

# Industry Research Report on API (Pharma) Industry

February 2024

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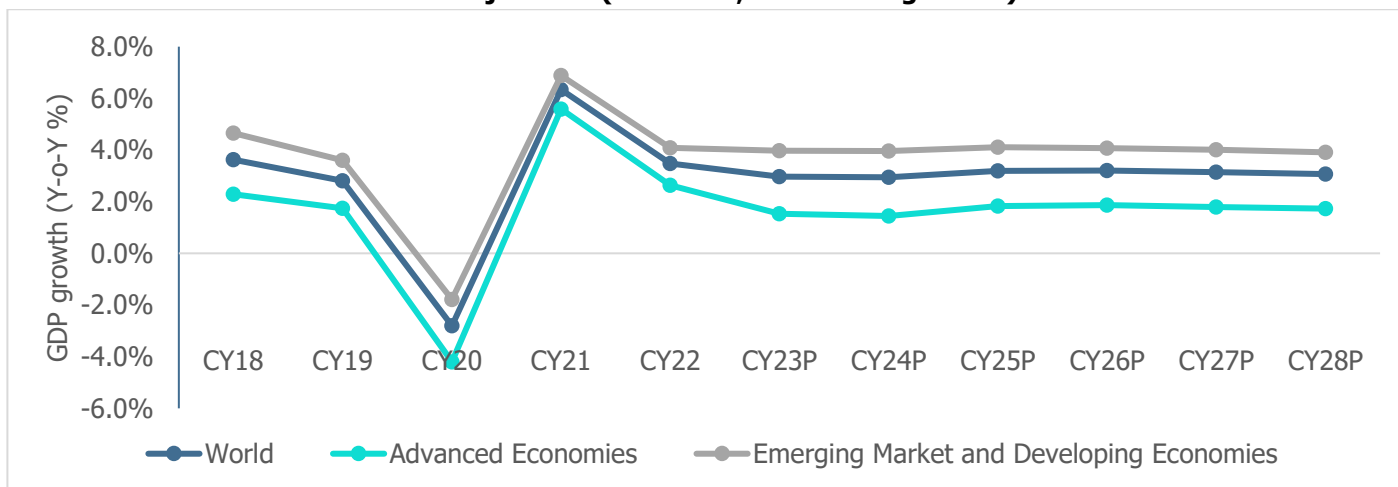
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# 1 Economic Outlook

## 1.1 Global Economy

As per the International Monetary Fund (IMF)'s World Economic Outlook growth projections released in October 2023, the global economic growth for CY22<sup>1</sup> stood at 3.5% on a year-on-year (y-o-y) basis, down from 6.3% in CY21 due to disruptions resulting from the Russia-Ukraine conflict and higher-than-expected inflation worldwide. On the other hand, the global economic growth for CY23 is projected to slow down further to 3.0% and 2.9% in CY24, attributed to compressing global financial conditions, expectant steeper interest rate hikes by major central banks to fight inflation, and spill-over effects from the Russia-Ukraine conflict, with gas supplies from Russia to Europe expected to remain tightened. For the next 4 years, the IMF projects world economic growth in the range of 3.0%-3.2% on a y-o-y basis.

**Chart 1: Global Growth Outlook Projections (Real GDP, Y-o-Y change in %)**



Notes: P-Projection;

Source: IMF – World Economic Outlook, October 2023

**Table 1: GDP growth trend comparison - India v/s Other Economies (Real GDP, Y-o-Y change in %)**

|               | Real GDP (Y-o-Y change in %) |      |      |      |       |       |       |       |       |       |
|---------------|------------------------------|------|------|------|-------|-------|-------|-------|-------|-------|
|               | CY19                         | CY20 | CY21 | CY22 | CY23P | CY24P | CY25P | CY26P | CY27P | CY28P |
| India         | 3.9                          | -5.8 | 9.1  | 7.2  | 6.3   | 6.3   | 6.3   | 6.3   | 6.3   | 6.3   |
| China         | 6.0                          | 2.2  | 8.5  | 3.0  | 5.0   | 4.2   | 4.1   | 4.1   | 3.7   | 3.4   |
| Indonesia     | 5.0                          | -2.1 | 3.7  | 5.3  | 5.0   | 5.0   | 5.0   | 5.0   | 5.0   | 5.0   |
| Saudi Arabia  | 0.8                          | -4.3 | 3.9  | 8.7  | 0.8   | 4.0   | 4.2   | 3.3   | 3.3   | 3.1   |
| Brazil        | 1.2                          | -3.3 | 5.0  | 2.9  | 3.1   | 1.5   | 1.9   | 1.9   | 2.0   | 2.0   |
| Euro Area     | 1.6                          | -6.1 | 5.6  | 3.3  | 0.7   | 1.2   | 1.8   | 1.7   | 1.5   | 1.3   |
| United States | 2.3                          | -2.8 | 5.9  | 2.1  | 2.1   | 1.5   | 1.8   | 2.1   | 2.1   | 2.1   |

P- Projections; Source: IMF- World Economic Outlook Database (January 2024)

<sup>1</sup> CY – Calendar Year

### Advanced Economies Group

For the major advanced economies GDP is projected to decline to 1.5% in CY24 from 1.6% in CY23. Going forward it is projected to rise thereafter to 1.8% in CY25. The 2024 growth projection is adjusted upwards by 0.1%, driven by stronger-than-anticipated growth in the US but tempered by slower growth in the euro area.

One of the major countries from this group is the **United States**. In the United States, economic growth is anticipated to decline from 2.5 percent in 2023 to 2.1 percent in 2024 and further to 1.7 percent in 2025. This trajectory is attributed to the delayed impacts of monetary policy tightening, incremental fiscal tightening, and a moderation in labor market dynamics, all of which are projected to dampen aggregate demand. The upward adjustment of 0.6 percentage points for 2024, compared to the October 2023 World Economic Outlook (WEO), is primarily driven by statistical carryover effects stemming from the stronger-than-expected growth observed in 2023.

Further, the **Euro area's** growth is forecasted to rebound from a low estimated rate of 0.5 percent in 2023, attributed to significant exposure to the Ukraine conflict, to 0.9 percent in 2024 and further to 1.7 percent in 2025. This recovery is underpinned by stronger household consumption as the impact of energy price shocks diminishes, coupled with a decrease in inflation, thereby bolstering real income growth. However, compared to the October 2023 World Economic Outlook (WEO) forecast, there's a downward revision of 0.3 percentage points for 2024, mainly due to carryover effects from the weaker-than-expected outcome in 2023.

### Emerging Market and Developing Economies Group

For the emerging market and developing economies group, GDP growth stood at 4.1% in CY23, like 4.1% in CY22. This growth is further projected to remain constant at 4.1% in CY24 and 4.2% in CY25. All the emerging economies are projected to make positive growth. While the remaining economies, including the low-income countries, are expected to progress slower.

Further, in **China**, projected growth is revised to 4.6% in CY24 followed by 4.1% in CY25. The upgrade is driven by carryover effects from stronger-than-expected growth in 2023 and heightened government spending on capacity building to address natural disasters. Whereas, **India** is projected to remain strong at 6.5% for both CY24 and CY25 backed by resilient domestic demands despite external headwinds.

The **Indonesian** economy is expected to register growth of 5% both in CY24 and CY25 with a strong recovery in domestic demands, a healthy export performance, policy measures, and normalization in commodity prices. In CY22, **Saudi Arabia** was the fastest-growing economy in this peer set with 8.7% growth. The growth is accredited to robust oil production, non-oil private investments encompassing wholesale and retail trade, construction and transport, and surging private consumption. Saudi Arabia's growth slowed at -1.1% in CY23 attributed to lower oil production. Going forward, GDP is expected to grow at 2.7% and 5.5% in CY24 and CY25, respectively. On the other hand, **Brazil** is expected to project growth of 1.7% in CY24 driven by strong domestic demand and increase in trading partner companies.

Despite the turmoil in the last 2-3 years, India bears good tidings to become a USD 5 trillion economy by CY27. According to the IMF dataset on Gross Domestic Product (GDP) at current prices, the nominal GDP has been estimated to be at USD 3.4 trillion for CY22 and is projected to reach USD 5.2 trillion by CY27. India's expected GDP growth rate for coming years is almost double compared to the world economy.

Besides, India stands out as the fastest-growing economy among the major economies. The country is expected to grow at more than 6% in the period of CY24-CY28, outshining China's growth rate. By CY27, the Indian economy is estimated to emerge as the third-largest economy globally, hopping over Japan and Germany. Currently, it is the third-largest economy globally in terms of Purchasing Power Parity (PPP) with a ~7% share in the global economy, with China [~18%] on the top followed by the United States [~15%]. Purchasing Power Parity is an economic performance indicator

denoting the relative price of an average basket of goods and services that a household needs for livelihood in each country.

Despite Covid-19's impact, high inflationary environment and interest rates globally, and the geopolitical tensions in Europe, India has been a major contributor to world economic growth. India is increasingly becoming an open economy as well through growing foreign trade. Despite the global inflation and uncertainties, Indian economy continues to show resilience. This resilience is mainly supported stable financial sector backed by well-capitalized banks and export of services in trade balance. With this, the growth of Indian economy is expected to fare better than other economies majorly because of strong investment activity bolstered by the government's capex push and buoyant private consumption, particularly among higher income earners.

## 1.2 Indian Economic Outlook

### 1.2.1 GDP Growth and Outlook

#### Resilience to External Shocks remains Critical for Near-Term Outlook

India's GDP grew by 9.1% in FY22 and stood at Rs. 149.3 trillion despite the pandemic and geopolitical Russia-Ukraine spillovers. In Q1FY23, India recorded 13.2% y-o-y growth in GDP, largely attributed to improved performance by the agriculture and services sectors. Following this double-digit growth, Q2FY23 witnessed 6.3% y-o-y growth, while Q3FY23 registered 4.5% y-o-y growth. The slowdown during Q2FY23 and Q3FY23 compared to Q1FY23 can be attributed to the normalization of the base and a contraction in the manufacturing sector's output.

Subsequently, Q4FY23 registered broad-based improvement across sectors compared to Q3FY23 with a growth of 6.1% y-o-y. The investments, as announced in the Union Budget 2022-23 on boosting public infrastructure through enhanced capital expenditure, have augmented growth and encouraged private investment through large multiplier effects in FY23. Supported by fixed investment and higher net exports, real GDP for full-year FY23 was valued at Rs. ~160. trillion registering an increase of 7.2% y-o-y.

Furthermore, in Q1FY24, the economic growth accelerated to 7.8%. The manufacturing sector maintained an encouraging pace of growth, given the favorable demand conditions and lower input prices. The growth was supplemented by a supportive base alongside robust services and construction activities. This momentum was maintained in the Q2FY24 with GDP growth at 7.6%, mainly supported by acceleration in investments. However, private consumption growth was muted due to weak rural demand and some moderation in urban demand amid elevated inflationary pressures in Q2FY24. On the supply side, a significant improvement in manufacturing and construction activities supported growth. Overall, the economy expanded by 7.7% in H1FY24 compared to 5.3% in H2FY23. As per recent Ministry of Statistics and Programme Implementation (MoSPI)'s advanced estimate release, the real GDP growth for FY24 is pegged at 7.3% and will attain a level of ~ Rs. 171.79 trillion.

#### GDP Growth Outlook

- Driven by resilience in urban demand and the front loading of the government's capital expenditure, the H1FY24 witnessed a strong growth. While festive cheer will support urban demand in Q3, the outlook for rural demand revival remains clouded amid monsoon deficiency and likely hit to the agricultural production.
- The recent announcements of various relief measures such as LPG price reduction and extension of Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) are expected to provide some cushion and so far, investment demand has remained robust. However, there could be some moderation in H2FY24 as both the government and private sector



may restrain their capital spending ahead of the general elections. Despite some expected moderation in the H2FY24, India's overall GDP growth for FY24 is expected to remain on a firm footing. In terms of fiscal deficit for the year, the Finance Ministry has estimated it to be at 5.1% of GDP.

- Strong credit growth, resilient financial markets, and the government's continual push for capital spending and infrastructure are likely to create a compatible environment for investments. In the Interim Budget 2024-25, significant emphasis is placed on infrastructure development with an increased capital expenditure outlay of Rs. 11,11,111 crores, amounting to 3.4% of the GDP.
- External demand is likely to remain subdued with a slowdown in global activities, thereby indicating adverse implications for exports. Additionally, heightened inflationary pressures and resultant policy tightening may pose a risk to the growth potential.

Prior to the Interim Budget, in December 2023, the RBI in its bi-monthly monetary policy meeting estimated a real GDP growth of 7% y-o-y for FY24 comparatively lower from MoSPI's estimate of 7.2%.

**Table 2: RBI's GDP Growth Outlook (Y-o-Y %)**

| FY25P<br>(complete<br>year) | Q4FY24P | Q1FY25P | Q2FY25P | Q3FY25P | Q4FY25P |
|-----------------------------|---------|---------|---------|---------|---------|
| 7.0%                        | 6.5%    | 7.2%    | 6.8%    | 7.0%    | 6.9%    |

Note: P-Projected; Source: Reserve Bank of India

### 1.2.2 Gross Value Added (GVA)

Gross Value Added (GVA) is the measure of the value of goods and services produced in an economy. GVA gives a picture of the supply side whereas GDP represents consumption.

#### Industry and Services sector leading the recovery charge

- The gap between GDP and GVA growth turned positive in FY22 (after a gap of two years) due to robust tax collections. Of the three major sector heads, the service sector has been the fastest-growing sector in the last 5 years.
- The **agriculture sector** was holding growth momentum till FY18. In FY19, the acreage for the rabi crop was marginally lower than the previous year which affected the agricultural performance. Whereas FY20 witnessed growth on account of improved production. During the pandemic-impacted period of FY21, the agriculture sector was largely insulated as timely and proactive exemptions from COVID-induced lockdowns to the sector facilitated uninterrupted harvesting of rabi crops and sowing of kharif crops. However, supply chain disruptions impacted the flow of agricultural goods leading to high food inflation and adverse initial impact on some major agricultural exports. However, performance remained steady in FY22.

In FY23, the agriculture sector performed well despite weather-related disruptions, such as uneven monsoon and unseasonal rainfall, impacting yields of some major crops and clocked a growth of 4% y-o-y, garnering Rs. 22.3 trillion.

In Q1FY24, this sector expanded at a slower pace of 3.5% y-o-y growth compared to y-o-y growth a quarter ago. This further stumbled to 1.2% in Q2FY24. Overall, H1FY24 registered a 2.4% growth with weakest monsoon experience caused by El Nino conditions.

In the Interim Budget 2024-25, the government plans to boost private and public investment in post-harvest activities and expand the application of Nano-DAP across agro-climatic zones. Strategies for self-reliance in oilseeds and dairy development are to be formulated, alongside ramping up the Pradhan Mantri Matsya Sampada Yojana and establishing Integrated Aquaparks. Allocation for PM-Formalisation of Micro Food Processing Enterprises scheme has increased from Rs. 639 crores in FY24 to Rs. 880 crores in FY25.

Going forward, rising bank credit to the sector and increased exports will be the drivers for the agriculture sector. However, a deficient rainfall may have impact on the reservoir level, weighing on prospects of Kharif sowing. Considering these factors, the agriculture sector is estimated to attain Rs. 22.7 trillion and mark 1.8% y-o-y growth for complete FY24.

- The **industrial sector** witnessed a CAGR of 4.7% for the period FY16 to FY19. From March 2020 onwards, the nationwide lockdown due to the pandemic significantly impacted industrial activities. In FY20 and FY21, this sector felt turbulence due to the pandemic and recorded a decline of 1.4% and 0.9%, respectively, on a y-o-y basis. With the opening of the economy and resumption of industrial activities, it registered 11.6% y-o-y growth in FY22, albeit on a lower base.

The industrial output in FY23 grew by 4.4% with estimated value Rs. 45.2 trillion owing to a rebound in manufacturing activities and healthy growth in the construction sector.

The industrial sector grew by 5.5% in Q1FY24, while Q2FY24 growth was up by 13.2% owing to positive business optimism and strong growth in new orders supported manufacturing output. The industrial growth was mainly supported by sustained momentum in the manufacturing and construction sectors. Within manufacturing, industries such as pharma, motor vehicles, metals, petroleum and pharma witnessed higher production growth during the quarter. The construction sector (13% growth in Q2FY24) benefited from poor rainfall during August and September and higher implementation of infrastructure projects. This was reflected in robust cement and steel production and power demand in Q2FY24. Overall, H1FY24 picked up by 9.3% with manufacturing and construction activities witnessing significant acceleration.

India's industrial sector is experiencing strong growth, driven by significant expansion in manufacturing, mining, and construction. This growth is supported by positive business sentiment, declining commodity prices, beneficial government policies like production-linked incentive schemes, and efforts to boost infrastructure development. These factors collectively contribute to the sustained buoyancy in industrial growth due to which the industrial growth is estimated at 7.9% on y-o-y basis registering the value of Rs. 48.9 trillion in FY24.

- The **Services sector** recorded a CAGR of 7.1% for the period FY16 to FY20, which was led by trade, hotels, transport, communication, and services related to broadcasting, finance, real estate, and professional services. This sector was the hardest hit by the pandemic and registered an 8.2% y-o-y decline in FY21. The easing of restrictions aided a fast rebound in this sector, with 8.8% y-o-y growth witnessed in FY22.

Overall, in FY23, benefitting from the pent-up demand, the service sector was valued at Rs. 20.6 trillion and registered growth of 9.5% y-o-y.

In Q1FY24, the services sector growth jumped to 10.3%. Within services, there was a broad-based improvement in growth across different sub-sectors. However, the sharpest jump was seen in financial, real estate, and professional services. Trade, hotels, and transport sub-sectors expanded at a healthy pace gaining from strength in discretionary demand. The service sector growth in Q2FY24 moderated to 5.8% partly due to the normalization of base effect and some possible dilution in discretionary demand. Considering these factors, service sector marked 8% growth in H1FY24.

With this performance, steady growth in various service sector indicators like air passenger traffic, port cargo traffic, GST collections, and retail credit are expected to support the services sector. With this, the growth of service sector is estimated at Rs. 86.2 trillion registering 7.7% growth in FY24 overall.

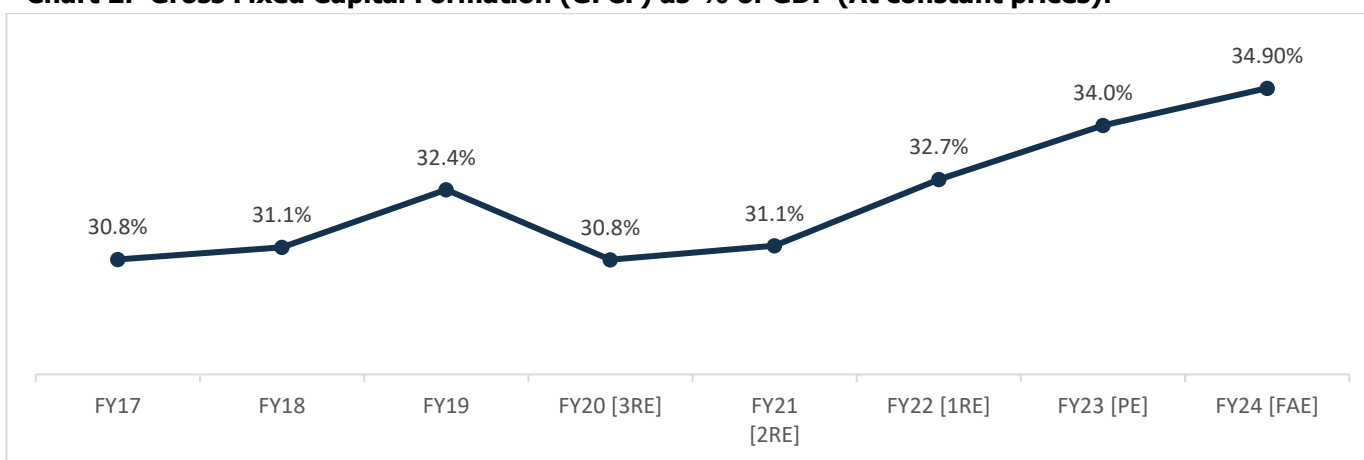
**Table 3: Sectoral Growth (Y-o-Y % Growth) - at Constant Prices**

| At constant Prices                                      | FY19       | FY20        | FY21        | FY22 (FRE)  | FY23 (PE)  | FY24 (FAE) |
|---|------------|-------------|-------------|-------------|------------|------------|
| <b>Agriculture, Forestry &amp; Fishing</b>              | <b>2.1</b> | <b>6.2</b>  | <b>4.1</b>  | <b>3.5</b>  | <b>4.0</b> | <b>1.8</b> |
| <b>Industry</b>   | <b>5.3</b> | <b>-1.4</b> | <b>-0.9</b> | <b>11.6</b> | <b>4.4</b> | <b>7.9</b> |
| Mining & Quarrying                                      | -0.9       | -3.0        | -8.6        | 7.1         | 4.6        | 8.1        |
| Manufacturing   | 5.4        | -3.0        | 2.9         | 11.1        | 1.3        | 6.5        |
| Electricity, Gas, Water Supply & Other Utility Services | 7.9        | 2.3         | -4.3        | 9.9         | 9.0        | 8.3        |
| Construction  | 6.5        | 1.6         | -5.7        | 14.8        | 10.0       | 10.7       |
| <b>Services</b>   | <b>7.2</b> | <b>6.4</b>  | <b>-8.2</b> | <b>8.8</b>  | <b>9.5</b> | <b>7.7</b> |
| Trade, Hotels, Transport, Communication & Broadcasting  | 7.2        | 6.0         | -19.7       | 13.8        | 14.0       | 6.3        |
| Financial, Real Estate & Professional Services          | 7.0        | 6.8         | 2.1         | 4.7         | 7.2        | 8.9        |
| Public Administration, Defence and Other Services       | 7.5        | 6.6         | -7.6        | 9.7         | 7.2        | 7.7        |
| <b>GVA at Basic Price</b>                               | <b>5.8</b> | <b>3.9</b>  | <b>-4.2</b> | <b>8.8</b>  | <b>7.0</b> | <b>6.9</b> |

Note: FRE – First Revised Estimates, PE – Provisional Estimate, FAE – First Advance Estimate; Source: MOSPI

### 1.2.3 Investment Trend in Infrastructure

Gross Fixed Capital Formation (GFCF), which is a measure of the net increase in physical assets, witnessed an improvement in FY22. As a proportion of GDP, it is estimated to be at 32.7%, which is the second-highest level in 7 years (since FY17). In FY23, the ratio of investment (GFCF) to GDP climbed up to its highest in the last decade at 34%. Continuing in its growth trend, this ratio is expected to reach 34.9% in FY24.

**Chart 2: Gross Fixed Capital Formation (GFCF) as % of GDP (At constant prices):**

Note: 3RE – Third Revised Estimate, 2RE – Second Revised Estimates, 1RE – First Revised Estimates, PE – Provisional Estimate, FAE-First Advance Estimate; Source: MOSPI

Overall, the support of public investment in infrastructure is likely to gain traction due to initiatives such as Atmanirbhar Bharat, Make in India, and Production-linked Incentive (PLI) scheme announced across various sectors.

### 1.2.4 Industrial Growth

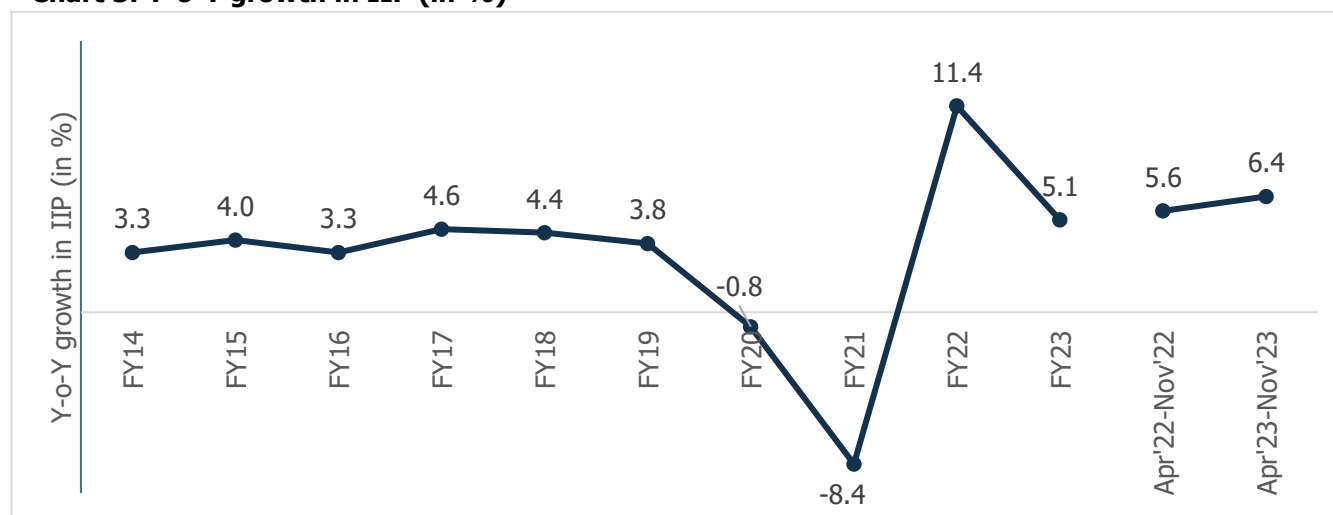
#### Improved Core and Capital Goods Sectors helped IIP Growth Momentum

The Index of Industrial Production (IIP) is an index to track manufacturing activity in an economy. On a cumulative basis, IIP grew by 11.4% y-o-y in FY22 post declining by 0.8% y-o-y and 8.4% y-o-y, respectively, in FY20 and FY21. This high growth was mainly backed by a low base of FY21.

During FY23, the industrial output recorded a growth of 5.1% y-o-y supported by a favorable base and a rebound in economic activities. The period April 2023 – November 2023, industrial output grew by 6.4% compared to the 5.6% growth in the corresponding period last year. For the month of November 2023, the IIP growth slowed down to 2.4% compared to the last year primarily on account of a normalization of base.

So far in the current fiscal, while the infrastructure-related sectors have been doing well, slowing global growth and downside risks to rural demand have posed a challenge for industrial activity. Though the continued moderation in inflationary pressure offers some comfort, pain points in the form of elevated prices of select food items continue to persist.

**Chart 3: Y-o-Y growth in IIP (in %)**



Source: MOSPI

### 1.2.5 Consumer Price Index

India’s consumer price index (CPI), which tracks retail price inflation, stood at an average of 5.5% in FY22 which was within RBI’s targeted tolerance band of 6%. However, consumer inflation started to upswing from October 2021 onwards and reached a tolerance level of 6% in January 2022. Following this, CPI reached 6.9% in March 2022.

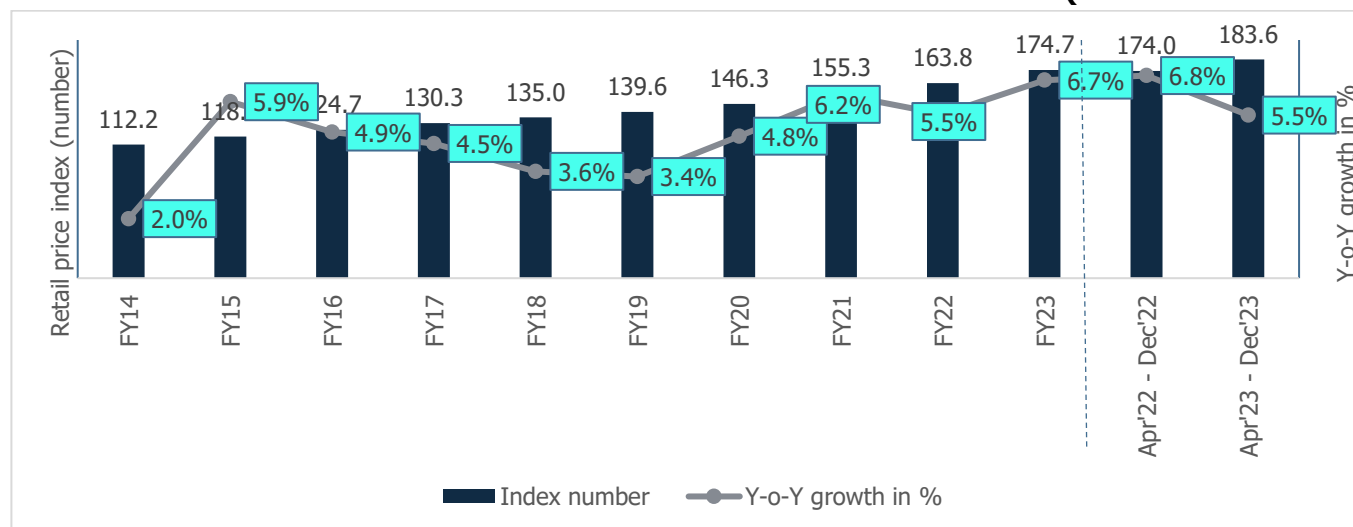
CPI remained elevated at an average of 6.7% in FY23, above the RBI’s tolerance level. However, there was some respite toward the end of the fiscal wherein the retail inflation stood at 5.7% in March 2023, tracing back to the RBI’s tolerance band. Apart from a favorable base effect, the relief in retail inflation came from a moderation in food inflation.

In the current fiscal FY24, the CPI moderated for two consecutive months to 4.7% in April 2023 and 4.3% in May 2023. This trend snapped in June 2023 with CPI rising to 4.9%. In July 2023, the CPI had reached the RBI’s target range for the first time since February 2023 at 7.4% largely due to increased food inflation. This marked the highest reading observed since the peak in April 2022 at 7.8%. The notable surge in vegetable prices and elevated inflation

in other food categories such as cereals, pulses, spices, and milk have driven this increase. Further, the contribution of food and beverage to the overall inflation had risen significantly to 65%, surpassing their weight in the CPI basket. In August 2023, the food inflation witnessed some moderation owing to government’s active intervention. This was further moderated for second consecutive month in September 2023 to 5%, led by a sharp correction in vegetables prices and lower LPG prices. Helped by deflation in the fuel and light category, the retail inflation in October 2023 softened at 4.9%. This trend reversed in November 2023 due to spike in certain vegetable prices as well as sticky inflation in non-perishable food items such as cereals, pulses and spices and the CPI rose to 5.6%. In the month of December 2023, elevated food prices and an unfavourable base drove headline inflation to a four-month peak of 5.7%.

While the consistent decrease in core inflation due to falling commodity prices and diminishing demand-side pressures is encouraging, the ongoing high food inflation, potentially exacerbated by a projected drop in Kharif production and uncertainties around Rabi sowing, remains worrisome. Despite these concerns, the favourable base effect throughout Q4FY24 and the expected easing of food price pressures with the arrival of fresh crops from January to March could help mitigate inflation risks.

**Chart 4: Retail Price Inflation in terms of index and Y-o-Y Growth in % (Base: 2011-12=100)**

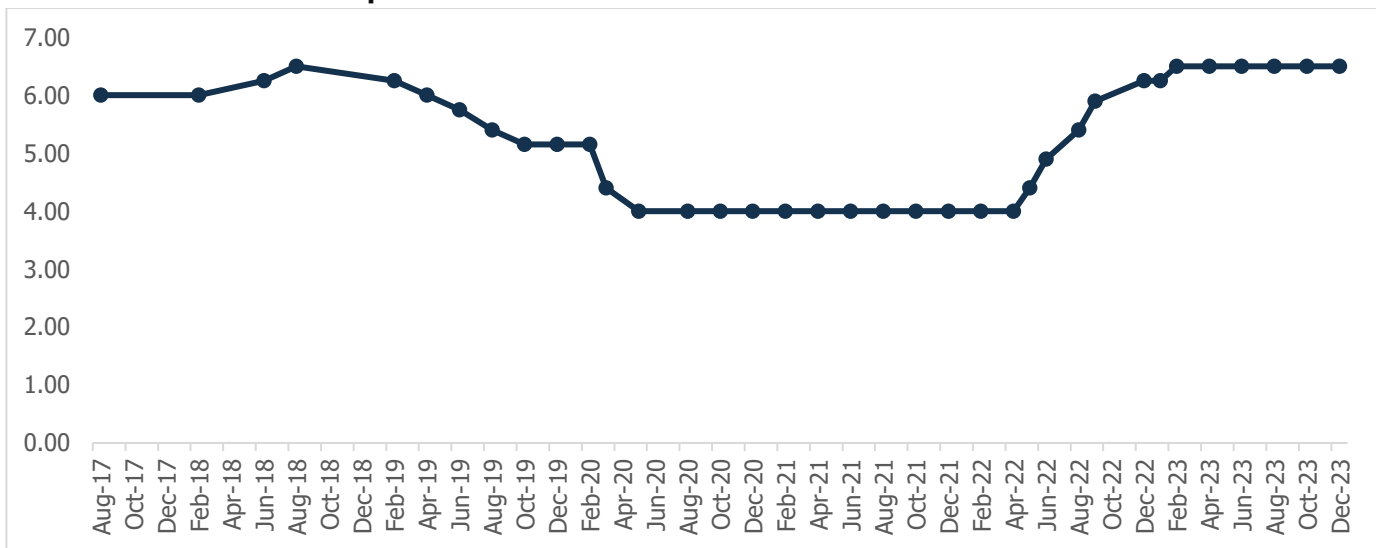


Source: MOSPI

The CPI is primarily factored in by RBI while preparing their bi-monthly monetary policy. At the bi-monthly meeting held in December 2023, RBI projected inflation at 5.4% for FY24 with inflation during Q3FY24 at 5.6%, Q4FY24 at 5.2%, while for FY25 it is pegged at 4.5% and in Q1FY25 at 5.0% , Q2FY25 at 4.0%, Q3FY25 at 4.6% and Q4FY25 at 4.7%.

The RBI has increased the repo rates with the rise in inflation in the past year from 4% in April 2022 to 6.5% in January 2023. Considering the current inflation situation, RBI has kept the repo rate unchanged at 6.5% in the last five meetings of the Monetary Policy Committee.

**Chart 5: RBI historical Repo Rate**



Source: RBI

In a meeting held in December 2023, RBI also maintained the liquidity adjustment facility (LAF) corridor by adjusting the standing deposit facility (SDF) rate of 6.25% as the floor and the marginal standing facility (MSF) at the upper end of the band at 6.75%.

Further, the central bank continued to remain focused on the withdrawal of its accommodative stance. With domestic economic activities gaining traction, RBI has shifted gears to prioritize controlling inflation. While RBI has paused on the policy rate front, it has also strongly reiterated its commitment to bringing down inflation close to its medium-term target of 4%. Given the uncertain global environment and lingering risks to inflation, the Central Bank has kept the window open for further monetary policy tightening in the future, if required.

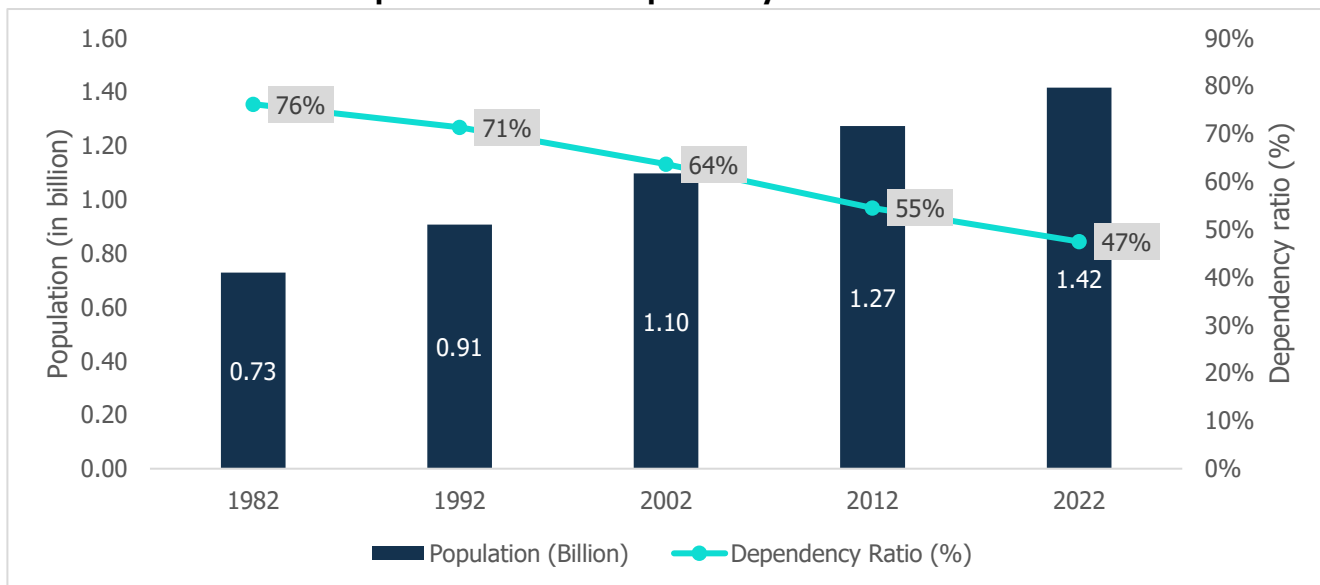
### 1.2.6 Overview on Demographic Drivers

#### • Population Growth and Urbanization

The trajectory of economic growth of India and private consumption is driven by socio-economic factors such as demographics and urbanization. According to the world bank, India’s population in 2022 surpassed 1.42 billion slightly higher than China’s population 1.41 billion and became the most populous country in the world.

Age Dependency Ratio is the ratio of dependents to the working age population, i.e., 15 to 64 years, wherein dependents are population younger than 15 and older than 64. This ratio has been on a declining trend. It was as high as 76% in 1982, which has reduced to 47% in 2022. Declining dependency means the country has an improving share of working-age population generating income, which is a good sign for the economy.

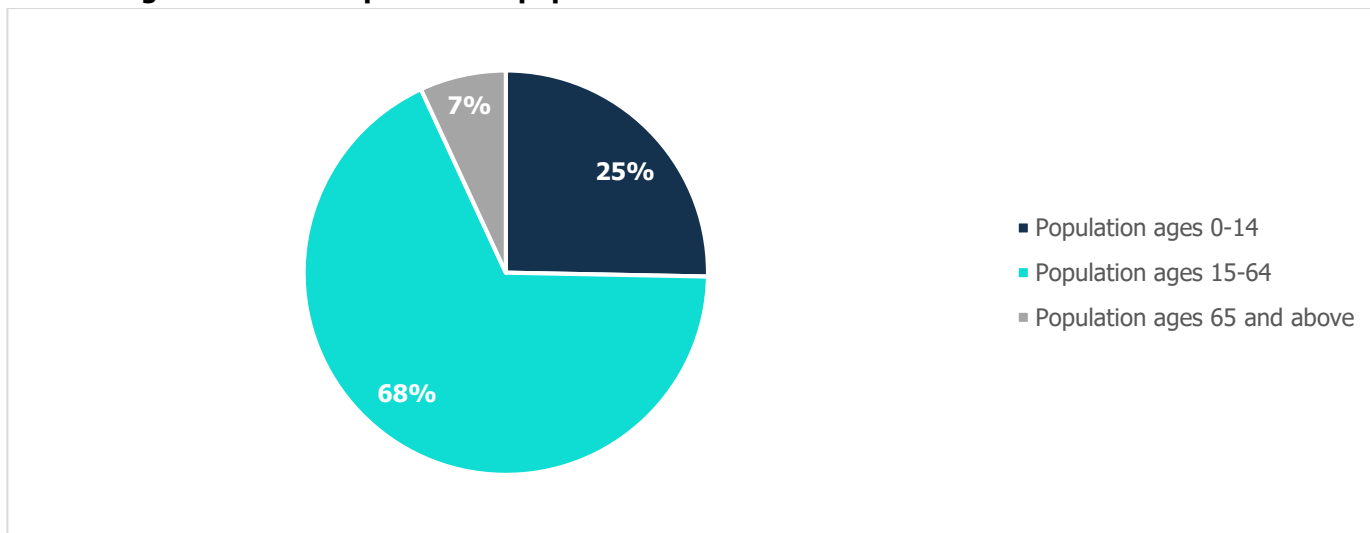
**Chart 6: Trend of India Population vis-à-vis dependency ratio**



Source: World Bank Database

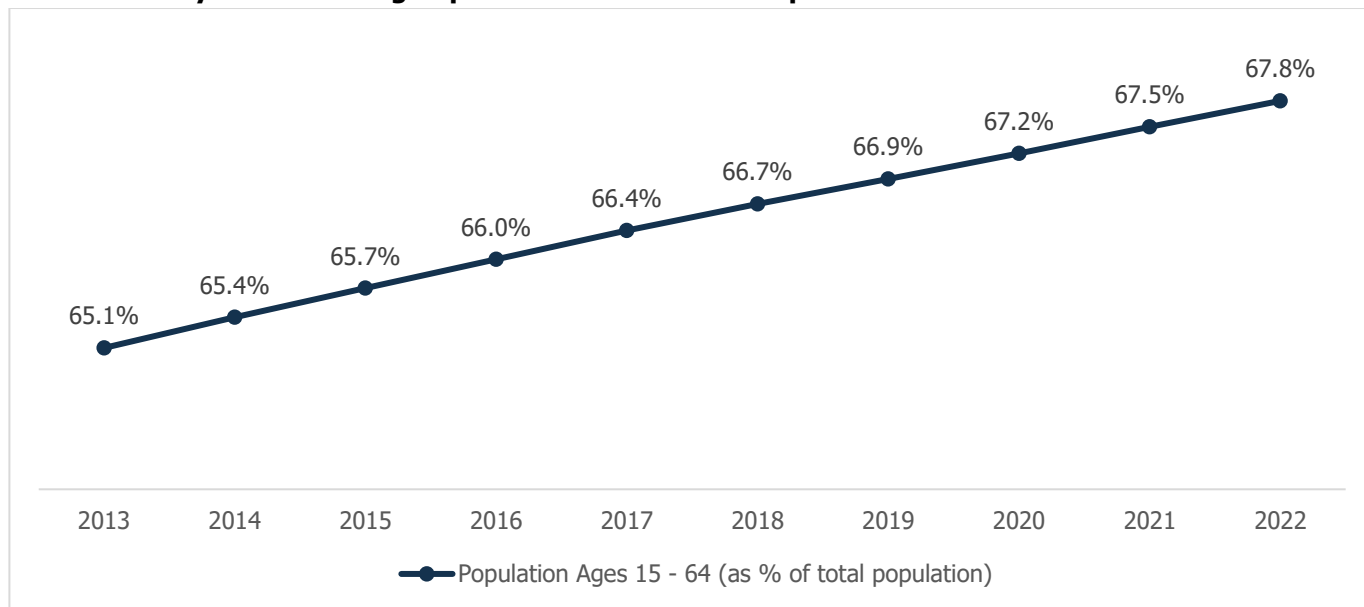
With an average age of 29, India has one of the youngest populations globally. With vast resources of young citizens entering the workforce every year, it is expected to create a 'demographic dividend'. India is home to a fifth of the world's youth demographic and this population advantage will play a critical role in economic growth.

**Chart 7: Age-Wise Break Up of Indian population**



Source: World Bank Database

**Chart 8: Yearly Trend - Young Population as % of Total Population**

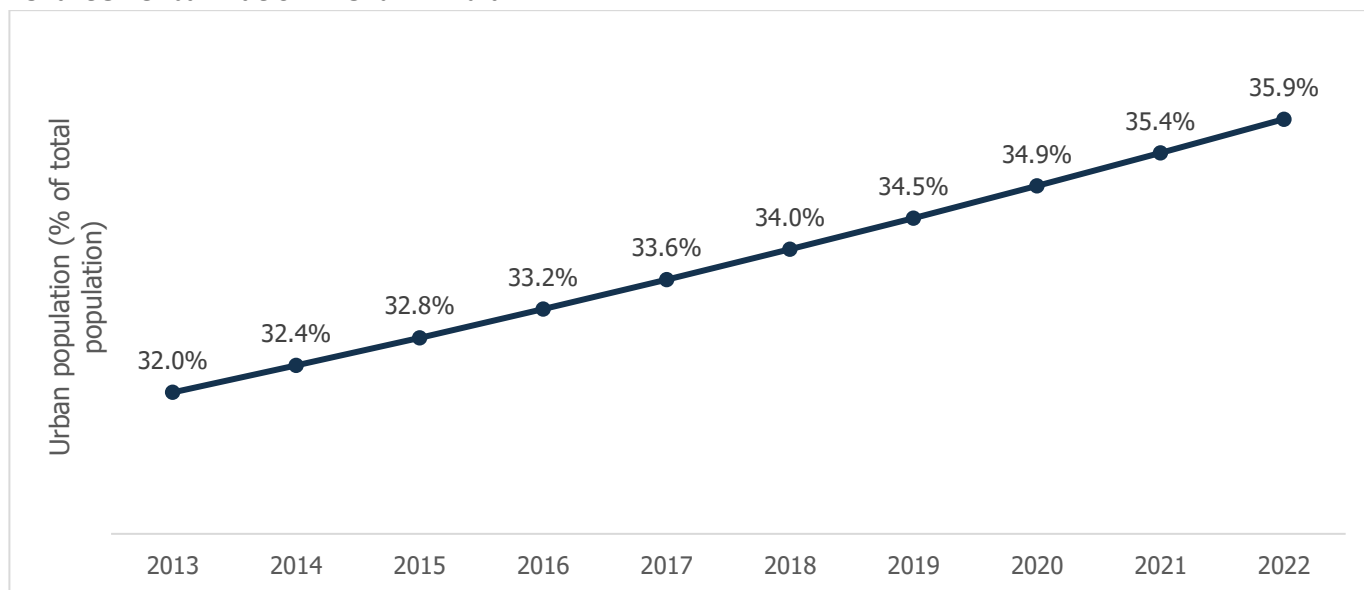


Source: World Bank database

**• Urbanization**

The urban population is significantly growing in India. The urban population in India is estimated to have increased from 403 million (31.6% of total population) in the year 2012 to 508 million (35.9% of total population) in the year 2022. People living in Tier-2 and Tier-3 cities have greater purchasing power.

**Chart 9: Urbanization Trend in India**



Source: World Bank Database

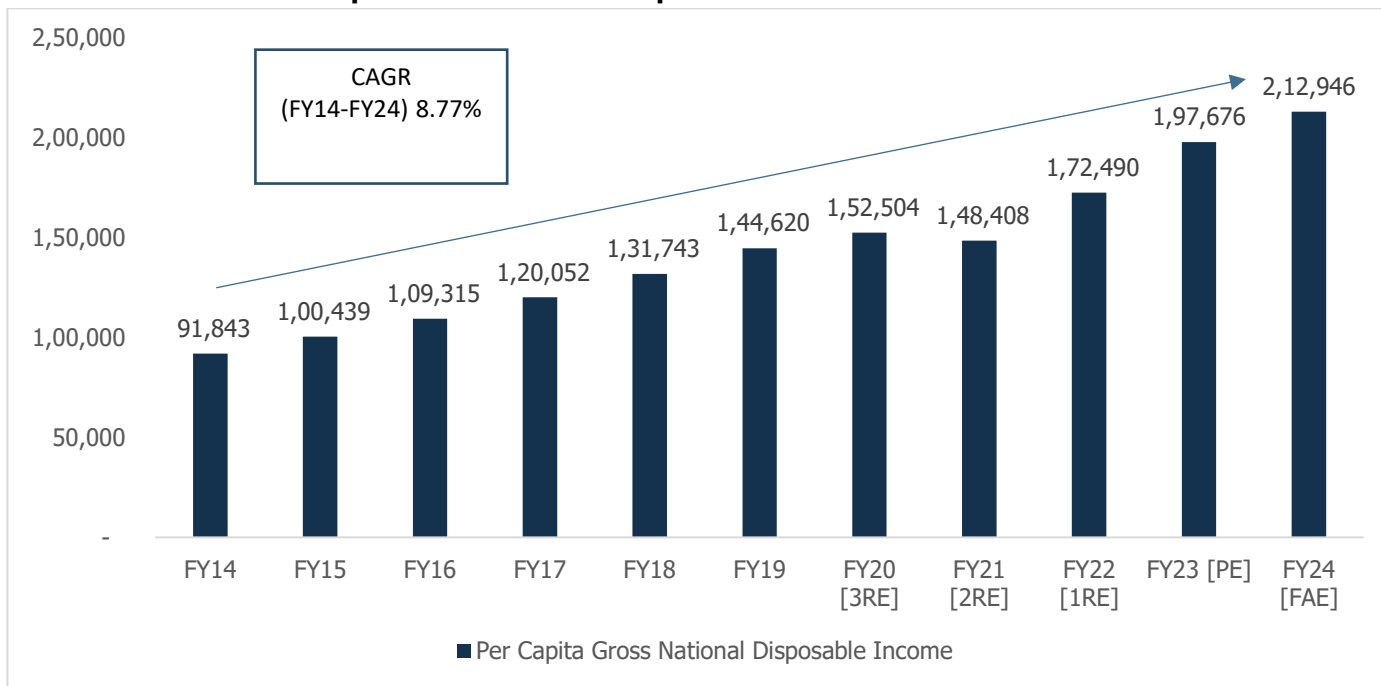


**• Increasing Per Capita Disposable Income**

Gross National Disposable Income (GNDI) is a measure of the income available to the nation for final consumption and gross savings. Between the period FY14 to FY24, per capita GNDI at current prices registered a CAGR of 8.77%. More disposable income drives more consumption, thereby driving economic growth.

The chart below depicts the trend of per capita GNDI in the past decade:

**Chart 10: Trend of Per Capita Gross National Disposable Income**

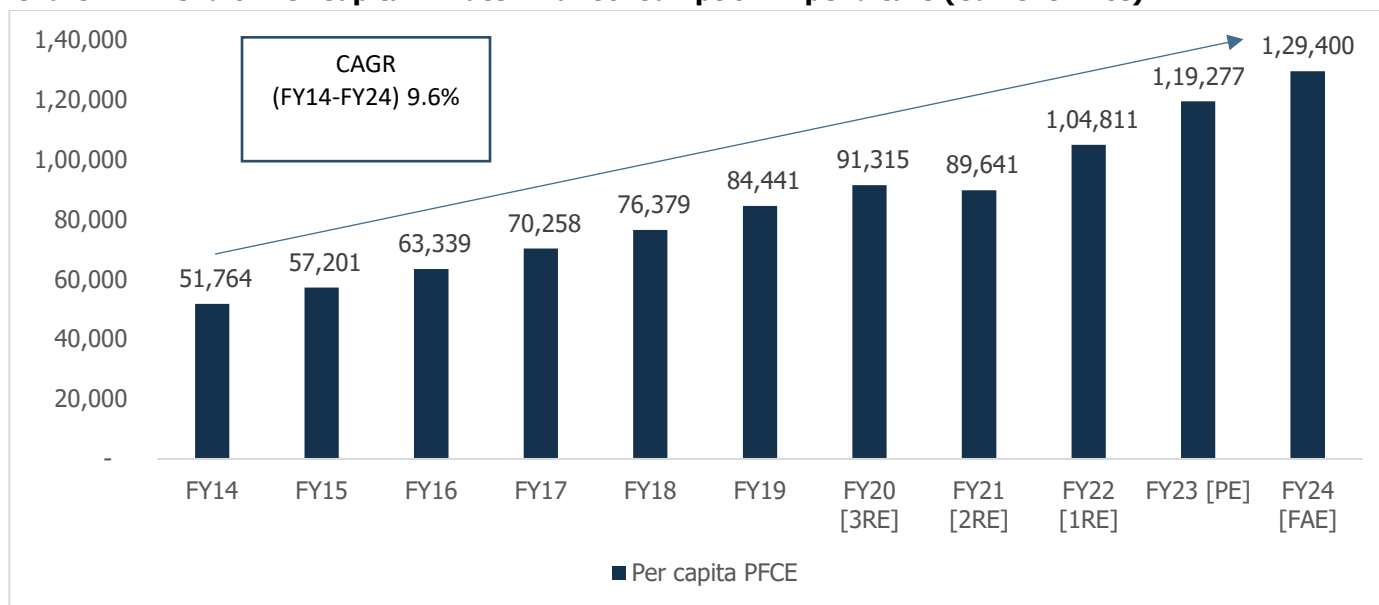


Note: 3RE – Third Revised Estimate, 2RE – Second Revised Estimates, 1RE – First Revised Estimates, PE – Provisional Estimate; Source: MOSPI

**• Increase in Consumer Spending**

With increase in disposable income, there has been a gradual change in consumer spending behaviour as well. Private Final Consumption Expenditure (PFCE) which is measure of consumer spending has also showcased significant growth in the past decade at a CAGR of 9.6%. Following chart depicts the trend of per capita PFCE at current prices:

**Chart 11: Trend of Per Capita Private Final Consumption Expenditure (Current Price)**



Source: MOSPI

**1.2.7 Concluding Remarks**

The major headwinds to global economic growth are escalating geopolitical tensions, volatile global commodity prices, and a shortage of key inputs. Despite the global economic growth uncertainties, the Indian economy is relatively better placed in terms of GDP growth compared to other emerging economies. According to IMF’s forecast, it is expected to 6.3% in CY24 compared to the world GDP growth projection of 3%. The bright spots for the economy are continued healthy domestic demand, support from the government towards capital expenditure, moderating inflation, and improving business confidence.

Likewise, several high-frequency growth indicators including the purchasing managers index, auto sales, bank credit, and GST collections have shown improvement in FY23. Moreover, normalizing the employment situation after the opening up of the economy is expected to improve and provide support to consumption expenditure.

Further, as per the Indian Meteorological Department (IMD), the rainfall witnessed a deficit until September 2023. A drop-in yield due to irregular monsoons and a lower acreage can lead to a demand-supply mismatch, further increasing the inflationary pressures on the food basket. Moreover, the consumption demand is expected to pick up in Q3FY24 due to the festive season. Going forward, the rising domestic demand will be driven by the rural economy’s performance and continual growth in urban consumption. However, high domestic inflation and global headwinds pose a downside risk to domestic demand.

At the same time, public investment is expected to exhibit healthy growth as the government has allocated a strong capital expenditure of about Rs. 10 lakh crores for FY24. The private sector’s intent to invest is also showing improvement as per the data announced on new project investments. However, volatile commodity prices and economic uncertainties emanating from global turbulence may slow down the improvement in private CapEx and investment cycle.

## 2 Overview of Global and India’s Healthcare Expenditure

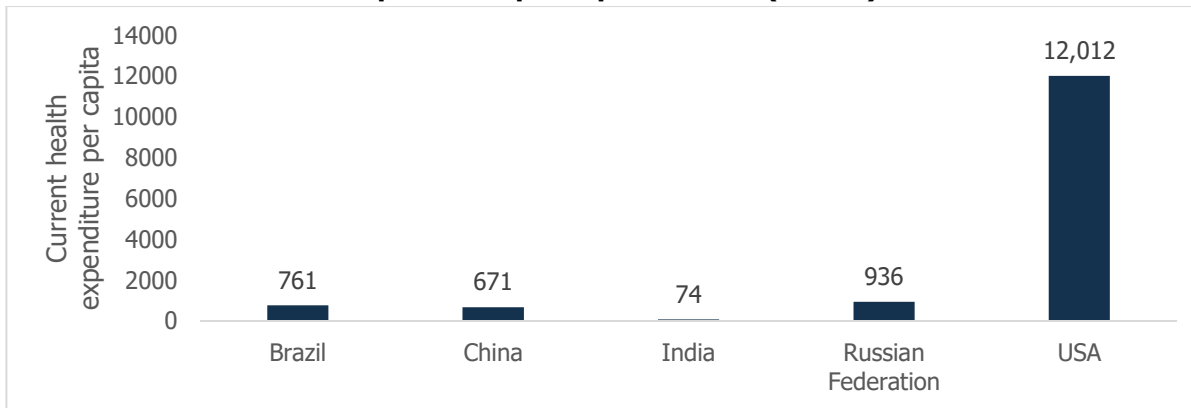
### 2.1 Healthcare Expenditure as % of GDP India Vs Global

India’s current health expenditure (CHE) as percentage of GDP is the lowest compared to the countries mentioned in the chart here. India’s current health expenditure as percentage of GDP is 3.3% for the year 2021. Of this, contribution by the government towards health expenditure is around 34.2% and the contribution of domestic private health expenditure (PVT-D) as percentage of current health expenditure (CHE) is 63.5%. For USA, the current health expenditure as percentage of GDP is at stupendous 17.4%. Of this, the share of private health expenditure in current health expenditure for USA stood at 44.6% during 2021.

| Chart 12: Country-wise CHE as % of GDP - 2021   | Chart 13: Percentage contribution of PVT –D in CHE - 2021                        |                 |       |     |        |     |       |     |                   |     |     |      |  |         |                   |       |      |        |      |       |      |                   |     |     |      |
|---|--|-----------------|-------|-----|--------|-----|-------|-----|-------------------|-----|-----|------|--|---------|-------------------|-------|------|--------|------|-------|------|-------------------|-----|-----|------|
| <table border="1"> <caption>Data for Chart 12: Country-wise CHE as % of GDP - 2021</caption> <thead> <tr> <th>Country</th> <th>CHE as % of GDP</th> </tr> </thead> <tbody> <tr> <td>India</td> <td>3.3</td> </tr> <tr> <td>Brazil</td> <td>9.9</td> </tr> <tr> <td>China</td> <td>5.4</td> </tr> <tr> <td>Russia Federation</td> <td>7.4</td> </tr> <tr> <td>USA</td> <td>17.4</td> </tr> </tbody> </table> | Country  | CHE as % of GDP | India | 3.3 | Brazil | 9.9 | China | 5.4 | Russia Federation | 7.4 | USA | 17.4 | <table border="1"> <caption>Data for Chart 13: Percentage contribution of PVT –D in CHE - 2021</caption> <thead> <tr> <th>Country</th> <th>PVT-D as % of CHE</th> </tr> </thead> <tbody> <tr> <td>India</td> <td>63.5</td> </tr> <tr> <td>Brazil</td> <td>54.3</td> </tr> <tr> <td>China</td> <td>45.9</td> </tr> <tr> <td>Russia Federation</td> <td>7.4</td> </tr> <tr> <td>USA</td> <td>44.6</td> </tr> </tbody> </table> | Country | PVT-D as % of CHE | India | 63.5 | Brazil | 54.3 | China | 45.9 | Russia Federation | 7.4 | USA | 44.6 |
| Country   | CHE as % of GDP  |                 |       |     |        |     |       |     |                   |     |     |      |  |         |                   |       |      |        |      |       |      |                   |     |     |      |
| India   | 3.3  |                 |       |     |        |     |       |     |                   |     |     |      |  |         |                   |       |      |        |      |       |      |                   |     |     |      |
| Brazil  | 9.9  |                 |       |     |        |     |       |     |                   |     |     |      |  |         |                   |       |      |        |      |       |      |                   |     |     |      |
| China   | 5.4  |                 |       |     |        |     |       |     |                   |     |     |      |  |         |                   |       |      |        |      |       |      |                   |     |     |      |
| Russia Federation   | 7.4  |                 |       |     |        |     |       |     |                   |     |     |      |  |         |                   |       |      |        |      |       |      |                   |     |     |      |
| USA   | 17.4   |                 |       |     |        |     |       |     |                   |     |     |      |  |         |                   |       |      |        |      |       |      |                   |     |     |      |
| Country   | PVT-D as % of CHE  |                 |       |     |        |     |       |     |                   |     |     |      |  |         |                   |       |      |        |      |       |      |                   |     |     |      |
| India   | 63.5   |                 |       |     |        |     |       |     |                   |     |     |      |  |         |                   |       |      |        |      |       |      |                   |     |     |      |
| Brazil  | 54.3   |                 |       |     |        |     |       |     |                   |     |     |      |  |         |                   |       |      |        |      |       |      |                   |     |     |      |
| China   | 45.9   |                 |       |     |        |     |       |     |                   |     |     |      |  |         |                   |       |      |        |      |       |      |                   |     |     |      |
| Russia Federation   | 7.4  |                 |       |     |        |     |       |     |                   |     |     |      |  |         |                   |       |      |        |      |       |      |                   |     |     |      |
| USA   | 44.6   |                 |       |     |        |     |       |     |                   |     |     |      |  |         |                   |       |      |        |      |       |      |                   |     |     |      |
| <p>Source: World Bank<br/>Note: CHE is current health expenditure</p>   | <p>Source: World Bank<br/>Note: PVT-D is domestic private health expenditure</p> |                 |       |     |        |     |       |     |                   |     |     |      |  |         |                   |       |      |        |      |       |      |                   |     |     |      |

### 2.2 Per-Capita Current Expenditure on Health

For year 2021, India’s health expenditure per capita was as low as USD 74 compared to health expenditure per capita of Brazil, China and Russian Federation that was in the range of USD 671-USD 936. For USA, this expenditure was as high as USD 12,012.

**Chart 14: Current health expenditure per capita in 2021 (in USD)**

Source: World Health Organization (WHO)

Poverty is one of the reasons for lower health expenditure in India. As per National Health Profile 2021, 22% of the total population in India falls below poverty line (it represents data for percentage of population below poverty line 2011-12) and it is very likely that this population is unable to spend sufficiently on healthcare treatments. In addition to this, lower medical care expenditure by rural population (that accounts for about 68% of the total population in India) compared to urban populace contributed to this low health expenditure. For 2011-12, the monthly per capita expenditure on medical care for rural population was Rs.95, while for urban population it stood at Rs.146.

In addition to this, concentrated healthcare facilities in urban areas also compound the problem as these facilities are not so easily accessible and within the monetary reach of most of the people living in rural and remote areas of the country. In rural areas, there were 23,236 functioning primary health center and 3,346 community health centers in 2005 which increased to 25,140 and 5,481 in 2021 respectively.

### 2.3 Outlook - India

For the betterment of overall health of citizens and facilities, the Government has made various efforts under the National Health Mission and various such schemes. For ensuring universal health coverage, there is rising importance of public healthcare and social security. The primary healthcare expenditure has increased to 55.9% in 2019-20 from 51.3% in 2014-15. This not only ensures quality services at the grassroots level but also reduces the chances of ailments requiring secondary or tertiary healthcare services.

On account of various initiatives introduced, there is major development in the healthcare space and the development is expected to continue. Indian healthcare is among the largest network in the world. And to support the network, healthcare infrastructure is also expected to grow in the near to medium term.

The foreseeable future presents a promising outlook for the industry in exports market, characterised by increasing demand within both regulated and emerging pharmaceutical markets. Furthermore, the impending expiration of patents on certain drugs presents an opportunity for substantial export growth, anticipated to be around 8% during FY24 and FY25. Indian pharmaceutical industry expanded from approximately USD 34.7 billion in FY17 to reach approximately USD 50 billion in FY23; and is envisaged to further increase to USD 57 billion by FY25.

### 3 Pharmaceuticals Industry – Bulk Drugs

#### 3.1 Executive Summary

The Indian pharmaceutical industry (IPI) is ranked 3rd globally in terms of volume and 13th in terms of value. The lower market share in terms of value can be attributed to the predominance of IPI in generic medicines (accounting for about 70% of the industry's revenues) which command lower prices.

Growth in the domestic pharma market is expected to be driven by increase in the penetration of health insurance, improving access to healthcare facilities, rising prevalence of chronic diseases and rising per capita income. The export growth is expected to be led by increasing generic penetration in the regulated markets on the back of enhanced focus on the niche and complex product segments, patent expiries, medicine patent pool announcing licensing agreement with pharmaceutical companies and growing demand from semi-regulated pharma markets. In the long term, growth in the export market will be sustained by emerging markets such as Russia, Brazil, and South Africa, etc.

In terms of trade, in exports, USA has a great significance. As on FY23, USA has a share of ~30% in Indian exports and the American continent accounted for around 40% share in pharma outbound shipments. China has ~75% share in inbound shipments, majorly on account of the cheap availability of APIs and bulk drugs in China. The low prices prompt the Indian drug manufacturers to import bulk drugs from China which, in turn, affects the manufacturing capabilities of the Indian API/bulk drugs industry. Thus, any disruption in China's bulk drugs market has a direct influence on the Indian pharma industry.

One of the primary reasons for India's prominence in the pharmaceutical industry is its cost-effective manufacturing capabilities. The country offers lower production costs compared to many developed nations, making it an attractive destination for outsourcing and contract manufacturing. In terms of regulatory compliance, India has the largest USFDA-compliant pharma plants outside of USA. Additionally, the focus on R&D helps in the development of novel formulations and the discovery of new APIs, contributing to the industry's growth and competitiveness. In the next 2-3 years, patented products worth USD 240 billion are expected to go off patent and it is expected the India pharma companies will be benefitted with this opportunity.

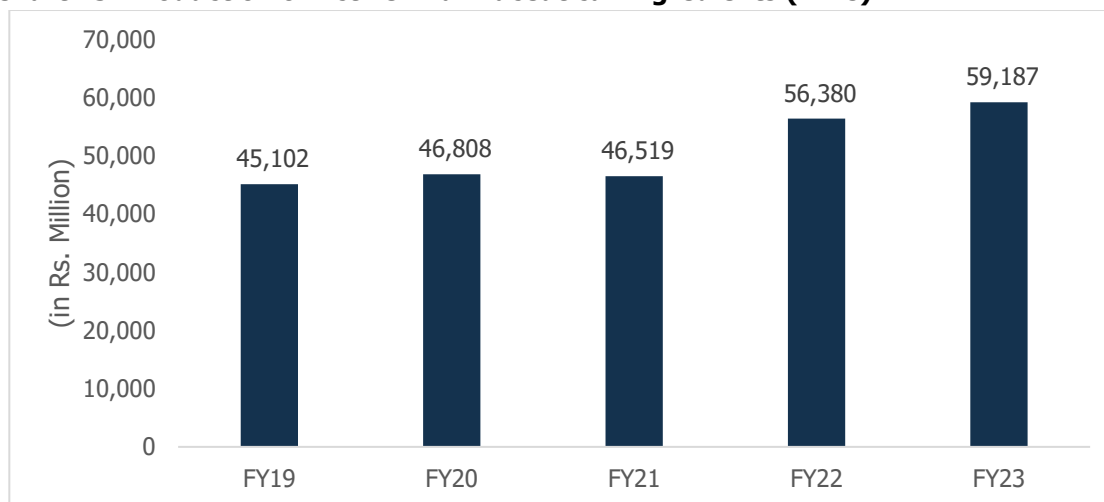
Active Pharmaceutical Ingredient (API) is the chemical component responsible for the therapeutic effect of a drug. It contributes to around 35% of the Indian pharmaceutical market. There are 500 API manufacturers in the country contributing about 8% in the global API industry. Additionally, there are some challenges being faced by the industry in terms of competition, comparatively lower R&D investments, price volatility due to high dependence on one source and pollution control which restrict the growth. However, with the increased investments and support from the government, the API industry is expected to grow exhibiting an upward trajectory.

#### 3.1 Market Size

The production of APIs has increased at a CAGR of 7.0% from Rs. 45,102 million in FY19 to Rs. 59,187 million in FY23. API is a crucial segment of the pharmaceutical industry, contributing to around 35% of the market. Post FY20-21, there has been a significant increase in production of APIs on account of introduction of PLI scheme in FY20.

Under the PLI scheme, manufacturing of 35 APIs, representing around 67% of APIs for which India has 90% import dependence has already started. API's demand is expected to follow a growing trajectory as it is an essential substance to cure, mitigate, prevent a disease or impact in restoring, correcting, or modifying physiological functions in human beings. Further, the demand for such an essential ingredient is expected to continue on an upward trajectory.

**Chart 15: Production of Active Pharmaceutical Ingredients (APIs)**



Source: CMIE

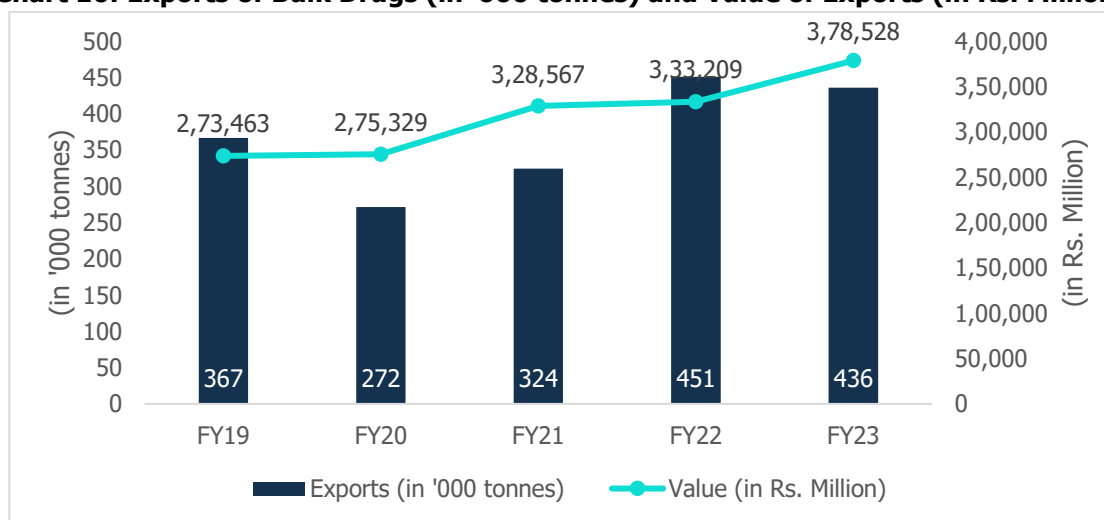
Note: APIs include vitamins, antibiotics, anti-pyretics and hypo-lipidemics only

### 3.2.1 Trade Scenario

**Exports:** India is one of the key players in the global pharma market. Indian export has reached to more than 200 countries. Remarkably, India contribute more than 50% of Africa’s generics demand, around 40% of generic demand in the US and around 25% of all medicine in the UK.

The exports of bulk drugs have increased at a CAGR of 4.4% from 2,73,463 thousand tonnes in FY19 to 3,78,528 thousand tonnes in FY23. Post the implementation of PLI Scheme 2.0 in FY21, there has been an exponential rise in the exports of bulk drugs majorly on account of increase in production of the bulk drugs and APIs.

**Chart 16: Exports of Bulk Drugs (in '000 tonnes) and Value of Exports (in Rs. Million)**



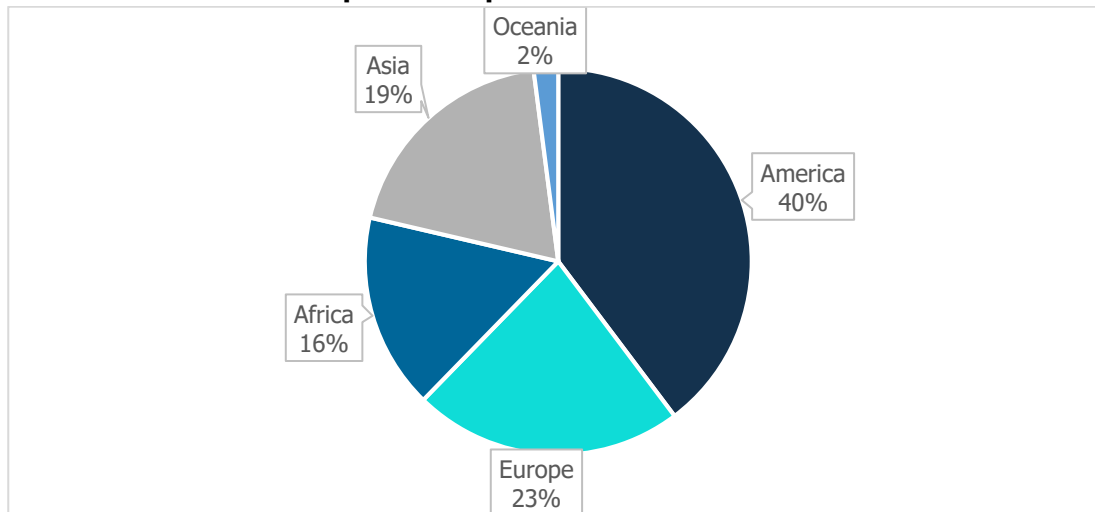
Source: CMIE

India is the third largest producer of API globally and accounts for a share of 8% in the global API industry. Post the Covid-19 pandemic, India has gained importance in terms of substitute of China and the exports have grown notably.

**American continent driving demand for pharmaceutical industry in the international market**

The pharma outbound shipments by India is majorly driven by the American continent. During FY23, the American continent accounted for 40% followed by Europe, Asia, Africa and Oceania with a share of 23%, 19%, 16% and 2% respectively.

**Chart 17: Continent-wise pharma exports FY23**



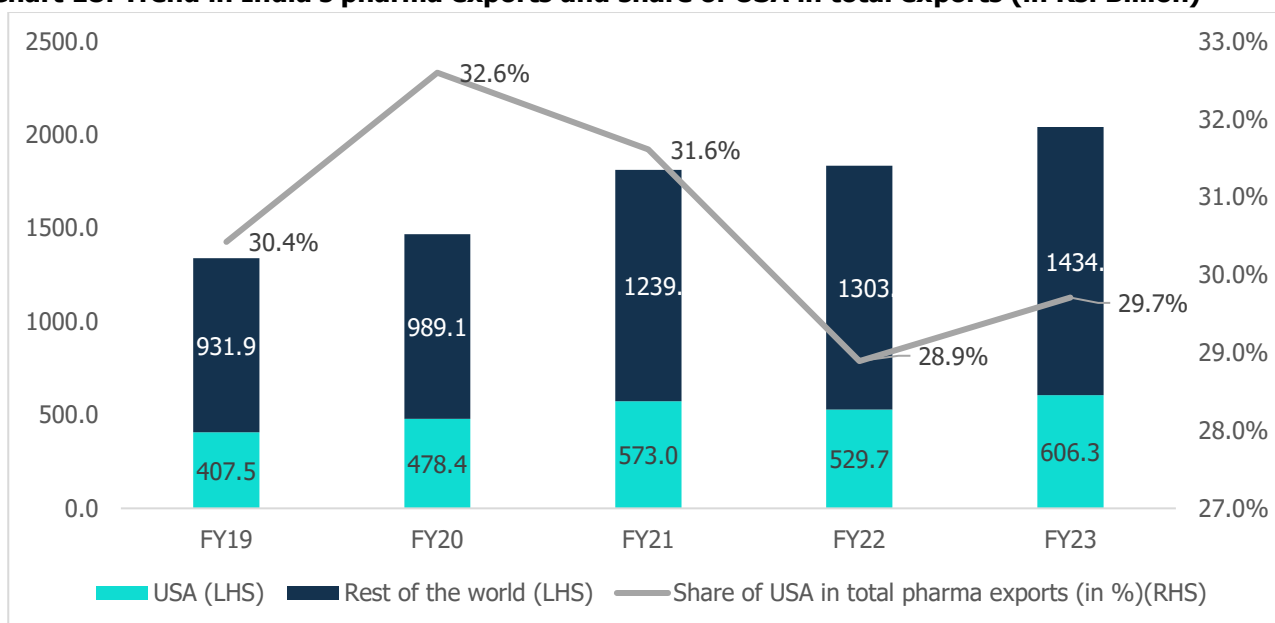
Source: CMIE

**Significance of USA in Indian pharma exports**

Among the countries, United States of America is the primary export destination for India. Exports to USA saw an uptrend in FY23 after experiencing a downtrend in FY22 on account of revival of plant inspections which were halted by global health regulators, beginning of treatments for non-covid ailments.

For other countries like South Africa, UK, Russia, Germany, Nigeria, Brazil, Canada, France, Netherlands, China, Belgium, Australia, UAE the share of each of these countries in total drugs & pharma exports remained in the range of 1.4%-2.9% in FY23.

**Chart 18: Trend in India’s pharma exports and share of USA in total exports (in Rs. Billion)**



Source: CMIE

The top countries in volume-wise exports of bulk drugs and intermediates are Indonesia (13.51%), USA (11.13%) and UAE (6.65%). In FY22, there was a trade agreement signed with UAE, which has paved way for the entry in the Gulf Cooperation Council (GCC) and is expected to further boost Indian exports.

**Table 4: Volume-wise Top 5 Export-Destinations of Bulk Drugs & Intermediates for India 2022-23**

| Country    | Share  |
|------------|--------|
| Indonesia  | 13.51% |
| USA        | 11.13% |
| UAE        | 6.65%  |
| Bangladesh | 2.90%  |
| Brazil     | 2.45%  |

Source: CMIE

USA holds a higher share (10.95%) in value-wise export of bulk drugs and intermediates compared to the volume-wise export of the same. After USA, China holds the second highest share of 5.46% followed by Brazil (4.84%).

**Table 5: Value-wise Top 5 Export-Destinations of Bulk Drugs & Intermediates for India 2022-23**

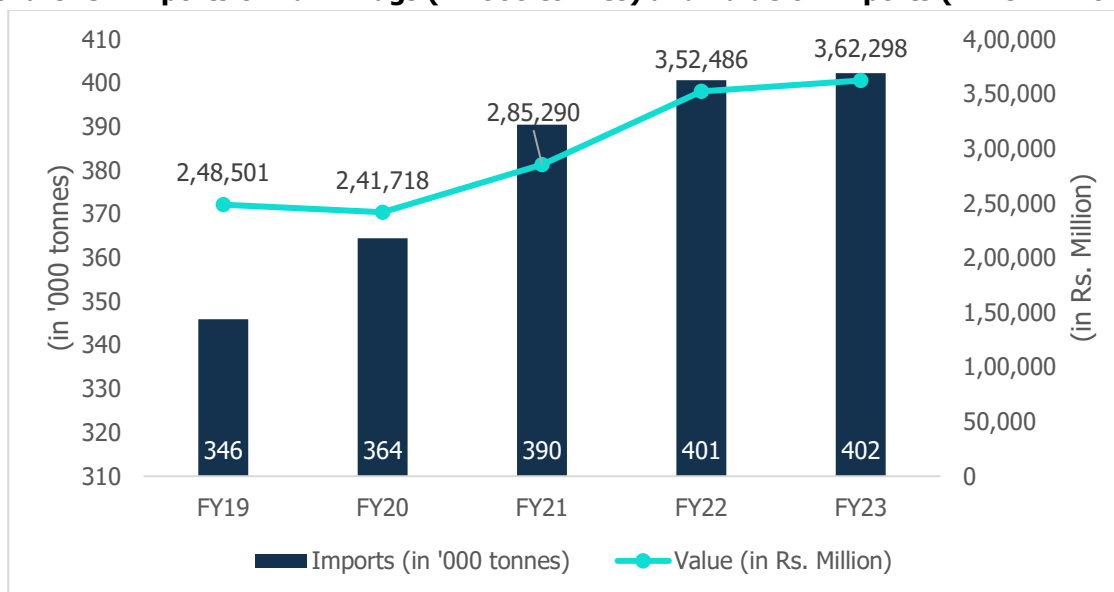
| Country    | Share  |
|------------|--------|
| USA        | 10.95% |
| China      | 5.46%  |
| Brazil     | 4.84%  |
| Bangladesh | 3.60%  |
| Germany    | 3.42%  |

Source: CMIE

**Imports:** The imports of bulk drugs and intermediates have increased at a CAGR of 3.8% from 2,48,501 thousand tonnes in FY19 to 3,62,298 thousand tonnes in FY23. The imports of bulk drugs and intermediates has increased on account of increase in production of drugs and pharmaceuticals.



**Chart 19: Imports of Bulk Drugs (in '000 tonnes) and Value of Imports (in Rs. Million)**



Source: CMIE

**Table 6: Volume-wise Top 5 Import-Destinations of Bulk Drugs & Intermediates for India 2022-23**

| Country   | Share  |
|-----------|--------|
| China     | 74.64% |
| Singapore | 8.08%  |
| Japan     | 3.63%  |
| USA       | 1.46%  |
| Belgium   | 0.76%  |

Source: CMIE

From the table above, we can infer China has the largest share of 74.64% followed by Singapore (8.08%) and Japan (3.63%).

**Table 7: Value-wise Top 5 Import-Destinations of Bulk Drugs & Intermediates for India 2022-23**

| Country   | Share  |
|-----------|--------|
| China     | 70.52% |
| USA       | 4.69%  |
| Singapore | 2.52%  |
| Italy     | 2.38%  |
| Spain     | 1.98%  |

Source: CMIE

In case of value-wise top import destinations, China has the lion's share of 70.52% and has major hold over the imports in the country. The second highest share is held by USA (4.69%) followed by Singapore (2.52%)

### 3.2 Key Growth Drivers

Some of the growth drivers for the Indian API Industry are as follows:

#### 1.2.8 Lower cost of production

The Indian pharmaceutical industry holds a strong position in terms of production volumes in the global pharma market as the country contributes around 10% of the world production volumes and in terms of value, India holds a share of around 2.4% globally. Lower cost of production coupled by efficient scientific and technical skills of human resources are the prime reasons for India's strong position. The cost of drugs manufactured in India is one of the lowest in the world.

**Table 8: Relative cost comparison in India**

|                              |       |
|------------------------------|-------|
| Cost in developed countries  | 100%  |
| Production cost in India     | 50%   |
| R&D cost in India            | 12.5% |
| Clinical trial cost in India | 10%   |

Source: Pharmexcil

Note: Costs in India as % of costs in developed countries

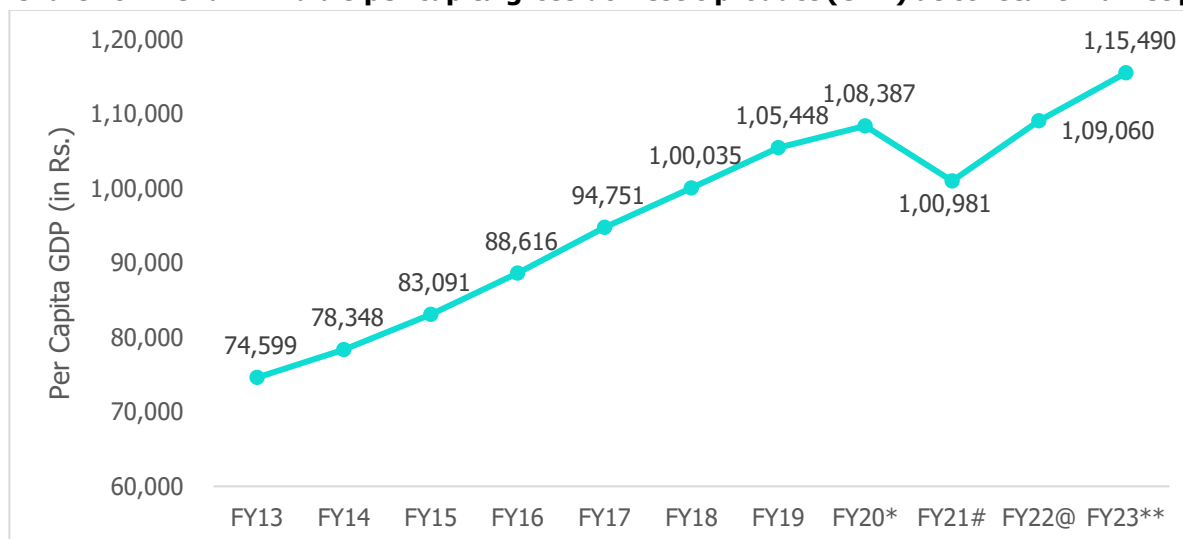
It can be understood from the relative cost comparison table that the production cost in India is almost half than that in the developed countries. The R&D cost and clinical trial cost in India are cheaper as the costs of these activities are about 87% and 90% lower in India than that of the developed countries. Hence, the API industry in India benefits from lower costs and makes it an attractive destination for outsourcing by global pharmaceutical companies.

#### 1.2.9 Patent cliff

Patent expiry allows the generic drugs to penetrate in the market and diversify product offerings. Over the next 3-4 years till 2026, the patented products worth of about USD 240 billion are expected to go off-patent. This provides a large opportunity to Indian generic formulation companies. Many of the Indian pharma companies are already working to develop the generic version of patented products to exploit the upcoming opportunity. It is expected that Indian pharma companies might get an opportunity worth around USD 5-6 billion due to patent expiry in next 4-5 years.

#### 1.2.10 Increase in per capita income

The per capita income of India is on an increase which paves the way for more demand of healthcare services as a rise in per capita income increases the ability of population to afford various expenses. This, in turn, supports the need of quality medical care that comes at a relatively higher price.

**Chart 20: Trend in India's per capita gross domestic product (GDP) at constant market prices**

Source: MOSPI, Base year 2011-12

Note: \*\* refers to Provisional Estimates; @ refers to First Revised Estimates;

# refers Second Revised Estimates; \* refers to Third Revised Estimates

India's per capita GDP increased in each of the years during FY13 to FY23 on y-o-y basis and grew at a CAGR of 4.5% during this period. The per capita GDP however witnessed a fall of 6.8% y-o-y in FY21 on account of Covid-19 crisis which induced lockdown in the country and thus resulted in shutdown of various businesses which, in turn, led to job losses across several industries. Subsequently, this decreased the country's per capita GDP during FY21.

However, it becomes equally important to pay attention to the fact that an increase in per capita income does not necessarily imply that income from weaker sections of the society is on a rise as people in India are at different levels of income distribution. Therefore, the improvement in healthcare expenditure is likely to be led by households that have a higher spending capacity.

### 1.2.11 Transition in disease profile

Over the years, there has been a substantial change in the disease profile of Indians. As shown the table, the share of communicable, maternal, neonatal, and nutritional diseases for death decreased to 27.5% in 2016 from 53.6% in 1990 and that of non-communicable diseases increased to 61.8% in 2016 from 37.9% in 1990. This represents the transition or shift in the disease profile of population in India which provides an ample scope of opportunity for healthcare services and pharmaceutical industry in the country as the non-communicable diseases tend to be of long duration which, in turn, increases the need for pharmaceutical and healthcare services with respect to non-communicable diseases. This will further augur well for the API industry in India.

**Table 9: Contribution of major disease group to total deaths in India**

|   | 1990  | 2016  |
|---|-------|-------|
| Share of communicable, maternal, neonatal, and nutritional diseases | 53.6% | 27.5% |
| Share of non-communicable diseases                                  | 37.9% | 61.8% |
| Share of injuries   | 8.5%  | 10.7% |

Source: Health of the Nation's States 2017: India Council of Medical Research

Malaria, dengue fever, common cold, cholera etc. are referred to as communicable diseases and diseases like cancer, diabetes, cardiovascular diseases and stroke etc. are referred to as non-communicable diseases.

### 1.2.12 Regulatory compliance

The Indian API industry has been focusing on maintaining high-quality standards and adhering to international regulatory requirements. Compliance with regulatory standards, such as those set by the USFDA and the European Medicines Agency (EMA), enhances the industry's reputation and facilitates global market access. India has the distinction of having the largest number of USFDA-compliant pharma plants outside of USA. With the available USFDA compliant infrastructure, it is expected that India will lead the patent cliff opportunity in USA.

### 1.2.13 Skilled workforce

India has a pool of skilled scientists, researchers, and engineers who contribute to the development and manufacturing of APIs. The availability of a well-educated and trained workforce is a crucial factor in the growth of the pharmaceutical industry.

### 1.2.14 Increasing contract manufacturing and outsourcing activities

There is an increasing demand for pharmaceuticals in global markets as well as emerging markets. Many economies do not have the skillset or the infrastructure needed to produce the APIs and other bulk drugs. Given the low cost of production in India and expertise, India is a preferred destination for contract manufacturing as well as outsourcing.

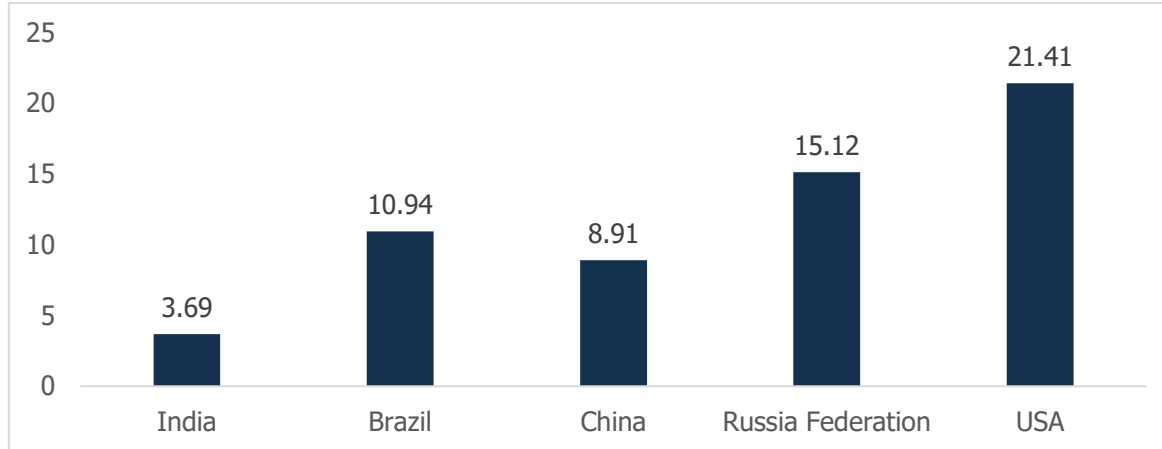
## 3.3 Expenditure on Healthcare

### Domestic General Government Health Expenditure (GGHE – D) as percentage of General Government Expenditure (GGE) (%)

Domestic general government health expenditure as a percentage of the total general government expenditure is a measure that indicates the amount government spends on health from their own domestic public resources. It specifies the government's priority of spending on current health expenditure from the government domestic sources relative to the total size of government expenditure.

The government domestic sources for health include internal government transfers and grants, subsidies to voluntary schemes as well as social health insurance contributions. From the chart below, we can infer India has the lowest domestic general government health expenditure relative to the total general government expenditure. The highest share is held by USA at 21.41%, followed by Russia Federation (15.12%) and Brazil (10.94%).

**Chart 21: Domestic General Government Health Expenditure (GGHE – D) as percentage of General Government Expenditure (GGE) (%)**



Source: World Health Organization (WHO)

This implies the lack of support by the government and it also means Indians pay the highest from their pockets for availing healthcare services. The expenditure on healthcare by the government is very less compared to the developed nations and hence it highlights the rising need for the increase in expenditure.

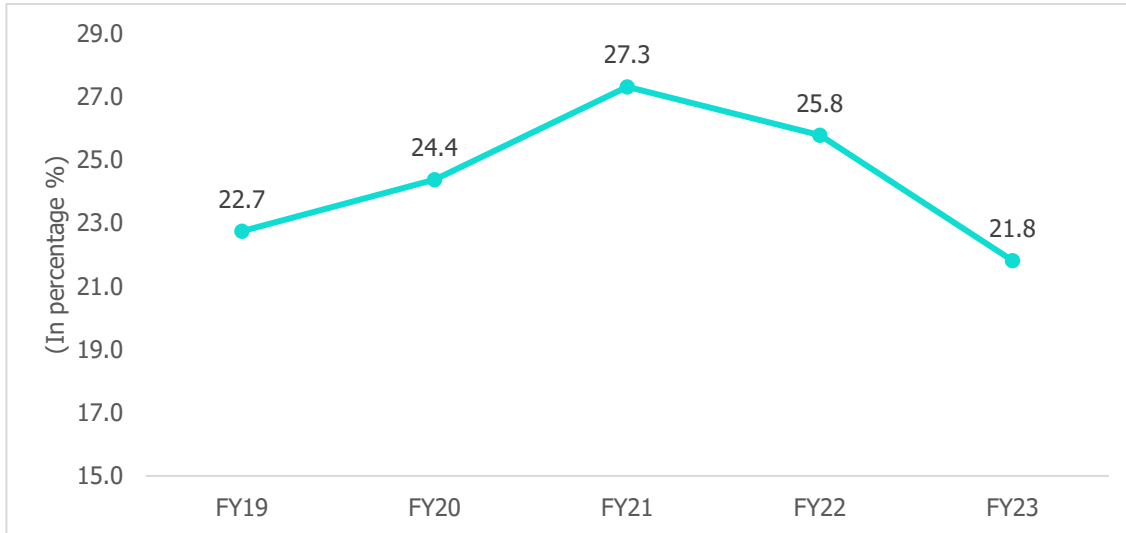
### 3.4 SWOT Analysis of Pharmaceuticals Industry

| Strength  | Weakness   |
|---|--|
| <ul style="list-style-type: none"> <li>- Healthy investment to enhance India’s manufacturing capabilities and contribution towards product diversification to high-value goods in the sector</li> <li>- Patents worth ~USD 240 billion are expected to go off-patent by 2026, which provides a large opportunity to Indian generic formulation companies</li> <li>- Increase in budgetary allocation toward government spending on healthcare</li> <li>- Government schemes such as Scheme on Promotion of Bulk Drug Parks and Production Linked Incentive (PLI) scheme for promotion of domestic manufacturing</li> <li>- Healthy demand domestically and globally backed by increase in per capita income, transition in disease profile, increasing ageing global population and health awareness</li> </ul> | <ul style="list-style-type: none"> <li>- High reliance on China with respect to pharma inputs</li> <li>- Relatively low R&amp;D (Research and Development) investments</li> <li>- Lack of mega bulk drug parks</li> <li>- Stricter implementation of pollution control norms</li> </ul>        |
| Opportunity   | Threat   |
| <ul style="list-style-type: none"> <li>- Business prospects in US expected to improve backed by shortage of drugs in the US, subsiding pricing pressures and rising prices of drugs</li> <li>- Increase of entry of pharmaceutical firms into untapped markets</li> <li>- On account of implementation of various PLI schemes, the manufacturing of APIs will go up significantly and aid in the reduction of imports</li> <li>- Signing of trade agreements with various countries like Australia and United Arab Emirates (UAE) and many such countries will provide a gateway for Indian exports</li> </ul>  | <ul style="list-style-type: none"> <li>- Rising prices of APIs (Active Pharmaceutical Ingredients), Key Starting Materials (KSMs),</li> <li>- Rise in freight and energy cost</li> <li>- Rising instances of observations by the United States Food and Drug Administration (USFDA)</li> </ul> |

### 3.5 Profitability

The industry's operating profit margin in FY23 stood at 21.8%. It has been range bound since FY19. The operating expenses for the industry have been on the rise on account of supply chain disruptions.

**Chart 22: Industry Operating Margin**



Source: CMIE

Note: The set for the companies vary each year and are in the range of 300-500

Due to supply chain disruptions the prices of some APIs/ KSM have increased between 25% to 120% while prices of excipients have risen between 15%-200% during the last year. Apart from the cost of raw material, the cost of packing material also saw an upward movement of 25-100%. The cost of power, fuel and coal witnessed a rise of more than 50% during the last one year while the cost of freight saw a jump of more than 2 times. This has impacted the operating margins of the company and caused the decline. However, the costs associated with packing and freight have started cooling off now.

## 4 Industry Overview – Bulk Drugs and Active Pharmaceutical Ingredients (APIs)

### 4.1 Segment Definition

Active Pharmaceutical Ingredients (API) is the primary active ingredient that is manufactured in the initial stage of pharmaceutical and drug production. It is the ingredient that results in desired therapeutic effect in the human body. Bulk drugs are active chemical substances and are used in the manufacturing of pharmaceutical and drug formulations. API/bulk drugs can be considered as inputs that are used in making of formulations. There are 500 API manufacturers in the country contributing about 8% in the global API industry.

### 4.2 Products

Some of the products that use API are:

- **Therapeutic drugs:** The API is the core component of a drug that produces the desired therapeutic effect. Pharmaceutical companies invest in research and development to identify and develop effective APIs for the treatment of various medical conditions. The term "therapeutic drugs" encompasses a wide range of medications used to treat various medical conditions, and each drug has its own specific API or combination of APIs. Therapeutic drugs can be classified into various categories based on their intended use and mode of action. Some common categories include:
  - Antibiotics: These are used to treat bacterial infections by inhibiting the growth and killing the bacteria.
  - Analgesics and pain relievers: These help in alleviating the pain and the range includes over the counter (OTC) drugs like ibuprofen to crocin.
  - Antidepressants and anti-anxiety drugs: These drugs help in managing mood disorders and anxiety related disorders.
  - Antivirals: These drugs help in inhibition of replication of viruses to combat viral infections
  - Anti-inflammatory drugs: These drugs are used to reduce inflammation and used for conditions such as arthritis.
  - Antihypertensives: These medications lower blood pressure to treat hypertension and reduce the risk of cardiovascular events.
  - Antidiabetic drugs: These medications control the blood sugar levels in individuals.
  - Anticoagulants and antiplatelet drugs: These medications prevent clotting of blood and reduce the risk of thrombosis.
  - Hormonal therapies: These help in regulation of hormonal imbalance and are used in conditions like hormone-dependent cancers.
  - Antipsychotics: These medications help in the treatment of psychiatric disorders such as schizophrenia and bipolar disorder.

Some of the other therapeutic drugs include antifungals that treat the fungal infection in the body, antiemetics that are used during chemotherapy or post-surgery which help in reducing nausea and vomiting, immunosuppressants that are used to suppress immune system in conditions like organ transplant recipients or autoimmune diseases and bronchodilators and corticosteroids which help in managing respiratory conditions like asthma and chronic obstructive pulmonary disease.

The development and use of therapeutic drugs involve rigorous research, clinical trials, and regulatory approval processes to ensure safety and efficacy. These drugs play a crucial role in modern medicine by improving the quality of life, preventing diseases, and prolonging survival for many individuals.

- **Dosage:** Dosage in the context of drugs refers to the amount of a therapeutic substance (active pharmaceutical ingredient or API) contained in a single unit of a medication. Proper dosage is crucial for ensuring the



effectiveness and safety of a drug. The dosage of a drug is typically specified in terms of the quantity of the active ingredient per unit of administration (e.g., per tablet, capsule, milliliter of liquid, etc.).

Some of the common dosage forms include:

- Tablets and capsules: These are typically taken orally and are in solid form.
- Liquid formulations: These medications are measured in milliliters and are in the form of solutions, suspensions or syrups.
- Injections: These are administered through various routes such as intravenous (IV), intramuscular (IM) or subcutaneous (SC).
- Topical preparations: These are generally in the form of creams, ointments or patches that are directly applied to the skin.
- Inhalers: These are for respiratory conditions to deliver the drug in aerosol form.

It's crucial for healthcare professionals to prescribe the correct dosage based on the specific needs of the patient and the therapeutic goals. Incorrect dosage can lead to inadequate treatment or adverse effects, highlighting the importance of precision in pharmaceutical dosing.

### 4.3 Competitive Scenario

Key Starting Materials (KSMs) are the raw materials or intermediates that are used in the production of API and it constitutes a significant structural fragment into the structure of API. These KSMs are largely imported from China.

**Figure 1: Constituents of a pharmaceutical medicine**



Source: CareEdge Research

China is deeply rooted in the pharmaceutical supply chains and extensively produces KSMs, APIs and intermediates, all of which are crucial for the pharmaceutical industry. More than 50% APIs are imported in India and majority of these imports are from China. Some of the key APIs for which India is dependent on China are:

- Penicillin G
- Levodopa
- Streptomycin
- Meropenem
- Carbidopa
- Vancomycin
- Gentamicin

Any constraints in the supply of these can cause supply disruption in the domestic market. Chinese API Industry has inherent advantages like economies of scale and government support in the form of infrastructure and subsidies. These majorly drive the Chinese API market.

Considering the situation and dependency of India on China for KSM and API, the Union Cabinet approved the following schemes for pharma industry on 21 March 2020:

The scheme on **Promotion of Bulk Drug Parks** for financing Common Infrastructure Facilities in three Bulk Drug Parks with financial implication of Rs.3,000 crore for 5 years from FY 2020-21 to FY 2024-25. This scheme will facilitate common facilities, 3 bulk drug parks - Rs.1,000 crore for each park, lower manufacturing cost of bulk drugs among others.

Production Linked Incentive (PLI) Scheme for promotion of domestic manufacturing of identified 53 critical KSMs/Drug Intermediates and APIs in the country with financial implications of Rs.6,940 crore. The tenure of the scheme is from FY 2020-21 to FY 2029-30. (**PLI 1.0**). However, on 29 October 2020, the government announced certain relaxations with respect to PLI 1.0.

Objective of the above scheme is to promote domestic manufacturing of 41 identified bulk drugs to address their high import dependence. Under the scheme, financial incentive will be given for six years to eligible manufacturers of 41 bulk drugs on their incremental sales over the base year.

| Category                        | Rate of incentives                  |
|---------------------------------|-------------------------------------|
| Fermentation based products     | First 4 years (FY24 to FY27) - 20%  |
|                                 | 5th year (FY28) - 15%               |
|                                 | 6th year (FY29) - 5%                |
| Chemically synthesized products | Entire 6 years (FY23 to FY28) - 10% |

Source: Department of Pharmaceuticals

Apart from this, another PLI scheme (**PLI 2.0**) was approved by the government on 24 February 2021 for the pharma sector that will spread over a period of FY21 to FY29. The scheme is expected to bring an investment of Rs.15,000 crore in the sector. The objective of the scheme is to enhance India's manufacturing capabilities by increasing investment and production in the sector and contributing to product diversification to high-value goods in the pharmaceutical sector. The scheme shall cover pharmaceutical goods under 3 categories as mentioned below with their respective rate of incentives:

|                    | Category 1  | Category 2   | Category 3  |
|--------------------|---|--|---|
| Drugs covered      | Biopharmaceuticals; Complex generic drugs; Patented drugs or drugs nearing patent expiry; Cell based or gene therapy drugs; Orphan drugs; Special empty capsules like HPMC, Pullulan, enteric etc.; Complex excipients; Phyto-pharmaceuticals: Other drugs as approved. | Active Pharmaceutical Ingredients / Key Starting Materials / Drug Intermediates. | Repurposed drugs; Auto immune drugs, anti-cancer drugs, anti-diabetic drugs, anti-infective drugs, cardiovascular drugs, psychotropic drugs and anti-retroviral drugs; In vitro diagnostic devices; Other drugs as approved; Other drugs not manufactured in India. |
| Rate of incentives | First 4 years - 10% (of incremental sales value)  |  | First 4 years - 5% (of incremental sales value)   |
|                    | 5th year - 8%   |  | 5th year - 4%   |
|                    | 6th year - 6%   |  | 6th year - 3%   |

Source: Department of Pharmaceuticals

Implementation of these schemes is expected to boost our production as well as exports and will provide a competitive edge to India. However, the schemes are in implementation stage and the progress is slow. It will require 3-5 years for enhancing the infrastructure facilities and manufacturing to pick up pace.

#### 4.4 Risk Profile Factors

##### 4.4.1 Implementation of pollution control norms

Under the current norms, companies have to go through a fresh approval process every time they want to change their product mix or increase their production or want to add an equipment. This approval process can take 4 months to 8 months or even more, which is leading to higher cost of manufacturing APIs in India.

##### 4.4.2 Price control

There are certain drugs that fall under the national list of essential medicines, the prices and inclusion of which are fixed by the government. Hence, the players in the industry are restricted to spend on Research and Development (R&D). Recently India's drug pricing authority allowed a price hike of 12.1% for scheduled drugs. This is the highest price hike allowed by it during the past many years which is expected to support the profitability of the pharma sector to an extent.

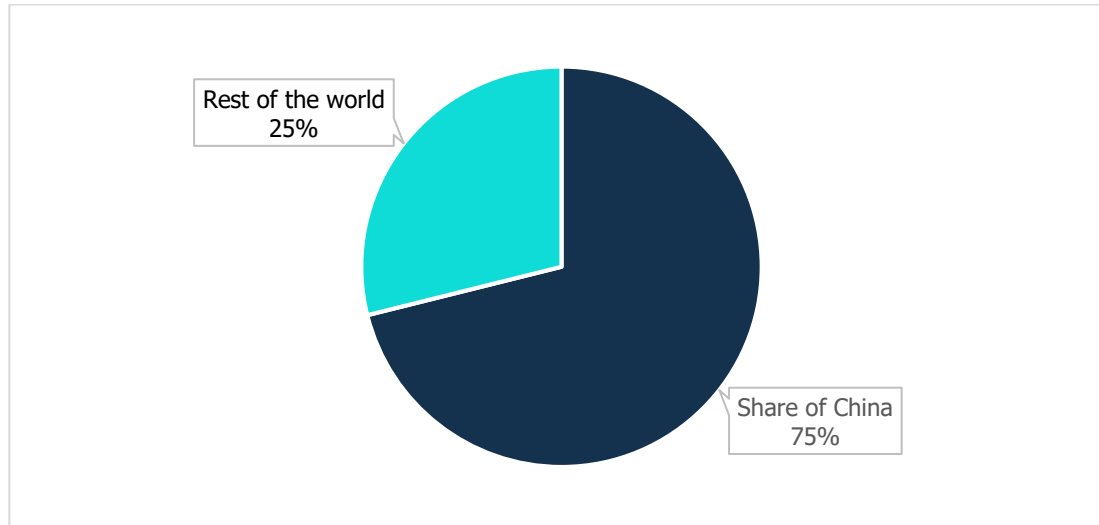
In order to cope with decisions pertaining to scheduled vs non-scheduled formulations, new drugs, demand notices for overcharging, the India pharma companies were compelled to develop business strategies to move on the upper end of the value chain and focus on commercially attractive segments like finished formulations and complex APIs. Thus, the local formulation players ended up sourcing from low cost locations like China, which eventually has led to increased dependence on single source and high fluctuation in API prices.

##### 4.4.3 High reliance on China

India is a net importer of bulk drugs and intermediates and the country is highly dependent on China. The dependency of India on imports of API/bulk drugs, is considerable. About more than 60% of APIs are sourced from other countries, and in case of certain specific APIs, the import dependence is 80%-90%.

From the chart below, we can infer that imports from China have the largest share in the overall bulk drugs and drug intermediate imports by India. China accounted 75% of the total bulk drugs and drug intermediate imports by India during FY23. This high import dependency is due to the cheap availability of APIs and bulk drugs in China. The low prices prompt the Indian drug manufacturers to import bulk drugs from China which, in turn, affects the manufacturing capabilities of the Indian API/bulk drugs industry. Thus, any disruption in China's bulk drugs market has a direct influence on the Indian pharma industry.

**Chart 23: Share of China in India's bulk drugs imports during FY23**



Source: CMIE

High dependency on imports constrains manufacturing capacity at home and significant dependence on a particular source becomes a threat as a disruption at this source has the potential to impact the overall Indian pharma industry supply chain. Similarly, supply disruptions in China due to Covid-19 pandemic impacted the procurement of bulk drugs by India and thus the supply chain of the Indian pharma industry. Considering such situations, it becomes imperative for India to reduce the dependency on a single source (China) to avoid any disruptions to the pharma industry. In line with this aim, the Government of India has announced certain schemes to encourage manufacturing of APIs/bulk drugs domestically which is likely to help in reducing the dependency on imports.

It is important to note that the government has announced certain schemes to encourage manufacturing of APIs/bulk drugs domestically and thus reduce the dependency on imports.

#### **4.4.4 Lack of bulk drug parks**

There is a lack of large clusters of bulk drug parks. These parks will require common facilities for pollution control, treatment of effluents and single environmental clearance. This leads to high capex requirement. In FY20, production linked incentive scheme for promotion of bulk drugs and parks was implemented. However, it is still in process and will take a considerable amount of time to start.

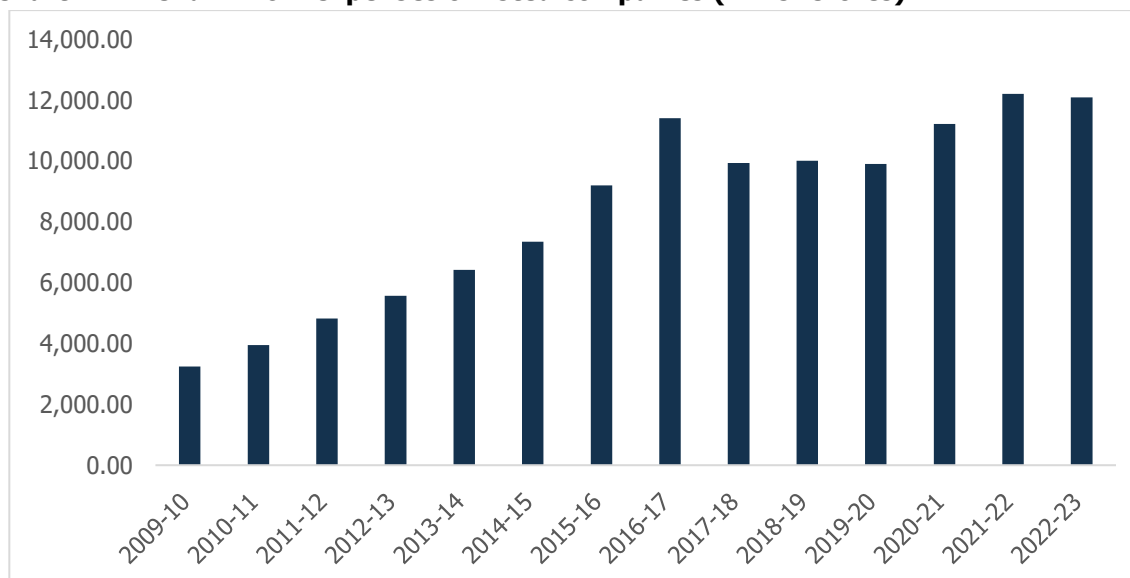
#### **4.4.5 Difficulties being faced by fermentation industry**

On account of cheap rates offered by China, substantial amounts of APIs were being imported from China which forced the local manufacturers to shut down operations. On the other hand, China is the sole manufacturer of penicillin and they have also started manufacturing intermediates from penicillin and because of this monopoly, they have strategically priced penicillin which makes manufacturing of intermediates uneconomical in India.

#### 4.4.6 Relatively low Research & Development (R&D) investments

R&D investments for the companies has grown at a CAGR of 10.6% from 2010 to 2023. This is relatively low compared to that of these company's global counterparts.

**Chart 24: Trend in R&D expenses of listed companies (in Rs. Crores)**



Source: CMIE

Note: R&D expenses include capital and current expenses

Note: The set for the companies vary each year and are in the range of 130-165

The investment in R&D allows development and innovation in future product pipeline and is one of the important sources of future growth for a pharma company. Correct investments towards R&D leads to better prospects for pharma companies as it results in development of new products and also renders supplementary uses for in-line and alliance products. The R&D investments, in turn, help to achieve a definite pipeline that can support revenues of the companies over a period of time. Thus, investments towards R&D plays critical role towards the growth of pharma companies.

## 4.5 Government Regulations

### Central Drugs Standard Control Organization (CDSCO)

CDSCO under Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India is the National Regulatory Authority (NRA) of India. The headquarters are located in New Delhi and it also has six zonal offices, four sub zonal offices, thirteen Port offices and seven laboratories spread across the country.

The Drugs & Cosmetics Act, 1940 and rules 1945 have entrusted various responsibilities to central & state regulators for regulation of drugs & cosmetics. It envisages uniform implementation of the provisions of the Act & Rules made there under for ensuring the safety, rights and well-being of the patients by regulating the drugs and cosmetics. CDSCO is constantly thriving upon to bring out transparency, accountability and uniformity in its services in order to ensure safety, efficacy and quality of the medical product manufactured, imported and distributed in the country.

Under the Drugs and Cosmetics Act, CDSCO is responsible for approval of drugs, conduct of clinical trials, laying down the standards for drugs, control over the quality of imported drugs in the country. Also, it is responsible for co-

ordination of the activities of State Drug Control Organizations by providing expert advice with a view of bring about uniformity in the enforcement of the Drugs and Cosmetics Act. Further CDSCO along with state regulators, is jointly responsible for grant of licenses of certain specialized categories of critical drugs such as blood and blood products, I. V. Fluids, Vaccine and Sera.

### **National Pharmaceutical Pricing Authority (NPPA)**

NPPA is an organization of the Government of India which was established, inter alia, to fix/ revise the prices of controlled bulk drugs and formulations and to enforce prices and availability of the medicines in the country, under the Drugs (Prices Control) Order, 1995. The organization is also entrusted with the task of recovering amounts overcharged by manufacturers for the controlled drugs from the consumers. It also monitors the prices of decontrolled drugs in order to keep them at reasonable levels.

### **Functions of NPPA**

- To implement and enforce the provisions of the Drugs (Prices Control) Order in accordance with the powers delegated to it.
- To deal with all legal matters arising out of the decisions of the authority;
- To monitor the availability of drugs, identify shortages, if any, and to take remedial steps;
- To collect/ maintain data on production, exports and imports, market share of individual companies, profitability of companies etc., for bulk drugs and formulations;
- To undertake and/ or sponsor relevant studies in respect of pricing of drugs/ pharmaceuticals;
- To recruit/ appoint the officers and other staff members of the authority, as per rules and procedures laid down by the government;
- To render advice to the central government on changes/ revisions in the drug policy;
- To render assistance to the central government in the parliamentary matters relating to the drug pricing.

## 5 Peer Comparison

### 5.1 Benchmarking based on Operational Parameters

Following players in the pharmaceutical segment have been considered for peer benchmarking of Solara Active Pharma Sciences Ltd:

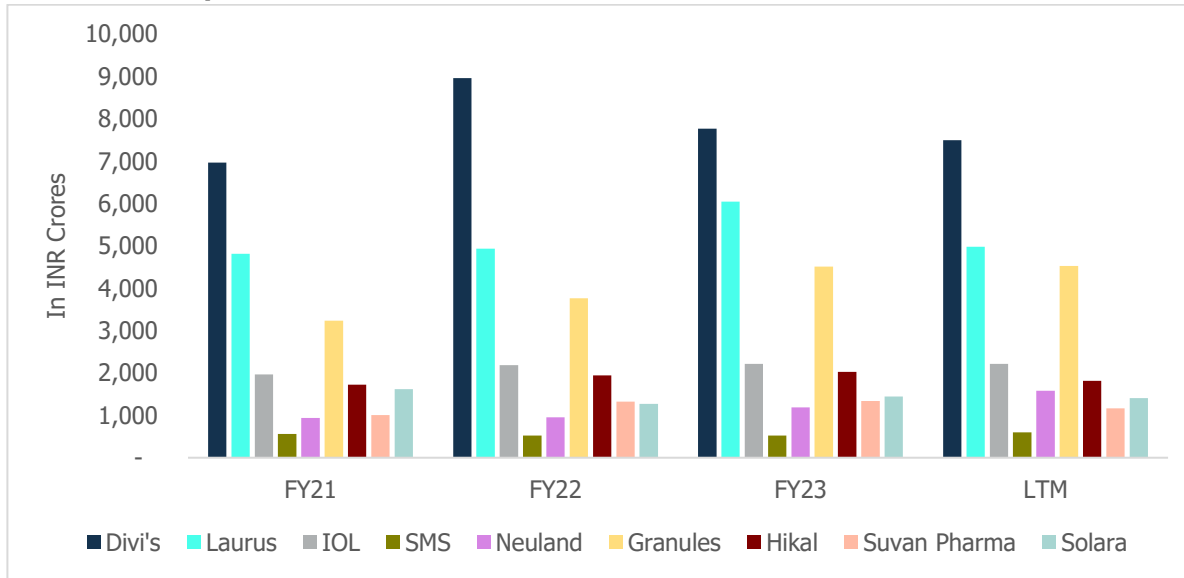
| Name of the Company                              | Business Overview   |
|--|---|
| <b>Solara Active Pharma Sciences Ltd (SAPSL)</b> | <p>The company is an international supplier of Active Pharmaceutical Ingredients (APIs), Contract Research and Manufacturing Services (CRAMS). The company specialises in production of commercial APIs in therapeutic category.</p> <p>They also have a proven track record of developing complex products including polymer-based APIs and injectables. SAPSL has around 137 scientists and 2,361 employees on board.</p> <p>They have a global presence across 75 countries. They are also in the process of developing 10+ APIs. They have 6 API manufacturing facilities and 2 R&amp;D centres in India.</p> |
| <b>Divi's Laboratories</b>                       | <p>The company was founded in 1990 and is one of the leading manufacturers of APIs, intermediates and registered starting materials.</p> <p>They have a global presence in over 100+ countries. They have 2 manufacturing facilities in India.</p> <p>They have around 16,500 trained professionals across departments and ~400 scientists on board.</p>  |
| <b>Laurus Labs</b>                               | <p>Laurus Labs was founded in 2005 in Hyderabad. It operates in various segments of the industry such as production of APIs, custom synthesis of APIs, generics and specialty ingredients. Their main focus areas include anti-retroviral, hepatitis C and oncology drugs.</p> <p>They have have commercialised 60+ products since inception across three distinct business units: Generics API, Generics FDF and Synthesis. The company has 11 manufacturing facilities.</p>   |
| <b>IOL Chemicals &amp; Pharmaceuticals (ICP)</b> | <p>IOL Chemicals and Pharmaceuticals was established in 1986 in Punjab. They are focused on production of APIs and pharmaceutical intermediates and other specialty chemicals used in the pharmaceutical industry.</p> <p>The company has 10 API facilities and 3 specialty chemicals dedicated facilities. Their global presence in 80+ countries. They are focused on therapeutic areas like anti-inflammatory, analgesic, anti-pyretic, anti-diabetic, proton pump inhibitor, etc.</p>   |

|  |   |
|--|---|
| <p><b>SMS Pharmaceuticals</b></p>            | <p>SMS Pharmaceuticals was founded in 1990 and based in Hyderabad. They are involved in manufacturing of APIs, intermediates and finished dosage forms.</p> <p>SMS has 4 multi product facilities and 2 research centers with more than 1000 employees on board. They have over 40+ products, 30+ process patents and 80+ regulatory filings.</p>   |
| <p><b>Neuland Laboratories Ltd (NLL)</b></p> | <p>Neuland Laboratories Ltd was founded in 1984 and is a manufacturer of APIs and an end-to-end solution provider for the pharmaceutical industry’s chemistry needs. Neuland has 100+ APIs across 10 therapeutic areas.</p> <p>They have 3 manufacturing plants in India and a global presence in 80+ countries and more than half of the comes from exports. The company has 1,573 employees on board.</p>   |
| <p><b>Granules India Ltd (GIL)</b></p>       | <p>GIL was founded in 1984 and is a pharmaceutical manufacturing company based in Hyderabad. The company manufactures several off-patent drugs including paracetamol, ibuprofen, metformin and guaifenesin on a large scale for customers in regulated and other markets across the globe. They are also focused on contract research and manufacturing.</p> <p>GIL has 7 manufacturing plants and a global presence in 80+ countries. They also have 60+ ANDA filings. They have 5000+ employees on board.</p> |
| <p><b>Hikal Ltd</b></p>                      | <p>Hikal Ltd is a prominent provider of APIs, intermediates and contract research and manufacturing as well as contract development services. They have 3 manufacturing facilities in India. And have 1,664 human capital employed.</p> <p>They focus on therapeutic category products for humans as well as animals.</p>   |
| <p><b>Suven Pharmaceuticals</b></p>          | <p>Suven Pharmaceuticals was founded in 2018 and is a global pharmaceutical company based in India. The company is primarily engaged in drug discovery, development, and manufacturing of active pharmaceutical ingredients (APIs) and intermediates.</p> <p>Suven Pharmaceuticals has a strong emphasis on research and development, particularly in the field of neuroscience. The company is involved in the discovery of new chemical entities (NCEs) for CNS disorders.</p>                                |



## 5.2 Benchmarking based on Financial Parameters

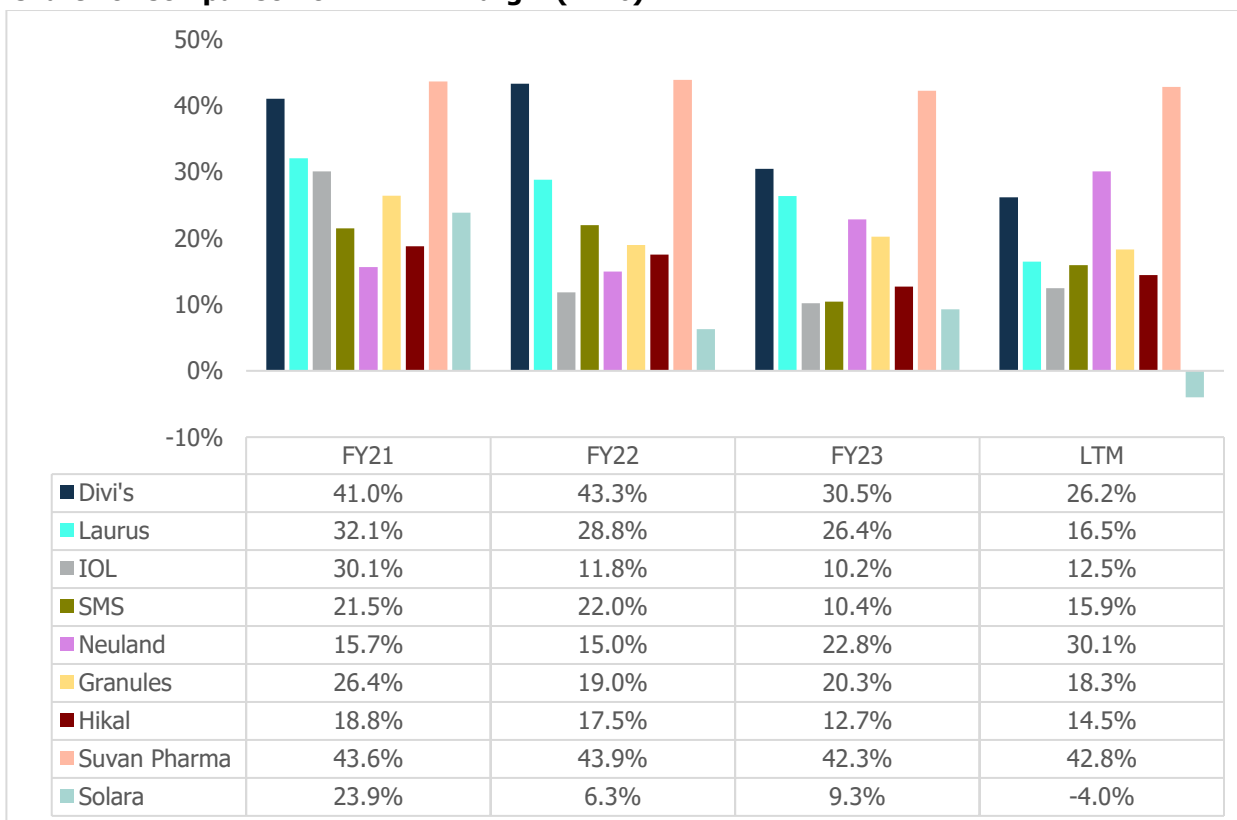
**Chart 25: Comparison of Revenue**



Source: Company Reports  
LTM- Last 12 Months

In terms of revenue, Granules India Limited is the fastest growing company in the past three years. It has exhibited a CAGR of 18.1%. However, as on FY23, Neuland Laboratories Limited have the highest y-o-y growth of 25.2%. Other companies have a CAGR in the range of 5.6% to 15.2%.

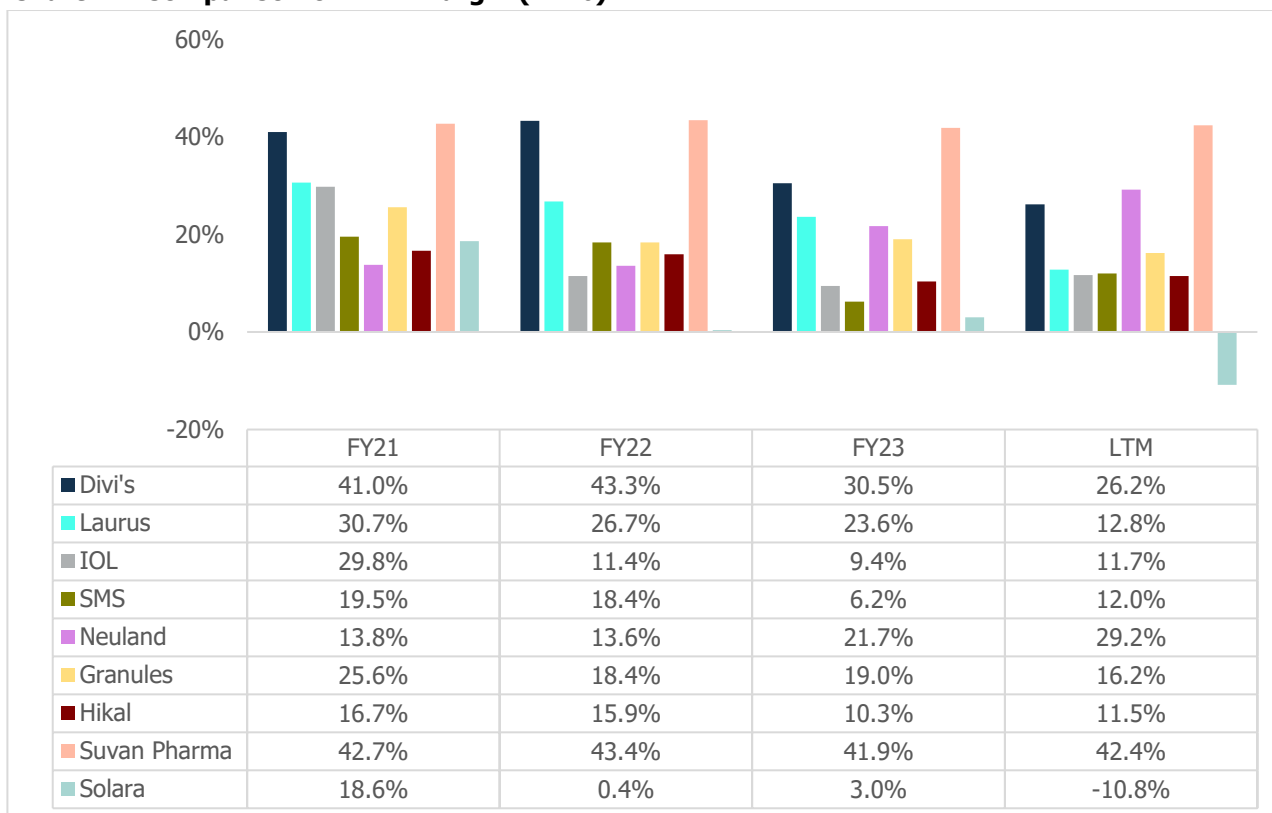
**Chart 26: Comparison of EBITDA Margin (in %)**



Source: Company Reports  
LTM- Last 12 Months

There has been a degrowth on y-o-y basis in EBITDA margin for most of the companies in the peerset. However, highest y-o-y growth in the EBITDA margin was exhibited by Neuland Laboratories Limited (52.2%) followed by Solara Active Pharma Sciences Limited (47.1%) as on FY23.

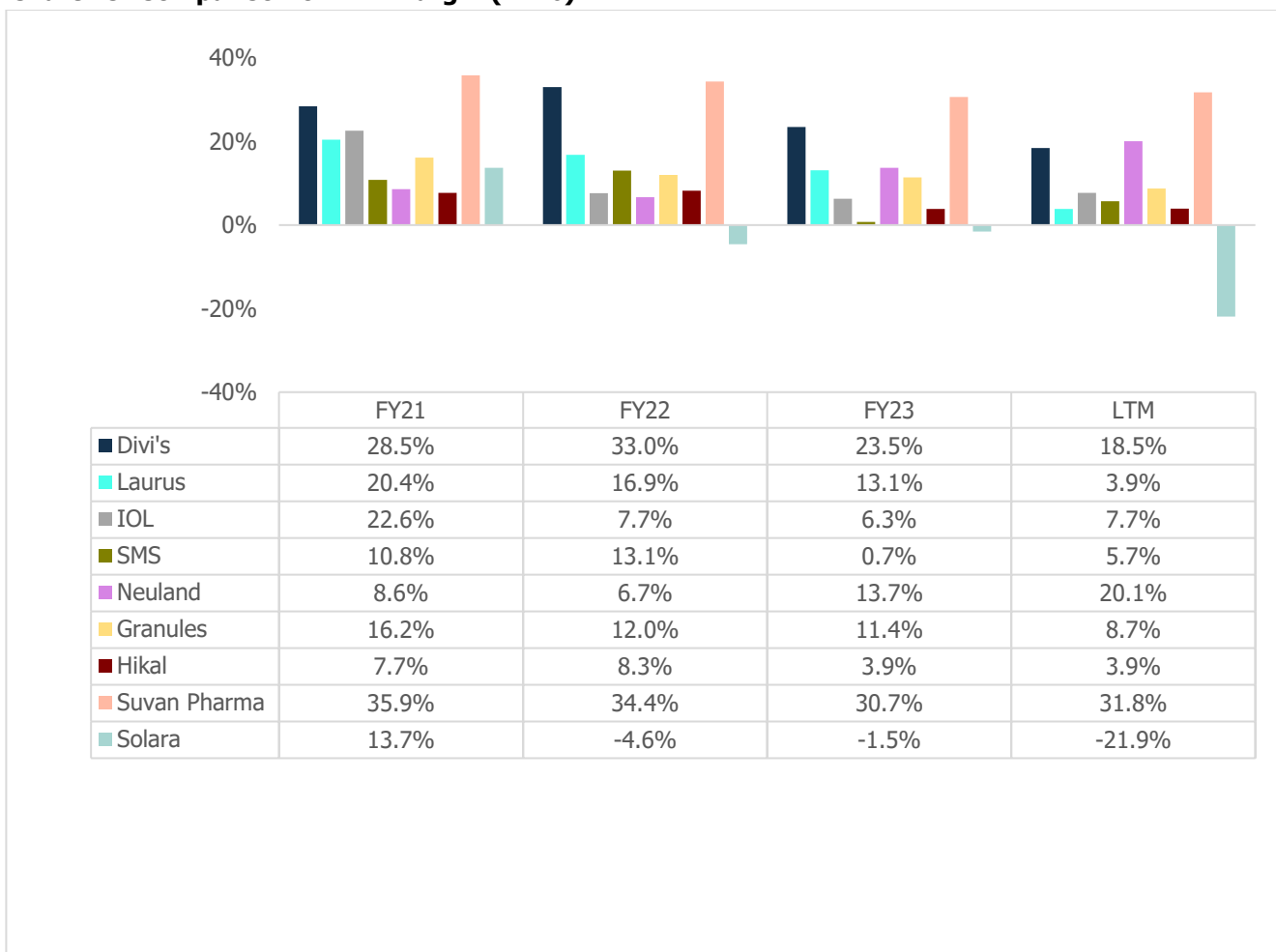
**Chart 27: Comparison of EBIT Margin (in %)**



Source: Company Reports  
LTM- Last 12 Months

In FY23, Solara Active Pharma Sciences Ltd exhibited the highest y-o-y growth in their EBIT margin followed by Neuland Laboratories Limited. The other companies in the peerset experienced degrowth in the margins during the same period.

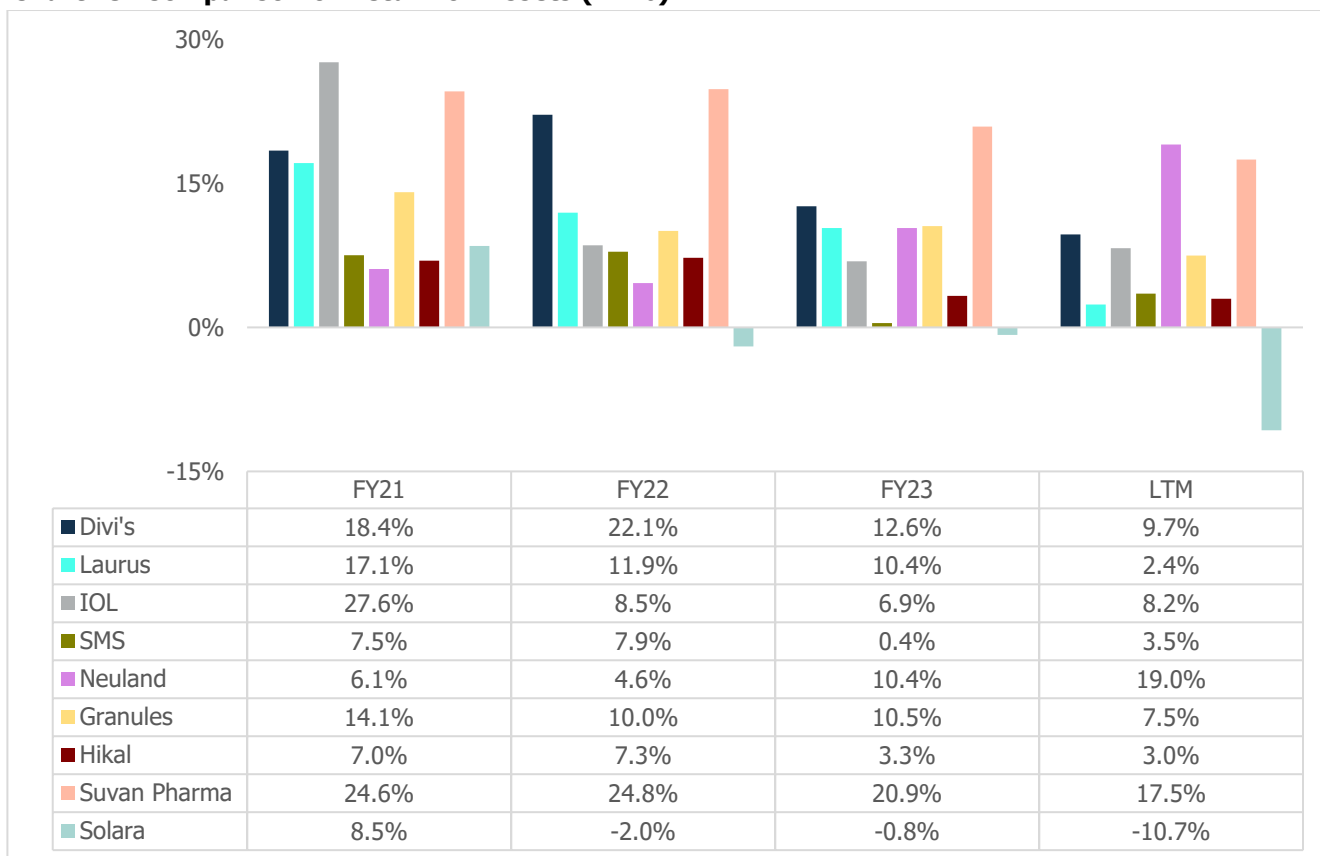
**Chart 28: Comparison of PAT margin (in %)**



Source: Company Reports  
LTM- Last 12 Months

The highest PAT margin in FY23 was for Suvan Pharma (30.7%). However, in terms of y-o-y growth, Suvan Pharma had a degrowth of 10.7%. Majorly the PAT margin for the companies has degrown in the peer set.

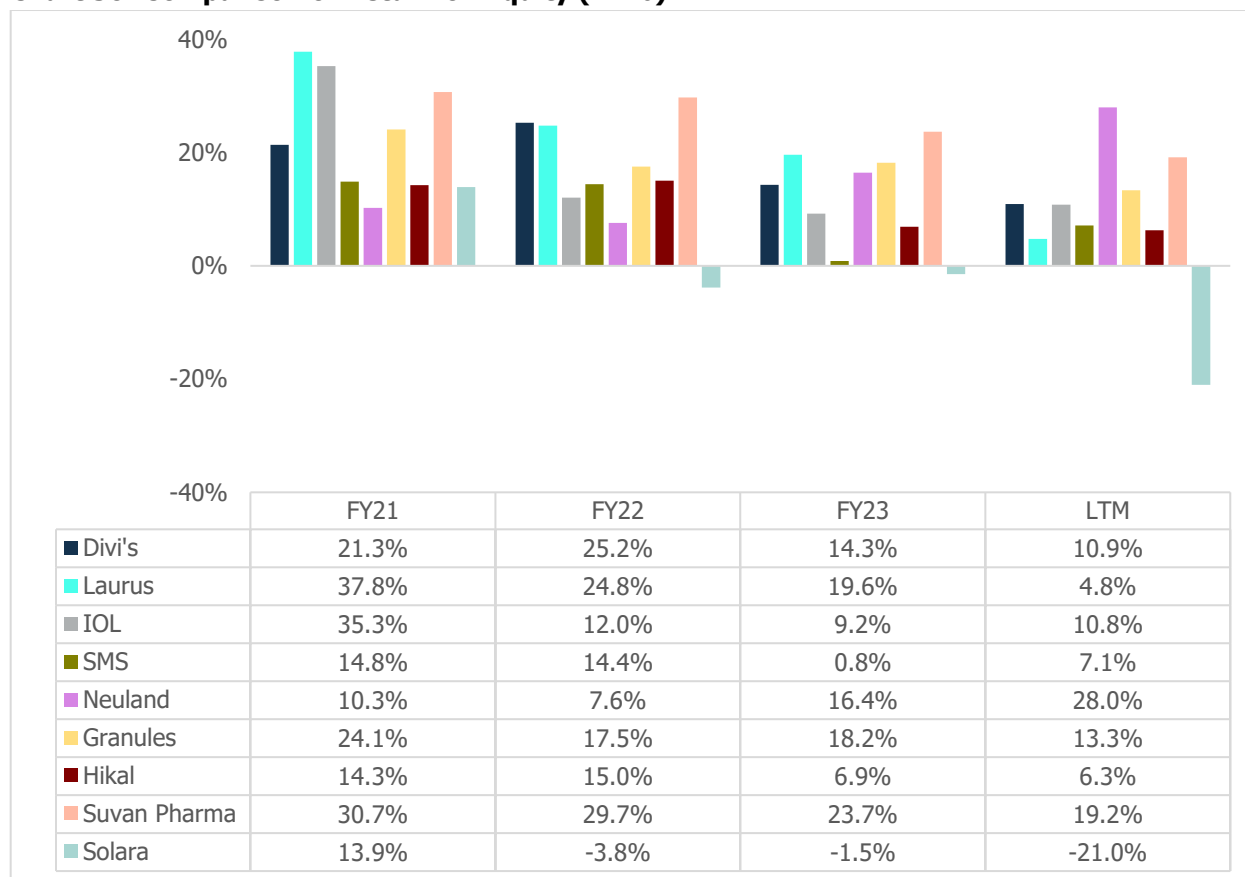
**Chart 29: Comparison of Return on Assets (in %)**



Source: Company Reports  
LTM- Last 12 Months

The return on asset for the companies in the peer set in FY23 have been in the range -0.8% to 20.9%. The highest return on asset is for the company Suvan Pharmaceuticals (20.9%). Additionally, Neuland Laboratories Ltd exhibited exponential growth in the return on assets during the period of 1 year.

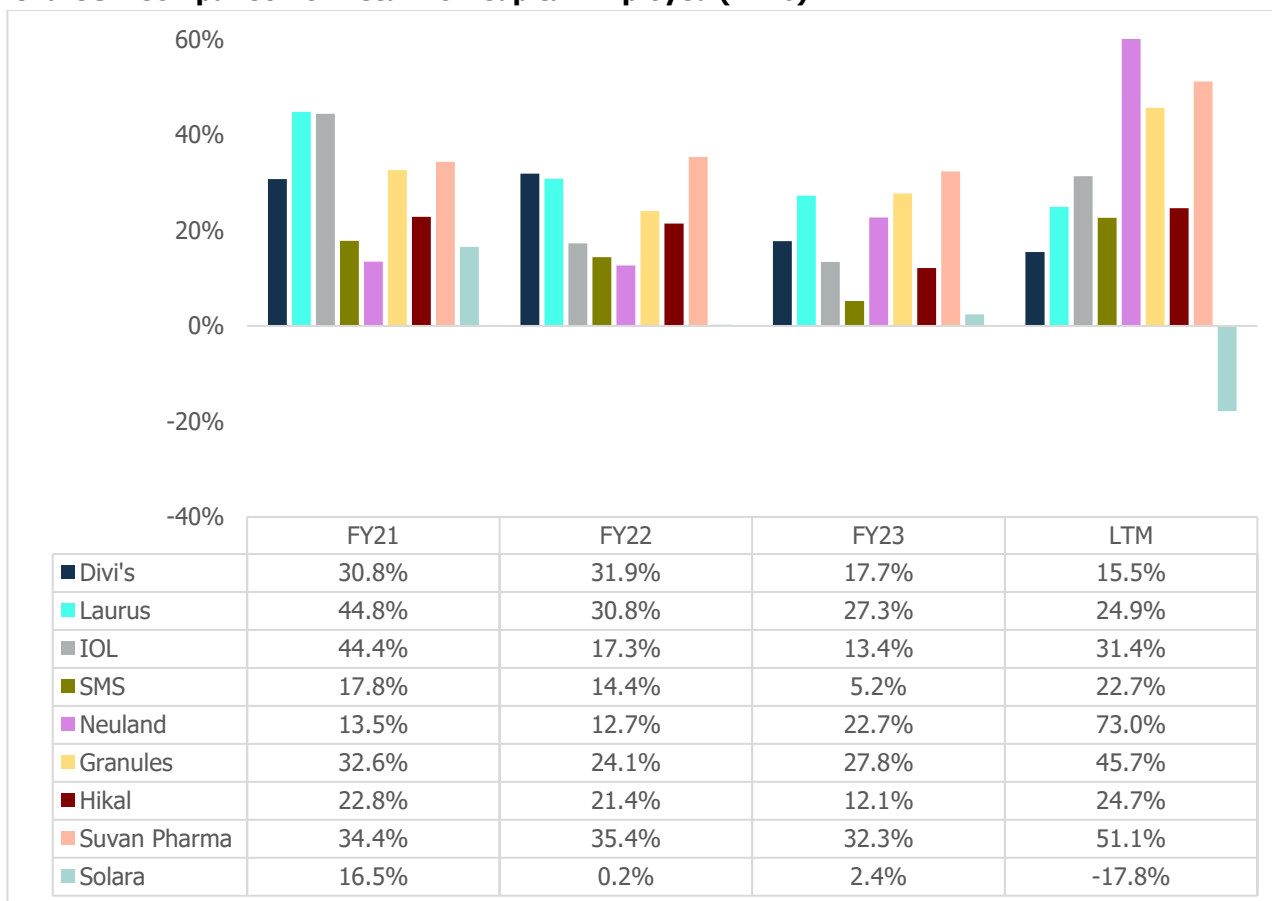
**Chart 30: Comparison of Return on Equity (in %)**



Source: Company Reports  
LTM- Last 12 Months

The return on equity for the companies in the peer set in FY23 have been in the range -1.5% to 23.7%. The highest return on equity is for the company Suvan Pharmaceuticals (23.7%). However, for majority of the companies in the peer set, the return on equity has decreased in the past year.

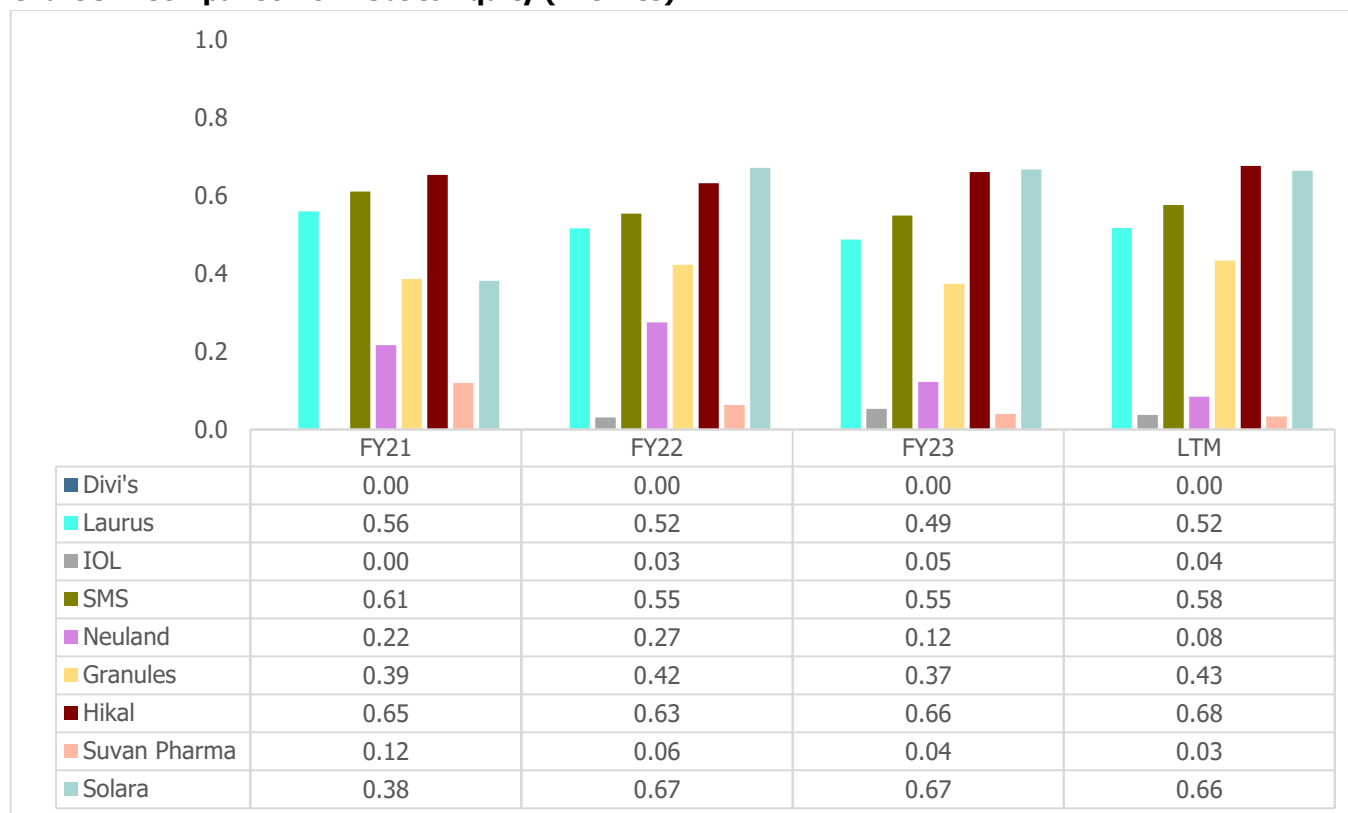
**Chart 31: Comparison of Return on Capital Employed (in %)**



Source: Company Reports  
LTM- Last 12 Months

In FY23, the highest return on capital employed is exhibited by Suven Pharmaceuticals (32.3%). For Solara Active Pharma Sciences Ltd, the y-o-y growth in the return on capital employed offered has grown tremendously. The return on capital employed for the companies in the peer set in FY23 have been in the range 2.4% to 32.3%.

**Chart 32: Comparison of Debt to Equity (in times)**

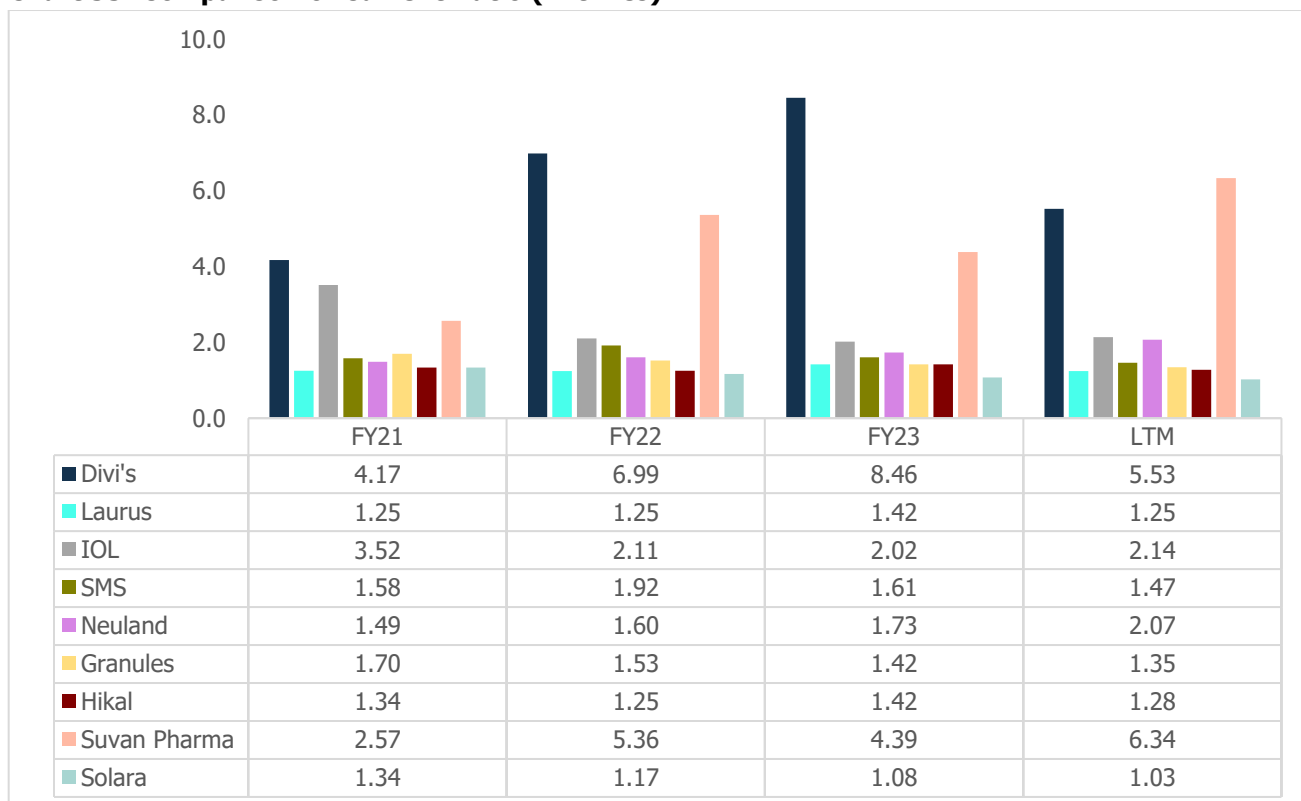


Source: Company Reports  
LTM- Last 12 Months

The debt equity ratio for the companies in the peer set is ideal and it has been in the range of 0-0.7 in FY23. The debt equity ratio has not fluctuated largely for the peer set.



**Chart 33: Comparison of Current Ratio (in times)**



Source: Company Reports  
LTM- Last 12 Months

The average current ratio for the companies in the peer set is 2.62 times. This ratio is fairly good for the pharmaceutical industry given the current assets are higher than current liabilities for the companies in the industry.

## Contact

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## About:

CareEdge is a knowledge-based analytical group that aims to provide superior insights based on technology, data analytics and detailed research. CARE Ratings Ltd, the parent company in the group, is one of the leading credit rating agencies in India. Established in 1993, it has a credible track record of rating companies across multiple sectors and has played a pivotal role in developing the corporate debt market in India.

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