

Management Discussion and Analysis

Global Pharmaceutical Industry¹

The global pharmaceutical industry has risen to the challenge of the COVID-19 pandemic by developing effective vaccines and therapeutics and overcoming unprecedented supply chain disruptions. This is a true testament to the industry’s adaptability and resilience in the face of a global health crisis. While the industry is expected to return to pre-pandemic growth rates by 2024, uncertainties related to viral variants, vaccine distribution, economic and geopolitical factors may impact future growth.

Following a rebound in global medicine use in 2021 after the pandemic, growth slowed in 2022 and spending inched up from US\$ 1.42 Trillion to US\$ 1.48 Trillion. The global pharmaceutical spending is projected to grow by a CAGR of 3-6% between 2023 and 2027, to reach a total market size of approximately US\$ 1.9 Trillion. The growth is expected to be primarily driven by the COVID-19 vaccination and introduction of novel medicines. This will be offset by

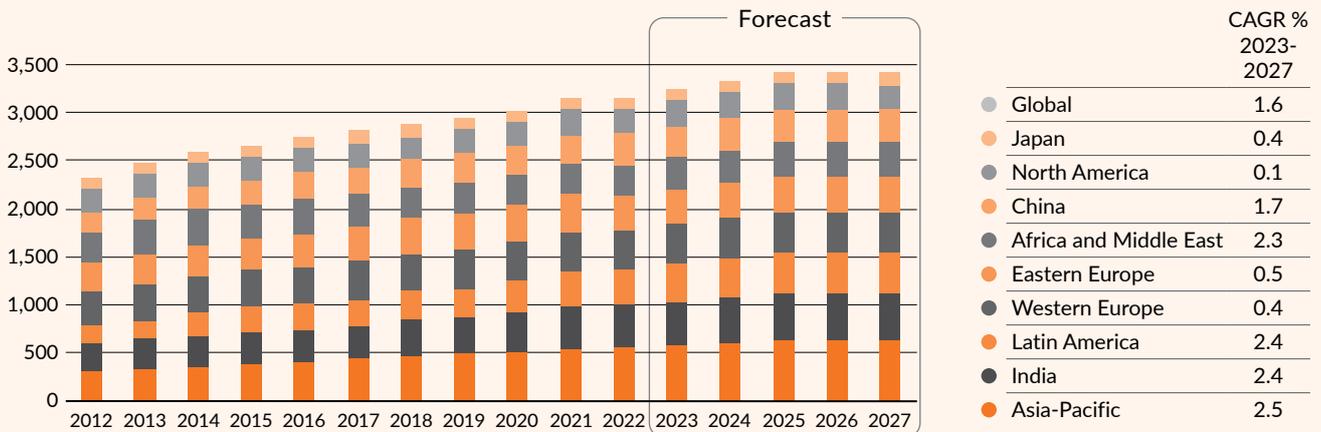
the loss of exclusivity and the lower costs of generics and biosimilars.

Regional spending and volume growth trends will continue to diverge with developed markets growing at a slower rate than Pharmerging markets**. US pharmaceutical spending is expected to grow at 2.5%-5.5% CAGR through 2027 helped by increased spend on existing medicines as well as introduction of new medicines. However, on a net price basis, the US market is forecast to grow at lower rate reflecting the impact of newly introduced Inflation Reduction Act. The Asia-Pacific region is projected to experience steady growth after the pandemic, while China is expected to see a slowdown in growth due to pricing pressures. It is expected that spending on pharmaceuticals in India will continue to increase at a CAGR of 7.5-10.5% to reach US\$35-39 Billion annually by 2027. Among other Pharmerging markets, Latin America and Eastern Europe are among the fastest-growing regions in terms of medicine spending globally.

Graph 1

Global Pharmaceutical Industry Growth: 2018-2027¹

(Defined Daily Doses in Billions)



Source: IQVIA Market Prognosis, September 2022; IQVIA Institute, December 2022.

** Includes Argentina, Bangladesh, Brazil, Chile, China, Colombia, Egypt, Hungary, India, Indonesia, Mexico, Pakistan, Philippines, Poland, Romania, Russia, Saudi Arabia, South Africa, Taiwan, Turkey, Ukraine, and Vietnam.



Global Pharmaceutical Market¹

Table 1

Regions	2022	2018-2022 CAGR	2027	(US\$ Billion)	
				2023-2027 CAGR	
Developed Markets	1,088	5.7%	1,370-1,400	2.5-5.5%	
Pharmerging Markets	371	7.2%	487-518	5-8%	
Other Markets	23	6.0%	29-33	4.5-7.5%	
Global Pharmaceutical Market	1,482	6.1%	1,900-1,930	3-6%	

Global Pharmaceutical Market – Share by Product Type¹

Table 2

Region	(% of Total)									
	Original Brands (%)		Non-original Brands (%)		Unbranded Generics (%)		OTC, Vaccines & Others (%)		Total (US\$ Billion)	
	2022	2027	2022	2027	2022	2027	2022	2027	2022	2027
Developed Markets	73	71-75	10	11-12	9	7-8	8	7-8	1,088	1,370-1400
Pharmerging Markets	28	26-31	34	30-36	13	12-13	25	22-27	371	487-518
Other Markets	33	27-37	47	36-55	6	6-10	14	8-19	23	29-33
Global Markets	61	60-62	16	17-19	10	8-10	13	11-13	1,482	1,900-1,930

Key Trends

Specialty Medicines: Specialty medicines that treat chronic, complex, and rare diseases have been increasing as a share of spending in higher-income countries. They are expected to be 43% of global spending by 2027. Pharmerging countries have lagged behind in usage of Specialty medicines mainly due to higher prices. Specialty medicines comprised 16% of Pharmerging countries drug spending in 2022, and it is expected to be unchanged as a share of spending in 2027.

Key Therapy Areas: The therapy areas with the highest spending forecast in 2027 are Oncology, Immunology, and Diabetes, followed by Cardiovascular System. Oncology is expected to grow 13–16% CAGR through to 2027 as novel treatments will continue to be launched in this category. Immunology is expected to grow relatively slower in the range of 3-6% due to the price erosion driven by launch of biosimilars. With nearly US\$ 168 Billion in revenues by 2027, Diabetes is expected to be the third-largest therapy area globally, with growth estimated to be 3–6% over the next five years. Most other therapy areas are expected to grow at lower growth rates through 2027 with the exception of Obesity. Availability of new highly effective treatments and wider global usage is expected to enable Obesity spending to grow at 35-38%.

Per Capita Consumption: Per capita use of medicines is directly correlated with GDP. Countries such as Japan and those in Western Europe have more than double the per capita medicine use of Pharmerging markets.

COVID-19 Impact: The COVID-19 pandemic has had a significant impact on the pharmaceutical industry, with global spending on medicines expected to exceed pre-pandemic projections by US\$ 497 Billion by 2027 due to new spending on COVID-19 vaccines and therapeutics.

One of the key growth drivers for the pharmaceutical industry is the increasing life expectancy. With declining fertility rates and improved healthcare, the proportion of elderly in the population is increasing. This demographic shift is driving demand for healthcare solutions that can address age-related health issues and chronic ailments.

Longer Life Expectancy

Another significant factor driving increased pharmaceutical spending involves people's lifestyle. Sedentary lifestyles, unhealthy dietary habits, hectic and stressful work habits, decreasing sleep quality and exposure to environmental factors are leading to a higher incidence of chronic and lifestyle related diseases. This shift is driving demand for relevant medical and pharmaceutical solutions.

Changing Lifestyle

Improved Purchasing Power

The middle-class population and per capita income are expanding, particularly in emerging markets. As purchasing power and awareness increases, patients can afford newer and more expensive treatments. This phenomenon has led to increasing spend on healthcare solutions, including pharmaceutical products.

Health Insurance and Infrastructure

The penetration of health insurance is expected to increase with government-sponsored initiatives and programmes, making healthcare more affordable and accessible to the population. This will drive demand for healthcare solutions. Additionally, improvements in healthcare infrastructure, including hospitals and clinics, will also drive demand for pharmaceutical products.

Innovation and Digital Adoption

Major technological shifts have encouraged the rapid adoption of advanced analytics in the pharmaceutical industry. Advanced analytics provide insights into customer behaviour, help in clinical trial design, and optimise the supply chain, driving growth and productivity across the pharma value chain. The use of digital technologies such as telemedicine and artificial intelligence (AI) enables remote diagnosis, personalised medicine, and drug discovery. These digital technologies and advanced analytics are expected to play a significant role in increasing the adoption of modern medicine.





Developed Markets

Growth in the pharmaceutical industry in developed markets is expected to be led by the introduction of new drugs. Specialty medicines are forecast to account for a significant portion, exceeding 55% of total spending in developed markets in 2027. However, pharmaceuticals in developed markets face challenges such as biosimilar competition and increasing number of patent expiries. Despite these challenges, the increasing adoption of specialty medicines is expected to persist, particularly in oncology and immunology.

Developed Markets – Pharmaceutical Spending and Growth¹

Table 3

Region/Country	2022	2018-2022 CAGR	2027	(US\$ Billion)
				2023-2027 CAGR
Top 10 Developed Markets	968.9	5.7%	1,207-1,237	2.5-5.5%
Other Developed Markets	119.4	6.4%	156-176	4-7%
Total Developed Markets	1088.3	5.7%	1,370-1,400	2.5-5.5%

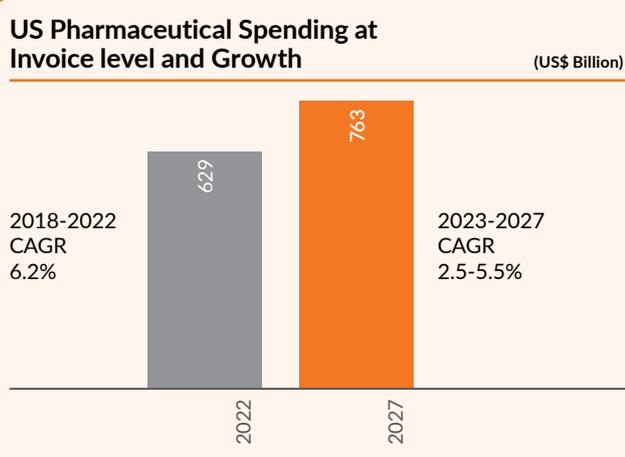
US¹

The US pharmaceutical industry is expected to witness subdued growth over the next five years due to several factors namely increased discounts and rebates, upcoming patent expiries and heightened competition from new generic and biosimilar drugs. However, spending on medicines is still projected to increase by US\$ 134 Billion annually by 2027, with the main driver being the use of existing branded products.

The key contributors towards the annual increase in US medicine spending by 2027 are expected to include the increasing use of existing protected brand products (154 Billion) and new brands (122 Billion) offset by Loss of Exclusivity on existing products (141 Billion). Therefore, despite the challenges of Loss of Exclusivity, innovation is expected to drive growth with the launch of new oncology drugs and next generation biotherapeutics.

Off-invoice discounts and rebates result in spending that is estimated at 36% lower than the invoice level in 2022 and projected to be 45% lower than the invoice level in 2027. On a net price basis, US market is expected to grow at -1 to 2% through 2027. Introduction of Inflation Reduction Act or IRA is expected to be a key reason of increasing off-invoice discounts and rebates.

Graph 2

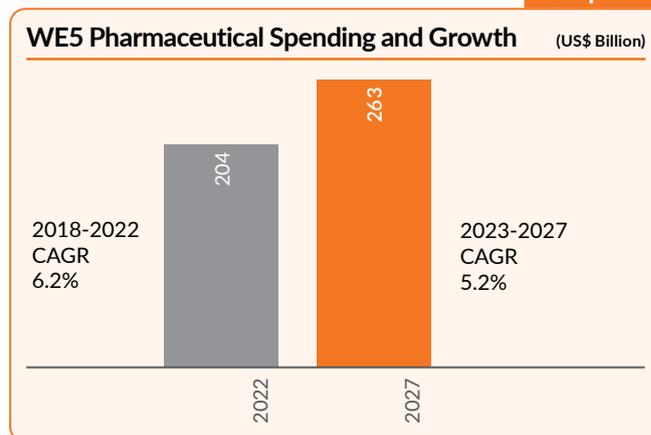


Top 5 Western European Markets (WE5)¹

The top five Western European pharmaceutical markets are expected to experience a mix of opportunities and challenges over the next five years. Despite the pandemic's sustained impact on marketing operations early on and budget pressures affecting reimbursement decisions later, the launch of new brands is expected to continue driving growth through to 2027. Additionally, generics and biosimilars are projected to contribute to growth, though this may be offset by price deflation and losses of exclusivity.

The oncology and neurology therapies are among the areas expected to see significant growth, along with next generation biotherapeutics.

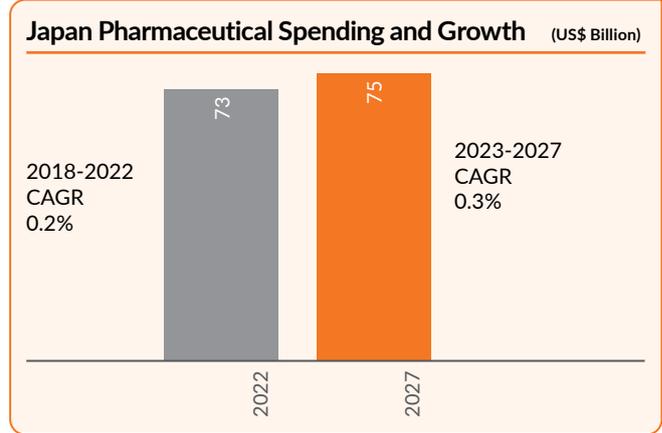
Graph 3



Japan¹

The Japan pharmaceutical market is expected to register limited or no growth due to long-term trends affecting long-listed brands. Although there will be a rebound from the pandemic's impact, annual pricing revisions are expected to continue. Protected brands have gained a larger share of spending while long-listed product spending has continued to decline. Generic spending is expected to rise due to effective government policies.

Graph 4



Pharmerging Markets¹

The Pharmerging markets are projected to show 5-8% revenue CAGR between 2023-27, primarily driven by the increasing usage of generic drugs and branded generics. These markets have shown resilience during the pandemic, with many countries being impacted by COVID-19 in later waves and thereby experiencing less of the early wave behaviour changes. Pharmerging and lower-income countries have a lower share of spending from originator products, with a greater focus on either generics or non-original branded products, which are typically priced lower.

Latin America and Eastern Europe are among the fastest-growing regions in terms of medicine spending globally. Brazil and Mexico are expected to lead the growth in Latin America at 9-12% and 7.5-10.5%, CAGR respectively through 2027. In Eastern Europe, Russia is projected to grow at 6-9% CAGR through 2027. However, the ongoing Ukraine conflict has impacted medicine use and spending in Ukraine, as well as potentially impacting neighbouring countries with the medical needs of displaced persons and economic activity.

Pharmerging Markets – Pharmaceutical Spending and Growth¹

Table 4

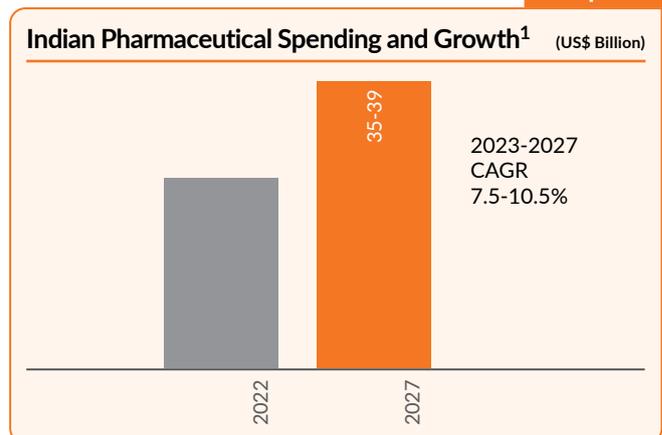
Region	2022	2018-2022 CAGR	2027	2023-2027 CAGR
Pharmerging Markets	370.8	7.2%	487-518	5-8%

(US\$ Billion)

India¹

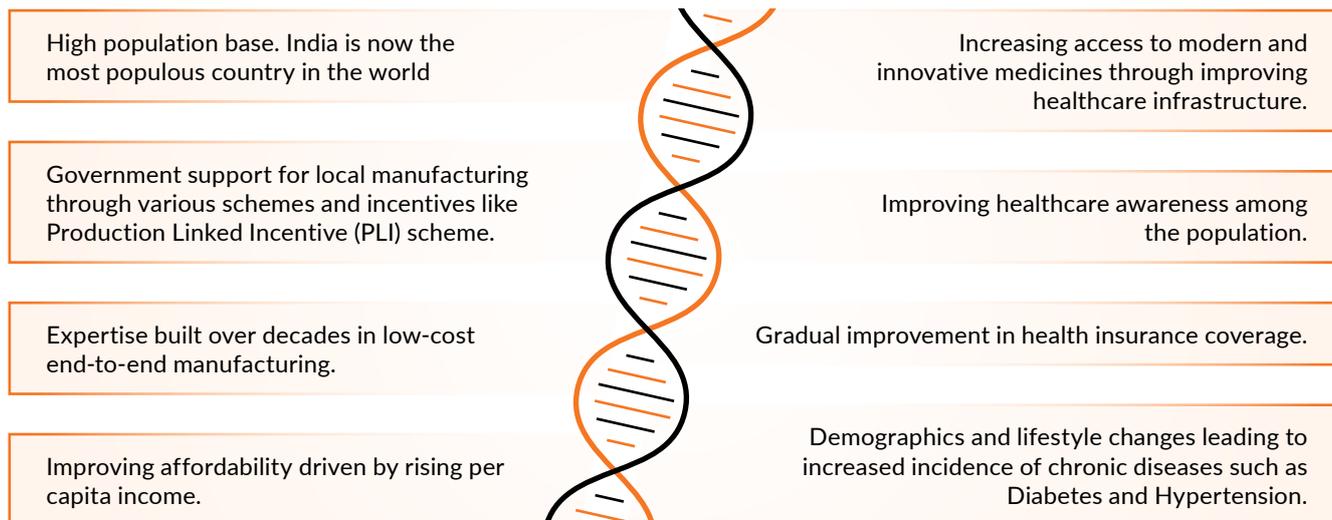
The Indian pharmaceutical industry has been experiencing steady growth with a focus on generic medicines. It is expected that spending on pharmaceuticals in India will continue to increase, with a CAGR of 7.5-10.5% between 2023-27 to reach US\$ 35-39 Billion annually. The industry's continued focus on generics is a key factor to its growth, as they are typically priced lower than branded medicines. The industry's low-cost structure and its ability to produce large quantities of medicines have also made it a key player in the global pharmaceutical market.

Graph 5





Growth Drivers



Speciality Medicines¹

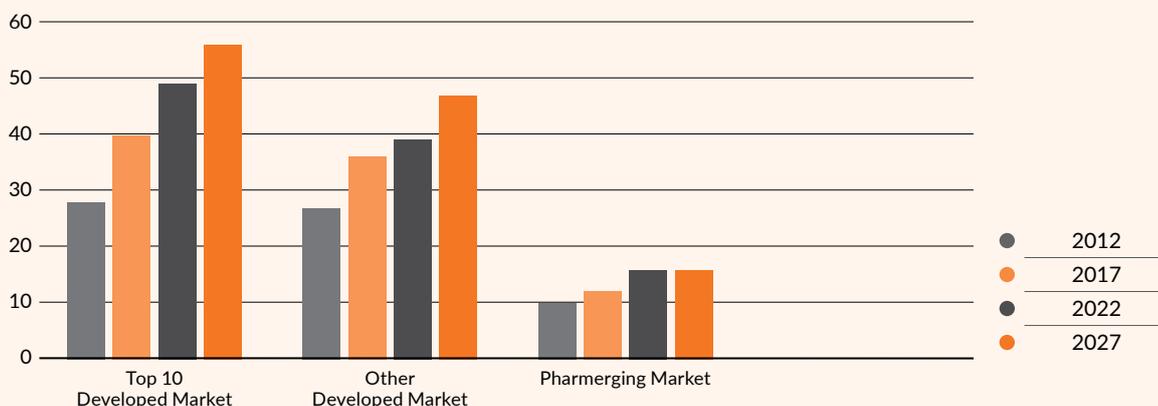
Specialty medicines, which treat chronic, complex, and rare diseases, have seen an increase in spending in higher-income countries, including the 10 largest developed countries and other high and upper-middle-income countries.

By 2027, it is projected that specialty medicines will make up 43% of global medicine spending. The share of specialty spending in the top-10 developed economies is expected to be higher at 56%. As Specialty medicines treat rare diseases with smaller patient population, they tend to treat only 2-3% of overall patients. As the spend on Specialty medicines is increasing, it is also notable that the costs of traditional therapies have been declining.

Graph 6

Share of Speciality Medicines in Overall Pharmaceutical Spending – By Market¹

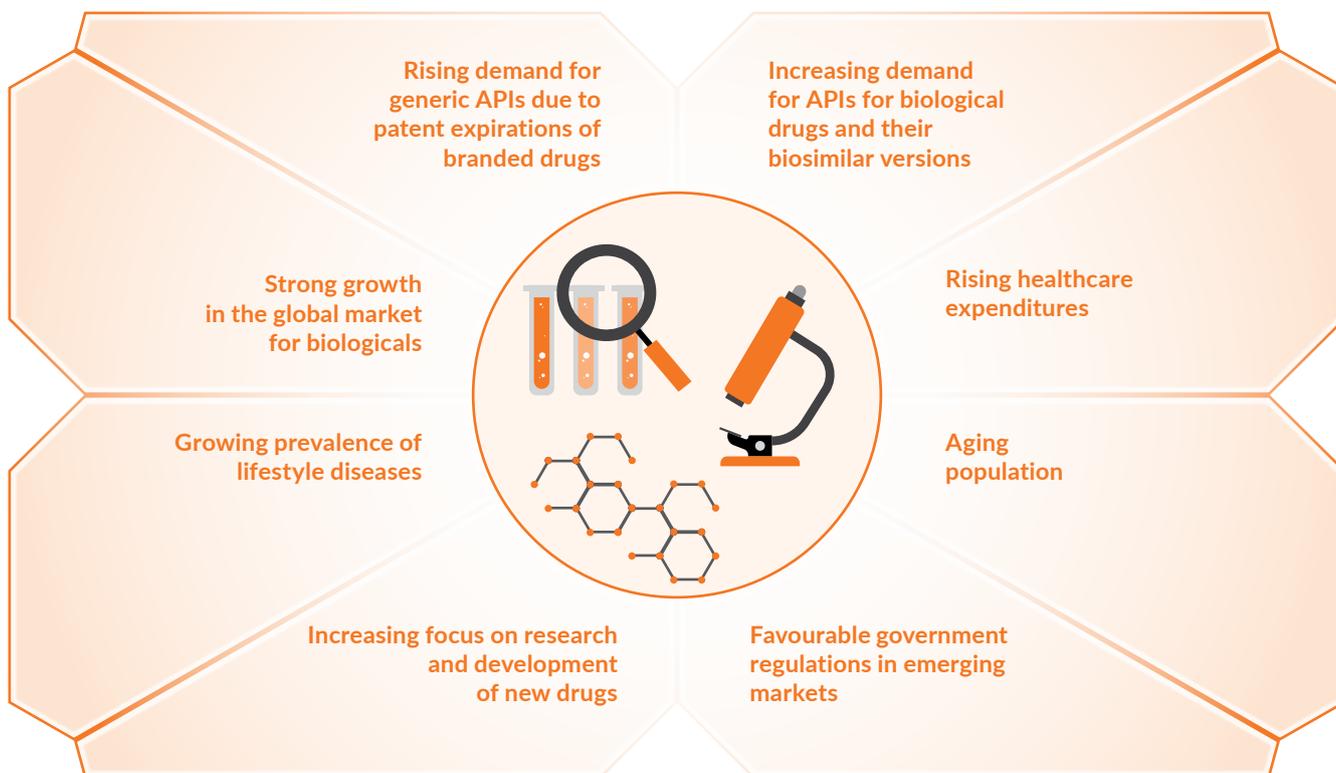
(%)



Active Pharmaceutical Ingredients (APIs)²

The global market for Active Pharmaceutical Ingredients (APIs) has been growing steadily and is expected to continue growing from US\$ 210 Billion to reach US\$ 292 Billion by 2027, at a CAGR of 5.64% during 2021-27.

Growth Drivers for API



Consumer Healthcare (CHC) Market³

The consumer health industry has demonstrated impressive resilience throughout the past three years of the COVID-19 pandemic. Despite the challenges posed by the outbreak, the industry has maintained steady growth, with categories such as Vitamins, Minerals, and Supplements (VMS) stepping up to compensate for the shortfalls in Cold/flu and Pain categories during periods of lockdown and social distancing. The global consumer healthcare (CHC) market is currently valued at US\$ 175 Billion (MAT Q2 2022) and is expected to continue growing at a rate of approximately 6% annually over the next five years.

Sun Pharma: A Leading Global Pharmaceutical Company

Sun Pharmaceutical Industries Limited, its subsidiaries, and associates (together, "Sun Pharma") is a leading global pharmaceutical company and the largest pharmaceutical

company in India. Sun Pharma delivers high-quality medicines that are trusted by customers and patients in more than 100 countries. The Company boasts of a multicultural workforce comprising over 50 nationalities.

Sun Pharma's marketed portfolio comprises innovative specialty medicines, branded generics, pure generics and APIs. The Company's R&D skills, strong manufacturing capabilities and a global commercial presence enable it to meet the evolving needs of patients and customers worldwide.

Sun Pharma has a large and diverse manufacturing footprint spread across multiple countries, approved by major regulatory agencies. The Company's manufacturing capabilities include a broad range of dosage forms, namely pills, capsules, injectables, sprays, ointments, creams, liquids, drug delivery systems, APIs and intermediates.