve clinical outcomes, but are also affordable. As an operator of proprietary dialysis clinics and a provider of products for treating patients at home, we believe that these aims are entirely compatible. We are also in a strong position to provide life-saving therapies and treatments to patients suffering from acute kidney failure due to COVID-19.

Our research and development strategy contributes to our strategy 2025 which aims to provide health care for chronically and critically ill patients across the renal care continuum, in critical settings and by acquiring and developing complementary assets. It is globally orientated, enabling us to respond even better to the worldwide rise in demand for high-quality yet cost-efficient treatment and therapy methods. In doing so, we also take regional market conditions into account and offer a differentiated product range across all three key areas of our strategy 2025 (see chapter “Corporate strategy and objectives” starting on [PAGE 22](#)).

In the future, we intend to deliver innovative, competitive products even more efficiently and strengthen our focus on devel-

oping 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 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 renal therapies. 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 2020

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

The next generation of dialyzers

In 2020, we started by introducing our next-generation hemodialysis and hemodiafiltration dialyzer FX CorAL in EMEA. It incorporates an innovative fiber membrane design, Helixone hydro®, made using novel fiber production processes. The inner lumen of Helixone hydro® fibers mimics the blood's natural environment, lowering the risk of an immunological reaction. This has the potential to result in better tolerability for our patients. We expect a full launch in 2021.

Our Optiflux® Enexa™ F500 with Endexo® technology is a new dialyzer designed to support the treatment of patients without

the need for heparin. Endexo is a surface-modifying polymer that is added to the dialyzer during manufacturing. It makes the surface of the membrane less thrombogenic, so that the blood is less likely to clot. The Optiflux® Enexa™ F500 was recently given FDA 510(k) clearance and thus has passed a key hurdle prior to market launch. It is now in the last stage of development before being marketed in the U.S.

New home dialysis system launched

For many patients, peritoneal dialysis is the dialysis treatment modality of choice and the gentlest option during the first years of renal replacement therapy. The new SILENCIA® Automated Peritoneal Dialysis (APD) therapy system, due to be launched in 2021, promises affordable, state-of-the-art dialysis quality for peritoneal dialysis patients, especially in emerging markets. The robust, functional design of the cyclor ensures a quick set-up and easy operation. It allows silent and reliable treatment at night while the patient sleeps.

System for respiratory or cardiopulmonary support

In February 2020, Novalung®, a system that can be used for respiratory or cardiopulmonary support, received approval from the U.S. Food and Drug Administration (FDA). The system is distributed in the U.S. under the name Novalung® system and in other countries as Xenios® Console with various treatment kits.

Novalung® is the first extracorporeal membrane oxygenation system approved for more than six hours of use as a life supporting therapy in the U.S. It provides assisted extracorporeal circulation and physiologic gas exchange, such as oxygenation and CO₂ removal.

Patients are often unable to absorb sufficient oxygen into their bloodstream or excrete carbon dioxide from their bodies, leading to acute oxygen deficiency. The system maintains the patient's blood circulation and supplies the blood outside the body with oxygen, relieving the heart and lungs.

Digital health care

Connectivity is a key element of our development strategy to support the expansion of home therapies. Patients who are in close contact with their clinicians are less likely to be hospitalized. As more patients are treated at home, it is essential for us to optimize workflows for clinicians and reduce the burden for patients. To this end, Fresenius Medical Care launched its Kinexus™ Therapy Management Service, a cloud-based home patient management solution, in Chile and the U.S in 2020. Its features include remote dialysis monitoring, treatment workflow management, personalized prescription programming, and daily treatment reporting to clinicians. Kinexus™ allows us to improve patients' home therapy experience and support those caring for them, with the goal of keeping them at home for longer.

Optimizing therapies through analytics

Modern analytical tools open up new opportunities for enhancing and automating the end-to-end delivery of dialysis treatments. They can be used to determine the optimal treatment for individual patients and to automate the respective treatment sequence. Moreover, these tools make it possible to not only evaluate the vital parameters of patients but also to monitor and optimize the functional state of machines or related services. Fresenius Medical Care Data Solutions Care GmbH is working on these approaches and solutions with the aim of allowing physicians to focus even more on patients and the course of the disease itself.

Research in the field of regenerative medicine

We are investing in promising technologies and research approaches in the area of regenerative medicine through our affiliate Unicyte AG as well as our subsidiary Fresenius Medical Care Ventures GmbH.

Our venture capital company is increasingly collaborating with start-ups with the aim of promoting an open culture of innovation and gaining access to the latest technologies. While our portfolio company, Corvidia, was acquired by a major pharmaceutical company in 2020, during the year we invested in the following two companies:

- › Alucent Biomedical (Alucent) is a privately held medical technology company headquartered in Salt Lake City, Utah. Alucent was founded by Avera Health to develop and market products using Alucent Natural Vascular Scaffolding (AlucentNVS) technology. AlucentNVS is a first-of-its-kind combination drug-device therapy designed to assist the body in naturally opening and maintaining arterial patency.
- › Magenta Medical (Magenta) is a privately owned medical device company based in Kadima, Israel. Magenta is working on a next-generation percutaneous left ventricular assistive device and a transcatheter renal venous decongestion device.

Research and development resources

In fiscal year 2020, Fresenius Medical Care spent a total of around €194 M on research and development (2019: €168 M), corresponding to around 5 % (2019: 5 %) of our health care product revenue. At the end of 2020, our patent portfolio comprised some 11,223 property rights in approximately 1,626 patent families, i.e. groups of patents linked to the same invention. Our research and development work in fiscal year 2020 produced around 135 additional patent families. Our

broad portfolio of patents shall provide us with a wide range of treatment options in this highly competitive field in the future.

At December 31, 2020, 1,218 employees (full-time equivalents) worked for Fresenius Medical Care in research and development worldwide (December 31, 2019: 1,157). They come from various backgrounds: Physicians work side by side with software specialists, business economists and engineers in interdisciplinary teams. More than 730 employees - the majority of our research and development staff - are based in Europe. Most research and development activities are carried out at our facilities in Schweinfurt and Bad Homburg v.d. Höhe (Germany). Other development sites are in St. Wendel (Germany), Bucharest (Romania) and Krems (Austria). In the U.S., the Company maintains centers of excellence for the development of devices in Concord (California) and for dialyzers and other disposable products in Ogden (Utah). Development activities in Shanghai and Changshu (China) are focused on the growing demand for cost-effective dialysis systems in Asia and emerging markets. The Global Research and Development organization coordinates collaboration and technology exchange among the various sites. Carrying out research and development responsibly is an intrinsic element of our innovative culture. More information is shown in [TABLE 2.19 ON PAGE 36](#).

EMPLOYEES

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

At December 31, 2020, Fresenius Medical Care employed a total of 125,364 members of staff (full-time equivalents) in 67 countries worldwide. Our workforce therefore increased by 4 % year-on-year, or by 4,705 employees in absolute terms. This was mainly due to organic business growth and acquisitions, both of which were impacted by COVID-19 related personnel requirements.

TABLE 2.20 shows the breakdown of employees by operating segment as well as by products and services.

Staff costs at Fresenius Medical Care increased to €7,067 M in 2020 (2019: €6,799 M), corresponding to 40 % (2019: 39 %) of revenue. Average staff costs per employee (annual average based on full-time equivalents) amounted to €56,770 (2019: €56,740).

More information about our employees can be found in the Non-Financial Group Report starting on [PAGE 80](#). For more information on diversity, see the Corporate Governance Report in this Annual Report starting on [PAGE 102](#).

T 2.19 RESEARCH AND DEVELOPMENT

	2020	2019	2018
Research and development expenditures in € M	194	168	114
Number of patents ¹	11,223	10,658	9,152
Employees ^{1,2}	1,218	1,157	933

¹ As of December 31, for the respective period presented.

² Full-time equivalents.

T 2.20 EMPLOYEES BY OPERATING SEGMENT FULL-TIME EQUIVALENTS

	December 31, 2020	December 31, 2019	Change	Share
NORTH AMERICA SEGMENT	62,925	60,478	2,447	50 %
Health care services	56,554	55,611		
Health care products	6,371	4,867		
EMEA SEGMENT	20,826	20,103	723	17 %
Health care services	16,964	16,298		
Health care products	3,862	3,805		
ASIA-PACIFIC SEGMENT	11,984	11,836	148	10 %
Health care services	9,416	9,296		
Health care products	2,568	2,540		
LATIN AMERICA SEGMENT	11,640	10,469	1,171	9 %
Health care services	10,325	9,224		
Health care products	1,315	1,245		
WORLDWIDE	125,364	120,659	4,705	100 %
Corporate ¹	17,989	17,773	216	14 %

¹ Including the divisions Global Manufacturing, Quality and Supply, Global Research and Development as well as Global Medical Office.

QUALITY MANAGEMENT

At Fresenius Medical Care, we have a clear focus: we want to offer high-quality and reliable products and therapies to ensure the best possible medical care for our patients and customers. We operate production facilities worldwide to meet the demand for our dialysis products and other health care products.

Quality management at our production sites

Over the last several years, GMQS has introduced a stable infrastructure with efficient processes and systems. All production sites follow the “Lean Manufacturing” approach which, in our North America Segment and our Schweinfurt plant, includes the “Lean Six Sigma” management system. The focus of Lean Manufacturing and Six Sigma is on the continuous improvement of manufacturing processes to achieve a low defect rate resulting in improved product quality, while reducing manufacturing times. We have successfully harmonized 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). Every medical device plant within these segments has a local QMS directed by CQMS that is certified either to ISO 13485:2016 and/or ISO 9001:2015. The QMS of each site is reviewed through periodic management review, internal corporate and internal local audits.

Quality management in our dialysis clinics

Our clinics work in conformance with the generally accepted quality standards of the industry, particularly the U.S. Kidney Disease Outcomes Quality Initiative (KDOQI) guidelines, the European Renal Best Practice standard, and increasingly the 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.

More information about our quality management including our quality data can be found in the Non-Financial Group Report starting on [PAGE 80](#).

Quality-based reimbursement systems

We participate in quality-based reimbursement models, which we describe in the section “Health care and reimbursement systems vary from country to country” in the chapter “Economic Report” starting on [PAGE 38](#).

SUSTAINABILITY MANAGEMENT

Operating on a global scale means having global responsibility. Fresenius Medical Care is aware of this responsibility.

Over the past years, we have continuously stepped up our sustainability activities. We have launched a Global Sustainability Program to further drive the integration of sustainability into our business.

Acting in a responsible and sustainable manner is a fundamental component of our strategy; it secures our future as a globally operating company in the health care industry.

Further information can be found in the separate Non-Financial Group Report starting on [PAGE 80](#).

ECONOMIC REPORT

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

MACROECONOMIC AND SECTOR-SPECIFIC ENVIRONMENT

Macroeconomic environment

Dependency on economic cycles

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

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

Overall, the rapid global spread of the COVID-19 pandemic resulted in a material deterioration of the conditions for the global economy and greatly reduced economic growth. The conditions also changed for our business in fiscal year 2020. Nonetheless, this development shows that our vertically integrated business model can be viewed as solid and resilient during the crisis.

Exchange rate developments

The global exchange rate developments in fiscal year 2020 were characterized by a strengthening of the euro against the

U.S. dollar, as well as partly stronger fluctuations in the emerging economies. Some currencies in emerging economies in particular depreciated significantly against the euro and the U.S. dollar. As Fresenius Medical Care has a worldwide presence, the results of its operations are impacted by exchange rate developments. Movements in the U.S. dollar and the euro are especially crucial as we generate a major part of our revenues in the U.S. On average over the course of the year, the euro traded slightly stronger against the U.S. dollar compared to fiscal year 2019.

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

Sector-specific environment

Chronic kidney failure (end-stage renal disease, ESRD) is a global disease. The number of patients requiring renal replacement therapy is increasing worldwide: At the end of 2020, approximately 4.5 M patients underwent dialysis treatment or

received a donor organ. Further information can be found in [TABLE 2.21](#).

T 2.21 PATIENTS WITH CHRONIC KIDNEY FAILURE

	2020	Share
Patients with chronic kidney failure	4,487,000	100 %
Of which patients with transplants	823,000	18 %
Of which dialysis patients	3,664,000	82 %
In-center hemodialysis	3,228,000	72 %
Peritoneal dialysis	413,000	9 %
Home hemodialysis	23,000	1 %

Source: Company information and estimates.

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

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

- › The countries differ demographically, as age structures in the population vary worldwide.
- › The prevalence of risk factors for kidney disease, such as diabetes and high blood pressure, varies widely.
- › The genetic predisposition for kidney disease also differs significantly around the world.
- › 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 3 % in 2020. The decrease compared to our previously expected growth rate of approximately 6 % for dialysis patients in 2020 is primarily caused by COVID-19 related excess mortality of ESRD patients.

Comparison of dialysis treatment methods

In 2020, most dialysis patients were treated in one of more than 46,000 dialysis centers worldwide, with an average of more than 75 patients per center. However, this figure varies considerably from country to country.

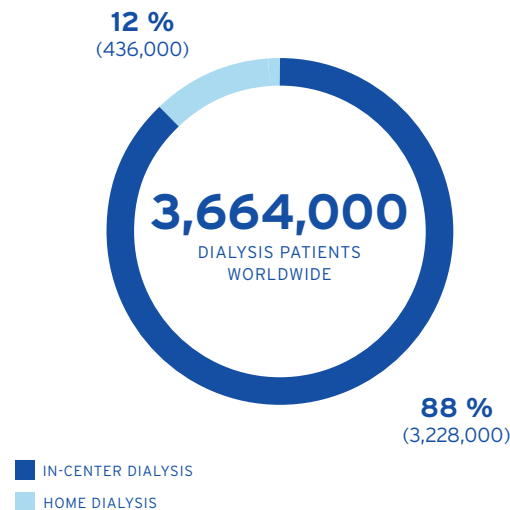
Hemodialysis is by far the most common form of therapy for chronic kidney failure. A total of 88 % of dialysis patients were treated in this way at a dialysis center in 2020. Home hemodialysis is an alternative to treatment at a dialysis center. Although take-up has been limited to date, the number of home hemodialysis patients is rising continuously. A total of 1 % of all patients are currently treated in this way. In the year under review, 11 % of all dialysis patients were treated with peritoneal dialysis, usually at home. As a result, 12 % of the dialysis patients were treated with home dialysis.

CHART 2.22 shows a comparison of in-center and home dialysis.

Volume of the dialysis market

According to our estimates, the volume of the global dialysis market increased to around €82 BN in 2020. We expect the following approximate breakdown for this market volume: around €15 BN for dialysis products and approximately €67 BN for dialysis services (including dialysis drugs).

CHART 2.22 IN-CENTER VS. HOME DIALYSIS



Care Coordination

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

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

Our customers are mostly health insurers and companies

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

Health care and reimbursement systems vary from country to country

As renal replacement therapy is a life-saving medical service, patients often do not have to pay for dialysis themselves. Instead, the costs are borne by the responsible health care system. The reimbursement systems for dialysis treatment - in other words, the structures used by health care systems to regulate reimbursement for dialysis services - differ from country to country and sometimes even within countries. The business activities of dialysis service providers and the reimbursement of dialysis therapy are affected by various factors including regional conditions, the treatment method, regulatory issues, and the type of provider (public or private).

Our ability to influence the reimbursement of our services is limited. The environment for reimbursement and the conditions for prescribing ancillary services significantly influence our business.

The reimbursement system in the U.S.

In the U.S., our biggest market, most of our patients are insured by the governmental health authority, the so-called Centers for Medicare and Medicaid (CMS). In fiscal year 2020, around 32 % of our revenue was attributable to reimbursements by CMS, which also determines the reimbursement rates for its patients (Medicare/Medicaid patients).

Due to pressure to reduce health care costs, increases in the reimbursement rate were limited in the U.S. in the past. As a consequence, the reimbursement rate set by CMS as part of its prospective payment system (PPS) for chronic kidney failure treatments (known as the ESRD PPS rate) barely changed year-on-year. The ESRD PPS rate for 2020 amounted to \$239.33, up 1.7 % on the 2019 base rate. A reimbursement rate of \$253.13 per treatment has been determined for 2021 and includes a productivity-adjusted market basket increase of 1.6 %. While this represents a 5.8 % increase on the 2020 base rate, the majority of the increase is attributable to the inclusion of calcimimetic drugs in the base rate beginning in 2021. From 2018 through 2020, CMS reimbursed dialysis facilities through the Transitional Drug Add-on Payment Adjustment (TDAPA) for calcimimetic drugs. Using cost and utilization data from Q3 2018 through Q4 2019, CMS has determined that \$9.93 should be added to the base rate to account for calcimimetic drug use going forward. Beginning in 2021, dialysis facilities will be expected to provide calcimimetic drugs to patients without an additional add-on payment.

Any significant reduction in Medicare reimbursement rates could have a material adverse effect on our health care services business. As demand for dialysis products is affected by Medicare reimbursement rates, this could have consequences for the development of our product business. To the extent that inflation, for example in the form of higher costs for personnel and disposables, is not fully compensated by an increase in

reimbursement rates, our business and results of operations may also be adversely affected.

More information can be found in the “Results of operations, financial position and net assets” section starting on [PAGE 45](#) and in the report on risks and opportunities starting on [PAGE 62](#).

In the U.S., reimbursement by private insurers and managed care organizations is higher than reimbursement by government institutions. At the same time, payments from private insurers constitute a substantial portion of our profits, meaning our business is directly influenced by changes in the share of reimbursements by private insurers in North America. In fiscal year 2020, 36 % of the Group's health care revenue was related to private insurers in the North America Segment.

Transitional add-on payments for new drugs and devices in the U.S.

Under the ESRD PPS drug designation process, CMS provides payment using a TDAPA for new renal dialysis drugs and biologicals with the exception of drugs that are available only in oral forms. For drug and biologicals that fit into an existing ESRD PPS functional category, CMS will pay for the drug using the TDAPA for two years. At the end of the transitional period, CMS will not update the base rate to reflect the cost and utilization of the new drug. For new drugs and biologicals that do not fit into an existing functional category, CMS will pay for the drug using the TDAPA for a period of at least two years to allow for sufficient gathering of cost and utilization data. At the conclusions of the transitional period, CMS would update the base rate to reflect the inclusion of the new drug or biological.

Beginning in 2021, CMS will also make transitional add-on payments for certain new and innovative dialysis equipment and supplies (TPNIES) approved after January 1, 2020 and provided by dialysis facilities. These new equipment and supplies must

satisfy defined material clinical improvement criteria and will be reimbursed at 65 % of the invoice price, as determined by each Medicare Administrative Contractor. Applications for the TPNIES are due by February 1 of the year prior to the add-on payment year. For 2021, CMS reviewed two TPNIES applications. Neither application was approved and there will be no TPNIES payment for 2021.

The TPNIES does not apply to equipment that constitute a capital asset such as dialysis machines or water purification systems. Beginning in 2022, however, CMS will make transitional add-on payments for capital equipment that are home dialysis machines used for the treatment of a single patient. Applications for the home dialysis machine transitional payment for 2022 are due by February 2021.

Quality-based reimbursement

The health care debate in some countries is currently focused on establishing reimbursement structures based on treatment quality (pay for performance). This transfers more responsibility to the medical service provider. The goal of reimbursement models of this kind is to maintain a high quality of care combined with lower overall costs for the health care system.

The reimbursement system in the U.S. is also an example of a model based on qualitative criteria. For example, CMS defines quality standards for dialysis centers as part of its quality improvement program (QIP). Failure to reach these standards can lead to a reduction in annual reimbursements of up to 2 %.

Reimbursement in a value-based environment in the U.S.

We are also working closely with CMS in the area of value-based care. One example is our participation in a CMS ESRD care model: To improve the health of patients with chronic kidney failure while reducing costs for CMS, dialysis providers and phy-

sicians can join forces to form entities known as ESCOs (End-Stage Renal Disease (ESRD) Seamless Care Organizations). We are currently participating in 23 ESCOs in this pilot project. ESCOs that fulfill the minimum quality standards specified by the program while generating reductions in the cost of care above certain thresholds for dialysis patients covered by the model receive a portion of the cost savings as reimbursement. ESCOs that involve dialysis chains with more than 200 clinics are required to share in the risk of cost increases and reimburse part of any such increases to CMS if the actual costs exceed the agreed thresholds. Approximately 43,700 patients participated in our ESCOs as of December 1, 2020. In 2020, CMS gave each ESCO the option to extend their participation in the program through March 31, 2021, and/or to accept certain financial changes. Fresenius Medical Care will continue to participate in the ESCO program.

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

2019 Executive Order on new reimbursement models

On July 10, 2019, the U.S. President signed an Executive Order (EO) on advancing kidney health. Among other things, the EO directs the Department of Health and Human Services (HHS) to develop new Medicare reimbursement models that enable diagnosis and treatment earlier in the course of kidney disease and support the expansion of home dialysis as well as promoting kidney transplants. One of these, the ESRD Treatment Choices Model (ETC Model), is mandatory and creates financial incen-

tives for home dialysis treatments and kidney transplants. Due to start in January 2021 and end in June 2026, the ETC Model consists of two partial reimbursement programs: on the one hand it envisages increases to the reimbursement for home dialysis treatments for a period of three years, on the other hand a performance-based reimbursement adjustment on all dialysis claims. The performance-based reimbursement adjustment is based on the rates of home dialysis and kidney transplants and will amount to between -5 and +4 % in the first year of reimbursement and between -10 and +8 % in the final year. Performance based payment adjustments are scheduled to start in July 2022 and run for six and a half years. Participants in the model are selected at random. As at December 2020, 975 U.S. dialysis clinics, representing approximately 35 % of our dialysis clinics, were selected for participation in the model.

The Executive Order also announced voluntary Medicare reimbursement models aimed at providing financial incentives for health care providers in the area of chronic kidney disease and transplantation. Our applications for the voluntary Comprehensive Kidney Care Contracting (CKCC) model were accepted in June 2020. This model allows health care providers to assume various amounts of financial risk by forming so-called Kidney Care Entities (KCE). Of the 29 accepted applications, 27 KCEs have elected to participate in the implementation period, which started on October 15, 2020. During a start-up period, the KCE is not at financial risk. Each KCE must decide before April 1, 2021, whether to continue its participation including financial accountability in the first performance year from April 1, 2021 to December 31, 2021. Once implemented, the CKCC model is expected to run through 2025.

Changes related to the Affordable Care Act

The delivery of health care services and products is highly regulated in most of the countries in which we operate. Proposals for legislative reforms 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 publicly announced its desire to pursue significant changes to existing health care programs. This has included the Affordable Care Act (ACA), also known as Obamacare, which regulates access to health insurance in the U.S.

In October 2017, the Trump administration discontinued making cost-sharing reduction (CSR) reimbursements to insurers, arguing that the Congress had failed to appropriate funding for them. 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. This occurred in part through so-called "silver loading", a practice whereby the premiums for silver level plans were increased.

In its financial year 2019, 2020, and 2021 budget proposals, the Trump administration altered course and requested authority to fund CSR payments. Neither the financial year 2019, 2020, nor 2021 CSR budget proposal was ultimately included in appropriations authorized by the Congress, and we cannot predict whether the inclusion of this funding for 2021 will come to pass.

Although that administration's efforts to repeal or replace ACA were unsuccessful and the Biden Administration has stated its intention to maintain and strengthen the ACA, the U.S. Supreme Court heard oral arguments in November 2020 regarding the constitutionality of the ACA. On January 28, 2021, President Biden issued an Executive Order on Strengthening Medicaid and the Affordable Care Act, which directs the Secretaries of the Departments of Health and Human Ser-

vices, Treasury and Labor to, among other things, review and examine policies or practices.

U.S. ballot initiatives

Further U.S. legislation or regulations may be enacted in the future that could substantially modify the amounts paid for services and products that we and our subsidiaries offer. They could also mandate new or alternative operating models and payment models that could put our health care service operations at greater risk. Ballot initiatives that are successfully introduced at state level in the U.S. require the state's citizens to vote to directly adopt or reject the proposed new legislation. These ballot initiatives oblige us to spend considerable resources in order to participate in public discourse. Efforts to enact new state laws regarding our operations are ongoing.

COVID-19 relief measures

In the U.S., the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) has been passed to mitigate certain adverse financial impacts of the COVID-19 pandemic, including in the health care sector. Additional funding under the CARES Act and other COVID-19 relief provides some financial support to our business in the U.S. This includes suspension of the 2 % Medicare payment sequestration reduction from May 2020 to March 2021, accelerated and advance payments of Medicare reimbursement and grants to cover expenses and mitigate the loss of revenues due to the COVID-19 pandemic. However, these measures may not fully offset any lost revenues and increased costs we may incur. For further information see the consolidated financials within "Results of operations, financial position and net assets" starting on [PAGE 45](#) and [NOTE 4 I](#) of the notes to the consolidated financial statements.

Charitable Premium Assistance

At the end of the Obama administration, the Department of Health and Human Services (HHS) issued an Interim Final Rule (IFR) that limited patients' ability to use charitable premium assistance (CPA) to enroll in a private scheme. In 2017, this IFR was temporarily enjoined after Fresenius Medical Care (along with DaVita, US Renal, and Dialysis Patients Citizens) sued CMS.

The Trump administration has continued to work on this issue and sent a notice of proposed rulemaking addressing CPA to the Office of Management and Budget for review in June 2019. The proposed rule has not yet been published for comment. While the rule continues to be reflected in the Department of Health and Human Services agenda, there has been no indication whether or when the rule will be released. Instead, there have been attempts to curtail the usage of CPA or reduce commercial reimbursement for dialysis patients receiving CPA by state legislatures.

OVERALL BUSINESS DEVELOPMENT

Highlights

Impact of the COVID-19 pandemic

Throughout 2020, Fresenius Medical Care reported COVID-19 affecting patients with advanced kidney disease and, in particular, the severity of illness resulting in an increased mortality. The excess mortality trend significantly accelerated in the U.S. and in EMEA in particular in November and December 2020 and accumulated to approximately 10,000 patients in 2020 over the pre-pandemic baseline.

To be able to continue care for its patients, Fresenius Medical Care implemented a number of measures, both operational and financial, to maintain an adequate workforce, protect its patients and employees through expanded personal protective equipment protocols, and expenses related to surge capacity for patients suspected or confirmed to have COVID-19. Additionally, we experienced a loss of revenue due to the pandemic in certain areas of our business, which was partially offset by increased demand for our services and products in other areas.

Governments in various regions in which we operate have provided economic assistance programs to address the consequences of the pandemic on companies and support healthcare providers and patients.

After taking into account these COVID-19 reimbursements, Fresenius Medical Care concluded that COVID-19 resulted in an immaterial impact to net income attributable to shareholders of FMC AG & Co. KGaA in 2020.

For more information see the consolidated financials within "Results of operations, financial position and net assets" starting on [PAGE 45](#) and [NOTE 4 I](#) of the notes to the consolidated financial statements.

Share buy-back program

In 2020, we continued to utilize the authorization granted by the Company's Annual General Meeting on May 12, 2016 to conduct a share buy-back program. Under a share buy-back program, announced on June 14, 2019 and concluded on April 1, 2020, we repurchased 10.8 M ordinary shares at a total purchase price (excluding ancillary transaction costs) of €685 M. These shares were used solely to reduce our registered share capital by cancellation of the acquired shares. On December 11, 2020, all 11.8 M own shares held were redeemed. For further

information [SEE NOTE 17](#) of the notes to the consolidated financial statements.

Financing

On May 29, 2020, we issued bonds in two tranches with an aggregate principal amount of €1.25 BN under our Debt Issuance Program: a €500 M bond with a six-year maturity and a coupon rate of 1.00 % issued at a price of 99.405 % and with a yield of 1.103 %; and a €750 M bond with a ten-year maturity and a coupon rate of 1.50 % issued at a price of 99.742 % and with a yield of 1.528 %.

On September 16, 2020, we issued further bonds with a ten-year maturity and an aggregate principal amount of \$1.0 BN. The bonds have a coupon rate of 2.375 % and were issued at a price of 99.699 % with a yield of 2.408 %.

The proceeds will be used for general corporate purposes, including refinancing of financial liabilities.

Comparison of actual business results with the outlook

The rapid global spread of the COVID-19 pandemic resulted in a material deterioration of the conditions for the global economy. The environment for our business did not evolve as expected in 2020. Nevertheless, taking into account the governmental COVID-19 reimbursements, we concluded that COVID-19 resulted in an immaterial impact on net income attributable to shareholders. We largely met our forecasts for the fiscal year 2020 despite the COVID-19-pandemic.

Our 2020 outlook included the effects from COVID-19 and excluded special items. Special items are effects that are unusual in nature and have not been foreseeable, or not foreseeable in size or impact, at the time of giving guidance. There-

fore the outlook excluded the Impairment Loss in the Latin America Segment. Accordingly, we have adjusted for this special item the actual results for 2020 to make them comparable with the outlook.

The growth rates are based on the results in 2019 adjusted for NxStage costs, costs associated with the sustainable improvement of our cost base (Cost Optimization Costs) and the (Gain) loss related to divestitures of Care Coordination activities. A reconciliation of the results 2020 and 2019 to the respective results 2020 excluding special items and results 2019 adjusted can be found at the end of this section. The outlook for the fiscal year 2020 was based on the prevailing exchange rates at the beginning of 2020.

We expected revenue growth in the mid to high single digit range at Constant Currency at the beginning of the year. We generated revenue of €17.9 BN in 2020. At Constant Currency, revenue increased by 5 %. We therefore met our expectations and achieved our outlook.

All operating segments, and especially the North America Segment contributed to the expansion of our business. Further details on the development of revenue can be found in the section "Results of operation, financial position and net assets" starting on [PAGE 45](#).

We expected operating income to develop at a mid to high single digit growth rate at Constant Currency in the fiscal year 2020. Operating income excluding special items in 2020 was €2.5 BN, an increase by 8 % at Constant Currency on an adjusted prior year basis. This lies in the upper end of our outlook and we therefore met our expectations.

We also expected Delivered Operating Income to develop at a mid to high single digit growth rate at Constant Currency in 2020. Delivered Operating Income excluding special items in

2020 was €2.2 BN, an increase by 7 % at Constant Currency on an adjusted prior year basis. This is in line with our expectations, therefore we met our outlook as well.

At the beginning of the year, we set a target range for net income development at a mid to high single digit growth rate at Constant Currency. Net income excluding special items in 2020 increased to €1.4 BN. This increase at Constant Currency by 12 % on an adjusted prior year basis slightly exceeded our expectations.

Basic earnings per share excluding special items increased at Constant Currency by 15 % on an adjusted prior year basis. This increase is in line with the development of net income excluding special items and shares outstanding, as we expected.

We earmarked €1.1 BN to €1.3 BN for capital expenditures in 2020. With an outlay of €1.0 BN, we have not met outlook due to postponement of capital expenditures. We expected to spend around €0.5 BN to €0.7 BN on acquisitions and investments. We made acquisitions and investments (excluding investments in debt securities) for €0.3 BN, this is slightly below of our expectations due to postponement of acquisitions and investments. For further information on capital expenditures, acquisitions, and investments see section "Results of operation, financial position and net assets" starting on [PAGE 45](#).

Driven by earnings development, but primarily due to U.S. federal relief funding and advanced payments under the CARES Act and other COVID-19 relief, including lower tax payments in the North America Segment net cash provided by (used in) operating activities in percent of revenue was high at 24 %, exceeding our expectation of greater than 12.5 %.

Free cash flow accounted for 18 % of revenue in 2020, which also exceeded our expectation for the same reasons of greater than 5 %.

According to our forecast the net leverage ratio should have been below 3.5 at the end of 2020. The net leverage ratio was 2.7 at the balance sheet date and is therefore as expected.

ROIC was at 5.8 %. Driven by the Impairment Loss this measure is lower than our expectation of at least 6.0 %.

A dividend per share of €1.34 planned to propose to be approved by the Annual General Meeting on May 20, 2021 is within our expectation (in line with the development of net income and shares outstanding).

The number of our employees (full-time equivalents) increased from 120,659 at the end of 2019 to 125,364 at the end of 2020. The number of employees therefore met our expectations of more than 124,000 full-time equivalents.

Research and development expenditures aimed at boosting our ability to adapt to future requirements amounted to €194 M, this is below our adjusted expected range of €200 to €220 M due to lower than expected project costs and postponement of project costs. The initial outlook for research and development expenses for 2020 of €210 to €230 M was adjusted during the third quarter to €200 to €220 M. Our research and development activities are focused on developing innovative products and renal therapies.

TABLE 2.23 shows the actual results and our outlook for 2020.

TABLES 2.24 AND 2.25 ON PAGE 45 provide a reconciliation of the results 2020 and 2019 to the respective results 2020 and 2019 adjusted.

T 2.23 RESULTS AND OUTLOOK FOR 2020

	Results 2020	Results 2020 excl. special items ²	Outlook 2020 (at Constant Currency) ¹
Revenue growth at Constant Currency	5 %		mid to high single digit growth rate
Operating income growth at Constant Currency ²	4 %	8 %	mid to high single digit growth rate
Delivered Operating Income growth at Constant Currency ²	2 %	7 %	mid to high single digit growth rate
Net income growth at Constant Currency ^{2,3}	(1 %)	12 %	mid to high single digit growth rate
Basic earnings per share growth at Constant Currency ^{2,3}	2 %	15 %	assessed based on expected development of net income and shares outstanding
Capital expenditures and capitalized development costs	€1.0 BN		€1.1 BN - €1.3 BN
Acquisitions and investments ⁴	€0.3 BN		€0.5 BN - €0.7 BN
Net cash provided by (used in) operating activities in % of revenue	23.7		> 12.5
Free cash flow in % of revenue	17.9		> 5
Net leverage ratio	2.7		< 3.5
ROIC in %	5.8		≥ 6.0
Dividend per share ⁵	€1.34		assessed based on expected development of net income and shares outstanding
Employees ⁶	125,364		> 124,000
Research and development expenses ⁷	€194 M		€200 M - €220 M

¹ Outlook 2020 included the effects from COVID-19 and excluded special items, such as the Impairment Loss in the Latin America Segment. Special items are effects that are unusual in nature and have not been foreseeable or not foreseeable in size or impact at the time of giving guidance. The growth rates are based on the results in 2019 adjusted for NxStage Costs, Cost Optimization Costs and the (Gain) loss related to divestitures of Care Coordination activities.

² Results 2020 were adjusted for special items in order to make the business performance comparable to Outlook 2020. For a reconciliation of results 2020 to results 2020 excl. special items and results 2019 to results 2019 adjusted as a basis for targets 2020, see the following tables.

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

⁴ Excluding investments in debt securities.

⁵ Results 2020: Planned proposal to be approved by the Annual General Meeting on May 20, 2021.

⁶ Full-time equivalents.

⁷ The initial outlook of €210 M to €230 M was adjusted during the third quarter to €200 M to €220 M.

GROUP MANAGEMENT REPORT

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Corporate Governance fundamentals

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FRESENIUS MEDICAL CARE 2020



T 2.24 RECONCILIATION OF RESULTS 2020 TO RESULTS 2020 EXCL. SPECIAL ITEMS IN € M

	Results 2020	Impairment Loss	Results 2020 excl. special items
Operating income	2,304	195	2,499
Delivered Operating Income	2,033	195	2,228
Net income ¹	1,164	195	1,359

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

T 2.25 RECONCILIATION OF RESULTS 2019 TO RESULTS 2019 ADJUSTED IN € M

	Results 2019	NxStage Costs ¹	Cost Optimization Costs	(Gain) loss related to divestitures of Care Coordination activities	Results 2019 adjusted
Operating income	2,270	24	91	(29)	2,356
Delivered Operating Income	2,031	24	91	(29)	2,117
Net income ²	1,200	18	67	(49)	1,236

¹ Integration costs related to the acquisition of NxStage.

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

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

For further information on the results of operations of Fresenius Medical Care, [SEE TABLE 2.26](#).

Revenue and operating income generated in countries outside the eurozone are subject to currency fluctuations. [TABLE 2.27 ON PAGE 46](#) summarizes the development of the euro against the U.S. dollar as well as the revenue and the operating income, as a percentage of the consolidated results, generated in U.S. dollars for the years ended December 31, 2020 and December 31, 2019.

T 2.26 SEGMENT DATA (INCLUDING CORPORATE) IN € M

	2020	2019
Total revenue		
North America Segment	12,478	12,195
EMEA Segment	2,763	2,693
Asia-Pacific Segment	1,894	1,859
Latin America Segment	684	709
Corporate	40	21
TOTAL	17,859	17,477
Operating income		
North America Segment	2,120	1,794
EMEA Segment	412	448
Asia-Pacific Segment	344	329
Latin America Segment	(157)	43
Corporate	(415)	(344)
TOTAL	2,304	2,270
Interest income	42	62
Interest expense	(410)	(491)
Income tax expense	(501)	(402)
NET INCOME	1,435	1,439
NET INCOME ATTRIBUTABLE TO NONCONTROLLING INTERESTS	(271)	(239)
NET INCOME ATTRIBUTABLE TO SHAREHOLDERS OF FMC AG & CO. KGAA	1,164	1,200

T 2.27 CURRENCY DEVELOPMENT AND PORTION OF TOTAL REVENUE AND OPERATING INCOME

	2020	2019
Currency development of euro against the U.S. dollar	negative impact	positive impact
Percentage of revenue in U.S. dollars	70	70
Percentage of operating income generated in U.S. dollars	92	79

Consolidated financial statements

An overview of the key indicators for the consolidated financial statements, [SEE TABLE 2.28 ON PAGE 47](#).

Health care services revenue increased by 2 % compared to the year ended December 31, 2019. In addition to a 3 % negative impact from foreign currency translation, health care services revenue increased by 5 % driven by organic growth (+3 %) despite lower reimbursement for calcimimetics, the absence in 2020 of a revenue recognition adjustment for accounts receivable in legal dispute previously recorded in the prior year (+2 %) ([SEE NOTE 22](#) of the notes to the consolidated financial statements) and contributions from acquisitions (+1 %), partially offset by the effect of closed or sold clinics (-1 %).

Dialysis treatments increased by 3 % as a result of Same Market Treatment Growth and contributions from acquisitions, partially offset by the effect of closed or sold clinics.

At December 31, 2020, we owned, operated or managed 4,092 dialysis clinics compared to 3,994 dialysis clinics at December 31, 2019. During the year ended December 31, 2020, we acquired 60 dialysis clinics, opened 106 dialysis clinics and

combined or closed 68 clinics. The number of patients treated in dialysis clinics that we own, operate or manage increased slightly to 346,553 at December 31, 2020 (December 31, 2019: 345,096), though this slight increase was impacted by the excess mortality rates among patients due to COVID-19 (COVID-19 Related Excess Mortality Rates) in certain of our operating segments which are further described in the discussions below.

Health care product revenue increased by 4 %. Including a 3 % negative impact from foreign currency translation, health care product revenue increased by 7 %. Dialysis product revenue increased by 3 %. In addition to a 4 % negative impact from foreign currency translation, dialysis product revenue increased by 7 % driven by higher sales of products for acute care treatments, in-center disposables, renal pharmaceuticals, home hemodialysis products and peritoneal dialysis products, partially offset by lower sales of machines for chronic treatment. Non-dialysis product revenue increased by 34 % to €101 M from €76 M, with virtually no impact from foreign currency translation. The increase in non-dialysis product revenue was due to higher sales of acute cardiopulmonary products.

The increase period over period in the gross profit margin of 31.0 % (2019: 30.9 %) was 0.1 percentage points. Foreign currency translation effects represented a 0.2 percentage point increase in the current period. The resulting slight decrease at Constant Exchange Rates was primarily driven by various smaller impacts on the margin including higher personnel expense and an unfavorable impact from pharmacy services in the North America Segment, impacts from COVID-19 on costs, unfavorable foreign currency transaction effects in the EMEA Segment and the Asia-Pacific Segment, higher personnel expense in certain countries in the EMEA Segment, an unfavorable impact from inflation (including hyperinflation in Argentina) and higher treatment costs in the Latin America Segment as well as start-up costs for dialysis clinics in the Asia-Pacific Segment. These various impacts were mostly offset by the

absence in 2020 of a revenue recognition adjustment for accounts receivable in legal dispute previously recorded in the prior year and lower costs for renal pharmaceuticals.

The increase period over period in selling, general and administrative (SG&A) expense as a percentage of revenue of 17.7 % (2019: 17.5 %) was 0.2 percentage points. Foreign currency translation effects represented a 0.1 percentage point increase in the current period. The increase was primarily driven by the Impairment Loss in the Latin America Segment ([SEE NOTE 2 A](#) of the notes to the consolidated financial statements). The increase was also impacted by the prior year remeasurement effect on the fair value of investments (North America Segment) and the reduction of a contingent consideration liability related to Xenios AG ("Xenios") in 2019 (EMEA Segment) as well as higher costs related to the compliance monitor engaged in accordance with the DOJ and SEC non-prosecution agreement ([SEE NOTE 22](#) of the notes to the consolidated financial statements) (Corporate). The increases were partially offset by the prior year impacts from (a) costs associated with the sustained improvement of our cost base (Costs Optimization Costs) and (b) a revenue recognition adjustment for accounts receivable in legal dispute in 2019, current year impacts from COVID-19-related meeting and travel savings in the North America Segment and various, smaller effects across our segments.

Research and development expenses increased by 15 % to €194 M from €168 M. The period over period increase as a percentage of revenue, was 0.1 percentage points, largely driven by in-center and critical care program development as well as activities in the fields of digital connectivity and regenerative medicine and research and development activities at NxStage, partially offset by increased capitalization of research and development expenses in 2020.

Income from equity method investees increased by 28 % to €95 M from €74 M. The increase was primarily driven by higher

T 2.28 KEY INDICATORS FOR THE CONSOLIDATED FINANCIAL STATEMENTS

	2020	2019	Change in %		
			As reported	Currency translation effects	Constant Currency ¹
Revenue in € M	17,859	17,477	2	(3)	5
Health care services	14,114	13,872	2	(3)	5
Health care products	3,745	3,605	4	(3)	7
Number of dialysis treatments	53,575,255	52,148,107	3		
Same Market Treatment Growth in % ²	2.2	3.5			
Gross profit as a % of revenue	31.0	30.9			
Selling, general and administrative costs as a % of revenue	17.7	17.5			
Operating income in € M	2,304	2,270	2	(2)	4
Operating income margin in %	12.9	13.0			
Delivered Operating Income in € M ³	2,033	2,031	0	(2)	2
Net income attributable to shareholders of FMC AG & Co. KGaA in € M	1,164	1,200	(3)	(2)	(1)
Basic earnings per share in €	3.96	3.96	0	(2)	2

¹ For further information on Constant Currency, see chapter „Overview of the Group“ section „Performance management system“ starting on [PAGE 24](#).

² Same market treatment growth represents growth in treatments, adjusted for certain reconciling items including (but not limited to) treatments from acquisitions, closed or sold clinics and differences in dialysis days (Same Market Treatment Growth).

³ 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 chapter „Overview of the Group“ section „Performance management system“ starting on [PAGE 24](#).

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, income from the sale of a license for certain renal pharmaceuticals and lower operating expenses, partially offset by the impairment of a license held based on an unfavorable clinical trial.

The decrease period over period in the operating income margin was 0.1 percentage points. Foreign currency translation effects represented a 0.1 percentage point increase in the current period. The decrease was largely driven by the increase in

SG&A expenses, partially offset by the increase in the gross profit margin, as discussed above.

Delivered Operating Income remained relatively stable as compared to the prior year. In addition to a 2 % negative impact from foreign currency translation, Delivered Operating Income increased by 2 % largely driven by increased operating income, partially offset by an increase in income attributable to noncontrolling interests.

Net interest expense decreased by 14 % to €368 M from €429 M. In addition to a 2 % positive impact from foreign currency translation, net interest expense decreased by 12 % primarily due to lower interest rates driven by the replacement of high interest-bearing bonds by debt instruments at lower interest rates, lower variable Libor-based interest rates and lower interest rates on lease liabilities.

Income tax expense increased by 25 % to €501 M from €402 M. The effective tax rate increased to 25.9 % from 21.8 % for the same period of 2019 largely driven by the non-deductible Impairment Loss ([SEE NOTE 2 A](#) of the notes to the consolidated financial statements) and the prior year tax benefit related to the divestiture of Sound.

Net income attributable to noncontrolling interests increased by 14 % to €271 M from €239 M. In addition to a 2 % positive impact from foreign currency translation, net income attributable to noncontrolling interests increased by 16 % due to higher earnings in entities in which we have less than 100 % ownership.

Net income attributable to shareholders of FMC AG & Co. KGaA decreased by 3 % to €1,164 M from €1,200 M. In addition to a 2 % negative impact from foreign currency translation, net income attributable to shareholders of FMC AG & Co. KGaA decreased by 1 % driven by the combined effects of the items discussed above. COVID-19 resulted in a negative impact to net income attributable to shareholders of FMC AG & Co. KGaA in the amount of €49 M for the year ended December 31, 2020.

Basic earnings per share remained relatively stable as compared to the prior year. In addition to a 2 % negative impact from foreign currency translation, basic earnings per share increased by 2 % primarily due to a decrease in the average weighted number of shares outstanding for the period. The average weighted number of shares outstanding for the period

decreased to approximately 294.1 M in 2020 (2019: 302.7 M), primarily as a result of our share buy-back program which was concluded on April 1, 2020 (SEE NOTE 17 of the notes to the consolidated financial statements).

We employed 125,364 people (full-time equivalents) as of December 31, 2020 (December 31, 2019: 120,659). This 4 % increase was primarily due to organic business growth and acquisitions, both of which were impacted by COVID-19 related personnel requirements.

Segment reporting

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

North America Segment

Information about key indicators for the North America Segment can be found in [TABLE 2.29](#).

Dialysis

Revenue

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

Dialysis care revenue increased by 1 % to €10,057 M from €9,973 M. In addition to a 2 % negative impact from foreign currency translation, dialysis care revenue increased by 3 % mainly due to the absence in 2020 of a revenue recognition adjustment for accounts receivable in legal dispute previously

T 2.29 KEY INDICATORS FOR THE NORTH AMERICA SEGMENT

			Change in %		
	2020	2019	As reported	Currency translation effects	Constant Currency ¹
Total North America Segment					
Revenue in € M	12,478	12,195	2	(2)	4
Health care services	11,364	11,157	2	(2)	4
Health care products	1,114	1,038	7	(3)	10
Operating income in € M	2,120	1,794	18	(2)	20
Operating income margin in %	17.0	14.7			
Delivered Operating Income in € M ²	1,859	1,569	19	(2)	21
Dialysis					
Revenue in € M	11,171	11,011	1	(3)	4
Number of dialysis treatments	32,843,592	32,138,448	2		
Same Market Treatment Growth in %	1.6	3.3			
Operating income in € M	2,002	1,737	15	(2)	17
Operating income margin in %	17.9	15.8			
Delivered Operating Income in € M ²	1,775	1,532	16	(2)	18
Care Coordination					
Revenue in € M	1,307	1,184	10	(3)	13
Operating income in € M	118	57	106	(4)	110
Operating income margin in %	9.0	4.8			
Delivered Operating Income in € M ²	84	37	130	(4)	134

¹ For further information on Constant Currency, see chapter „Overview of the Group“ section „Performance management system“ starting on [PAGE 24](#).

² For further information on Delivered Operating Income, including a reconciliation of Delivered Operating Income to operating income for each of our operating segments, see chapter „Overview of the Group“ section „Performance management system“ starting on [PAGE 24](#).

recorded in the prior year (+2 %) ([SEE NOTE 22](#) of the notes to the consolidated financial statements) and contributions from acquisitions (+1 %).

Dialysis treatments increased by 2 % largely due to Same Market Treatment Growth. At December 31, 2020, 210,260 patients (December 31, 2019: 211,064) were treated in the 2,639 dialysis clinics (December 31, 2019: 2,579) that we own or operate in the North America Segment. The decrease in patients was driven by COVID-19 Related Excess Mortality Rates.

Health care product revenue increased by 7 %. In addition to a 3 % negative impact from foreign currency translation, health care product revenue increased by 10 % driven by higher sales of products for acute care treatments, renal pharmaceuticals, in-center disposables and peritoneal dialysis products, partially offset by lower sales of machines for chronic treatment and home hemodialysis products.

Operating income margin

The increase period over period in the dialysis operating income margin was 2.1 percentage points, with virtually no impact from foreign currency translation. The increase was driven by a favorable impact related to the absence in 2020 of a revenue recognition adjustment for accounts receivable in legal dispute previously recorded in the prior year, Cost Optimization Costs in the prior year, a higher reimbursement rate and lower costs for renal pharmaceuticals, partially offset by the remeasurement effect on the fair value of investments in the prior year and higher personnel expense.

Delivered Operating Income

Dialysis Delivered Operating Income increased by 16 %. In addition to a 2 % negative impact from foreign currency translation, Delivered Operating Income increased by 18 % mainly as a result of increased operating income, partially offset by an increase in income attributable to noncontrolling interests.

Care Coordination

Revenue

Care Coordination revenue increased by 10 %. In addition to a 3 % negative impact from foreign currency translation, Care Coordination revenue increased by 13 % largely driven by an increase in organic growth impacted by the prior year effect of a reduction in patient attribution and a decreasing savings rate for ESCOs (Prior Year ESCO Effect) (+17 %), partially offset by the effect of closed or sold centers (-4 %).

Operating income margin

The increase period over period in the Care Coordination operating income margin was 4.2 percentage points, with virtually no impact from foreign currency translation in the current period. The increase was mainly due to the Prior Year ESCO Effect, a favorable impact from vascular access services driven by lower operating costs and higher volumes of procedures as well as a favorable impact of the divestiture from loss-making urgent care services, partially offset by an unfavorable impact from pharmacy services.

Delivered Operating Income

Care Coordination Delivered Operating Income increased by 130 %. In addition to a 4 % negative impact from foreign currency translation, Delivered Operating Income increased by 134 % mainly as a result of increased operating income, partially offset by an increase in income attributable to noncontrolling interests.

EMEA Segment

Information about key indicators for the EMEA Segment can be found in [TABLE 2.30 ON PAGE 50](#).

Revenue

Health care service revenue increased by 1 %. Including a 3 % negative impact resulting from foreign currency translation, health care service revenue increased by 4 % largely as a result of an increase in organic growth (+3 %) and contributions from acquisitions (+2 %), partially offset by the effect of closed or sold clinics (-1 %).

Dialysis treatments increased by 1 % mainly due to Same Market Treatment Growth and contributions from acquisitions, partially offset by the effect of closed or sold clinics. As of December 31, 2020, 66,008 patients (December 31, 2019: 66,217) were treated at the 804 dialysis clinics (December 31, 2019: 781) that we own, operate or manage in the EMEA Segment. The decrease in patients was driven by COVID-19 Related Excess Mortality Rates.

Health care product revenue increased by 4 %. Including a 3 % negative impact from foreign currency translation, health care product revenue increased by 7 %. Dialysis product revenue increased by 3 %. Including a 3 % negative impact from foreign currency translation, dialysis product revenue increased by 6 % due to higher sales of products for acute care treatments and home hemodialysis products, partially offset by lower sales of machines for chronic treatment. Non-Dialysis product revenue increased by 24 % to €95 M from €76 M. Including a 1 % negative impact from foreign currency translation, non-dialysis product revenue increased by 25 % largely due to higher sales of acute cardiopulmonary products.

Operating income margin

The decrease period over period in the operating income margin was 1.7 percentage points. Foreign currency translation effects represented a 0.1 percentage point increase in the operating income margin. The decrease was mainly due to the reduction of a contingent consideration liability related to Xenios in the prior year period, unfavorable foreign currency

T 2.30 KEY INDICATORS FOR THE EMEA SEGMENT

	2020	2019	Change in %		
			As reported	Currency translation effects	Constant Currency ¹
Revenue in € M	2,763	2,693	3	(2)	5
Health care services	1,365	1,354	1	(3)	4
Health care products	1,398	1,339	4	(3)	7
Number of dialysis treatments	10,189,373	10,042,109	1		
Same Market Treatment Growth in %	1.4	3.4			
Operating income in € M	412	448	(8)	(2)	(6)
Operating income margin in %	14.9	16.6			
Delivered Operating Income in € M ²	409	443	(8)	(2)	(6)

¹ For further information on Constant Currency, see chapter "Overview of the Group" section "Performance management system" starting on [PAGE 24](#).

² For further information on Delivered Operating Income, including a reconciliation of Delivered Operating Income to operating income for each of our operating segments, see chapter "Overview of the Group" section "Performance management system" starting on [PAGE 24](#).

transaction effects and higher personnel expense in certain countries, partially offset by lower bad debt expense and a favorable impact from equity method investees.

Delivered Operating Income

Delivered Operating Income decreased by 8 %. Including a 2 % negative impact resulting from foreign currency translation, Delivered Operating Income decreased by 6 % primarily due to decreased operating income.

Asia-Pacific Segment

Information about key indicators for the Asia-Pacific Segment can be found in [TABLE 2.31 ON PAGE 51](#).

Dialysis

Revenue

Dialysis revenue increased by 2 %, including a 1 % negative impact resulting from foreign currency translation. At Constant Exchange Rates, dialysis revenue increased by 3 % dialysis revenue is comprised of dialysis care revenue and health care product revenue.

Dialysis care service revenue increased by 1 % to €627 M from €621 M, with virtually no impact resulting from foreign currency translation. The increase was as a result of organic growth (+5 %) and contributions from acquisitions (+1 %), largely offset by the effect of closed or sold clinics (-5 %).

Dialysis treatments increased by 2 % mainly due to Same Market Treatment Growth and contributions from acquisitions, partially offset by the effect of closed or sold clinics. As of Decem-

ber 31, 2020, 33,106 patients (December 31, 2019: 33,005) were treated at the 400 dialysis clinics (December 31, 2019: 400) that we own, operate or manage in the Asia-Pacific Segment.

Health care product revenue increased by 2 %. Including a 2 % negative impact resulting from foreign currency translation, health care product revenue increased by 4 %. Dialysis product revenue increased by 2 %. Including a 2 % negative impact from foreign currency translation, dialysis product revenue increased by 4 % due to higher sales of products for acute care treatments, in-center disposables and peritoneal dialysis products, partially offset by lower sales of machines for chronic treatment. Non-Dialysis product revenue increased to €5 M (2019: €0 M) due to higher sales of acute cardiopulmonary products.

Operating income margin

The increase period over period in the operating income margin was 1.0 percentage points. Foreign currency translation effects represented a 0.2 percentage point increase in the operating income margin. The increase was primarily due to a gain from the deconsolidation of clinics and COVID-19-related travel savings, partially offset by unfavorable foreign currency transaction effects.

Delivered Operating Income

Delivered Operating Income increased by 7 %, with virtually no impact from foreign currency translation. The increase was mainly due to increased operating income.

Care Coordination

Revenue

Care Coordination revenue increased by 3 %. Including a 2 % negative impact resulting from foreign currency translation, Care Coordination revenue increased by 5 % driven by contributions from acquisitions (+7 %), partially offset by a decrease

T 2.31 KEY INDICATORS FOR THE ASIA-PACIFIC SEGMENT

	2020	2019	Change in %		
			As reported	Currency translation effects	Constant Currency ¹
Total Asia-Pacific Segment					
Revenue in € M	1,894	1,859	2	(1)	3
Health care services	876	862	2	0	2
Health care products	1,018	997	2	(2)	4
Operating income in € M	344	329	4	(1)	5
Operating income margin in %	18.1	17.7			
Delivered Operating Income in € M ²	338	321	5	(1)	6
Dialysis					
Revenue in € M	1,645	1,618	2	(1)	3
Number of dialysis treatments	4,660,875	4,579,220	2		
Same Market Treatment Growth in %	8.5	7.1			
Operating income in € M	321	300	7	0	7
Operating income margin in %	19.5	18.5			
Delivered Operating Income in € M ²	314	293	7	0	7
Care Coordination					
Revenue in € M	249	241	3	(2)	5
Operating income in € M	23	29	(23)	(2)	(21)
Operating income margin in %	9.1	12.1			
Delivered Operating Income in € M ²	24	28	(14)	(2)	(12)

¹ For further information on Constant Currency, see chapter „Overview of the Group“ section „Performance management system“ starting on [PAGE 24](#).

² For further information on Delivered Operating Income, including a reconciliation of Delivered Operating Income to operating income for each of our operating segments, see chapter „Overview of the Group“ section „Performance management system“ starting on [PAGE 24](#).

in organic growth (-2 %) impacted by the negative effects of COVID-19.

Operating income margin

The decrease period over period in the Care Coordination operating income margin was 3 percentage points. Foreign currency translation effects represented a 0.1 percentage point decrease in the operating income margin. The decrease was driven by unfavorable effects related to COVID-19 and an unfavorable mix effect from acquisitions with lower margins.

Delivered Operating Income

Care Coordination Delivered Operating Income decreased by 14 %. Including a 2 % negative impact resulting from foreign currency translation, Care Coordination Delivered Operating Income decreased by 12 % mainly as a result of decreased operating income.

Latin America Segment

Information about key indicators for the Latin America Segment can be found in [TABLE 2.32 ON PAGE 52](#).

Revenue

Health care service revenue decreased by 3 %. Including a 26 % negative impact resulting from foreign currency translation, health care service revenue increased by 23 % as a result of increases in organic growth (+15 %) and contributions from acquisitions (+8 %).

Dialysis treatments increased by 9 % mainly due to contributions from acquisitions and Same Market Treatment Growth. As of December 31, 2020, 37,179 patients, an increase of 7 % (December 31, 2019: 34,810), were treated at the 249 dialysis clinics (December 31, 2019: 234) that we own, operate or manage in the Latin America Segment.

T 2.32 KEY INDICATORS FOR THE LATIN AMERICA SEGMENT

	2020	2019	Change in %		
			As reported	Currency translation effects	Constant Currency ¹
Revenue in € M	684	709	(3)	(24)	21
Health care services	485	499	(3)	(26)	23
Health care products	199	210	(5)	(22)	17
Number of dialysis treatments	5,881,415	5,388,330	9		
Same Market Treatment Growth in %	2.1	2.4			
Operating income in € M	(157)	43	n.a.		n.a.
Operating income margin in %	(22.9)	6.0			
Delivered Operating Income in € M ²	(157)	42	n.a.		n.a.

¹ For further information on Constant Currency, see chapter "Overview of the Group" section "Performance management system" starting on [PAGE 24](#).

² For further information on Delivered Operating Income, including a reconciliation of Delivered Operating Income to operating income for each of our operating segments, see chapter "Overview of the Group" section "Performance management system" starting on [PAGE 24](#).

Health care product revenue decreased by 5 %. Including a 22 % negative impact resulting from foreign currency translation, health care product revenue increased by 17 % due to higher sales of in-center disposables, products for acute care treatments and machines for chronic treatment.

Operating income margin

The decrease period over period in the operating income margin was 28.9 percentage points. Foreign currency translation effects represented a 5.1 percentage point decrease in the operating income margin in the current period. The decrease was mainly impacted by the Impairment Loss (SEE [NOTE 2 A](#) of the notes to the consolidated financial statements).

Delivered Operating Income

Delivered Operating Income decreased to a loss of €157 M for the year ended December 31, 2020 as compared to a Delivered Operating Income of €42 M in the comparative period of 2019 due to the Impairment Loss noted above.

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. We regard our refinancing options as being very stable and flexible. During the past 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 being highly diversified with regard to tenors, investors and banks. Our financing profile is characterized by a wide range of maturities up to 2031.

Our main mid- and long-term financing instruments are bonds in euro and U.S. dollar as well as the Amended 2012 Credit Agreement (a syndicated credit agreement with revolving credit facilities and long-term loans 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, 2020, the net leverage ratio was 2.7 (2019: 3.2). See "Performance management system" - "Net leverage ratio (Non-IFRS Measure)" starting on [PAGE 26](#).

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 that have been authorized by the Management Board with banks 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 section "Other risks" in chapter "Risks and opportunities report" starting on [PAGE 71](#) as well as [NOTE 23](#) of the notes to the consolidated financial statements).

Fresenius SE, under a service agreement, conducts financial instrument activities for us under the control of a single centralized department. We have established guidelines for risk management procedures and controls which govern the use of financial instruments. These guidelines include a clear segregation

tion 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).

Rating

We are rated investment grade by the three leading rating agencies, Moody's, Standard & Poor's and Fitch ([SEE TABLE 2.33](#)).

T 2.33 RATING¹

	Standard & Poor's	Moody's	Fitch
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.

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

We are not involved in off-balance-sheet transactions that have or are reasonably likely to have a material current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, cash requirements or capital resources.

Sources of liquidity

Our primary sources of liquidity are typically cash provided by operating activities, cash provided by short-term debt, 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" starting on [PAGE 54](#) and "Net cash provided by (used in) financing activities" starting on [PAGE 55](#)).

At December 31, 2020, we had cash and cash equivalents of €1,082 M (December 31, 2019: €1,008 M).

As of December 31, 2020, our available borrowing capacity resulting from unutilized credit facilities amounted to approximately €2.4 billion. The Amended 2012 Credit Agreement accounted for approximately €1.3 billion in unutilized available borrowing capacity.

Free cash flow (net cash provided by (used in) operating activities, after capital expenditures, before acquisitions and investments) in 2020 amounted to €3,197 M (2019: €1,454 M). Free cash flow is a Non-IFRS Measure and is reconciled to net cash provided by (used in) operating activities, the most directly comparable IFRS measure in section "Performance management system" starting on [PAGE 24](#). Free cash flow accounted for 17.9 % of revenue in 2020 (2019: 8.3 %).

Net cash provided by (used in) operating activities

During 2020 we generated net cash provided by operating activities of €4,233 M (2019: €2,567 M). Net cash provided by operating activities accounted for 24 % of revenue in 2020 (2019: 15 %). Net 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 in 2020 was largely driven by U.S. federal relief funding and advanced payments under the CARES Act and other COVID-19 relief ([SEE NOTE 4 I](#) of the notes to the consolidated financial statements), including lower tax payments in the North America Segment, partially offset by an increase in inventory levels related to a higher demand for specific products and higher safety inventory levels due to COVID-19.

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 2020, approximately 32 % 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.

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

We intend to continue to address our current cash and financing requirements using net 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) 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.

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 enforcing and collecting accounts receivable under the legal systems of and due to the economic conditions in some countries. Accounts receivable balances, net of expected credit losses, represented Days Sales Outstanding (DSO) of average 50 days at December 31, 2020, a decrease as compared to 73 days at December 31, 2019.

DSO by segment is calculated by dividing the respective segment's accounts and other receivables from unrelated parties 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 [TABLE 2.34](#).

T 2.34 DEVELOPMENT OF DAYS SALES OUTSTANDING
IN DAYS

	December 31, 2020	December 31, 2019	Increase / decrease primarily driven by:
North America Segment	26	58	advanced payments under the CARES Act
EMEA Segment	90	96	improvement of payment collections in the region
Asia-Pacific Segment	110	113	improvement of payment collections in the region (mainly in China)
Latin America Segment	134	127	periodic delays in payment of public health care organizations in certain countries
FMC AG & CO. KGAA AVERAGE DAYS SALES OUTSTANDING	50	73	

T 2.35 CAPITAL EXPENDITURES (NET), ACQUISITIONS, INVESTMENTS, PURCHASES OF INTANGIBLE ASSETS AND INVESTMENTS IN DEBT SECURITIES
IN € M

	Capital expenditures, net		Acquisitions, investments, purchases of intangible assets and investments in debt securities	
	2020	2019	2020	2019
North America Segment	535	567	237	2,080
thereof investments in debt securities			96	11
EMEA Segment	126	130	38	41
Asia-Pacific Segment	74	58	20	28
Latin America Segment	32	26	34	50
Corporate	269	332	26	34
TOTAL	1,036	1,113	355	2,233

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.

For information regarding litigation exposure as well as ongoing and future tax audits, [SEE NOTE 22](#) of the notes to the consolidated financial statements included in this report.

Net cash provided by (used in) investing activities

Net cash used in investing activities was €1,335 M for 2020 (2019: €3,286 M). [TABLE 2.35](#) shows our capital expenditures for property, plant and equipment and capitalized development costs, net of proceeds from sales of property, plant and equipment as well as acquisitions, investments and purchases of intangible assets for 2020 and 2019.

The majority of our capital expenditures were used for maintaining existing clinics, equipping new clinics, maintaining and expanding production facilities, capitalization of machines provided to our customers and for Care Coordination as well as capitalization of certain development costs. Capital expenditures accounted for approximately 6 % of total revenue in 2020 (2019: 6 %).

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) as well as dialysis clinics.

In 2020, we received €57 M from divestitures. These divestitures were mainly related to the divestment of debt securities and certain research & development investments.

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.

In 2021 we anticipate capital expenditures of €0.9 to €1.1 BN and expect to make acquisitions and investments, excluding investments in debt securities, of approximately €0.5 to €0.7 BN.

Net cash provided by (used in) financing activities

Net cash used in financing activities was €2,664 M in 2020 (2019: €467 M).

In 2020, cash was mainly used in the repayment of short-term debt (including repayments under our commercial paper program and short-term debt from related parties) and long-term debt (including the repayment of Convertible Bonds at matu-

rity in January 2020, the early repayment of the EUR term loan 2017/2020 under the Amended 2012 Credit Agreement (originally due on July 30, 2020) on May 29, 2020 and the repayment of bonds (originally due on October 15, 2020) on July 17, 2020), the repayment of lease liabilities (including lease liabilities from related parties), repayments of the Accounts Receivable Facility, distributions to noncontrolling interests, shares repurchased as part of a share buy-back program as well as payments of dividends, partially offset by proceeds from long-term debt (including proceeds from the issuance of bonds in an aggregate principal amount of €1,250 M on May 29, 2020 and the issuance of bonds in an aggregate principal amount of \$1,000 M on September 16, 2020) and short-term debt (including short-term debt from related parties).

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 (including lease

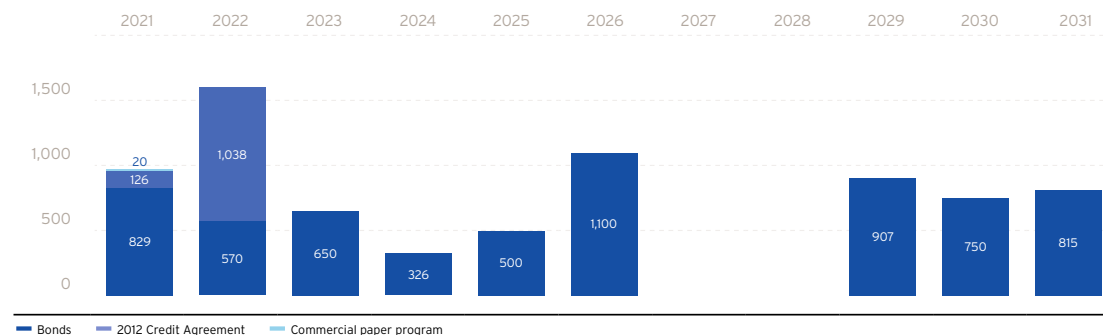
liabilities from related parties), shares repurchased as part of a share buy-back program, payment of dividends, and distributions to noncontrolling interests, partially offset by proceeds from long-term debt (including the issuance of bonds with a volume of €1,750 M and \$500 M as well as additional 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.

On September 1, 2020, we paid a dividend of €1.20 per share for 2019 (€1.17 per share for 2018 paid in 2019). The total dividend payment was €351 M in 2020 (2019: €355 M).

[CHART 2.36](#) summarizes our significant financing instruments as well as their maturity structure at December 31, 2020.

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

C 2.36 MATURITY STRUCTURE OF OUR SIGNIFICANT LONG-TERM FINANCING INSTRUMENTS (BASED ON NOMINAL AMOUNTS OUTSTANDING)
IN € M



sources of liquidity, including the Amended 2012 Credit Agreement, bonds and the Accounts Receivable Facility, [SEE NOTE 14](#) of the notes to the consolidated financial statements.

TABLE 2.37 summarizes our available sources of liquidity at December 31, 2020.

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, 2020, we utilized €20 M and as of December 31, 2019, we fully utilized the commercial paper program.

The amount of guarantees and other commercial commitments at December 31, 2020 was not significant.

At December 31, 2020, we had short-term debt from unrelated parties (excluding the current portion of long-term debt) and short-term debt from related parties in the total amount of €79 M.

TABLE 2.38 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, 2020.

For long-term contractual obligations related to put options, [SEE NOTE 23](#) of the notes to consolidated financial statements.

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

T 2.37 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	723	723	-	-	-
Amended 2012 Credit Agreement ²	1,333	1,333	-	-	-
Other unused lines of credit	1,077	1,077	-	-	-
	3,133	3,133	-	-	-

¹ Subject to availability of sufficient accounts receivable that meet funding criteria. At December 31, 2020, the Company had letters of credit outstanding in the amount of \$13 M (€10 M) which reduces the availability under the Accounts Receivable Facility to the amount shown in this table.

² At December 31, 2020, 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.

T 2.38 CONTRACTUAL OBLIGATIONS AND COMMITMENTS¹
IN € M

	Total	Payments due within a period of			
		Less than 1 year	1-3 years	3-5 years	Over 5 years
Long-term debt ²	8,833	1,168	2,527	1,058	4,080
Lease liabilities from unrelated parties	5,047	714	1,332	982	2,019
Lease liabilities from related parties	145	22	44	44	35
Unconditional purchase obligations for inventory	360	197	114	49	-
Other long-term obligations ³	260	94	68	54	44
Letters of credit	11	11	-	-	-
	14,656	2,206	4,085	2,187	6,178

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 future periods. The liability recognized in our consolidated financial statements may fluctuate significantly in future periods under the following conditions: changes to the discount rate, to the rate of future compensation increases and the development of pensions. Actual results could differ from assumptions due to changing market, economic and governmental regulatory conditions, thereby resulting in an increase or decrease of liabilities. Employer contributions to be paid to the defined benefit plans during fiscal year 2021 are expected to amount to €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 associated entity 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 based on fixed interest rates or expected variable interest rates taking into account the principal repayment schedules. To this end, the applicable interest rates (e.g. Libor, Euribor), the applicable margins, and the effects of related interest rate swaps were taken into consideration.

³ Other long-term obligations consist mainly of production asset acquisition commitments, take-or-pay utilities contracts and intangible asset acquisition commitments.

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, 2020, we were in compliance with all covenants under the Amended 2012 Credit Agreement and our other financing agreements. For information regarding our Amended 2012 Credit Agreement, bonds and the Accounts Receivable Facility, [SEE NOTE 14](#) of the notes to consolidated financial statements.

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 risk. 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 "Results of operations" above). If the conditions in the capital markets worsen, this could increase our financing costs and limit our financial flexibility.

At our Annual General Meeting scheduled to be held on May 20, 2021, our General Partner and our Supervisory Board will propose to the shareholders a dividend of €1.34 per share for 2020, payable in 2021 (for 2019 paid in 2020: €1.20). The total

expected dividend payment is approximately €392 M compared to dividends of €351 M for 2019 paid in 2020.

Our principal financing needs in 2021 relate to repayments of bonds due in February 2021, which were already pre-financed by the bonds issuance in September 2020, as well as amortizations under our Amended 2012 Credit Agreement. The dividend payment in May 2021, 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.

Net assets

Our total consolidated assets in the past fiscal year were €31,689 M, a decrease of €1,246 M (4 %) over the prior year, including a negative foreign exchange impact of 8 %.

Non-current assets decreased by €1,356 M (5 %) to €24,414 M in 2020 and represented 77 % of total assets (2019: 78 %). This decrease includes a negative foreign exchange impact of 7 %. Moreover, non-current assets increased primarily as a result of investments in property, plant and equipment and capitalized development costs as well as an increase in rights of use under leasing agreements, partially offset by a goodwill reduction due to the Impairment Loss in the Latin America Segment.

Current assets increased by 2 % to €7,275 M. This was mainly the result of increased cash and cash equivalents related to U.S. federal relief funding and advance payments under the CARES Act and other COVID-19 relief, as well as increased other current assets mainly due to increased advance payments on invoices. Furthermore, increased finished goods driven by

greater demand for specific products and higher safety inventory levels, both as a result of COVID-19, contributed to that increase. These were partially offset by a negative foreign exchange impact of 10 % and a decrease in trade accounts and other receivables from unrelated parties.

Total liabilities were €19,358 M at December 31, 2020, a decrease of €350 M (2 %), including a positive foreign exchange impact of 6 %, from €19,708 M in 2019. This decrease was primarily the result of the reduction in short-term debt and the current portion of long-term liabilities. This was partially offset by the increase in other non-current liabilities as well as current provisions and other non-current liabilities, driven by advance payments received under the Medicare and Medicaid Accelerated and Advance Payment program (€852 M), which were recorded as contract liability upon receipt and recognized as revenue when the services are provided.

Current liabilities account for €1,088 M of our debt, a decrease of €1,531 M (58 %), including a positive foreign exchange impact of 3 %, from €2,619 M in the prior year. Furthermore, the decrease of short-term debt from unrelated parties was mainly a result of repayments under the commercial paper program, the equity-neutral convertible bonds, the U.S. dollar-denominated bonds and a euro-denominated term loan under the Amended 2012 Credit Agreement. The decrease was partially offset by the reclassification of U.S. dollar and Euro-denominated bonds to the current portion of long-term debt, as these will mature in 2021.

Long-term debt increased to €6,800 M from €6,458 M in the prior year, an increase of €342 M (5 %), including a negative foreign exchange impact of 4 %. Furthermore, the increase of long-term debt was mainly a result of the issuance of bonds with a total volume of €1,250 M and \$1,000 M. It was partially offset by the reclassification of U.S. dollar-denominated bonds and euro-denominated bonds as well as the quarterly repay-

ments of the remaining term loans under the Amended 2012 Credit Agreement to the current portion of long-term debt, the repayment of revolving loans under the 2012 credit agreement and the reduction of the Accounts Receivable Facility.

Shareholders' equity decreased by 7 % to €12,331 M. The decrease was driven by a negative foreign exchange impact of 11 %, purchases of treasury stock as part of a share buy-back program, dividend payments and distributions to non-controlling interests. It was partially offset by the consolidated earnings and changes in fair value of equity and debt instruments measured at fair value through other comprehensive income. The equity to assets ratio decreased to 39 % at December 31, 2020 from 40 % at December 31, 2019, primarily as a result of the decrease in Equity as well as the increase in long-term debt as well as in current provisions and other current liabilities related to U.S. federal relief funding and advance payments under the CARES Act and other COVID-19 relief. This was partially offset by a decrease in short-term debt and the current portion of long-term debt.

At Group level, ROIC decreased to 5.8 % at December 31, 2020 from 6.1 % at December 31, 2019, driven by the Impairment Loss in the Latin America Segment. Excluding the Impairment Loss as well as excluding both the Impairment Loss and IFRS 16, ROIC was 6.6 % and 7.5 %, respectively, at December 31, 2020 (see reconciliation in section "Performance management system", "Return on invested capital" on [PAGE 27](#)). Goodwill, included in the item invested capital, has a significant impact on the calculation of the ROIC. The weighted average cost of capital (WACC), including weighted risk premiums for country risks, was 5.5 %.

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

Management's general assessment

In 2020 we achieved our revenue and net income targets despite the COVID-19 pandemic. Therefore, we are proposing our 24th consecutive dividend increase.

While reported earnings in Q4 were negatively impacted by the impairment in the Latin America Segment and accelerated excess mortality due to COVID-19, we are on track regarding the growth in home dialysis. In order to maintain safe operations during the pandemic we have taken comprehensive measures that have resulted in significantly increased costs in the Dialysis Services business. Through governmental support, in particular in the U.S., accelerated efficiency measures and a strong products business development, we managed to largely compensate these costs.

At the time this Management Report was prepared, the Management Board continued to assess the results of operations, financial position and net assets of Fresenius Medical Care as positive, even though the effects of the increase in excess mortality cannot be compensated. This will affect our earnings development in 2021. To support its 2025 strategy, further strengthen profitability and compensate for the negative earnings effects of the COVID-19 pandemic, Fresenius Medical Care will launch its FME₂₅ program. We confirm our 2025 targets that are based on the Company's mid-term strategy.

SUBSEQUENT EVENTS

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

OUTLOOK

The outlook describes how Fresenius Medical Care expects to perform in fiscal year 2021. These statements take into account all events known at the time the financial statements were prepared which could affect the development of our business in 2021.

BUSINESS POLICY

Fresenius Medical Care is the world's leading provider of products and services for individuals with renal diseases based on publicly reported revenue and the number of patients treated. We aim to further expand this position in the years ahead. Our products and health care services are at the core of our strategy. To take it to the next level until 2025, we will concentrate on three key areas: the renal care continuum, critical care solutions, and complementary assets. Aspects of the renal care continuum include new renal care models, value-based care, chronic kidney disease and transplantation, and future innovations. Over the next few years, we will use our competence in the critical care business to address a variety of health challenges and continue to leverage our core competencies through partnerships, investments, and acquisitions. This approach constitutes our commitment to long-term sustainable development and growth. We have no plans to make significant changes to our business policy.

SECTOR-SPECIFIC ENVIRONMENT - DIALYSIS MARKET

The Company expects the number of dialysis patients worldwide to grow by about 3 % in 2021 depending on the further

development of the global COVID-19 pandemic. The accelerating effects of excess mortality due to the COVID-19 pandemic are continuing into 2021. The further development significantly depends on the adoption and speed of the roll out of vaccinations to our worldwide patient population. Fresenius Medical Care expects to have a significant adverse annualization effect on treatment volumes. Some significant regional differences are likely to remain: The Company anticipates below average growth rates in the U.S., Japan and Western and Central Europe. The number of patients with chronic kidney disease is already relatively high in these countries and regions and patients generally have reliable access to treatment, normally dialysis. In economically weaker regions we expect the growth rates partly to be considerably higher. We expect patient numbers to continue growing in the coming years - [SEE TABLE 2.39](#).

T 2.39 EXPECTED GROWTH IN PATIENT NUMBERS

	Growth 2021
North America Segment	0 % to 1 %
EMEA Segment	~2 %
Asia-Pacific Segment	~5 %
Latin America Segment	~(2 %)
WORLDWIDE	~3 %

Source: Internal estimates.

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

› **Demographic factors:** Demographic factors are one of the main reasons for the continued growth of dialysis markets. As average life expectancy rises worldwide, the share of older people in the population is also growing. However, kidney function deteriorates with age. Therefore, demographic change is an important indicator for the future number of

dialysis patients, which is expected to increase from around 3.7 M worldwide in 2020 to over 6 M in 2030.

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

Hemodialysis will remain the treatment of choice, accounting for 88 % to 89 % of all dialysis therapies. Peritoneal dialysis will continue to be the preferred treatment for 11 % to 12 % of all dialysis patients.

The volume of the worldwide dialysis market, which amounted to about €82 BN last year according to preliminary estimates, is expected to increase by around 1 % to 4 % per year. This is based on the assumption that exchange rates will remain stable in the forecasting period. The overall volume of the dialysis market could thus reach around €83 BN to €85 by 2021.

In addition, the reimbursement and ancillary services utilization environment significantly influences our business. In the U.S., our biggest sales market, the reimbursements of governmental institutions are lower than the reimbursements of pri-

vate insurers. Therefore, a change in the portion of reimbursements by private insurers in the U.S. influences our business.

KEY PERFORMANCE INDICATORS DEVELOPMENT OF FRESENIUS MEDICAL CARE IN 2021

Fresenius Medical Care's outlook for 2021 is at Constant Exchange Rates. Outlook 2021 is inclusive of anticipated COVID-19 effects and excluding special items. Special items include costs related to the FME₂₅ program and effects that are unusual in nature and have not been foreseeable or not foreseeable in size or impact at the time of giving guidance. These targets are based on the following assumptions:

- › excess mortality of dialysis patients to continue to accumulate in the first half of 2021
- › COVID-19-related additional costs to remain on high level
- › besides the extended suspension of the U.S. Medicare sequestration (until end of March 2021), no further public relief funding is assumed.

The growth rates are based on the results in 2020 excluding special item of Impairment Loss. For a reconciliation of the results 2020 to the results 2020 excluding special items as a basis for the targets 2021, [SEE TABLE 2.40](#).

Revenue

We expect revenue to increase at a low to mid single digit percentage rate at Constant Exchange Rates in 2021.

Revenue growth

We aim revenue to increase at a low to mid single digit percentage rate at Constant Exchange Rates in 2021.

Result of Operations

Operating income

We expect operating income to decline at a mid teens to low twenties percentage rate at Constant Exchange Rates in 2021. This decline for 2021 is based on operating income in 2020 excluding Impairment Loss.

Net income

We expect net income (net income attributable to shareholders of FMC AG & Co. KGaA) to decline at a high teens to mid twenties percentage rate at Constant Exchange Rates in 2021. This decline is based on net income in 2020 excluding Impairment Loss.

Net income growth

We expect net income (net income attributable to shareholders of FMC AG & Co. KGaA) to decline at a high teens to mid twenties percentage rate at Constant Exchange Rates in 2021. This decline is based on net income in 2020 excluding Impairment Loss.

Profitability

We expect ROIC excluding special items to be at least 5.0 % in 2021 compared to 6.6 % excluding Impairment Loss in 2020.

Dividend

Fresenius Medical Care intends to continue its profit-oriented dividend policy in principle.

The expected developments might be influenced by developments described in the risks and opportunities report starting on [PAGE 62](#).

Our Outlook for the financial year 2021 is summarized in [TABLE 2.41 ON PAGE 61](#).

T 2.40 RECONCILIATION OF RESULTS 2020 TO RESULTS 2020 EXCL. SPECIAL ITEMS AS A BASIS FOR TARGETS 2021
 IN € M

	Results 2020	Impairment Loss	Results 2020 excl. Special items
Revenue	17,859		17,859
Operating income	2,304	195	2,499
Net income ¹	1,164	195	1,359

¹ Net income attributable to shareholders of Fresenius Medical Care AG & Co. KGaA.

T 2.41 OUTLOOK KEY PERFORMANCE INDICATORS 2021

	Results 2020	Outlook 2021 (at Constant Currency, except for ROIC)
Revenue ¹	€17,859 M	growth: low to mid single digit percentage rate
Revenue growth at Constant Currency ¹	-	growth: low to mid single digit percentage rate
Operating income ¹	€2,499 M	decline: mid teens to low twenties percentage rate
Net income ^{1,2}	€1,359 M	decline: high teens to mid twenties percentage rate
Net income growth at Constant Currency ^{1,2}	-	decline: high teens to mid twenties percentage rate
ROIC in % ^{1,3}	6.6	≥ 5.0

¹ Outlook 2021 is inclusive of anticipated COVID-19 effects and excl. special items. Special items include costs related to the FME₂₅ program and effects that are unusual in nature and have not been foreseeable or not foreseeable in size or impact at the time of giving guidance. The growth rates are based on the results 2020 excl. special item of Impairment Loss. For a reconciliation of results 2020 to results 2020 excl. special items as a basis for targets 2021, see TABLE 2.31 ON PAGE 51.

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

³ Results 2020: excl. Impairment Loss. See calculation in chapter "Overview of the group", section "Performance management system" starting on PAGE 24.

FME₂₅: TRANSFORMING GLOBAL OPERATING MODEL TO STRENGTHEN PROFITABILITY

To support its 2025 strategy, further strengthen profitability and compensate for the negative earnings effects of the COVID-19 pandemic, Fresenius Medical Care will launch its FME₂₅ program. The program will focus on simplification of our operating model. This shall include streamlining and transforming our global operating model, applying learnings from the "new normal" and accelerating the digitalization agenda. Until 2025 we plan to invest up to €500 M in our FME₂₅ program to sustainably reduce the cost base. We expect for each euro invested in FME₂₅ to sustainably reduce the annual cost and minimally improve operating income by the same amount by 2025.

FINANCIAL TARGETS: 2020-2025

As part of the 2025 strategy, Fresenius Medical Care is aiming for growth rates (SEE CHART 2.42) over the next five years:

C 2.42 OUR FINANCIAL TARGETS: GUIDANCE 2020 - 2025¹

¹ at constant currency excluding special items

MANAGEMENT'S GENERAL ASSESSMENT

The excess mortality of dialysis patients due to the COVID-19 pandemic is expected to continue in 2021 and to have a significant adverse effect on treatment volumes. This of course affects the utilization of our clinics network. The further development of the excess mortality rate strongly depends on the increasing number of vaccines being approved, the adoption and speed of the roll out of vaccinations to our worldwide patient population. We also expect additional COVID-19 related costs, in order to protect patients and employees and maintain safe operations.

Our business development will be materially affected by COVID-19 in 2021. To support its 2025 strategy, further strengthen profitability and compensate for the negative earnings effects of the COVID-19 pandemic, Fresenius Medical Care will launch its FME₂₅ program. We confirm the 2025 targets that are based on the Company's mid-term strategy, and we are confident to take our next step towards achieving our goal of providing health care for chronically and critically ill patients across the renal care continuum.

RISKS AND OPPORTUNITIES REPORT

As a company with global operations, we are naturally exposed to risks associated with our business activities. Ultimately, we can leverage opportunities for our business only if we are willing to take certain risks. Based on our many years of experience and our extensive knowledge of the markets, we are able to identify and assess risks and opportunities for our business.

RISK AND OPPORTUNITY MANAGEMENT

We see risk management as the ongoing task of determining, analyzing and evaluating the spectrum of actual and potential risks arising from our business operations in our environment and, where possible, taking pre-emptive and corrective measures. Our risk management system provides us with a basis for these activities. It enables management to identify risks that could jeopardize our growth or going concern and to take steps to minimize any negative impact. Accordingly, it is an important component of our management and governance.

In addition, we ensure our long-term success by actively managing opportunities. The aim here is to identify and assess opportunities as early as possible, and initiate appropriate measures so that opportunities can be turned into business success for Fresenius Medical Care. Long-term and medium-term opportunities are taken into account in our strategy and budget planning. We exploit opportunities that can be

implemented at short notice as part of ongoing business operations, provided this is meaningful and in line with our business targets.

RISK MANAGEMENT

Risk management system

The main objective of the risk management system is to identify potential risks as early as possible to assess their impact on business activities and enable us, where necessary, to take appropriate countermeasures. Due to constantly changing external as well as internal requirements and conditions, our risk management system is continuously evolving. In the past financial year, the completeness and validity of risk information within our risk management approach as well as its effectiveness was strengthened by the introduction of a formal process regarding the effectiveness review of countermeasures for certain risks as well as strengthening the interface between the compliance management system and the enterprise risk management system.

The organizational structure of our risk management as well as the previously described processes are shown in [CHART 2.43 ON PAGE 63](#).

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

As part of the risk management system, regional risk coordinators assume the task of coordinating risk management activities within the operating segments with the help of risk man-

agement software. These activities relate to existing and potential emerging short-term as well as medium-term risks. Semi-annually, identified risk information is processed by the risk coordinators and discussed in regional/functional risk committees. Subsequently, the central risk management function gathers the risks from regions and functions, analyses and discusses them in the corporate risk committee and communicates the compiled results to the Management Board. The focus during this process is on significant risks, which are above a defined threshold.

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

In addition to risk reporting, standard reporting to management is an important tool for managing and controlling risks, as well as for taking preventive measures in a timely manner. Therefore, 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 the 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 our departments, subsidiaries and IT 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 (IIA), which was confirmed by a quality assessment in 2017. The scope of internal auditing is widespread and involves, among other activities, periodic assessment of the effective-

ness of controls (including legal compliance controls) over business processes, IT security, the reliability of financial reporting and compliance with accounting regulations and internal policies. Our 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 2020 the Global Internal Audit department stopped onsite audits due to COVID-19 from March onwards and conducted all audits remote. A total of 40 audits were carried out. Risk focus areas were compliance, acquisitions and cybersecurity.

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

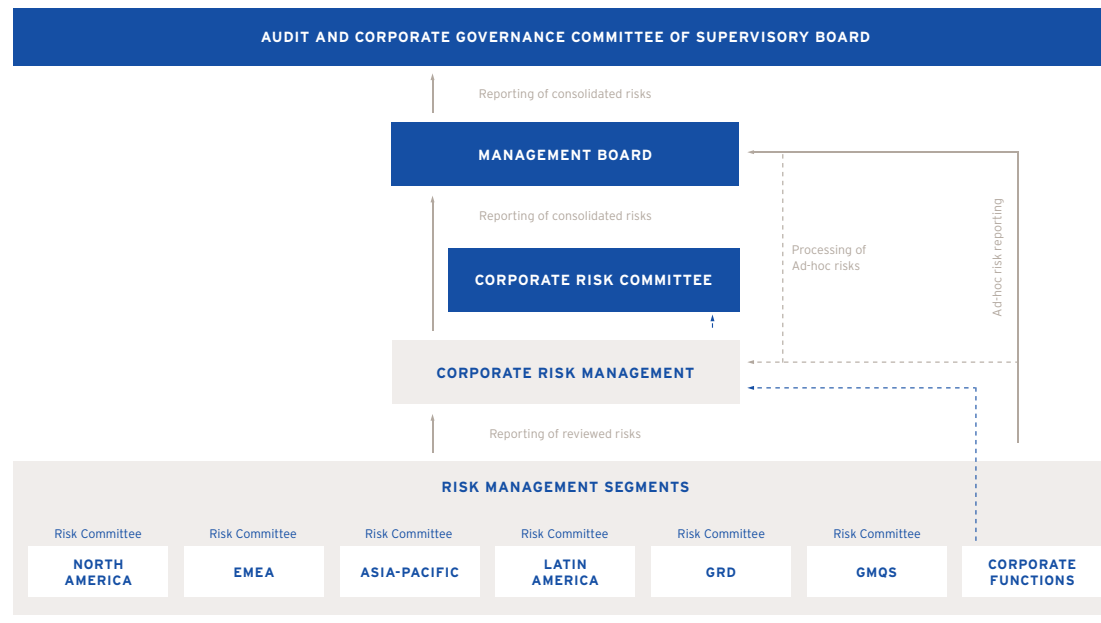
Internal control and risk management system for the Group's accounting process

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

The internal control system contains guidelines and instructions designed for the appropriate and accurate recording and presentation of Company transactions.

Further control mechanisms aimed at achieving reliable financial reporting and correct recording of transactions within the accounting and the consolidation process include automated and manual reconciliations, as well as the separation of certain personnel functions to prevent potential conflicts of interest. All process owners identify and assess the risks of their respective processes in terms of the implications for accounting and financial reporting. These process owners also determine that

C 2.43 RISK REPORTING



corresponding controls are in place to minimize these risks. Changes to accounting standards are discussed on an ongoing basis and considered in the preparation of the financial statements. Employees responsible for financial reporting are provided with regular training regarding changes in accounting standards. The consolidation is performed centrally by the department which is responsible for the group accounting. The basis for the consolidation is derived from reporting packages and sub-group consolidated financial statements prepared and submitted by local group entities. The preparation of reporting packages and sub-group consolidated financial statements is performed according to central requirements and guidelines.

As we are also listed on the New York Stock Exchange, it is required to adhere to the requirements of the U.S. Sarbanes-Oxley Act (SOX). Section 404 of this federal law stipulates that the management boards of companies listed in the U.S. are responsible for implementing and adhering to an effective internal control system to produce reliable financial reporting. Based on this requirement, the design and operating effectiveness of the internal control system over financial reporting are routinely tested and considered in regular internal audits. These criteria are also included in the review by our independent registered public accounting firm.

The internal control system over financial reporting follows the criteria of the COSO model, Internal Control - Integrated Framework (2013), which was developed by the Committee of Sponsoring Organizations of the Treadway Commission and is recognized as a standard by the Securities and Exchange Commission (SEC). In accordance with the COSO model, the internal control system over financial reporting is divided into five components: control environment, risk assessment, control activities, information and communication, as well as the monitoring of the internal control system. Each of these components is regularly documented, tested and assessed. We

aligned our internal controls to fulfill the requirements of the COSO model.

Our 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 whole Group. 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 a year to review regulatory developments and changes of relevant internal control requirements, to discuss possible control deficiencies, and derive further measures. In addition, in its meetings, the Audit and Corporate Governance Committee of the Supervisory Board is informed regularly of the results of management's assessment.

As of December 31, 2020, management assessed our internal control system over financial reporting and determined that our internal control over financial reporting as of December 31, 2020 is effective.

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

Risks

The following section describes significant risks which could have an impact on our business operations. In the course of the risk assessment an estimation of the risks takes place regarding the likelihood of occurrence and the potential impact in the

respective assessment period, allowing a prioritization of the risks into the classifications "low" "medium" and "high". Besides quantitative factors, especially qualitative factors are applied. For the identification of strategic developments, besides the short-term consideration (one year), risks can also be assessed in terms of a mid-term effect within the subsequent five years.

The scales for classification of potential impact and likelihood as well as the localization of the risks within the risk matrix are depicted in [CHART 2.44 ON PAGE 65](#). The risk areas as well as measures for mitigating the impact or the probability of occurrence of risks within these areas are described in the following section.

Sector-specific risks

Regulatory environment, product quality

Our operations in both health care services business and 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 anti-trust laws. The applicable regulations, which differ from country to country, cover areas that include:

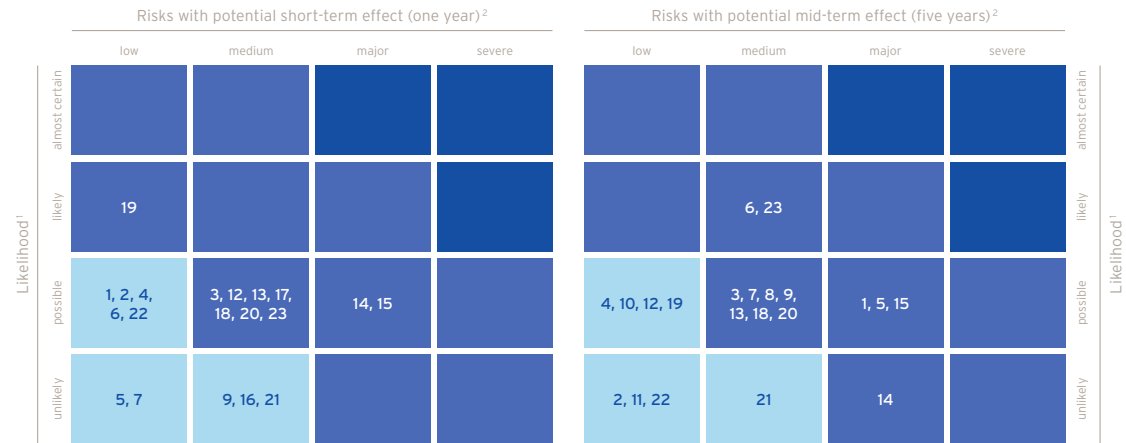
- › the quality, safety and efficacy of medical and pharmaceutical products and supplies;
- › regulatory approvals and oversight of clinical and certain non-clinical research and development activities;
- › product approvals and regulatory approvals for new products or product improvements;
- › the operation and licensure of manufacturing facilities, laboratories, dialysis clinics, ambulatory surgery centers and other health care facilities;

- › audits and reviews by enforcement authorities, including the Food and Drug Administration (FDA), for compliance with applicable drug regulations;
- › product labeling, advertising and other promotion;
- › accurate reporting and billing for government and third-party reimbursement including accurate and complete medical records to support such billing;
- › the discounting of reimbursed drug and medical device products and the reporting of drug prices to government authorities;
- › limits on our ability to make acquisitions or certain investments and the terms of those transactions;
- › the collection, dissemination, access, use, security and privacy of protected health information and other protected data;
- › compliance with due diligence, warranty obligations and product liability rules and
- › compensation of medical directors and other financial arrangements with physicians and other referral sources.

In addition to the risks from non-compliance with the regulatory environment, as a manufacturing company we face the risk that products, as a result of unsuitable product designs or issues in the production process, do not fulfill our standards of quality and could lead to the possibility of not achieving expected treatment results which may result in product recalls that might lead to significant adverse financial results or reputational damage.

If we fail to comply with one or more of these laws or regulations or incurs a quality incident, this may give rise to a number of adverse legal and financial consequences. These include, in particular, loss or suspension of governmental certifications, loss or suspension of licenses under the laws of governmental authority from which we generate substantial revenues, monetary and administrative penalties, recall actions and claims for damages, increased costs for compliance with government

C 2.44 RISKS WITH POTENTIAL SHORT-TERM EFFECT (ONE YEAR) AND MID-TERM EFFECT (FIVE YEARS)



RISK AREA

1	Regulatory environment	13	Personnel
2	Quality	14	Corruption and Fraud
3	U.S. federal health care programs	15	Information systems and business processes
4	Composition of our customer base	16	Liquidity and financing
5	Reimbursement by private insurers	17	Currencies and interests
6	Health care reforms	18	Litigation and potential exposures
7	Growth	19	Taxes
8	Competitors	20	International operations
9	Research and development	21	Unpredictable events
10	Intellectual Property	22	Global economic conditions and disruptions in financial markets
11	Referral practices	23	COVID-19
12	Procurement		

low risk medium risk high risk

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

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

orders, complete or partial exclusion from government reimbursement programs, refunds of payments received from government payors and government health care program beneficiaries due to any failures to meet applicable requirements or complete or partial curtailment of our authority to conduct business. In the end, these types of risks could no longer be insured. Including the considerable costs of legal defense, all the consequences mentioned above could have a material adverse effect on our business, results of operations and financial condition.

A number of the health care businesses in the U.S., that the Company operates, is owned or managed by entities in which one or more hospitals, physicians or physician practice groups hold an interest. We also have arrangements with physician practices to collaborate on our value-based arrangements with public and private payors. While the Company has structured its arrangements with physicians to comply with many of the criteria for safe harbor protection and waivers under the federal and state Anti-Kickback Statutes, its arrangements do not satisfy all elements of such safe harbor. If one or more of our arrangements, including value-based agreements were found to be in violation of the Anti-Kickback Statute or the Stark Law, 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 amounts pursuant to any prohibited referrals, and we could be subject to monetary penalties and exclusion from federal and state health care programs. Imposition of any of these penalties could have a material adverse impact on our business, results of operations and financial condition.

Compliance programs implemented in the regions reduce the risk of legal violations by providing general and specific rules of conduct and procedures as well as regular training of the employees according to the specifications. To ensure that our products and services comply with the quality requirements,

we implemented quality management systems in the different regions. The employees have access to procedures and work instructions to ensure that the applicable quality requirements are met. In addition, we conduct internal reviews of the production sites and clinics to monitor compliance with quality standards of our products and services. Furthermore, our plants and hospitals are also subject to external reviews by the relevant supervisory authorities.

U.S. federal health care programs

As stated in the report in section “Macroeconomic and sector-specific environment” of chapter “Economic Report” starting on [PAGE 38](#), our dialysis clinics in the US participate in the Quality Incentive Program (QIP) within the End-Stage Renal Disease (ESRD) prospective payment system (PPS). Payment reductions of up to 2 % of Medicare reimbursements based on previous year’s performance can be made if the quality standards of the QIP are not met in the clinics. Should we fail to meet the QIP’s minimum requirements to a greater extent, this could have a material adverse effect on our business, financial condition and results of operations.

Through our value-based agreements and 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. We currently participate in the “Comprehensive ESRD Care initiative” of the Centers for Medicare and Medicaid Services (CMS) as well as in remuneration agreements with insurers under which we receive fixed periodic payments to cover all, or a defined amount of treatment costs, for a defined population of patients (Details and detailed descriptions of the above mentioned and other programs in which we participate can be found in the report in section “Macroeconomic and sector-specific environment” of chapter “Economic Report” starting on [PAGE 38](#)).

Under CMS’s Comprehensive ESRD Care Model, dialysis providers and physicians can form entities known as ESRD Seamless Care Organizations (ESCOs). ESCOs that achieve the program’s minimum quality thresholds and generate reductions in CMS’s cost of care above certain thresholds for the ESRD patients covered by the ESCO will receive a share of the cost savings. However, ESCOs may also owe payments to CMS if actual costs of care rise above set thresholds.

The profitability in our value-based agreements and risk products is dependent in part upon our ability to negotiate favorable financial terms, 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.

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

Although efforts to repeal the Affordable Care Act (ACA) have been unsuccessful, further efforts to repeal or revise the ACA, including pending litigation seeking to declare the ACA as unconstitutional, may affect the project's future prospects in ways we currently cannot quantify or predict. We have applied, and were accepted, for participation in CMS' Comprehensive Kidney Care Contracting (CKCC) model. While those entities which were accepted have elected to participate in the implementation period beginning on October 15, 2020, each entity will elect, prior to April 1, 2021, whether to continue its participation at-risk beginning the first performance year. We do not yet know whether we and our partners will be able to deliver better health outcomes while lowering CMS' costs.

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

We mitigated the impact of the ESRD PPS and the other legislative initiatives referenced above with two broad measures. First, we work with medical directors and treating physicians to make clinical protocol changes used in treating patients consistent with the QIP and good clinical practices, and we negotiate pharmaceutical acquisition cost savings. In addition, we achieved greater efficiencies and better patient outcomes by introducing new initiatives to improve patient care upon initiation of dialysis, increase the percentage of patients using home therapies and achieve additional cost reductions in its clinics.

Composition of our customer base

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

Reimbursement by private insurers

In the U.S. a portion of the dialysis treatments is reimbursed by private insurers and integrated care organizations; these reimbursements are in general higher than the reimbursements of the public health care systems. As a result, the payments we receive from private payors contribute a substantial portion of our profit. In 2020, approximately 36 % of our consolidated Health Care revenues were attributable to private payors in the North America Segment. If these payors succeed in lowering reimbursement rates in the USA, change the extent or conditions of their networks or if the portion of reimbursements by private insurers in general drops, this could result in a significant reduction in our revenue and operating profit. As of January 1, 2021, for the first time, all ESRD patients are eligible to enroll in Medicare Advantage plans. As a result, some patients with commercial coverage, may elect to move to Medicare

Advantage plans which generally pay less than other commercial plans. In addition, the health care insurance industry is experiencing continuing consolidation among insurers and pharmacy benefit managers, including increasing buyer power and impacts on referral streams. This may have an adverse impact on our ability to negotiate favorable coverage terms and commercially reasonable rates with such insurers.

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

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

Health care reforms

A number of governments have been considering proposals to modify their current health care systems to improve quality of and access to health care and to control costs. Policymakers in several countries are also considering reforms that could change the methodology used to reimburse providers of health care services. Furthermore, standards and regulations compulsory for providing dialysis service can be subject to extensive changes.

In fiscal year 2020, we derived approximately 32 % of our worldwide revenue from Medicare and Medicaid reimbursements in the U.S. Consequently, changes in legislation or reimbursement practices regarding e.g. the End-Stage Renal Disease Prospective Payment System (ESRD PPS), the Physician Fee Schedule, the Clinical Laboratory Fee Schedule, and the

Ambulatory Surgical Center Payment System could influence the volume of Medicare and Medicaid reimbursements for services provided and the insurance coverage.

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

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

In the U.S., the previous administration publicly announced its intention to pursue significant changes to existing health care insurance programs. Although that administration's efforts to repeal or replace ACA were unsuccessful and the current U.S. Administration has stated its intention to maintain and strengthen the ACA, the U.S. Supreme Court heard oral arguments in November 2020 regarding the constitutionality of the ACA. In addition, options to restructure the Medicare program in the direction of a defined-contribution, "premium support" model and to shift Medicaid funding to a block grant or per cap-

ita arrangement, with greater flexibility for the states, are also being considered.

In October of 2017, the U.S. 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 themselves by "silver loading", a practice whereby the premiums for silver-level plans were increased to offset the loss of CSR payments. Silver loading may also have mitigated the impact of premium increases to some low-income consumers by increasing their premium tax credits. In 2019 and 2020, all states either permitted or required silver loading. In 2017, several insurers sued the U.S. federal government to reinstate CSR payments. While the Biden administration is expected to reinstate CSR reimbursements and to limit states' access to waivers allowing silver loading, we cannot predict, the extent to which silver loading will continue or how the ongoing litigation over the U.S. federal government's obligation to pay the CSRs might be resolved. 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.

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

Risks relating to the Company's business

Growth

The health care industry experiences continuing consolidation particularly among health care providers. This development could adversely affect 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 to develop our core dialysis and non-core business depends, in part, on the appropriate strategic target selection, 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 and non-core business. Any or all of these factors generally could have a material adverse effect on our future growth, including growth of our product sales.

Competitors

We face numerous competitors in both our health care services business and dialysis products business, some of which may possess substantial financial, marketing or research and development resources. Competition from new and existing competitors and especially new competitive developments 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.

To ensure our permanent competitiveness, we work closely together with physicians and scientists. Important technologi-

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

Research and development

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

Referral practices

In providing services within our health care business, we depend upon patients choosing our health care facilities as the location for their care. Patients may select a facility based, in whole or in part, on the recommendation of their physician. Physicians and other clinicians typically consider a number of factors when recommending a particular dialysis facility, dialy-

sis home program, pharmacy, physician practice, vascular surgery center or urgent care center to an ESRD patient, including, the quality of care, the competency of staff, convenient scheduling, location and physical condition. Physicians may change their recommendations, which may result in the movement of new or existing patients to competing facilities, including facilities established by the physicians themselves. At most of our dialysis clinics and home programs, a relatively small number of physicians often account for the referral of all or a significant portion of the patient base. We have no ability to control these recommendations and referrals. If a significant number of physicians or other referral sources cease referring their patients to our facilities and home programs or stop purchasing or prescribing our dialysis products, this would reduce our health care revenue and could materially adversely affect our overall operations.

Intellectual property

One of the typical intellectual property risks faced by us is inadequate protection of sensitive knowledge in the form of patents for technologies and products we developed. This means that competitors could copy our products without incurring comparable development costs. Moreover, a loss of sensitive knowledge could occur due to industrial spying or insufficient employee-non-compete restrictions. In addition, we could infringe the patent of a competitor and thus be liable for damages; this could result in a ban on us further selling the affected product. An inadequate protection of our intellectual property could have an adverse impact on our financial condition and results of operations.

Procurement

Our business is dependent on the reliable supply of several raw materials and finished components for production and service purposes. If we are unable to obtain sufficient quantities of

these materials at times of limited availability of such materials, this could result in delays in production or loss of sales 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. In certain necessary cases products are obtained from a sole supplier. A failure of such a supplier could adversely affect our ability to manufacture, distribute or sell our products in a timely or cost-effective manner. Due to the stringent regulations and requirements of regulatory agencies we may not be able to quickly establish additional or replacement sources.

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

Personnel

Our continued growth in the health care business will depend upon the ability to attract and retain skilled workforce, including highly skilled nurses and other medical personnel. Competition for those employees is intense and shortages for these sought-after employees, such as nurses, or skilled engineers and research and development personnel, may increase our and recruiting costs and/or impair our reputation for produc-

tion of technologically advanced products. Moreover, we consider that future success in the provider business depends on the ability to attract and retain qualified physicians to serve as employees of or consultants to our health care services businesses. Our health care products business depends on the development of new products, technologies and treatment concepts to be competitive. Additionally, in recruiting, employing and retaining personnel we may be exposed to 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 mentioned, then our growth and results of operations could be adversely impacted.

Corruption and fraud

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

Beginning in 2012, we received certain communications alleging conduct in countries outside the United States that might violate the Foreign Corrupt Practices Act (FCPA) 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. On March 29, 2019, we entered into a non-prosecution agreement with the DOJ and a separate agreement with the SEC intended to resolve fully and finally the U.S. government allegations against us arising from the investigations.

In 2015, we self-reported to the German prosecutor conduct with a potential nexus to Germany and continued to cooperate with government authorities in Germany in their review of the conduct that prompted our and United States government investigations.

Since 2012, we have made and continue to make further significant investments in our compliance and financial controls and in our compliance, legal and financial organizations. Our remedial actions included separation from those employees responsible for the above-mentioned conduct. We are dealing with post-FCPA review matters on various levels. We continue to be fully committed to compliance with the FCPA and other applicable anti-bribery laws.

Further information on these investigations can be found in [NOTE 22](#) of the notes to the consolidated financial statements.

Information systems and business processes

As we continue to grow and introduce more international operations, our processes are increasingly complex. Accordingly, we

are more and more dependent on information and communication technologies and -systems to structure our processes and harmonize them between different regions. An insufficient design of those systems and business processes as well as insufficient resources could lead to non-availability of certain information, causing inefficient workflows, deficient internal and external communication and intransparencies regarding operations. A breakdown of these systems could temporarily lead to standstill of parts of our provider and product business and consequently cause heavy damages.

Additionally, cyber-attacks or privacy and data breaches regarding both our internal systems as well as systems of third-party service providers could result in the misappropriation or compromise of sensitive information. We and our third-party service providers gather and handle sensitive personal information of our patients as well as financial data in many regions of the world and thus need to adhere to various data protection and privacy regulations. Increased reliance on, and utilization of, telemedicine for delivery of healthcare services could increase this risk. Any loss, impermissible use, access or disclosure of this sensitive information or non-compliance with data protection and privacy related laws, regulations and standards could threaten our position in competition, our reputation as well as our ability to continue normal operations.

In May 2020, our IT systems were attacked which resulted in certain patient data being illegally published in Serbia. We immediately filed a complaint against the unknown attackers with the public prosecutor in Germany and we have contacted the patients who were affected by the illegal data publication as well as other relevant regulatory agencies and stakeholders. Furthermore, we intensified our efforts to implement response measures, which include for example Network monitoring for suspicious activity, endpoint threat protection and improvements in the back-up and data loss recovery plans. There was

no material impact to the financial condition and results of operations as a result of this attack.

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

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

Other risks

Liquidity and financing

The liquidity risk is defined as the risk that a company is potentially unable to meet its financial obligations or to fund other

purposes. Our Management Board manages the liquidity of the Group by means of effective working capital and cash management as well as an anticipatory evaluation of refinancing alternatives. Our Management believes that existing credit facilities, cash flow from operating activities and additional short-term borrowings are sufficient to meet our foreseeable demand for liquidity.

Furthermore, inadequate indebtedness could jeopardize the successful execution of our business strategy, increase our vulnerability to general adverse economic conditions as well as limit our ability to obtain necessary financing. At December 31, 2020 respectively December 31, 2019, the Group had financial debt and lease liabilities of €12.38 BN respectively €13.78 BN. Our credit agreements and notes include covenants that require maintaining certain financial ratios or meeting other financial tests. The covenants also restrict our ability to dispose of assets, incur debt, pay dividends and other restricted payments, create liens or make investments or acquisitions. The breach of any of the covenants could result in a default and acceleration of payments of the indebtedness, which would have an adverse effect on our business, financial condition and results of operations. We consider ourselves able to maintain the required financial ratios at present and in the near future.

Currencies and interests

We actively manage foreign currency and interest rate exposures that are part of our normal business activities. Risk management procedures for foreign currencies and interest rate exposures are based on strategies defined and, if necessary, adapted in close cooperation with the Management Board, including, for example, guidelines that cover all steps and levels of the risk management process. They define responsibilities for the determination of risks, the careful use of financial instruments for hedging purposes and for accurate financial reporting. The use of derivative instruments is restricted to

micro hedges which are used in order to hedge exposures that arise in the ordinary course of business. We do not enter into transactions for trading or other speculative purposes. We enter into transactions with banks, which generally have ratings in the "A" Category or better, as approved by the Management Board. The effectiveness of the hedging relationships of the hedging instruments and the hedged items is tested on a quarterly basis.

We enter 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. At December 31, 2020 no interest rate swaps were in place. At December 31, 2019, the notional amount of the euro-denominated interest rate swaps in place was €0 M.

Derivative foreign currency contracts are entered into for the purpose of limiting the exchange rate exposure from sales and purchases as well as lendings and borrowings between our subsidiaries located in different countries and reporting in different currencies. A large portion of the transaction exposures arise from sales of products from our subsidiaries in the euro region to other international business units. The aggregate notional amount of foreign currency hedge contracts as of December 31, 2020 was €1,672 M, primarily for hedging Euro exposure to the U.S. dollar and various other currencies. Economic hedges, which we use, are accounted for as recognized hedges in the consolidated financial statements, when necessary.

The estimation and quantification of transaction risks from foreign currencies is determined according to the statistical risk measure Cash Flow at Risk (CFaR). CFaR indicates the maximum amount of a potential loss of the forecasted foreign

exchange cash flow of the next twelve months that occurs with a probability of 95 %. As of December 31, 2020, our CFaR amounts to €59.6 M.

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

Litigation and other exposures

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

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

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

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

Taxes

We are subject to ongoing tax audits in the U.S., Germany 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.

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

International operations

We operate dialysis clinics in around 50 countries and sells a range of equipment, products and services to customers in around 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.
- › 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 could occur upon any withdrawal by the United States or other countries from unions, including the exit from major multilateral trade agreements or the imposition of retaliatory tariffs and other countermeasures in the wake of trade disputes.

- › We could experience transport delays or interruptions.
- › International growth and expansion into emerging markets could cause us difficulty due to greater regulatory barriers than in the United States or Western Europe, the necessity of adapting to new regulatory systems, and problems related to entering new markets with different economic, social, legal and political systems and conditions.
- › We may not prevail in competitive contract tenders.

We conduct humanitarian-related business directly or indirectly in sanctioned countries. In case of violation of applicable economic sanctions or export controls laws and regulations, we could be subject to enforcement actions, which 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.

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

Developments of this nature are continuously monitored and analyzed and response measures like the extension of local production capacities, the adaptation of product designs, organizational changes and various others are set in place based on case by case decisions.

Unpredictable events

We operate dialysis facilities or manufacturing facilities in many regions of the world, with diverse geographic, societal and economic conditions. Events such as natural disasters, terrorist attacks, political instability, epidemics as well as other unforeseeable events, could affect our services and our ability to deliver in a limited time and place.

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

Global economic conditions and disruptions in financial markets

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 U.S. and other government sponsored programs in the U.S. and other countries around the world.

Job losses or increases in unemployment rates may result in a smaller percentage of our patients being covered by employer

group health plans and a larger percentage being covered by lower paying government reimbursement programs. To the extent that public and private 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. These developments as well a devaluation of currencies and worsening economic conditions, including inflationary cost increases in various markets in connection with deteriorating country credit ratings also increase the risk of a goodwill impairment, which could lead to a partial or total goodwill write-off in the affected cash generating units, or have a negative impact on our investments and external partnerships.

In addition, these developments may have adverse effects in other risk areas like U.S. federal health care programs, health care reforms, reimbursement by private insurers, liquidity and financing, currencies and interest, as well as procurement and are reflected in the respective assessments.

Any or all of the abovementioned factors, or other consequences of the continuation, or worsening, of domestic and global economic conditions which cannot currently be predicted, could continue to have an adverse effect on our businesses and results of operations.

COVID-19

COVID-19 has resulted in a material deterioration of the conditions for the global economy and financial markets. The financial impact of COVID-19 on our financial condition and results as of and for the year ended December 31, 2020, has not been material.

Going forward, the COVID-19 pandemic may have an adverse impact on our operations, manufacturing, supply chains and distribution channels and increase our expenses, as a result of

impacts associated with preventive and precautionary measures that we, our suppliers, customers and other businesses or governments implement or impose on a local, regional, national or international level.

Given the already compromised health condition of typical dialysis patients, our patients represent a heightened at-risk population. Increased mortality rates in either the pre-end-stage renal disease patient population or in our ESRD patient population compared to the historical average are expected to materially and adversely affect our operating results for 2021. Patients suffering from end-stage renal disease generally have co-morbidities which has resulted, and may continue to result, in more of our dialysis patients requiring hospitalization. Also, it appears that COVID-19 has resulted in an increase in persons experiencing temporary renal failure in many areas in which we operate, and we expect to continue to incur additional staffing costs required to meet the resulting increased demand for dialysis treatment and/or to provide equipment and medical staff needed for emergency treatments, for example in hospitals. We expect negative effects through 2021 and in the mid-term on our business depending mainly upon the adoption and speed of the rollout of vaccinations.

Various governments in regions in which we operate have provided economic assistance programs to address the consequences of the pandemic on companies and to support health-care providers and patients. In the U.S., the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) has been enacted to mitigate certain adverse financial impacts of the pandemic, including impacts in the health care sector. Additional funding provided under the CARES Act and other COVID-19 relief provides some financial support to our business in the U.S. through suspension of the 2 % Medicare payment sequestration reduction from May 2020 to March 31, 2021, as well as through accelerated and advance payments of Medicare reimbursement and grants to defray expenses and mitigate the loss

of revenues related to the COVID-19 pandemic. However, these measures may not fully offset potential lost revenues and increased costs and we do not expect additional governmental assistance during 2021.

Further legislation and amendments to existing legislation intended to fight the COVID-19 pandemic and its adverse economic consequences may be enacted in the markets in which we operate. As the COVID-19 pandemic is prolonged, the risk of further government intervention or measures to counteract the pandemic could impact our business globally.

In addition, to the extent that the COVID-19 pandemic adversely affects our business, net assets, financial condition and results of operations, it may also have the effect of heightening many of the other risks described in this report.

Changes in the risk situation

We operate in a constantly changing environment. Accordingly, the risk situation is also subject to constant change.

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

One-year period:

Since all major commercial payor contracts are under agreement for greater than one year, the risk from reimbursement by private insurers (5) has decreased to a low risk.

The risk from health care reforms (6) is now considered a low risk, which is mainly a result of the decreased uncertainty with regards to reimbursements of Calcimimetics as they are now reimbursed at a fixed rate.

The risks regarding Research & Development risk (9) as well as tax issues (19) were assessed for the first time from a short-term perspective and are considered a low and medium risk, respectively.

The risk from global economic conditions (22) decreased to a low risk due to the write-off of goodwill for region Latin America.

An assessment of potential adverse impacts on operational, financial and strategic objectives that result from the COVID-19 pandemic and taken countermeasures (23) resulted in a medium risk.

Five-year period:

Increasing competitor activities in the areas of home dialysis, managed care and digital services increase risk from competitors (8) to a medium risk.

An assessment of potential adverse impacts on operational, financial and strategic objectives that result from the COVID-19 pandemic and taken countermeasures (23) resulted in a medium risk.

OPPORTUNITIES MANAGEMENT

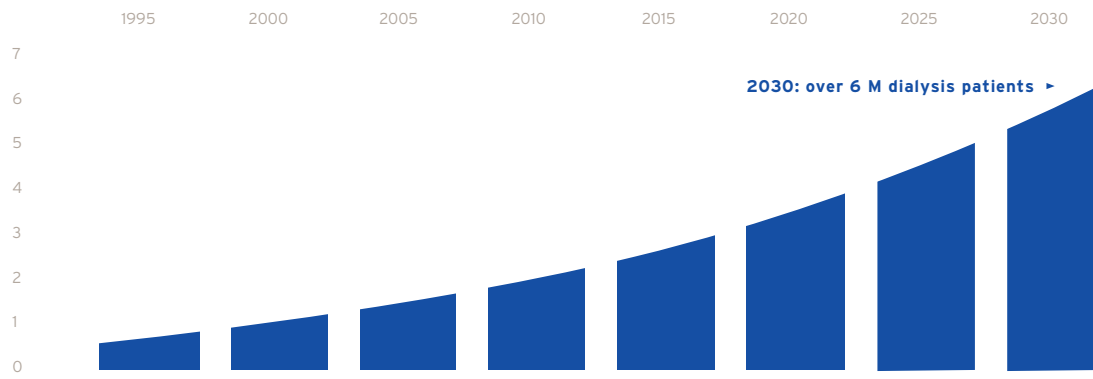
Opportunities management system

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

Opportunities

As a vertically integrated dialysis company, Fresenius Medical Care can offer almost all of the products and services that seriously and chronically ill patients require across the renal care continuum. Our network of 4,092 dialysis clinics in around 50 countries is the largest of its kind in the world. As a result, we possess valuable dialysis expertise that is unique in the industry. Thanks to this wealth of experience, we know that high quality is not only the key to a better quality of life for patients, but can also make a significant contribution to reducing the costs of health care. In this context, we are relying more than ever on digitization, which offers us new possibilities in kidney therapy, especially in the field of telemedicine and home dialysis. Numerous opportunities open up due to regenerative medicine, especially in the area of cell therapies, tissue engineering and transplants. Based on this understanding and our business model, major opportunities arise that could have a positive impact on the results of operations,

C 2.45 NUMBER OF DIALYSIS PATIENTS WORLDWIDE - FORECAST TO 2030 IN M



Source: Internal estimates

financial position and net assets of Fresenius Medical Care as things stand today. Unless otherwise stated, the opportunities mentioned apply to all segments.

Industry-specific opportunities

Growth in patient numbers and demographic development

The dialysis market is a growth market that is largely unaffected by common macroeconomic influences. According to estimates, the number of people worldwide suffering from chronic kidney failure and requiring dialysis treatment is rising at a rate of around 3 to 6 % annually. It is expected to reach around 3.8 M patients in 2021 and more than 6 M by 2030 (SEE CHART 2.45). Social trends play a role in this increase in patient numbers. In Europe and the U.S. in particular, they include the aging population and the increasing incidence of diabetes and

hypertension, two illnesses that frequently precede the onset of chronic kidney failure. In developing and emerging countries, the growing population and steadily improved access to dialysis as a result of increasing wealth are key factors that further boost demand for dialysis products and services. We want to continue to make a significant contribution to meeting this demand in the future.

Changes in legal and political conditions

Whether private companies are allowed to offer dialysis treatment and in what form depends on a country's health care system and its legal framework. For Fresenius Medical Care, opportunities arise to tap into new markets or to expand its market share whenever a country opens up to private dialysis providers. This decision is also increasingly influenced by the following factors:

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

Growing demand for holistic, value-oriented health care

As a result of increasing cost pressure and the growing number of patients, demand for holistic and value-based health care concepts for patients with chronic kidney failure is evolving worldwide. Value-oriented models are changing the role of health care providers: In systems of this kind, we not only offer dialysis, but also take responsibility for the patient's medical well-being beyond dialysis.

Value-based health care models help to deliver higher-quality treatment and better results at a lower cost. The aim here is to establish sustainable partnerships with payors around the world with the aim of driving forward the transition from fee-for-service payment to pay-for-performance models.

We have supported this development from the start, because we know the needs of our dialysis patients best. We have combined the coordination of all aspects of medical care in our "Care Coordination" business. This encompasses all services that help us to offer our dialysis patients treatment across the renal care continuum.

In 2019, the U.S. President signed an Executive Order on advancing kidney health. Among other things, it directs the U.S. Department of Health and Human Services to develop new Medicare reimbursement models. One of these, the ESRD Treatment Choices Model (ETC Model), is mandatory and

creates financial as well as other incentives for home dialysis treatments and kidney transplants. The final rule for the ETC Model was published in September 2020, comes into force in 2021, and provides fundamental opportunities for expanding home dialysis and kidney transplants, particularly in the U.S.

Expansion of home dialysis

If patient numbers grow as strongly as anticipated, cost pressure continues to rise and clinics reach full capacity, home therapies are expected to take on a more important role in dialysis, not only as a result of the ETC Model. This development could be advantageous for Fresenius Medical Care, as it presents us with growth opportunities. We offer a host of different products and innovative solutions for home dialysis. By acquiring the U.S. company NxStage, which develops, produces and markets dialysis machines and other products for home dialysis and intensive care, we have further expanded our home dialysis portfolio. Digital solutions in the field of telehealth and applications underpin our plans and are essential to be able to offer this form of therapy to more people. We focus firmly on the needs of our patients by presenting them with the widest possible range of therapy options. This gives them the freedom to choose what form of treatment is currently best for them. Self-determination is a key pillar of our vision to improve our patients' quality of life.

Opportunities related to our business operations

New products and technologies

Developing innovative products and technologies that deliver lasting added value for patients and remuneration systems right up until they are market-ready is another crucial factor in our long-term success. We advance dialysis-related innovations through our in-house research and development activities. In

addition, we are able to enhance existing products ourselves and adapt them to the markets in which we operate. We will continue to add innovative products and technologies to our range in the future to capture growth opportunities and meet the demand for integrated care as effectively as possible.

New forms of kidney therapy through digitalization

Digitalization is a great opportunity for us. We aim to develop new forms of kidney therapy with the help of digital technologies such as artificial intelligence, the Internet of Things and use of Big Data. In North America, for example, we collect over one terabyte of patient data every day to calculate risk models and forecast multiple treatment paths. This data enables us to assess the health of each patient more effectively. We can use the information not only to reduce negative outcomes for patients, but also to make costs, clinical workflows, production and development processes more efficient.

COVID-19 in particular has prompted a significant acceleration in the implementation of digital projects in telehealth and integrated health care. They are key to our ability to increase the share of home dialysis. We have already taken important steps with Kinexus, a digital solution that comprehensively connects our devices and our digital hubs for patients, providers and care teams. In addition, we are digitalizing numerous business processes to provide even better support for those working from home. This offers us greater flexibility at a lower cost.

Disruptive treatment options through regenerative medicine

We are investing in promising technologies and research approaches in the field of regenerative medicine, which we hope will present us with new, increasingly disruptive treatment options in the long term. The focus here is on cell therapies, tissue engineering and transplants.

As a result of our investment in Humacyte, we expect our patients to have fewer complications, infections and surgical procedures. Humacyte grows blood vessels from donated muscle cells in a bioreactor. Depending on the results of research trials, these blood vessels could provide safer and more stable vascular access and reduce catheter contact time for hemodialysis patients in the future. Beyond its use for dialysis access, the human acellular vessel (HAV) is also promising for treating peripheral arterial occlusive disease (PAOD) and traumas.

Fresenius Medical Care holds further participations in the field of regenerative medicine through Unicyte AG and Fresenius Medical Care Ventures GmbH. These have enabled us to expand our range of treatments in this area, particularly in early phases of chronic kidney disease. In addition, we have made substantial progress in the field of transplants through eGenesis, a company that has developed a multiplex platform based on the CRISPR/Cas9 technology. We expect this approach to enable safe and effective xenotransplantation, e.g. from pigs to humans.

Thanks to our extensive commitment to regenerative medicine, our aim is not only to provide state-of-the-art options for renal replacement in the future, but also to substitute the function of other organs. We are confident that patients with diabetes or cardiovascular diseases can also benefit from our innovative and transformative therapies.

Growing demand for critical care solutions

The number of patients requiring continuous renal replacement therapy to treat acute kidney failure is set to rise to 1.6 M per year by 2030. Fresenius Medical Care will expand its acute care portfolio to include other extracorporeal critical care therapy areas, such as the treatment of acute heart, lung and multi-organ failure.

Investments and complementary assets

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

We will supplement and strengthen our existing network where feasible through additional partnerships, investments and acquisitions in the field of research and development. This will help us to create added medical value while saving costs. The close collaboration between our Strategy and Planning departments and the managers responsible for our acquisitions means that we can identify suitable potential purchases worldwide at an early stage. It will allow us to build an even stronger and more resilient foundation for our future growth to 2025 and beyond.

Internal organization and procedures

Fresenius Medical Care benefits from a number of long-term opportunities in the way it is organized and designs its business operations. For example, all production sites follow the lean manufacturing approach. In North America and at our Schweinfurt plant, this includes the Lean Six Sigma management system. The focus of lean manufacturing and Lean Six Sigma is on continuously improving manufacturing processes to achieve a low defect rate and, consequently, better product quality while reducing manufacturing times. In addition, constantly improving business processes and rigorously optimizing cost struc-

tures will allow Fresenius Medical Care to become even more profitable and competitive. Thanks to its global efficiency program, the Company has brought about a continuous and sustainable increase in efficiency.

Sustainability

To identify, assess and capture the opportunities associated with sustainability, Fresenius Medical Care continuously analyzes key economic, social and environmental issues. In doing so, we look at the entire value chain of our business activities. Developing an effective global sustainability management system is an opportunity for us to embed sustainability in our business activities systematically and structurally. Our sustainability management system helps us to maintain our reputation and acceptance in society and to meet increased demand for sustainability in our business operations from key interest groups. This results in further opportunities for Fresenius Medical Care to position itself as a reliable, efficient partner and an attractive employer.

Fresenius Medical Care's business model

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

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

Our risk management system forms the basis for assessing overall risk. The overall risk position of Fresenius Medical Care is determined by the individual risks described above. Changes in the Group's risk situation compared to the previous year occurred as stated in the paragraph of the same name starting on [PAGE 74](#). As far as we are aware, there are currently no risks that could endanger the continued existence of Fresenius Medical Care. In the course of the Company-wide review as part of the integrated management system, we also monitor the effectiveness of the implemented risk management system and make improvements where necessary. The Management Board will continue to expand our risk management as well as the review of the associated management system to be able to identify, examine and evaluate potential risks even more quickly and initiate appropriate countermeasures. We believe that we have taken all necessary organizational steps to recognize potential risks early on and to respond to them appropriately.

We furthermore remain confident that our integrated global business model and our earning power provide us with a sound basis for our business development, allowing us to capture the opportunities arising for the Company. In view of our leading position in the dialysis market, our innovative strength, our dedicated staff and our structured processes for identifying risks early on and managing opportunities, we are convinced that we can continue to make the most of any opportunities that arise for our business in a responsible manner in the future.