

Cadila Healthcare Limited: A Case on Intrinsic and Relative Valuation

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Abstract

Cadila Healthcare Limited is an Indian pharmaceutical company that was in the news recently for making announcement of its Phase 3 trials for COVID-19 vaccine. The company also played a key role in supplying sanitizers and other wellness products to the markets in a short period of time. With the outbreak of the pandemic, the Indian pharmaceutical industry has seen a lot of growth as companies invest their resources into R&D with the hope to successfully create a vaccine for the disease. This case talks about the company, its recent financial performance and attempts to perform an intrinsic valuation using DCF method and relative valuation by comparing it with its competitors and the industry average valuation ratios.

Introduction

On January 14th, 2021, the share price of Cadila Healthcare Limited registered an all-time high of ₹ 503 since 2015. Retail investors were happy to have received 98% returns in a year's time. The company that had been showing a sluggish performance since 2015 had suddenly become a delight for investors and traders. With the onset of COVID-19 across India, Cadila Healthcare is one of the few Indian companies to have announced working on the coronavirus vaccine under the name ZyCoV-D. The Prime Minister of India, Narendra Modi also visited one of the facilities of Cadila in Ahmedabad, Gujarat on 28th November 2020. As investors expect the company's financials to improve further, this case aims to perform a valuation exercise to estimate the firm's share price after five years.

Cadila Healthcare Limited

Zydus Cadila is one of India's leading Indian Pharmaceutical companies and is placed as a fully integrated, global healthcare provider. It has a robust presence across the value chain of pharmaceuticals along with a deep background in the field of healthcare. The company's business is well diversified across geographies. They have presence in generics, branded generics, animal health, consumer wellness and others. It enjoys the reputation for being few of the leading Indian pharmaceutical companies to provide comprehensive and complete health solutions.

The company was founded as "Cadila Laboratories" by Mr. Ramanbhai B. Patel, a chemist and a first-generation entrepreneur along with his school friend and fellow chemist Mr. Indravan Modi. Both founders' families remained in the business till 1995 after which the Modi family's shares were moved to a new company named "Cadila Pharmaceuticals Limited" while the parent company became Cadila Healthcare Limited. From a turnover of around Rs. 250 crores in 1995 the group saw significant financial growth and registered a profit of more than Rs. 14,253 crores on FY20.

Cadila Healthcare Ltd. invests 7- 8% of its revenue on innovations and has contributed immensely to the healthcare sector. It not only introduced the world's first IMMUVAC, a unique Immunomodulator but also launched NEVA HIV – the world's first whole blood rapid HIV detection kit. The company's manufacturing sites and research facilities are in India, USA and Brazil.

The Company is the fourth largest pharmaceutical company in India with 4.2% market share. The business grew by 11.9% in 2019-20, which is the largest growth rate in the Indian

pharmaceutical market by 9.8%. In terms of the effectiveness of different treatments, the portfolio of gastro-intestinal, gynecological and pain management has grown better than the market. 12 of the Company's brands feature amongst the top 300 pharmaceutical brands in India with 9 brands having sales of more than Rs.100 crores.

The emerging markets for Cadila Healthcare Ltd. Is Asia Pacific, Africa, Middle East and Latin America.

India's Pharmaceutical Industry

India's Pharmaceutical Industry supplies over 50% of global demand for various vaccines, 25% of all medicine in UK and 40% of generic demand in the US¹. Indian exports of pharmaceutical industry stood at US\$ 16.28 billion in FY2020. India gains a competitive edge in exports due to R&D efficiency and low production cost. India's healthcare sector is one of the fastest growing sectors is expected to cross US\$ 372 billion by 2022. While comparing India to US, the former's cost of production in pharma is approximately 33% lower because it can manufacture high quality medicines at lower prices which gives a huge business opportunity for the domestic market.

Figure I: Annual Turnover of Indian Pharmaceutical Market (US \$ Billions)



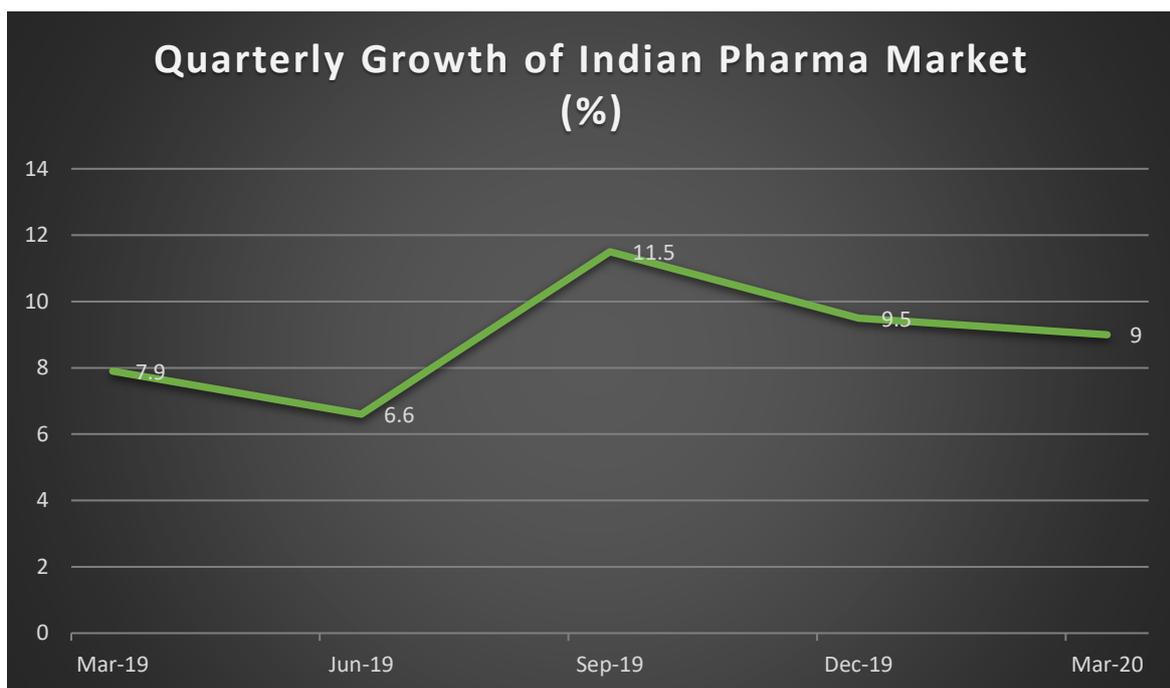
Source: IBEF

¹ [Pharma Industry in India: Pharma Sector Overview, Market Size, Analysis... | IBEF](#)

In **Figure I**, annual turnover increased to ₹ 1.4 lakh crore (US\$ 20.03 billion) in 2019. There was an increase of 9.8% YoY.

India is the world's largest supplier of generic medicines, with generic drugs making up for 20 percent of global drug sales. Indian drugs see exports to more than 200 countries around the world, with the US being a major market^{2,3}. The pharma sector is also seeing good growth owing to the companies that capitalize on export opportunities in regulated and semi-regulated markets. The total value of pharmaceutical exports reached US \$20.70 billion in FY 20 and the constituents included bulk drugs, formulations, biologicals, Ayush & herbal products and surgical products. The largest importer of Indian pharma products is the US. As of FY 19, of India's pharma exports to the North America were 32.1%, while Africa's share was 17.96% and 15.70% to the European Union. Indian pharmaceutical companies' expenditure on R&D is 8-13% of their total turnover.

Figure II: Quarterly Growth of Indian Pharma Market



Source: IBEF

Figure II shows that in May 2020, the sales of Indian pharmaceutical grew 9% year over year to Rs. 10,342 crores (US\$ 1.47 billion).

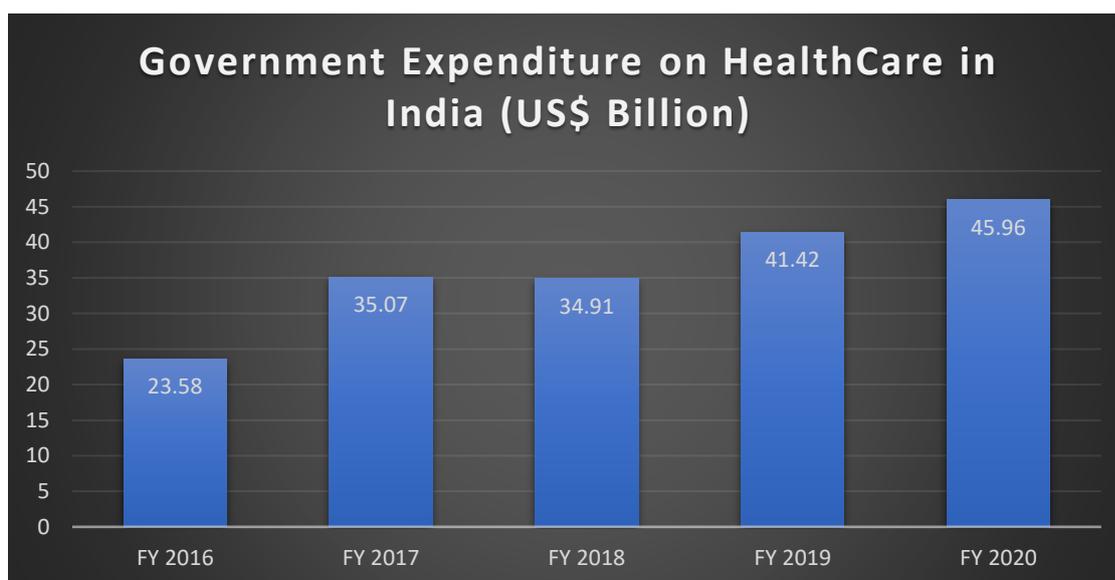
² <https://www.ibef.org/industry/indian-pharmaceuticals-industry-analysis-presentation>

³ [Indian Pharmaceuticals Industry Analysis Presentation | IBEF](#)

19 in the Indian market. The government has also announced production linked incentive (PLI) scheme for the pharmaceutical industry in the same month of worth Rs. 15,000 crores (US\$ 2.04 billion).

- As part of Union Budget 2020-21, the allocation to the Ministry of Health and Family Welfare was increased to ₹ 65,012 crores (US\$ 9.30 billion).
- The Indian Government through Pradhan Mantri Bhartiya Janaushadhi Kendras (PMBJKs) aims to provide free generic medicines at an estimated cost of US\$ 5.4 billion to half the population. In first two months of FY21, under PMBJKs affordable medicines achieved remarkable sales of ₹ 100.40 crores (US\$ 14.24 million).
- The govt. has allocated US\$ 4.88 billion towards the National Health Mission to benefit healthcare seekers in rural as well as urban areas.

Figure IV: Government Expenditure on HealthCare in India (US\$ Billion)



Source: IBEF

Figure IV suggests increasing government expenditure on health over every year. The government has incurred an expenditure of US \$ 45.96 billion in FY20. We expect the expenditures to increase in the coming years owing to greater infrastructure needs to support covid as well as non covid patients and vaccination programs.

Medical tourism also plays an important role in the growth of the pharmaceutical industry. India has also seen an increase in the arrival of tourists on medical visa in the recent years.

The number of medical tourists saw a CAGR of 23% from FY2016 to FY2019 and stood at 7 lakh arrivals. Most of the patients who come to India for treatment come from West Asia, Afghanistan, Africa, Bangladesh, Maldives, Bhutan, Pakistan and Sri Lanka because of the expertise in cardiovascular processes, in addition to other specialized areas such as neurosurgery, cancer treatment and transplantation of organs.⁵ This is also good opportunity for pharma companies targeting the Indian markets.

Financial Performance and Management Outlook

Performance of the US formulations business, the largest contributor to the consolidated revenues, was almost flat during the year as it registered sales. India formulations business, the second largest contributor to the consolidated revenues, registered sales of ₹ 37,141 Million, during the year, with a growth of 6%.

US Formulations business remained stagnant in FY 20 with sales of ₹ 62,514 Million during the year as opposed to ₹ 62,794 Million in FY 19. Animal health segment also saw a stagnation in the same period. However, the Indian formulations business saw a growth of 6% in the same period and registered sales of ₹ 37,141 Million. It remains as the second largest contributor to the total revenues of the company. The consumer wellness segment saw a whopping 115% growth in its revenues due to acquisition of Heinz India Pvt. Ltd. The API business and performance in emerging markets saw YoY growths of 6.71% and 5.31% respectively. The company saw an improvement in its operating performance by taking various initiatives in the digital space such as, increasing the visibility of various new products, strengthening the supply chain development projects and optimizing various spends through multiple levers.⁶

Income statement analysis

- Net profit for FY 20 year reduced by 36.6% on a year-on-year (YoY) basis.
- Net profit margins during the year declined from 14.2% in FY19 to 8.4% in FY20.
- Operating income during the year saw an 8.3% increase on a year-on-year basis.
- The company's operating profit decreased by 18.6% YoY during the period. Operating profit margins declined and stood at 17.0% in FY20 as against 22.6% in FY19.
- Depreciation increased by 16.4%
- Finance costs increased by 76.6% YoY, respectively.

⁵ [Medical tourism to keep pharma industry in good health: Study](#)

⁶ <https://zyduscadila.com/public/pdf/financial/annual/Annual-Report-2019-2020.pdf>

- Other income declined by 43.4% YoY.

Balance Sheet Analysis

- The company's current liabilities during FY20 stood at Rs 83 billion as compared to Rs 73 billion in FY19, thereby witnessing an increase of 12.6%.
- Long-term debt was reduced to Rs 32 billion as compared to Rs 39 billion during FY19, a fall of 18.6%.
- Current assets saw a 3% rise and stood at Rs 87 billion, while fixed assets fell 0% and stood at Rs 133 billion in FY20.
- Overall, the total assets and liabilities for FY20 stood at Rs 237 billion as against Rs 235 billion during FY19, thereby witnessing a growth of 1%.

Cashflow Analysis

- The company's cash flows from operating activities (CFO) during FY20 stood at ₹ 25 billion, an improvement of 95.4% on a YoY basis.
- Cash flows from investing activities (CFI) during FY20 stood at ₹ -10 billion on a YoY basis.
- Cash flows from financial activities (CFF) during FY20 stood at ₹ -11 billion on a YoY basis.
- Overall, the net cash flows for the company during FY20 stood at Rs 4 billion from the Rs -8 billion net cash flows seen during FY19.

Other Information

- Cadila Healthcare developed a portfolio of COVID-19 based products which includes sanitizers (wellness product), diagnostic kits, COVID-19 vaccine development, and portable oxygen cylinders and multiple drugs for treatment (e.g. dexamethasone, Hydroxychloroquine, Peg-Interferon alpha, Remdesivir, etc).⁷
- Cadila Healthcare, along with Serum Institute of India and Bharat Biotech Private Limited is one of the Indian players engaged in developing the vaccine. Under the name "ZyCoV-D" which is a DNA plasmid vaccine, the company is conducting its phase 2 trials. The phase 3 trials are expected to be completed by March 2021.

⁷ <http://backoffice.phillipcapital.in/Backoffice/Researchfiles/PC - Cadila Co Update - Oct 2020 20201013125638.pdf>

Even if CDH fails in clinical development, it can still offer contract manufacturing services to earn revenue.⁸

- In recent years, Cadila has increased its market share in the US. Its share stood at 4.1% in FY 20 (ranked #4) and has seen a gain of five positions since FY 18 (from #7 in FY19 and #9 in FY18).

DCF Valuation

According to the DCF approach, the target value of a firm can be expressed as a present value of its expected cash flows in the future discounted at an appropriate rate of return. This approach, also popularly known as the fundamental approach to equity valuation, compares the intrinsic value of the company with its traded market price to arrive at the investment decision. Unlike dividend discount models which tend to capture only a fraction of total cash flows available for distribution to shareholders, free cash flows under the DCF approach take into consideration the entire cash flows available.

Revenue Line Items (See Table I)

1. US Business expected to grow 2% y-o-y.
2. India Business expected to grow 6% y-o-y
3. Europe, L. America, Africa, and Rest of World expected to grow 4% yoy as the company looks to increase global operations.
4. API Business expected to grow 5% y-o-y owing to Remdesivir launch.
5. Consumer Wellness expected to grow 50% y-o-y as health will take a priority for the next few years.
6. Animal health expected to grow at a modest 0.78%.
7. Based on these projections, the total revenue was calculated after forecasting the individual growth in line items for the next 5 years.

Income Statement (See Table II)

- Total Revenue was projected by using the values calculated in the Revenue Line Item Table (Table I)

⁸ <http://backoffice.phillipcapital.in/Backoffice/Researchfiles/Researchfilesmove/PC - Cadila Co Update - Oct 2020 20201013125638.pdf>

- COGS and Other operating Expenses as a percent of Revenue were taken to be in line with FY2019-20 values.
- Depreciation was considered as 4.85% of Revenue for the next 5 years (as per FY2019-20 value)
- Effective Tax Rate was taken to be 21.39% of EBT for the next 5 years (in line with FY 2019-20 levels)
- Share of Profit from JVs was assumed to be 0.20% for the next 5 years (in line with FY 2019-20 levels)
- The Dividend Payout Ratio was assumed to be 30% while the Dividend Distribution Tax rate was taken to be 20.40% (in line with FY 20 levels).
- Minority Interest was assumed to be in line with FY2019-20 levels.

Balance Sheet (See Table III)

- CapEx as a percent of Revenue was assumed to be in line with FY 2019-20 levels.
- Inventory as a percentage of Revenue was taken to be 19.41% (as of FY 2019-20 levels)
- Trade Receivables, Other Current Financial Assets and Other Currents Assets, each as a percentage of revenue were assumed to be in line with FY2019-20 levels.
- Equity Share Capital was kept constant for the next 5 years.
- We assumed that the company will not be taking any more debt for the next 5 years.
- Trade Payables as a percentage of revenue were assumed to be in line with FY2019-20 levels.
- Other Financial Liabilities as a percentage of COGS were assumed to be in line with FY2019-20 levels.

The long-term growth rate was assumed to be 5%.

The weighted average cost of capital was calculated by taking the debt-equity proportion from Table III (See Annexure I for more information) and it was estimated as 8.94% (**Table V**). Based on the information, the target share price was calculated to be ₹ 703.13 (**Table VI**).

Using a sensitivity analysis model, the bullish and bearish cases were also taken into consideration by viewing the effects of changes in WACC and long-term growth rates (see **Table VII**)

Table I : Revenue (in More Detail)

Revenue Drivers										
Particulars (in ₹ Millions)	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21E	2021-22E	2022-23E	2023-24E	2024-25E
US Formulations Business	40,215.00	37,092.00	58,348.00	62,794.00	62,514.00	63,764.28	65,039.57	66,340.36	67,667.16	69,020.51
<i>% of Total Revenue</i>	41.32%	38.24%	48.35%	46.98%	43.51%	40.76%	37.43%	33.54%	29.19%	24.59%
Indian Formulations Business	29,732.00	32,442.00	33,324.00	35,039.00	37,141.00	39,369.10	41,730.86	44,234.31	46,887.94	49,700.76
<i>% of Total Revenue</i>	30.55%	33.44%	27.61%	26.21%	25.85%	25.16%	24.02%	22.36%	20.23%	17.71%
Anti-Infective	4,192.21	4,801.42	5,431.81	5,606.24	5,534.01	5,866.00	6,217.90	6,590.91	6,986.30	7,405.41
	14.10%	14.80%	16.30%	16.00%	14.90%	14.90%	14.90%	14.90%	14.90%	14.90%
Cardiac	5,173.37	4,833.86	4,598.71	4,975.54	5,385.45	5,708.52	6,050.98	6,413.98	6,798.75	7,206.61
	17.40%	14.90%	13.80%	14.20%	14.50%	14.50%	14.50%	14.50%	14.50%	14.50%
Gastro-Intestinal	4,430.07	3,893.04	3,765.61	3,959.41	3,974.09	4,212.49	4,465.20	4,733.07	5,017.01	5,317.98
	14.90%	12.00%	11.30%	11.30%	10.70%	10.70%	10.70%	10.70%	10.70%	10.70%
Respiratory	3,746.23	3,341.53	3,598.99	3,994.45	4,048.37	4,291.23	4,548.66	4,821.54	5,110.79	5,417.38
	12.60%	10.30%	10.80%	11.40%	10.90%	10.90%	10.90%	10.90%	10.90%	10.90%
Gynaecology	2,170.44	3,049.55	2,665.92	2,838.16	2,971.28	3,149.53	3,338.47	3,538.74	3,751.04	3,976.06
	7.30%	9.40%	8.00%	8.10%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Pain Management	2,081.24	2,984.66	3,099.13	3,328.71	3,565.54	3,779.43	4,006.16	4,246.49	4,501.24	4,771.27
	7.00%	9.20%	9.30%	9.50%	9.60%	9.60%	9.60%	9.60%	9.60%	9.60%

Dermatology	2,051.51	2,498.03	2,499.30	2,522.81	2,451.31	2,598.36	2,754.24	2,919.46	3,094.60	3,280.25
	6.90%	7.70%	7.50%	7.20%	6.60%	6.60%	6.60%	6.60%	6.60%	6.60%
Others	5,886.94	7,039.91	7,664.52	7,848.74	9,210.97	9,763.54	10,349.25	10,970.11	11,628.21	12,325.79
	19.80%	21.70%	23.00%	22.40%	24.80%	24.80%	24.80%	24.80%	24.80%	24.80%
Europe, Latin America, Africa and Other Regions	9,893.00	9,924.00	10,023.00	8,312.00	8,753.00	9,103.12	9,467.24	9,845.93	10,239.77	10,649.36
<i>% of Total Revenue</i>	10.16%	10.23%	8.31%	6.22%	6.09%	5.82%	5.45%	4.98%	4.42%	3.79%
API Business	3,647.00	3,795.00	3,656.00	4,245.00	4,530.00	4,756.50	4,994.33	5,244.04	5,506.24	5,781.56
<i>% of Total Revenue</i>	3.75%	3.91%	3.03%	3.18%	3.15%	3.04%	2.87%	2.65%	2.38%	2.06%
Consumer Wellness	4,570.00	4,593.00	4,920.00	8,082.00	17,379.00	26,068.50	39,102.75	58,654.13	87,981.19	1,31,971.78
<i>% of Total Revenue</i>	4.70%	4.73%	4.08%	6.05%	12.10%	16.66%	22.50%	29.65%	37.96%	47.02%
Animal Health	3,199.00	4,506.00	4,426.00	5,109.00	5,149.00	5,189.31	5,229.94	5,270.89	5,312.16	5,353.75
<i>% of Total Revenue</i>	3.29%	4.65%	3.67%	3.82%	3.58%	3.32%	3.01%	2.66%	2.29%	1.91%
Others	6,070.00	4,655.00	5,979.00	10,086.00	8,204.00	8,204.00	8,204.00	8,204.00	8,204.00	8,204.00
<i>% of Total Revenue</i>	6.24%	4.80%	4.95%	7.55%	5.71%	5.24%	4.72%	4.15%	3.54%	2.92%
Total Revenue	97,326.00	97,007.00	1,20,676.00	1,33,667.00	1,43,670.00	1,56,454.81	1,73,768.69	1,97,793.66	2,31,798.46	2,80,681.72

YoY Growth of Revenue Line Items										
US Formulations Business		-7.77%	57.31%	7.62%	-0.45%	2.00%	2.00%	2.00%	2.00%	2.00%
India Formulations Business		9.11%	2.72%	5.15%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
Europe, Latin America, Africa and Other Regions		0.31%	1.00%	-17.07%	5.31%	4.00%	4.00%	4.00%	4.00%	4.00%
API Business		4.06%	-3.66%	16.11%	6.71%	5.00%	5.00%	5.00%	5.00%	5.00%
Consumer Wellness		0.50%	7.12%	64.27%	115.03%	50.00%	50.00%	50.00%	50.00%	50.00%
Animal Health		40.86%	-1.78%	15.43%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%
Others		76.69%	128.44%	168.69%	81.34%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Revenue		-0.33%	24.40%	10.77%	7.48%	8.90%	11.07%	13.83%	17.19%	21.09%

Table II: Consolidated Income Statement

Consolidated Income Statement										
Particulars(in ₹ Millions)	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21E	2021-22E	2022-23E	2023-24E	2024-25E
	A	A	A	A	A	A	A	A	A	A
Revenue from Operations	96,170.00	95,723.00	1,19,544.00	1,31,656.00	1,42,531.00					
Other Income	1,156.00	1,284.00	1,132.00	2,011.00	1,139.00					
Total Revenue	97,326.00	97,007.00	1,20,676.00	1,33,667.00	1,43,670.00	1,56,454.81	1,73,768.69	1,97,793.66	2,31,798.46	2,80,681.72
Expenses										
Cost of Materials Consumed	19,750.00	18,078.00	25,233.00	26,741.00	34,596.00	37,674.61	41,843.82	47,629.08	55,817.50	67,588.67
<i>% of Total Revenue</i>	<i>20.29%</i>	<i>18.64%</i>	<i>20.91%</i>	<i>20.01%</i>	<i>24.08%</i>	<i>24.08%</i>	<i>24.08%</i>	<i>24.08%</i>	<i>24.08%</i>	<i>24.08%</i>
Gross Profit	77,576.00	78,929.00	95,443.00	1,06,926.00	1,09,074.00	1,18,780.21	1,31,924.87	1,50,164.58	1,75,980.97	2,13,093.04
<i>% of Total Revenue</i>	<i>79.71%</i>	<i>81.36%</i>	<i>79.09%</i>	<i>79.99%</i>	<i>75.92%</i>	<i>75.92%</i>	<i>75.92%</i>	<i>75.92%</i>	<i>75.92%</i>	<i>75.92%</i>
Purchases of Stock in Trade	11,320.00	17,499.00	19,141.00	21,520.00	15,542.00	16,925.04	18,798.03	21,397.01	25,075.60	30,363.72
<i>% of Total Revenue</i>	<i>11.63%</i>	<i>18.04%</i>	<i>15.86%</i>	<i>16.10%</i>	<i>10.82%</i>	<i>10.82%</i>	<i>10.82%</i>	<i>10.82%</i>	<i>10.82%</i>	<i>10.82%</i>
Changes in Inventories of Finished goods, Work-in-progress and Stock-in-Trade	111.00	1,388.00	3,154.00	-1,097.00	-938.00	1,021.47	1,134.51	1,291.37	1,513.38	1,832.53
<i>% of Total Revenue</i>	<i>-0.11%</i>	<i>-1.43%</i>	<i>-2.61%</i>	<i>-0.82%</i>	<i>-0.65%</i>	<i>-0.65%</i>	<i>-0.65%</i>	<i>-0.65%</i>	<i>-0.65%</i>	<i>-0.65%</i>
Excise Duty on Sales	1,902.00	1,958.00	495.00	-						
Other Expenses	18,678.00	25,334.00	30,809.00	33,416.00	41,352.00	45,031.80	50,015.19	56,930.21	66,717.69	80,787.57

<i>% of Total Revenue</i>	19.19%	26.12%	25.53%	25.00%	28.78%	28.78%	28.78%	28.78%	28.78%	28.78%
Employee Benefit Expense	27,388.00	15,198.00	18,545.00	21,241.00	24,145.00	26,293.60	29,203.35	33,240.95	38,955.76	47,171.02
<i>% of Total Revenue</i>	28.14%	15.67%	15.37%	15.89%	16.81%	16.81%	16.81%	16.81%	16.81%	16.81%
Exceptional Items	25.00	3.00	-	104.00	3,636.00	-	-	-	-	-
EBITDA	18,374.00	20,325.00	29,607.00	31,742.00	25,337.00	31,551.23	35,042.81	39,887.77	46,745.30	56,603.27
<i>% of Total Revenue</i>	18.88%	20.95%	24.53%	23.75%	17.64%	20.17%	20.17%	20.17%	20.17%	20.17%
Depreciation and Amortization Expense	2,921.00	3,733.00	5,388.00	5,986.00	6,965.00	7,584.80	8,424.16	9,588.87	11,237.39	13,607.21
<i>% of Total Revenue</i>	3.00%	3.85%	4.46%	4.48%	4.85%	4.85%	4.85%	4.85%	4.85%	4.85%
EBIT	15,453.00	16,592.00	24,219.00	25,756.00	18,372.00	23,966.43	26,618.65	30,298.90	35,507.90	42,996.05
<i>% of Total Revenue</i>	15.88%	17.10%	20.07%	19.27%	12.79%	15.32%	15.32%	15.32%	15.32%	15.32%
Finance Costs	528.00	446.00	911.00	1,935.00	3,418.00	3,418.00	3,418.00	3,418.00	3,418.00	3,418.00
<i>% of Total Revenue</i>	0.54%	0.46%	0.75%	1.45%	2.38%	2.18%	1.97%	1.73%	1.47%	1.22%
EBT	14,925.00	16,146.00	23,308.00	23,821.00	14,954.00	20,548.43	23,200.65	26,880.90	32,089.90	39,578.05
Less: Tax Expense	1,774.00	1,289.00	5,644.00	5,303.00	3,198.00	4,394.40	4,961.59	5,748.64	6,862.61	8,464.00
Current tax	5,511.00	1,918.00	6,436.00	6,073.00	2,377.00					
Deferred tax	-	-	-	-	821.00					
<i>Effective Tax Rate %</i>	11.89%	7.98%	24.21%	22.26%	21.39%	21.39%	21.39%	21.39%	21.39%	21.39%
PAT	13,151.00	14,857.00	17,664.00	18,518.00	11,756.00	20,548.43	23,200.65	26,880.90	32,089.90	39,578.05
<i>% of Total Revenue</i>	13.51%	15.32%	14.64%	13.85%	8.18%	13.13%	13.35%	13.59%	13.84%	14.10%
Share of Profit of Joint Ventures[net of tax]	430.00	338.00	628.00	469.00	288.00	316.13	351.12	399.66	468.38	567.15

<i>% of Total Revenue</i>	0.45%	0.35%	0.53%	0.36%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
Profit/[Loss] before tax from discontinued operations		- 27.00	- 188.00	-	-	-	-	-	-	-
Tax expense of discontinued operations										
Profit/[Loss] after tax from Discontinued operations		- 27.00	- 188.00	-	-	-	-	-	-	-
Profit for the year	13,581.00	15,168.00	18,104.00	18,987.00	12,044.00	20,864.57	23,551.77	27,280.56	32,558.28	40,145.20
<i>% of Total Revenue</i>	13.95%	15.64%	15.00%	14.20%	8.38%	13.34%	13.55%	13.79%	14.05%	14.30%
Net Profit Attributable to Shareholders	13,277.00	14,877.00	17,758.00	18,488.00	11,766.00	20,382.97	23,008.15	26,650.87	31,806.77	39,218.57
Profit for Year attributable to										
Owners of the Parent	13,277.00	14,877.00	17,758.00	18,488.00	11,766.00	20,382.97	23,008.15	26,650.87	31,806.77	39,218.57
Non-Controlling Interests	304.00	291.00	346.00	499.00	278.00	481.60	543.62	629.69	751.51	926.63
Basic and Diluted EPS	19.19	14.53	17.35	18.06	11.76	19.91	22.47	26.03	31.07	38.31
No. of Shares	1,02,37,42,600	1,02,37,42,600	1,02,37,42,600	1,02,37,42,600	1,02,37,42,600	1,02,37,42,600	1,02,37,42,600	1,02,37,42,600	1,02,37,42,600	1,02,37,42,600
Dividend Per Share	3.20	3.20	3.50	3.50	3.50	5.97	6.74	7.81	9.32	11.49
DPR	16.68%	22.02%	20.17%	19.38%	29.75%	30.00%	30.00%	30.00%	30.00%	30.00%
Minority Interest as a % of Profit for the Year	2.24%	1.92%	1.91%	2.63%	2.31%	2.31%	2.31%	2.31%	2.31%	2.31%
Appropriations										
Dividends	- 3,276.00	- 3,348.00	- 3,348.00	- -3,583.00	- -3,583.00	- 6,114.89	- 6,902.44	- 7,995.26	- 9,542.03	- 11,765.57

Tax on Dividends	- 667.00	- 683.00	- 683.00	- 731.00	- -731.00	- 1,247.55	- 1,408.23	- 1,631.19	- 1,946.76	- 2,400.40
DDT	20.36%	20.40%	20.40%	20.40%	20.40%	20.40%	20.40%	20.40%	20.40%	20.40%
Net Profit after Dividend Distribution	9,334.00	10,846.00	13,727.00	14,174.00	7,452.00	13,020.53	14,697.47	17,024.43	20,317.98	25,052.60

Table III: Consolidated Balance Sheet

Consolidated Balance Sheet										
Particulars (in ₹ Millions)	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21E	2021-22E	2022-23E	2023-24E	2024-25E
	A	A	A	A	A	A	A	A	A	A
ASSETS										
Non-Current Assets	62,702.00	91,984.00	98,356.00	1,49,850.00	1,49,712.00	1,53,483.16	1,57,671.66	1,62,439.25	1,68,026.48	1,74,791.99
Property, Plant and Equipment	26,067.00	32,904.00	38,188.00	51,059.00	54,522.00	58,293.16	62,481.66	67,249.25	72,836.48	79,601.99
CapEx		10,570.00	10,672.00	18,857.00	10,428.00	11,355.96	12,612.65	14,356.46	16,824.63	20,372.72
CapEx as a % of Revenue		10.90%	8.84%	14.11%	7.26%	7.26%	7.26%	7.26%	7.26%	7.26%
Capital Work-in Progress	9,508.00	15,433.00	15,272.00	8,372.00	7,415.00	7,415.00	7,415.00	7,415.00	7,415.00	7,415.00
Goodwill	8,946.00	11,494.00	13,853.00	52,890.00	53,915.00	53,915.00	53,915.00	53,915.00	53,915.00	53,915.00
Other Intangible assets	2,466.00	13,153.00	12,785.00	17,688.00	13,868.00	13,868.00	13,868.00	13,868.00	13,868.00	13,868.00
Investments in Joint Ventures	1,675.00	3,214.00	3,605.00	3,484.00	3,516.00	3,516.00	3,516.00	3,516.00	3,516.00	3,516.00
Financial Assets										
Investments	496.00	643.00	1,104.00	952.00	2,006.00	2,006.00	2,006.00	2,006.00	2,006.00	2,006.00
Loans	-	-	-	-	-	-	-	-	-	-
Other Financial Assets	1,914.00	2,631.00	1,529.00	2,239.00	2,860.00	2,860.00	2,860.00	2,860.00	2,860.00	2,860.00

Other Financial Assets	-	-	-	9,703.00	8,529.00	8,529.00	8,529.00	8,529.00	8,529.00	8,529.00
Total Other Financial Assets	1,914.00	2,631.00	1,529.00	11,942.00	11,389.00	11,389.00	11,389.00	11,389.00	11,389.00	11,389.00
Deferred Tax Assets	5,185.00	8,955.00	9,246.00	-	-	-	-	-	-	-
Other non-current assets	2,267.00	2,845.00	2,034.00	2,398.00	1,575.00	1,575.00	1,575.00	1,575.00	1,575.00	1,575.00
Current Tax Assets [net]	4,178.00	712.00	740.00	1,065.00	1,506.00	1,506.00	1,506.00	1,506.00	1,506.00	1,506.00
Current Assets	42,804.00	60,223.00	82,297.00	84,981.00	87,154.00	1,00,409.83	1,16,259.03	1,35,801.38	1,60,704.25	1,93,460.47
Inventories	13,371.00	18,037.00	23,853.00	26,880.00	27,890.00	30,371.86	33,732.92	38,396.78	44,997.98	54,487.46
<i>% of Total Revenue</i>	13.74%	18.59%	19.77%	20.11%	19.41%	19.41%	19.41%	19.41%	19.41%	19.41%
Financial Assets										
Investments	1,991.00	491.00	2,748.00	2,299.00	2,128.00	2,128.00	2,128.00	2,128.00	2,128.00	2,128.00
Trade Receivables	17,466.00	22,775.00	32,063.00	39,508.00	36,632.00	39,891.78	44,306.36	50,432.08	59,102.40	71,566.32
<i>% of Total Revenue</i>	17.95%	23.48%	26.57%	29.56%	25.50%	25.50%	25.50%	25.50%	25.50%	25.50%
Cash and Cash Equivalents	6,387.00	15,435.00	5,367.00	4,207.00	8,453.00	15,214.91	20,725.63	26,542.27	32,607.55	38,826.33
Bank Balance Other than Cash and Cash Eq	-	-	7,782.00	1,282.00	1,196.00	982.33	2,237.01	3,357.93	4,354.77	5,245.44
Loans	-	-	-	100.00	-	-	-	-	-	-

(Balancing Figure)

Other current financial assets	138.00	123.00	3,448.00	2,216.00	2,306.00	2,511.20	2,789.10	3,174.72	3,720.52	4,505.13
<i>% of Total Revenue</i>	<i>0.14%</i>	<i>0.13%</i>	<i>2.86%</i>	<i>1.66%</i>	<i>1.61%</i>	<i>1.61%</i>	<i>1.61%</i>	<i>1.61%</i>	<i>1.61%</i>	<i>1.61%</i>
Other current assets	3,451.00	3,362.00	6,744.00	8,489.00	8,549.00	9,309.75	10,340.01	11,769.60	13,793.03	16,701.80
<i>% of Total Revenue</i>	<i>3.55%</i>	<i>3.47%</i>	<i>5.59%</i>	<i>6.35%</i>	<i>5.95%</i>	<i>5.95%</i>	<i>5.95%</i>	<i>5.95%</i>	<i>5.95%</i>	<i>5.95%</i>
Assets Classified as held for sale	-	-	292.00	-	-	-	-	-	-	-
Total Assets	1,05,506.00	1,52,207.00	1,80,653.00	2,34,831.00	2,36,866.00	2,53,893.00	2,73,930.69	2,98,240.63	3,28,730.73	3,68,252.47
EQUITY AND LIABILITIES										
Equity	58,350.00	71,161.00	89,355.00	1,16,792.00	1,17,104.00	1,30,606.12	1,45,847.22	1,63,501.33	1,84,570.83	2,10,550.06
Equity Share Capital	1,024.00									
Other Equity	55,968.00	68,576.00	86,421.00	1,02,839.00	1,02,733.00	1,15,753.53	1,30,451.00	1,47,475.42	1,67,793.41	1,92,846.01
Equity attributable to equity holders of the Parent	56,992.00	69,600.00	87,445.00	1,03,863.00	1,03,757.00	1,16,777.53	1,31,475.00	1,48,499.42	1,68,817.41	1,93,870.01
Non-Controlling Interests	1,358.00	1,561.00	1,910.00	12,929.00	13,347.00	13,828.60	14,372.22	15,001.91	15,753.42	16,680.05
Non-Current Liabilities	12,546.00	27,988.00	30,468.00	44,614.00	37,068.00	37,051.00	37,051.00	37,051.00	37,051.00	37,051.00
Financial Liabilities										

Borrowings	8,964.00	24,684.00	25,551.00	39,497.00	32,146.00	32,146.00	32,146.00	32,146.00	32,146.00	32,146.00
Other Financial Liabilities	366.00	628.00	524.00	727.00	454.00	454.00	454.00	454.00	454.00	454.00
Provisions	1,207.00	1,512.00	1,559.00	1,841.00	2,352.00	2,352.00	2,352.00	2,352.00	2,352.00	2,352.00
Deferred Tax Liabilities[net]	2,009.00	1,164.00	2,821.00	2,523.00	2,099.00	2,099.00	2,099.00	2,099.00	2,099.00	2,099.00
Other noncurrent liabilities	-	-	13.00	26.00	17.00	-	-	-	-	-
Current Liabilities	34,610.00	53,058.00	60,830.00	73,425.00	82,694.00	86,235.87	91,032.47	97,688.29	1,07,108.90	1,20,651.40
Financial Liabilities										
Borrowings	12,109	24,769	25,575.00	31,969.00	38,265.00	38,265.00	38,265.00	38,265.00	38,265.00	38,265.00
Trade Payables	13,081	15,479	18,884.00	19,226.00	20,310.00	22,117.33	24,564.92	27,961.22	32,768.34	39,678.75
<i>Trade Payables as a % of Revenue</i>	13.44%	15.96%	15.65%	14.38%	14.14%	14.14%	14.14%	14.14%	14.14%	14.14%
Other Financial Liabilities	7,593	10,602	13,352.00	18,623.00	19,492.00	21,226.54	23,575.55	26,835.07	31,448.57	38,080.66
<i>%COGS</i>	38.45%	58.65%	52.91%	69.64%	56.34%	56.34%	56.34%	56.34%	56.34%	56.34%
Other current Liabilities	1,014	1,519	1,387.00	1,713.00	1,904.00	1,904.00	1,904.00	1,904.00	1,904.00	1,904.00
Provisions	513	573	1,002.00	1,357.00	2,432.00	2,432.00	2,432.00	2,432.00	2,432.00	2,432.00
Current Tax Liabilities[net]	300	116	520.00	537.00	291.00	291.00	291.00	291.00	291.00	291.00
Liabilities directly associated with assets	0	0	110.00	-	-	-	-	-	-	-

classified as held for sale										
Total Equity and Liabilities	1,05,506.00	1,52,207.00	1,80,653.00	2,34,831.00	2,36,866.00	2,53,893.00	2,73,930.69	2,98,240.63	3,28,730.73	3,68,252.47
Average Debt	21,073	49,453	51,126.00	71,466.00	70,411.00	70,411.00	70,411.00	70,411.00	70,411.00	70,411.00
Interest Paid	528	446	911.00	1,935.00	3,418.00	3,418.00	3,418.00	3,418.00	3,418.00	3,418.00
Interest Cost		0.90%	1.78%	2.71%	4.85%	4.85%	4.85%	4.85%	4.85%	4.85%
Debt to Total Capital	26.53%	41.00%	36.39%	37.96%	37.55%	35.03%	32.56%	30.10%	27.61%	25.06%
Working Capital	8,194	7,165	21,467	11,556	4,460	14,174	25,227	38,113	53,595	72,809
Net Inc in EC		1,029	-14,302	9,911	7,096	-9,714	-11,053	-12,887	-15,482	-19,214
Non Cash WC	1,807.00	8,270.00	8,318.00	6,067.00	-5,189.00	-2,023.27	2,263.92	8,212.89	16,633.02	28,737.30
Change in Non-Cash WC		10,077	-16,588	2,251	11,256	-3,166	-4,287	-5,949	-8,420	-12,104

Table IV: Consolidated Cash Flow Statement

Consolidated Cash Flow Statement										
Particulars(in ₹ Millions)	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21E	2021-22E	2022-23E	2023-24E	2024-25E
	A	A	A	A	A	A	A	A	A	A
CASH FLOWS FROM OPERATING ACTIVITIES										
Profit before Tax and share of Profit from Joint Ventures	20,987.00	16,146.00	23,308.00	23,821.00	14,954.00	20,548.43	23,200.65	26,880.90	32,089.90	39,578.05
Profit before Tax from Discontinued Operations	-	-27.00	-188.00	-	-	-	-	-	-	-
Profit before Tax from Continued and Discontinued Operations	20,987.00	16,119.00	23,120.00	23,821.00	14,954.00	20,548.43	23,200.65	26,880.90	32,089.90	39,578.05
Adjustments for										
Depreciation and Amortization Expense	2,921.00	3,750.00	5,405.00	5,986.00	6,965.00	7,584.80	8,424.16	9,588.87	11,237.39	13,607.21
Exceptional Items	-	-	-	-	3,636.00	-	-	-	-	-
Loss on Sale of Property, Plant and Equipment[net]	10.00	8.00	23.00	77.00	147.00	-	-	-	-	-
FVTPL gain/ profit on sale of investments [Net]	-	-61.00	-116.00	-1,128.00	261.00	-	-	-	-	-
Interest income	627.00	-573.00	-494.00	530.00	325.00	-	-	-	-	-
Dividend income	3.00	-5.00	-6.00	-6.00	5.00	-	-	-	-	-
Gain on valuation of Forward Contract value related to investment in a Joint Venture	-	-567.00	-470.00	266.00	464.00	-	-	-	-	-

Interest expenses [including effect of foreign exchange movement in borrowings]	410.00	568.00	1,468.00	1,905.00	3,236.00	3,418.00	3,418.00	3,418.00	3,418.00	3,418.00
Exchange Rate Fluctuation and other adjustments arising on Consolidation	- 670.00	33.00	-218.00	-1,252.00	- 2,819.00	-	-	-	-	-
Trade receivables written of	8.00	7.00	10.00	39.00	14.00	-	-	-	-	-
Expected credit loss on trade receivables [net]	12.00	59.00	62.00	12.00	26.00	-	-	-	-	-
Doubtful advances written of	-	-	-	6.00	50.00	-	-	-	-	-
Allowance for doubtful advances [net of written back]	-	-2.00	27.00	-7.00	176.00	-	-	-	-	-
Provision for employee benefits	151.00	152.00	98.00	395.00	436.00	-	-	-	-	-
Provision for probable product expiry claims and return of goods [net of written back]	11.00	1.00	432.00	184.00	1,015.00	-	-	-	-	-
Total	2,498.00	3,337.00	6,243.00	5,391.00	11,827.00	11,002.80	11,842.16	13,006.87	14,655.39	17,025.21
Operating profit before working capital changes	23,485.00	19,456.00	29,363.00	29,212.00	26,781.00	31,551.23	35,042.81	39,887.77	46,745.30	56,603.27
Adjustments for										
[Increase]/Decrease in trade receivables	- 1,110.00	-5,051.00	-9,690.00	-6,428.00	2,824.00	- 3,259.78	- 4,414.57	- 6,125.72	- 8,670.31	- 12,463.92
[Increase]/Decrease in inventories	804.00	-4,666.00	-5,924.00	-1,004.00	1,010.00	- 2,481.86	- 3,361.06	- 4,663.86	- 6,601.20	- 9,489.48
[Increase]/Decrease in other assets	- 237.00	-6.00	-4,649.00	264.00	435.00	- 965.96	- 1,308.15	- 1,815.21	- 2,569.24	- 3,693.38
Increase/ [Decrease] in trade payables	2,578.00	2,337.00	3,164.00	-2,259.00	564.00	1,807.33	2,447.59	3,396.30	4,807.11	6,910.41

[Decrease]/ Increase in other liabilities	1,091.00	3,071.00	2,911.00	238.00	-	-	-	-	-	-
Change in non controlling interest	409.00	203.00	349.00	-	-	-	-	-	-	-
Total	2,717.00	-4,112.00	13,839.00	-9,717.00	1,294.00	6,634.81	6,636.20	9,208.48	13,033.64	18,736.37
Cash generated from operations	26,202.00	15,344.00	15,524.00	19,495.00	28,075.00	24,916.42	28,406.61	30,679.28	33,711.66	37,866.90
Direct taxes paid [Net of refunds]	6,460.00	-2,376.00	-6,023.00	-6,754.00	3,025.00	3,025.00	3,025.00	3,025.00	3,025.00	3,025.00
Foreign Currency Monetary items Translation Difference Account written of	137.00	116.00	90.00	78.00	4.00	-	-	-	-	-
Net cash from operating activities	18,935.00	13,117.00	9,193.00	12,819.00	25,054.00	21,891.42	25,381.61	27,654.28	30,686.66	34,841.90
CASH FLOWS FROM INVESTING ACTIVITIES										
Purchase of property, plant and equipment	-9,625	-29,397	-10,493	-10,574	-9,041	-11,356	-12,613	-14,356	-16,825	-20,373
Proceeds from sale of property, plant and equipment	54	47	140	110	153	0	0	0	0	0
Repayment of Loans by a JV Company	150	0	0	0	0	0	0	0	0	0
Purchase of non current investments in subsidiaries	0	0	0	0	-1,850	0	0	0	0	0
Purchase of non current investments in others	0	0	0	-48,813	0	0	0	0	0	0
Proceeds from sale/ redemption of non current investments in subsidiaries/ joint ventures	0	0	0	890	29	0	0	0	0	0
Proceeds from sale/ redemption of non current investments in others	0	0	0	15,000	0	0	0	0	0	0

FVTPL gain/ profit [net] on sale of investments which are considered as part of cash and cash equivalents	156	53	116	464	256	0	0	0	0	0
Interest received	627	573	494	530	325	0	0	0	0	0
Dividend received	3	5	6	6	5	0	0	0	0	0
Net cash from/ [used in] investing activities	-8,635.00	-28,719.00	-9,737.00	42,387.00	10,123.00	11,355.96	12,612.65	14,356.46	16,824.63	20,372.72
CASH FLOWS FROM FINANCING ACTIVITIES										
Proceeds from non current borrowings	2,317	21,439	3,655	20,727	0	0	0	0	0	0
Repayment of non current borrowings	-4,684	-6,447	-2,646	-2,646	-7,855	0	0	0	0	0
Current Borrowings [Net]	352	12,660	565	5,874	4,366	0	0	0	0	0
Interest paid	-442	-556	-1,049	-795	1,116	-3,418	-3,418	-3,418	-3,418	-3,418
Dividends paid	-5,724	-3,271	0	-3,583	-7,166	-2,432	-2,432	-2,432	-2,432	-2,432
Tax on dividends paid	-1,167	-667	-10	-731	-1,403	-1,248	-1,408	-1,631	-1,947	-2,400
Net cash [used in]/ from financing activities	-9,348.00	23,158.00	515.00	18,846.00	10,942.00	7,097.55	7,258.23	7,481.19	7,796.76	8,250.40
Net Increase/ [Decrease] in cash and cash equivalents	952.00	7,556.00	29.00	10,722.00	3,989.00	3,437.91	5,510.72	5,816.64	6,065.28	6,218.78
Cash and cash equivalents at the beginning of the year	7,379	8,370	15,926	15,897	7,788	11,777	15,215	20,726	26,542	32,608
Cash and cash equivalents of the acquired subsidiaries	0	0	0	2,613	0	0	0	0	0	0
Effect of exchange rates on Cash and cash equivalents	39	0	0	0	0	0	0	0	0	0
Cash and cash equivalents at the end of the year	8,370.00	15,926.00	15,897.00	7,788.00	11,777.00	15,214.91	20,725.63	26,542.27	32,607.55	38,826.33

Table V: Calculation of Weighted Average Cost of Capital

Pre-tax Cost of Debt	4.85%
Tax Rate	21.39%
Cost of Debt (After Tax)	3.82%
Cost of Equity	12.51%
Beta	0.8
Risk Free Rate of Return ⁹	5.92%
Market Premium ¹⁰	8.24%
WACC	8.94%

Table VI: Estimation of FCFF and Target Share Price

Particulars (in ₹ Millions)	2020-21E	2021-22E	2022-23E	2023-24E	2024-25E
NOPAT	18,841.07	20,926.10	23,819.30	27,914.33	33,801.10
Add: Depreciation and Amortization	7,584.80	8,424.16	9,588.87	11,237.39	13,607.21
Less: Change in Working Capital	-3,165.73	-4,287.19	-5,948.97	-8,420.14	-12,104.28
Less: CapEx	11,355.96	12,612.65	14,356.46	16,824.63	20,372.72
Free Cash Flows	18,235.63	21,024.80	25,000.68	30,747.23	39,139.87
PV of Cash Flows	16,739.11	21,024.80	25,000.68	30,747.23	39,139.87
	16,739.11	21,024.80	25,000.68	30,747.23	39,139.87
Growth Rate(Long Term)	5%				
Terminal Cash Flow					10,42,992.84
PV of Terminal Cash Flow					6,79,733.77
Target Firm Value(in crores)	7,80,863.26				
Less Debt	70,411.00				
Add Cash and Bank Balances	9,649.00				
Less : Minority Interest	278.00				
Number of Shares	1023742600.00				
Target Price per Share	703.13				

⁹ Based on RBI's interest rate on 10 year Government Bonds.

¹⁰ [IN - Market Risk Premia \(market-risk-premia.com\)](http://IN - Market Risk Premia (market-risk-premia.com))

Table VII: Sensitivity Analysis of Target Share Price

		Sensitivity Analysis				
		WACC				
Growth Rate		8.14%	8.54%	8.94%	9.34%	9.74%
	3%	₹ 559.55	₹ 512.16	₹ 471.19	₹ 435.43	₹ 403.95
	5%	₹ 905.93	₹ 793.04	₹ 703.13	₹ 640.78	₹ 588.78
	7%	₹ 2,467.38	₹ 1,803.36	₹ 1,413.22	₹ 1,177.21	₹ 1,009.78
		Green=Bullish	Orange=Base Case	Red=Bearish		

Relative Valuation

In relative valuation, the valuation ratios of a firm and its competitors as well as industry averages are estimated and then a comprehensive analysis is made. For Cadila Healthcare, the same is mentioned in **Table VIII**.

Zydus Cadila Healthcare limited analysis based on industry average: EV/EBITDA of Cadila is **17.01** and Industry average is **19.71** means it is lower than Industry average. Hence, it implies that its stock is potentially undervalued. EV/Revenue is generally viewed for acquiring the firm. EV/Revenue of Cadila is much higher than the industry average which indicates that no entity would try to acquire it as it is highly overvalued. EV/EBIT has the same implication as EV/EBITDA.

P/E ratio is less than the industry average. Hence, it implies that the firms stock price is undervalued and is likely to grow in future.

Conclusion

From the DCF valuation as well as relative valuation, it can be said that the company's shares are undervalued. Owing to its future potential and expected performance, we expect the firm's share prices to rise to ₹ 703 in the next five years with varied scenarios coming into play as observed from the sensitivity analysis. Broadly speaking, it can be said that Zydus Cadila Healthcare is a growing firm and it is safe to invest in its stocks.

Table VIII: Relative Valuation of Cadila Healthcare Limited

(Particulars in ₹ Millions)	Cadila	Aurobindo	Cipla	Divis	Dr. Reddy's	IPCA	Lupin	Sun Pharma	Torrent	Abbott	Alkem	Industry Average
(Except Ratios and Share Prices)												
Share price	476.50	856.80	796.55	3712.95	5150.00	2200.00	955.20	566.90	2743.95	15505.00	2840.50	
Market cap.	487936.00	5019991.20	64221.84	9856025.78	247127.90	27907.00	432610.08	136016.32	46438.61	32948.13	339581.78	
Debt	56435.00	498576.00	3169.30	23.00	26614.00	318.57	24608.90	5472.82	3952.00	0.00	14182.50	
Minority Interest	135.00	-146.00	-37.06	0.00	0.00	-3.85	5.90	-441.88	0.00	0.00	213.80	
Cash & Cash Equivalent	18731.00	336475.00	1035.10	174662.00	3889.00	693.38	13217.80	5218.50	472.00	1942.24	14374.00	
EV	525775.00	5181946.20	66318.98	9681386.78	269852.90	27528.34	444007.08	135828.76	49918.61	31005.89	339604.08	
EV/EBIDTA	17.01	9.51	17.00	38.28	5.85	19.14	20.29	34.14	20.28	32.37	16.78	19.71
EV/Revenue	13.76	2.12	3.66	15.45	1.48	5.32	2.96	4.18	6.25	7.46	3.95	4.07
EV/EBIT	22.06	11.63	24.17	41.82	13.18	22.56	34.32	72.95	27.66	33.75	19.44	25.91
P/E (Basic)	28.83	15.96	34.91	56.04	53.07	28.01	-338.72	92.33	38.85	50.02	23.18	36.88
P/E (Dilluted)	28.81	15.96	34.94	56.04	53.19	28.02	-330.52	92.33	38.85	50.02	23.18	36.89

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Appendix I: Additional Considerations

1. Hard coded values are written in blue.
2. Values that are derived from other sheets are written in green.
3. Finance Costs were estimated by first determining the interest rate for FY 2019-20.
Interest Rate for 2019-20 = Finance Cost for 2019-20/Total Debt for 2019-20, where
Total Debt = Short term Debt + Long term Debt. The interest rate for FY 2019-20 was 4.85% as was assumed to remain constant for the next 5 years. The short-term and long-term debts were assumed to remain constant for the next 5 years and finance costs were projected.
4. Proportion of Debt to total Capital = (Short term Debt + Long term Debt)/(Short term Debt + Long term Debt + Equity Capital)
5. Profit attributable to Non-Controlling Interest = Minority Interest % * Profit for that particular year.
6. Calculation of Free Cash Flows to the firm, the non-cash non-debt working capital was used¹¹. This is because:
 - a. Cash large amounts is invested by firms in T-bills, short term government securities or commercial papers. Although the return on these riskless investments is much lower than those made by the firm in other investments, they do represent a decent return. This contrasts with inventory, accounts receivable and other current assets which do not earn a fair return. It is for this reason that cash should not be included in measures of working capital as it earns a fair return.
 - b. Debt is considered when computing WACC and including the same in working capital estimates will lead to double counting.

¹¹ [Working capital in valuation \(nyu.edu\)](#)

Appendix II : DCF Valuation Method

Steps Under the Intrinsic Valuation - DCF Methodology

- **Estimating Free cash flows available to the firm (FCFF):** FCFF primarily represents the profit or cash available for all investors of the firm—debtholders as well as equity holders after operating expenses have been incurred and investments related to working capital and long-term assets have been made.
- **Calculating the enterprise value (EV) of the firm:** Enterprise value (EV) is arrived at by computing the present value of free cash flows available for the firm by discounting at the WACC.
- **Calculating the equity value of the company and target share price of the firm:** Implied value of equity is then derived by deducting the value of net debt (total debt – cash), minority interest, increase in working capital and capital expenditure from the EV. Target share price is by dividing the implied value of equity by total number of outstanding shares.

$$\text{Enterprise Value (EV)} = \frac{FCFF_1}{(1 + WACC)^1} + \frac{FCFF_2}{(1 + WACC)^2} + \dots + \frac{FCFF_\infty}{(1 + WACC)^\infty}$$

FCFF = free cash flow to the firm ; WACC = weighted average cost of capital

Computation of WACC

WACC denotes the required rate of return demanded by all investors of the firm—debtholders as well as equity holders. To estimate the WACC, inputs related to cost of debt (required rate of return for debtholders) and cost of equity (required rate of return for equity holders) are needed. Cost of equity estimates (k_e) can be obtained using the capital asset pricing model (CAPM).

According to the CAPM,

$$k_e = R_F + \beta \times (R_M - R_F)$$

where R_F is the current risk-free rate generally proxied by the long-term treasury bond yield of the country. R_M is the expected market rate of return. The difference between R_M and R_F is also known as the equity risk premium. Beta reflects the volatility of a stock's returns.

Cost of debt (k_d) represents the interest payable on the total debt of the firm. Given that interest cost is a tax-deductible expense, while calculating WACC analysts usually take after tax cost of debt into account.

After the estimation of cost of equity and cost of debt has been done, WACC may be computed as

$$WACC = k_e \times w_e + k_d(1 - t) \times w_d$$

where w_e = proportion of equity in the capital structure

k_e = Cost of Equity

k_d = Cost of Debt (before tax)

t = Tax rate

w_d = proportion of debt in the capital structure.

Free cash flow to the firm (FCFF) represents the profit or cash available for all investors of the firm—debtholders as well as equity holders—after operating expenses have been incurred and investments related to working capital and long-term assets have been made.

FCFF can be computed using the following expression.

Free Cash Flow to the Firm(FCFF)

$$\begin{aligned} &= EBIT \times (1 - \text{tax rate}) + \text{depreciation and amortization} \\ &\quad - \text{increase in non cash non debt working capital} - \text{capital expenditure} \end{aligned}$$

EBIT represents the operating profitability of the business before deductions related to interest expense and taxes have been made.

EBIT* (1-tax rate) is also known as Net Operating Profit After Tax (NOPAT). To arrive at FCFF, non-cash expenses such as depreciation/amortization are added back to EBIT as they do not involve any cash outflow. Non-cash working capital represents the excess of current assets (excluding cash) over current liabilities for a particular year. Any increase/decrease in non-cash non-debt working capital from previous year to next year is treated as a cash outflow/inflow and accordingly adjusted. Investment in long-term assets or capital

expenditure such as purchase of plant and machinery, buildings etc. represents a cash outflow and is deducted to arrive at FCFF.

The FCFF model also divides the total investment horizon into two periods—explicit forecast period and terminal growth period. In the explicit forecast period, the company's financials are forecasted to arrive at the expected FCFF for the future years. After the explicit forecast period has been determined, remaining period is assumed as terminal period which extends into the infinite. To determine the terminal value, the Gordon growth model is used.

$$\text{Terminal Value} = \frac{FCFF (1 + g_{terminal})}{(WACC - g_{terminal})}$$

where FCFF = free cash flow to the firm at the start of the terminal period, WACC = weighted average cost of capital, and $g_{terminal}$ = long-term constant growth rate in FCFF.

EV under the FCFF model can be expressed as the present value of FCFF during the explicit forecast period plus the present value of the FCFF for the terminal period.

Enterprise value = present value of free cash flows for explicit forecast period + present value of free cash flows for terminal period

The target value of equity is then derived by deducting the value of net debt (total debt – cash) and minority interest from EV. The target price of share can then be estimated by dividing the target equity value by the number of shares outstanding.

$$\text{Target Price per Share} = \frac{EV - Debt - Minority Interest + Cash and Bank Balances}{\text{Number of Outstanding Shares}}$$

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