

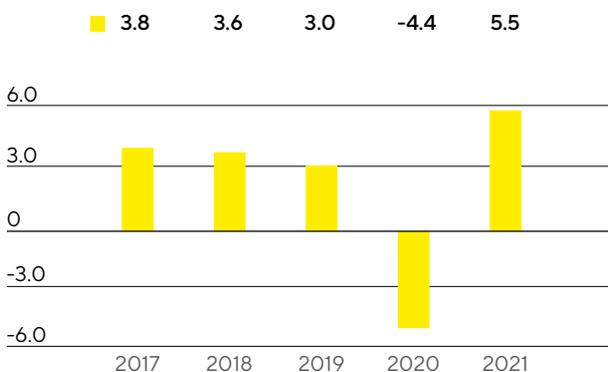
# Forecast Report

## Future Macroeconomic Environment

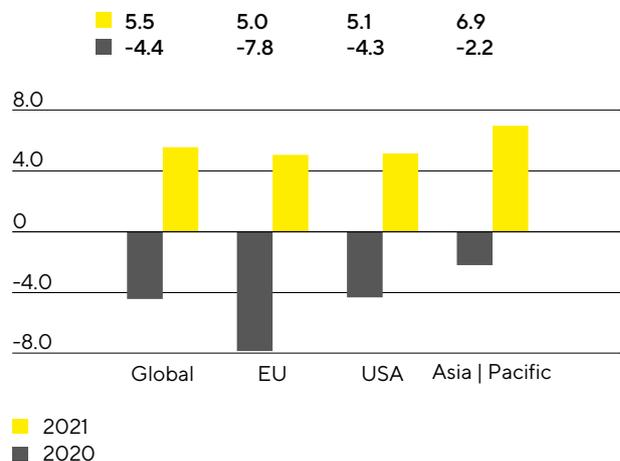
The coronavirus pandemic and the measures taken to contain it triggered a strong recession in 2020. The forecast for this year is therefore subject to greater uncertainty than usual and substantially depends on the further course of the pandemic as well as from the type and extent of the protective measures and their impact on the economic sectors. Unexpected progress or setbacks in the production as well as administration of coronavirus vaccines or with respect to their efficacy (against different virus mutants) would have a major impact on the assumptions upon which this forecast is based and could entail a different outcome. For the current year, the International Monetary Fund (IMF) expects the global economy to return to the growth track. Economic output is projected to increase globally by 5.5% following the prior-year decline by 4.4%. The IMF assumes that recovery in the particular national economies will proceed unevenly at different rates and be prone to setbacks. In 2021, industrialized countries are likely to grow by 4.3% (2020: -5.8%), whereas the increase in emerging and developing countries is forecasted to be stronger at 6.3% (2020: -3.3%).

The IMF expects growth of 5.0% in the EU after -7.8% in the reporting year. The German economy, the largest in Europe, is projected to accelerate by 3.5% (2020: -6.0%), and further European economies important for Sartorius are also likely to rebound, such as France (2021: +5.5%; 2020: -9.8%) and the United Kingdom (2021: +4.5%; 2020: -9.8%).

**Global Development GDP**  
in %



**Gross Domestic Product by Region**  
in %



Source: International Monetary Fund

According to current estimates, the U.S. economy is projected to grow by 5.1% in 2021 following the prior-year losses of 4.3%. Risks arise from the sharp increase in unemployment figures resulting from the coronavirus crisis, and these numbers could further weigh on private consumption that is particularly important for the U.S. economy. The recently observed slowdown in investment activity by U.S. companies is also likely to worsen in view of the country's debt situation.

The Asia-Pacific economic region is forecasted to grow this year by around 6.9% (2020: -2.2%), fueled especially by the expanding economy of China and the recovery of economic activity in India. According to the IMF's forecast, GDP in China is likely to grow again by 8.1% (2020: 1.9%), and India, which was hit particularly hard by the pandemic in the previous year, is also expected to see a significant increase of 11.5% (2020: -10.3%).

Other countries important for Sartorius in this region are also estimated to return to the growth path. For South Korea, growth is forecasted at 3.1% (2020: -1.9%) and for Japan, at 3.1% as well (2020: -5.3%).

## Exchange and Interest Rate Trends

Experts predict that the base interest rates will remain unchanged at a low level in 2021 as well.

The market consensus on the exchange rate of the euro to the U.S. dollar for the course of 2021 is that it will range between 1.15 euros to the U.S. dollar and 1.32 euros to the U.S. dollar.

Sources: International Monetary Fund, World Economic Outlook, October 2020; Bloomberg L.P., January 2021.

## Outlook for the Sectors

### Biopharmaceutical Industry Maintains Dynamic Growth

Strong, long-term trends drive growth in the pharmaceutical industry, which is almost entirely independent of business cycles. EvaluatePharma estimates that the global pharmaceutical market will grow by around 7% annually during the period up to 2026. The biopharma segment of the pharmaceutical market, which has been enjoying particularly strong growth for years, will continue to outperform the market. For the period of 2020 to 2026, the compound annual growth rate is projected to average about 10%. This would equate to an increase in market volume from the current level of €247 billion to €440 billion. The share of biological medications and vaccines in the total revenue generated by the global pharmaceutical market is forecasted to continue rising. Based on current information, the coronavirus pandemic is not expected to have any impact on long-term sector growth or thus on demand for products and technologies needed for the development and manufacture of biopharmaceuticals. However, suppliers of such technologies again anticipate additional sales in 2021 in connection with the development of a coronavirus vaccine and Covid-19 therapeutics. By contrast, demand in the coming years could be dampened by delayed approval of new medications due to the interruption of many clinical studies or by the reduction in inventories that were built up in the reporting year by some biopharma companies due to uncertainties related to the pandemic.

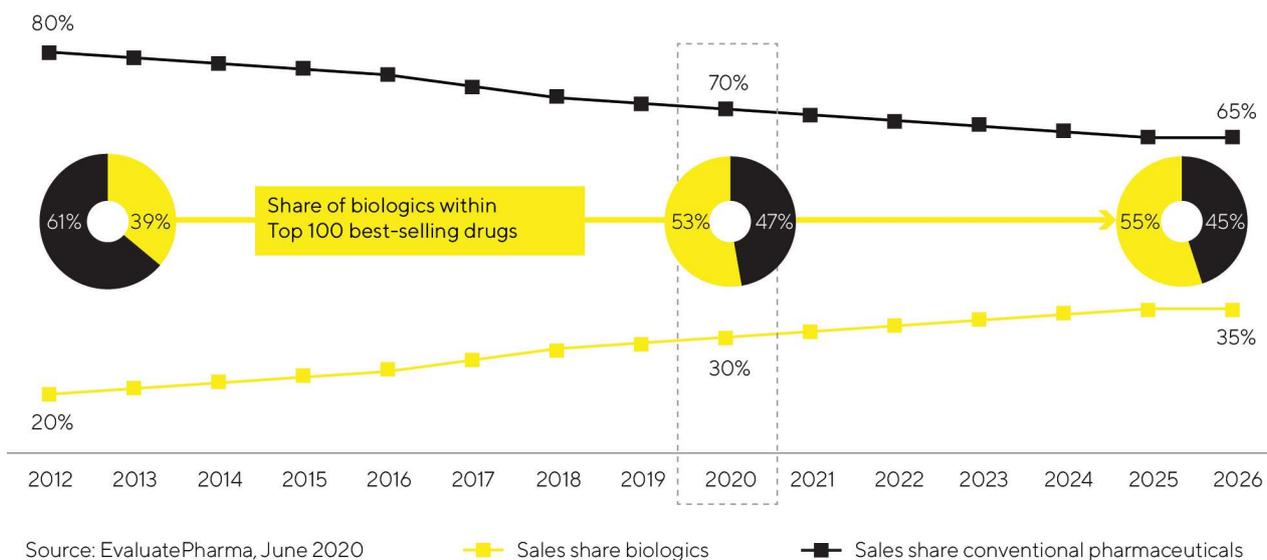
In the coming years, the most dynamic market will likely be China. Positive regulatory and political conditions, a constantly rising number of local biotech companies and increasing demand for advanced biopharmaceuticals have been fueling above-average growth for several years now. This trend could continue as a result of the huge amount of catch-up potential in the market and the improved availability of biotech medications. Considerable growth in the United States and Europe is also anticipated, driven in particular by a growing need for medications for aging societies and by the rising number of chronically ill and multi-morbid patients. In addition, more and more medications are being approved. For example, biologics are increasingly being used in yet-to-be fully explored therapeutic areas and in the treatment of rare diseases that have so far been incurable. The biopharmaceutical industry is increasingly relying on advanced therapies, such as gene and cell therapeutics and biotechnologically processed tissue products. At the end of 2020, there were over 1,000 clinical studies based on such treatment approaches so this field offers significant growth potential over the mid to long term. Innovative types of therapy for regenerative medicine and new substance classes, such as antibody-drug conjugates (ADCs), are increasing the number and range of approved biopharmaceuticals as well as necessitating investments in innovative production technologies. As a result, they are key growth drivers.

This relatively young biopharma segment is driving sector growth with its high innovative power, as reflected in the strong research and development pipelines. Of the estimated 10,000+ medications in R&D pipelines,

more than 40% are based on biological manufacturing processes. These include more than 1,600 biosimilars and biobetters, which are generic versions of reference biologics with comparable or better efficacy or fewer side effects than the original compounds.

Biosimilars are contributing increasingly to the growth of the biotechnology market. Current estimates indicate that by 2024, the market could grow by an annual average of 30% and reach a volume of around €41 billion. The significantly lower prices of biosimilars, particularly in emerging and developing countries, are creating new, affordable therapy options and are projected to result in increased demand and rising production volume. The development of national production capacities to meet the growing demand for medications is receiving political support in these countries and is driving the establishment of local biotech companies. The biosimilars market in industrialized countries is also likely to expand considerably in the coming years due to the expiration of patents for high-selling biopharmaceuticals and an increasing number of approved biosimilars. While generic medications have been widely used in Europe for many years and have been able to gain significant market share in some areas, their development in the United States until now has been rather sluggish due to regulatory, patent and marketing challenges. However, according to the data provided by the IQVIA research institute, development of biosimilars is likely to accelerate in the coming years. Further market penetration of biosimilars could accordingly quintuple their sales volume by 2024.

### Biopharmaceuticals Are Gaining Importance – Growing Share of Sales in the Global Pharmaceutical Market



The biopharmaceutical industry must meet growing demand for medications while producing an increasing number of approved drugs and ensuring new types of therapy. For these reasons, industry observers expect that worldwide bioreactor capacities will continue to expand in the years to come. At the same time, the industry faces rising cost pressure. This increases the significance of innovations for boosting flexibility and efficiency in biopharmaceutical research and production. In the future, the biopharmaceutical market will shift away from a low number of especially high-selling medications that account for a majority of total production volume towards an expanding range of products for smaller groups of patients. Technological progress leads to ongoing improvements in the productivity of biopharmaceutical production processes. Therefore, according to the research and consulting institute BioPlan, manufacturers will likely rely increasingly on flexibly deployable single-use technologies for the commercial production of many new medications. Particularly in the case of relatively small batches, single-use technologies already ensure more cost-effective production than conventional stainless steel units. In addition, more and more pharmaceutical companies are relying on digitalization and automation as well as on innovative software solutions for controlling and optimizing their processes. A further trend is process intensification in which several process steps, called unit operations, are

interconnected and a smooth transition is created, among other things, in order to manufacture larger product quantities faster while simultaneously achieving higher quality.

## Recovery of the Laboratory Market Expected

According to several independent analysts, the market for laboratory instruments and consumables is expected to grow by about 3% to 4.5% annually in future years. During the reporting year, the coronavirus pandemic and the containment measures associated with it significantly dampened the development of this market. In 2021, growth is expected to pick up as a result of the effects of catch-up demand and weaker prior-year comparables. The greatest demand should continue to come in particular from the pharmaceutical and biopharma industry as a result of continuous research into and approval of new medications, the high momentum of scientific and technological innovations and of strong growth in China. For instance, Evaluate Pharma estimates that sector-specific research spending will climb annually by 3.2% during the period of 2020 to 2026.

Budget increases for academic and public-sector research institutions in some countries are also expected to stimulate growth. On the other hand, the pandemic and potential lockdowns or production suspensions as well as an unexpected further weakening of global economic growth could put demand at risk in industrial end markets. Market observers continue to expect Asian countries like China and India to generate the highest growth rates. Stricter regulatory requirements in a range of industries are also stimulating increased demand for instruments used in sample analysis and quality control. Investments in laboratory infrastructure are becoming more attractive, particularly in China as a result of improved protection of intellectual property rights and government-supported efforts to promote innovativeness in several key industries.

Sources: BioPlan: 17th Annual Report and Survey of Biopharmaceutical Manufacturing Capacity and Production, April 2020; Daedal Research: Global Biologics Market: Size, Trends & Forecasts, December 2020; IQVIA Institute: Global Medicine Spending and Usage Trends, March 2020; IQVIA Institute: German-language publication "Fokus Biosimilars", May 2020; Evaluate Pharma: World Preview 2020, Outlook to 2026, July 2020; SDi: Global Assessment Report 2018, February 2018

## Outlook for 2021

Sartorius plans to grow profitably again in 2021, with consolidated sales revenue projected to increase by 19% to 25%. Initial consolidation of the acquisitions is expected to contribute about 5.5 percentage points to this growth; the impact of the pandemic-related businesses on Group revenue is difficult to estimate at the present time and is likely to amount to up to 6 percentage points. Regarding profitability, the company forecasts that its underlying EBITDA margin will be about 30.5%, up from 29.6% a year earlier. The impact of acquisitions on this margin is forecasted to be at a negligible level.

Due to dynamic organic growth, Sartorius is extending and accelerating the expansion of production capacities and its digital infrastructure. As a result, the CAPEX ratio is expected to be around 15% (previous year: 10.3%).

Looking at the financial situation, management assumes that the ratio of net debt to underlying EBITDA will decrease to slightly below 2.5 at the end of fiscal 2021, without taking any potential acquisitions into account.

For the Bioprocess Solutions Division, the Executive Board expects sales to grow between 22% and 28%, with consolidation of the most recent acquisitions likely to contribute about 6 percentage points and the pandemic effects up to 8 percentage points. As for the division's underlying EBITDA margin, management forecasts a moderate increase to around 33% (previous year: 32.3%) after the underproportionate cost development as a result of the pandemic had additionally increased the margin in the prior year, especially in this division, and now that corresponding catch-up effects are included in this projection. The acquisitions are not expected to have any significant effect on the division's profitability.

The Lab Products & Services Division is projected to increase its sales revenue by 10% to 16%, with the most recent acquisitions expected to contribute around 5 percentage points to growth. Pandemic effects are not anticipated unless laboratories will be closed again as part of potentially very extensive lockdowns. For the division's underlying EBITDA margin, a substantial increase to about 23.0% is forecasted (previous year: 21.0%), with the most recent acquisitions expected to contribute around 0.5 percentage points.

All forecasts are based on constant currencies, as in the past years. In addition, the company assumes that the global economy will increasingly recover as the current year progresses and that supply chains will remain stable.