UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 20-F

☐ **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

☑ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Fiscal Year Ended March 31, 2019

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

☐ **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number: 1-15182

DR. REDDY'S LABORATORIES LIMITED
(Exact name of Registrant as specified in its charter)

Not Applicable	**TELANGANA, INDIA**
(Translation of Registrant's name into English)	(Jurisdiction of incorporation or organization)

8-2-337, Road No. 3, Banjara Hills
Hyderabad, Telangana 500 034, India
+91-40-49002900
(Address of principal executive offices)

Saumen Chakraborty, *Chief Financial Officer,* +91-40-49002004, saumenc@drreddys.com
8-2-337, Road No. 3, Banjara Hills, Hyderabad, Telangana 500 034, India
(Name, telephone, e-mail and/or facsimile number and address of company contact person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of Each Class	Trading Symbol	Name of Each Exchange on which Registered
American depositary shares, each representing one equity share	**RDY**	**New York Stock Exchange**

Equity Shares*

* **Not for trading, but only in connection with the registration of American depositary shares, pursuant to the requirements of the Securities and Exchange Commission**.

Securities registered or to be registered pursuant to Section 12(g) of the Act. None.

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act. None.

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

166,065,948 Equity Shares

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☑ No ☐

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes ☐ No ☑

Note — Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or an emerging growth company. See the definitions of "accelerated filer", "large accelerated filer" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☑ Accelerated filer ☐ Non-accelerated filer ☐ Emerging growth company ☐

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. ☐

† The term “new or revised financial accounting standard” refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP ☐	International Financial Reporting Standards as issued ☑ by the International Accounting Standards Board	Other ☐

If “Other” has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Securities Exchange Act of 1934).

Yes ☐ No ☑

Currency of Presentation and Certain Defined Terms

In this annual report on Form 20-F, references to "$" or "U.S.$" or "dollars" or "U.S. dollars" are to the legal currency of the United States and references to "Rs." or "rupees" or "Indian rupees" or "INR" are to the legal currency of India, references to "MXN" are to the legal currency of Mexico, references to "ZAR" are to the legal currency of South Africa, references to "UAH" are to the legal currency of Ukraine, references to "GBP" are to the legal currency of the United Kingdom and references to "EUR" or "euros" are to the legal currency of the European Union. Our financial statements are prepared in accordance with International Financial Reporting Standards, or "IFRS", as issued by the International Accounting Standards Board, or "IASB". These standards include International Accounting Standards, or "IAS", and their interpretations issued by the International Financial Reporting Interpretations Committee, or "IFRIC", or its predecessor, the Standing Interpretations Committee, or "SIC". References to a particular "fiscal" year are to our fiscal year ended March 31 of such year. References to our "ADSs" are to our American Depositary Shares.

References to "U.S. FDA" are to the United States Food and Drug Administration, to "ANDS" are to Abbreviated New Drug Submissions, to "NDAs" are to New Drug Applications, and to "ANDAs" are to Abbreviated New Drug Applications.

References to "U.S." or "United States" are to the United States of America, its territories and its possessions. References to "India" are to the Republic of India. References to "EU" are to the European Union. All references to "we," "us", "our", "DRL", "Dr. Reddy's" or the "Company" shall mean Dr. Reddy's Laboratories Limited and its subsidiaries. "Dr. Reddy's" is a registered trademark of Dr. Reddy's Laboratories Limited in India. Other trademarks or trade names used in this annual report on Form 20-F are trademarks registered in the name of Dr. Reddy's Laboratories Limited or are pending before the respective trademark registries, unless otherwise specified. Market share data is based on information provided by IQVIA Holdings Inc. (formerly Quintiles IMS Holdings Inc.) ("IQVIA"), a provider of market research to the pharmaceutical industry, unless otherwise stated.

Our financial statements are presented in Indian rupees and translated into U.S. dollars for the convenience of the reader. Except as otherwise stated in this report, all convenience translations from Indian rupees to U.S. dollars are at the certified foreign exchange rate of U.S.$1 = Rs.69.16, as published by Federal Reserve Board of Governors on March 29, 2019. No representation is made that the Indian rupee amounts have been, could have been or could be converted into U.S. dollars at such a rate or any other rate. Any discrepancies in any table between totals and sums of the amounts listed are due to rounding.

Our main corporate website address is https://www.drreddys.com. Information contained in our website, www.drreddys.com, is not part of this Annual Report and no portion of such information is incorporated herein.

Forward-Looking Statements

In addition to historical information, this annual report contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). In addition to statements which are forward-looking by reason of context, the words "may", "will", "should", "expects", "plans", "intends", "anticipates", "believes", "estimates", "predicts", "potential", or "continue" and similar expressions identify forward-looking statements. The forward-looking statements contained herein are subject to certain risks and uncertainties that could cause actual results to differ materially from those reflected in the forward-looking statements. Factors that might cause such a difference include, but are not limited to:

- in our generics medicines business: consolidation of our customer base and commercial alliances among our customers; the increase in the number of competitors targeting generic opportunities and seeking U.S. market exclusivity for generic versions of significant products; price erosion relating to our generic products, both from competing products and increased regulation; delays in launches of new generic products; efforts of pharmaceutical companies to limit the use of generics including through legislation and regulations; the difficulty and expense of obtaining licenses to proprietary technologies; returns, allowances and chargebacks; and investigations of the calculation of wholesale prices;

- in our specialty medicines business: competition for our specialty products; our ability to achieve expected results from investments in our product pipeline; competition from companies with greater resources and capabilities; and the effectiveness of our patents and other measures to protect our intellectual property rights;

- our business and operations in general, including: our ability to develop and commercialize additional pharmaceutical products; manufacturing or quality control problems, which may damage our reputation for quality production and require costly remediation; interruptions in our supply chain; disruptions of our or third party information technology systems or breaches of our data security; the failure to recruit or retain key personnel; challenges associated with conducting business globally, including adverse effects of political or economic instability, major hostilities or terrorism; significant sales to a limited number of customers in our U.S. market; our ability to successfully bid for suitable acquisition targets or licensing opportunities, or to consummate and integrate acquisitions;

- compliance, regulatory and litigation matters, including: costs and delays resulting from the extensive governmental regulation to which we are subject; the effects of reforms in healthcare regulation and reductions in pharmaceutical pricing, reimbursement and coverage; governmental investigations into selling and marketing practices; potential liability for patent infringement; product liability claims; increased government scrutiny of our patent settlement agreements; failure to comply with complex Medicare and Medicaid reporting and payment obligations; and environmental risks;

- other financial and economic risks, including: our exposure to currency fluctuations and restrictions as well as credit risks; potential impairments of our intangible assets; potential significant increases in tax liabilities; and the effect on our overall effective tax rate of the termination or expiration of governmental programs or tax benefits, or of a change in our business; and

- those discussed in the sections entitled “risk factors” and “operating and financial review and prospects” and elsewhere in this report.

Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect management’s analysis and assumptions only as of the date hereof. In addition, readers should carefully review the other information in this annual report and in our periodic reports and other documents filed with and/or furnished to the SEC from time to time.

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PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

3.A. ***Selected financial data***

You should read the selected consolidated financial data below in conjunction with our consolidated financial statements and the related notes, as well as the section titled "Operating and Financial Review and Prospects," which are included elsewhere in this Annual Report on Form 20-F. The selected consolidated financial data presented below as of March 31, 2019, 2018 and 2017 has been derived from our consolidated financial statements included herein, which have been prepared in conformity with IFRS as issued by the IASB. The selected consolidated financial data presented below as of March 31, 2016, and 2015 has been derived from our consolidated financial statements, which also have been prepared in conformity with IFRS as issued by the IASB, and which have not been included elsewhere in this Annual Report.

The consolidated financial statements as of March 31, 2019 and for the year ended March 31, 2019 have been audited by Ernst & Young Associates LLP (EY), Hyderabad, India, our independent registered public accounting firm, and included elsewhere in this Annual Report. The consolidated financial statements as of March 31, 2018, 2017, 2016 and 2015 and for the years then ended March 31, 2016 and 2015 were audited by KPMG, Hyderabad, India, or KPMG, our former independent registered public accounting firm.

The selected consolidated financial data below has been presented for the five most recent fiscal years. Historical results are not necessarily indicative of future results.

Income Statement Data

	For the year ended March 31,									
	2019	**2019**		**2018**		**2017**		**2016**		**2015**
	(Rs. in millions, U.S.$ in millions, both except share and per share data)									
	Convenience translation into U.S.$									
Revenues	**U.S.$ 2,225**	**Rs. 153,851**	**Rs.**	**142,028**	**Rs.**	**140,809**	**Rs.**	**154,708**	**Rs.**	**148,189**
Cost of revenues	1,018	70,421		65,724		62,453		62,427		62,786
Gross profit	**1,206**	**83,430**		**76,304**		**78,356**		**92,281**		**85,403**
Selling, general and administrative expenses	707	48,890		46,910		46,372		45,702		42,585
Research and development expenses	226	15,607		18,265		19,551		17,834		17,449
Other (income)/expense, net	(28)	(1,955)		(788)		(1,065)		(874)		(917)
Results from operating activities	**302**	**20,888**		**11,917**		**13,498**		**29,619**		**26,286**
Finance (expense)/income, net	16	1,117		2,080		806		(2,708)		1,682
Share of profit of equity accounted investees, net of tax	6	438		344		349		229		195
Profit before tax	**325**	**22,443**		**14,341**		**14,653**		**27,140**		**28,163**
Tax expense	53	3,648		4,535		2,614		7,127		5,984
Profit for the year	**272**	**18,795**	**Rs.**	**9,806**		**12,039**		**20,013**		**22,179**
Earnings per share										
Basic	U.S.$ 1.64	Rs. 113.28	Rs.	59.13	Rs.	72.24	Rs.	117.34	Rs.	130.22
Diluted	U.S.$ 1.64	Rs. 113.09	Rs.	59.00	Rs.	72.09	Rs.	116.98	Rs.	129.75
Cash dividend per equity share*		Rs. 20	Rs.	20	Rs.	20	Rs.	20	Rs.	18

* Excludes corporate dividend tax.

Statement of Financial Position Data

	As of March 31,											
	2019		2019		2018		2017		2016		2015	
	(Rs. in millions, U.S.$ in millions, except share data)											
	Convenience translation into U.S.$											
Cash and cash equivalents	U.S.$	32	Rs.	2,228	Rs.	2,638	Rs.	3,866	Rs.	4,921	Rs.	5,394
Other investments (current and non-current)		338		23,342		20,879		19,507		37,022		37,076
Total assets		3,259		225,427		225,604		219,821		207,650		194,762
Total long term debt, excluding current portion		318		22,000		25,089		5,449		10,685		14,307
Total equity	U.S.$	2,027	Rs.	140,197	Rs.	126,460	Rs.	124,044	Rs.	128,336	Rs.	111,302
Number of shares outstanding				166,065,948		165,910,907		165,741,713		170,607,653		170,381,174

Convenience translation

For the convenience of the reader, our consolidated financial statements as of March 31, 2019 have been translated into U.S. dollars at the certified foreign exchange rate of U.S.$1 = Rs.69.16, as published by the Federal Reserve Board of Governors on March 29, 2019. No representation is made that the Indian rupee amounts have been, could have been or could be converted into U.S. dollars at such a rate or any other rate.

3.B. ***Capitalization and indebtedness***

Not applicable.

3.C. ***Reasons for the offer and use of proceeds***

Not applicable.

3.D. ***Risk factors***

You should carefully consider all of the information set forth in this Form 20-F and the following risk factors that we face and that are faced by our industry. The risks below are not the only ones we face. Additional risks not currently known to us or that we presently deem immaterial may also affect our business operations. Our business, financial condition or results of operations could be materially or adversely affected by any of these risks. This Form 20-F also contains forward-looking statements that involve risks and uncertainties. Our results could materially differ from those anticipated in these forward-looking statements as a result of certain factors, including the risks we face as described below and elsewhere. See "Forward-Looking Statements."

RISKS RELATING TO OUR COMPANY AND OUR BUSINESS

If we fail to comply fully with government regulations or to maintain continuing regulatory oversight applicable to our research and development activities or regarding the manufacture of our products, or if a regulatory agency amends or withdraws existing approvals to market our products, it may delay or prevent us from developing or manufacturing our products.

Our research and development activities are heavily regulated. If we fail to comply fully with applicable regulations, then there could be a delay in the submission or approval of potential new products for marketing approval. In addition, the submission of an application to a regulatory authority does not guarantee that approvals required to market the product will be granted. Each authority may impose its own requirements and/or delay or refuse to grant approval, even when a product has already been approved in another country. In many of the international markets into which we sell our products, including the United States, the approval process for a new product is complex, lengthy and expensive. The time taken to obtain approval varies by country but generally takes from six months to several years from the date of application. This approval process increases the cost to us of developing new products and increases the risk that we will not be able to successfully sell such new products.

Regulatory agencies may at any time reassess the safety and efficacy of our products based on new scientific knowledge or other factors. Such reassessments could result in the amendment or withdrawal of existing approvals to market our products, which in turn could result in a loss of revenue, and could serve as an inducement to bring lawsuits against us. In our biosimilar business, due to the intrinsic nature of biologics, our bio-similarity claims can always be contested by our competitors, the innovator company and/or the applicable regulators.

Delays in the receipt of, or failure to obtain approvals for, future products, or new indications and uses, could result in delayed realization of product revenues, reduction in revenues and substantial additional costs. For example, in the years ended March 31, 2017, 2018 and 2019, we experienced delays in obtaining approvals from the U.S. Food and Drug Administration ("U.S. FDA") for various generic and specialty products as anticipated, principally as a result of the warning letter referenced below.

Additionally, governmental authorities, including among others the U.S. FDA and the U.K. Medicines and Healthcare Products Regulatory Agency ("MHRA"), heavily regulate the manufacturing of our products, including manufacturing quality standards. Periodic audits are conducted on our manufacturing sites, and if the regulatory and quality standards and systems are not found adequate, it could result in an audit observation (on Form 483, if from the U.S. FDA), or a subsequent investigative letter which may require further corrective actions. In recent years, a number of Indian generic pharmaceutical companies were issued import alerts and warning letters by the U.S. FDA. A significant proportion of our manufacturing base of active pharmaceutical ingredients and formulations plants servicing the United States and other markets of our Global Generics business is based out of India. There has been an increasing trend by the U.S. FDA and governmental regulators in other developed countries towards Indian manufacturing site audits. While our quality practices and quality management systems are conducted in a manner designed to satisfy these types of audits, we cannot guarantee that our efforts will prevent adverse outcomes such as audit observations, corrective action requests, warning letters or import bans.

For example, in November 2015, we received a warning letter from the U.S. FDA relating to cGMP deviations at three of our manufacturing facilities - two API manufacturing facilities and one injectable oncology formulations manufacturing facility in India. Refer to Note 33 of our consolidated financial statements under "Receipt of warning letter from the U.S.FDA" for further details.

More generally, unless and until an issue raised in a warning letter from the U.S. FDA is resolved to the U.S. FDA's satisfaction, the U.S. FDA may withhold approvals of our new products and new drug applications, refuse admission of products manufactured at the facilities noted in the warning letter into the United States, and/or take additional regulatory or legal action against us. The delay in approvals due to moving to an alternate site or alternate vendor, or the cost incurred in connection with remedial actions, can have significant adverse impacts on our ongoing business, financial results and routine operations.

In recent years, there has been increasing regulatory scrutiny of pharmaceutical manufacturers, resulting in product recalls, plant shutdowns and other required remedial actions. We have been subject to increasing scrutiny of our manufacturing operations, and in previous years several of our facilities have been the subject of significant regulatory actions requiring substantial expenditures of resources to ensure compliance with more stringently applied production and quality control regulations. These regulatory actions also adversely affected our ability to supply various products worldwide and to obtain new product approvals at such facilities. If any regulatory body were to require one or more of our significant manufacturing facilities to cease or limit production, our business could be adversely affected. In addition, because regulatory approval to manufacture a drug is site-specific, the delay and cost of remedial actions, or of obtaining approval to manufacture at a different facility also could have a material adverse effect on our business, financial position and results of operations.

Furthermore, we deal with numerous third party manufacturers and despite our oversight, any lapse in their quality practices and quality management systems could lead to similar adverse outcomes in the event of an audit.

If we or our third party suppliers fail to comply fully with applicable regulations or to take corrective actions that are mandated, then there could be a government-enforced shutdown of our production facilities or an import ban, which in turn could lead to product shortages that delay or prevent us from fulfilling our obligations to customers, or we could be subjected to government fines.

Further, while physicians may prescribe products for uses that are not described in the product labeling and that differ from those approved by the U.S. FDA or other similar regulatory authorities (an "off label" use), we are permitted to market our products only for the indications for which they have been approved. The U.S. FDA and other regulatory agencies actively enforce regulations prohibiting promotion of off-label uses, and significant liability can be imposed on manufacturers found to be engaged in off-label marketing violations, including fines in the tens or hundreds of millions of dollars, as well as criminal sanctions. If some of our products are prescribed off label, regulatory authorities such as the U.S. FDA could take enforcement actions if they conclude that we or our distributors have engaged in off label marketing.

An increasing portion of our portfolio are “biologic” products. Unlike traditional “small-molecule” drugs, biologic drugs cannot be manufactured synthetically, but typically must be produced from living animal cells or micro-organisms. As a result, the production of biologic drugs that meet all quality and regulatory requirements is especially complex and is more susceptible to batch failures.

Typically, biological therapeutics face third party intellectual property rights, otherwise known as freedom to operate (“FTO”) issues, more than small molecule therapeutics because of the types of patents allowed by national patent offices. Further, our ability to successfully challenge third party patent rights is dependent on the laws of the applicable countries.

The regulatory requirements are still evolving in many markets where we sell or manufacture products, including our biosimilar products, and regulatory requirements may be unclear due to lack of precedents, among other reasons, which may lead to delays in product approvals or other sanctions. In the United States, the Biologics Price Competition and Innovation Act of 2009 (“BPCIA”) created a statutory pathway and abbreviated approval processes for the approval of biosimilar versions of branded biological products. While the U.S. FDA has issued guidelines, the regulatory policies in this area are still evolving. Further, while a number of legal challenges concerning the requirements of the abbreviated biosimilar pathway, patent exchange and other provisions of BPCIA have been adjudicated in U.S. courts, legal challenges concerning FTO, patent exchange and trade matters, among others, continue.

We operate in a highly competitive and rapidly consolidating industry which may adversely affect our revenues and profits.

Our products face intense competition from products commercialized or under development by competitors in all of our business segments based in India, the United States and other markets. Many of our competitors have greater financial resources and marketing capabilities than we do. Our competitors may succeed in developing technologies and products that are more effective, more popular or cheaper than any we may develop or license, thus rendering our technologies and products obsolete or uncompetitive, which would harm our business and financial results.

Further, in recent years the goals established under the Generic Drug User Fee Act, and increased funding of the U.S. FDA’s Office of Generic Drugs, have led to more and faster generic approvals, and consequently increased competition. The U.S. FDA has established new steps to enhance competition, promote access and lower drug prices and is approving record-breaking numbers of generic applications. While these improvements are expected to benefit our generic product pipeline, they will also benefit competitors that seek to launch products in established generic markets where we currently offer products.

Our generics business is also facing increasing competition from brand-name manufacturers who do not face any significant regulatory approvals or barriers to enter into the generics market. These brand-name companies sell generic versions of their products to the market directly or by acquiring or forming strategic alliances with our competitor generic pharmaceutical companies or by granting them rights to sell “authorized generics.” Moreover, brand-name companies continually seek new ways to delay the introduction of generic products and decrease the impact of generic competition, such as filing new patents on drugs whose original patent protection is about to expire, developing patented controlled-release products, changing product claims and product labeling, or developing and marketing as over-the-counter products those branded products that are about to face generic competition, or pricing the branded product at a discount equivalent to generic pricing.

Our competitors, which include major multinational corporations, are consolidating, and the strength of the combined companies could affect our competitive position in all of our business areas. Furthermore, if one of our competitors or their customers acquires any of our customers or suppliers, we may lose business from the customer or lose a supplier of a critical raw material. In addition, our increased focus on innovative and specialty pharmaceuticals requires much greater use of a direct sales force than does our core generic business.

In our generics business, to the extent that we succeed in being the first to market a generic version of a significant product, and particularly if we obtain the 180-day period of market exclusivity in the United States provided under the Hatch-Waxman Act of 1984, as amended, our sales and profit can be substantially increased in the period following the introduction of such product and prior to a competitor's introduction of the equivalent product or the launch of an authorized generic. Prices of generic drugs typically decline, often dramatically, especially as additional generic pharmaceutical companies receive approvals and enter the market for a given product. Consequently, our ability to sustain our sales and profitability of any product over time is dependent on both the number of new competitors for such product and the timing of their approvals.

In our proprietary products business, many of our competitors have greater experience than we do in clinical testing, human clinical trials, obtaining regulatory approvals and commercialization. They may be able to respond more quickly to new or emerging market preferences or to devote greater resources to the development of new products and/or technologies than we can. As a result, any products and/or innovations that we develop may become obsolete or non-competitive before we can recover the expenses incurred in connection with their development. Since these products are designed to address unmet or inadequately met medical needs, there is an increased need for our sales organization to emphasize to physicians, patients and third-party payors the benefits of our products relative to competing products which are often more familiar or otherwise better established. If competitors introduce new products or new variations on their existing products, our proprietary products, even those protected by patents, may experience substantial reductions in market shares and may require substantial price reductions in order to remain competitive.

We have concentrations of sales to certain customers and consolidation among distributors and pharmaceutical companies could increase the concentration risk and also adversely impact our business prospects.

In the United States, similar to other pharmaceutical companies, we sell our products through wholesale distributors and large retail chains in addition to hospitals, pharmacies and other groups. During the year ended March 31, 2019, our ten largest customers accounted for approximately 77% of our North America Global Generics segment's revenues. Consolidation and integration of the drug wholesalers, retail drug chains, private insurers, managed care organizations and other purchasing organizations may continue to adversely affect pharmaceutical manufacturers. Such consolidations has resulted in these groups gaining additional purchasing leverage and, consequently, increasing the product pricing pressures facing our business. We expect this trend of increased pricing pressures to continue. Such pressures have reduced, and could continue to reduce, our revenue, margins and profitability.

Additionally, the emergence of large buying groups representing independent retail pharmacies, and the prevalence and influence of managed care organizations and similar institutions, creates competition among pharmaceutical companies to have their products included in the formulary of those groups and enables those groups to extract price discounts on our products.

If pharmaceutical companies are successful in limiting the use of generics through their legislative, regulatory and other efforts, sales of our generic products may be adversely impacted.

Many pharmaceutical companies increasingly have used state and federal legislative and regulatory means to delay or eliminate generic competition. These efforts have included:

- pursuing new patents for existing products that may be granted just before the expiration of earlier patents, which could extend patent protection for additional years or otherwise delay the launch of generics;
- selling the brand product as an authorized generic, either by the brand company directly or through a marketing partner;
- introducing "next-generation" products prior to the expiration of market exclusivity for the generic product, which often materially reduces the demand for the generic product for which we seek regulatory approval;
- obtaining extensions of market exclusivity by conducting clinical trials of brand drugs in pediatric populations;
- using the Citizen Petition process to request amendments to U.S. FDA standards on testing bio-equivalence;

- seeking changes to U.S. Pharmacopeia, an organization that publishes industry recognized compendia of drug standards;
- attaching patent extension amendments to non-related federal legislation;
- engaging in state-by-state initiatives to enact legislation that restricts the substitution of some generic drugs, which could have an impact on products that we are developing;
- seeking patents on methods of manufacturing certain active pharmaceutical ingredients;
- attempting to use the legislative and regulatory process to have drugs reclassified or rescheduled; and
- entering into agreements with pharmacy benefit management companies that have the effect of blocking the dispensing of generic products.

If we are unable to defend ourselves in patent challenges, we could be subject to injunctions preventing us from selling our products, or we could be subject to substantial liabilities that could adversely affect our profits. Further, our patent settlement agreements with the innovators may face government scrutiny, exposing us to significant damages.

There has been substantial patent related litigation in the pharmaceutical industry concerning the manufacture, use and sale of various products. In the normal course of business, we are regularly subject to lawsuits and the ultimate outcome of litigation could adversely affect our results of operations, financial condition and cash flow. Regardless of regulatory approval, lawsuits are periodically commenced against us with respect to alleged patent infringements by us, such suits often being triggered by our filing of an application for governmental approval, such as an ANDA or NDA. The expense of any such litigation and the resulting disruption to our business, whether or not we are successful, could harm our business. The uncertainties inherent in patent litigation make it difficult for us to predict the outcome of any such litigation.

If we are unsuccessful in defending ourselves against these suits, we could be subject to injunctions preventing us from selling our products, resulting in a decrease in revenues, or to damages, which may be substantial. An injunction or substantial damages resulting from these suits could adversely affect our consolidated financial position, results of operations or liquidity.

Further, we have been involved in various litigations involving challenges to the validity or enforceability of registered patents and therefore settling such patent litigations has been and is likely to continue to be an important part of our business.

Parties to patent litigation settlement agreements in the United States, including us, are required by law to file them with the Federal Trade Commission ("FTC") and the Antitrust Division of the Department of Justice for review. The FTC has publicly stated that, in its view, some of the brand-generic settlement agreements violate the antitrust laws and has brought actions against some brand and generic companies that have entered into such agreements. Accordingly, such settlement agreements may expose us to antitrust violation claims.

Reforms in the health care industry and the uncertainty associated with pharmaceutical pricing, reimbursement and related matters could adversely affect the marketing, pricing and demand for our products.

Our businesses are operating in an ever more challenging environment, with significant pressures on the pricing of our products and on our ability to obtain and maintain satisfactory rates of reimbursement for our products by governments, insurers and other payors. The growth of overall healthcare costs as a percentage of gross domestic product in many countries means that governments and payors are under intense pressure to control healthcare spending even more tightly than in the past.

These pressures are particularly strong given the persistently weak economic and financial environment in many countries and the increasing demand for healthcare resulting from the aging of the global population and associated increases in non-communicable diseases. These pressures are further compounded by consolidation among distributors, retailers, private insurers, managed care organizations and other private payors, which can increase their negotiating power. In addition, these pressures are augmented by intense publicity regarding the pricing of pharmaceuticals by our competitors, as well as government investigations and legal proceedings regarding pharmaceutical pricing practices. In many countries in which we currently operate, pharmaceutical prices are increasingly subject to regulation. Our products continue to be subject to increasing price and reimbursement pressure that can limit the revenues we earn from our products in many countries due to, among other things:

- the existence of government-imposed price controls, tender systems, mandatory discounts and rebates, and pricing transparency mandates;
- more governments using international reference pricing to set the price of drugs based on international comparisons.

- increased difficulty in obtaining and maintaining satisfactory drug reimbursement rates;
- increase in cost containment policies related to health expenses in the context of economic slowdown;
- more demanding evaluation criteria applied by Health Technology Assessment ("HTA") agencies when considering whether to cover new drugs at a certain price level; and

We expect these efforts to continue as healthcare payors around the globe, in particular government-controlled health authorities, insurance companies and managed care organizations, step up initiatives to reduce the overall cost of healthcare.

In addition, there has been legislation and legislative proposals concerning drug prices and related issues, including the perceived need to bring more transparency to drug pricing, reviewing the relationship between pricing and manufacturer patient programs, and reforming government program reimbursement methodologies for drugs.

The use of tender systems and other forms of price control could reduce prices for our products or reduce our market opportunities.

A number of markets in which we operate have implemented or may implement tender systems in an effort to lower prices. Under such tender systems, manufacturers submit bids which establish prices for generic pharmaceutical products. Upon winning the tender, the winning company will receive a preferential reimbursement for a period of time. The tender system often results in companies underbidding one another by proposing low pricing in order to win the tender.

For example, this has resulted in more than 90% of generic products currently sold in German retail outlets being supplied through contracts procured in competitive bidding tenders, thereby causing significant pressure on product margins.

Certain other countries may consider the implementation of a tender system or other forms of price controls. Even if a tender system is ultimately not implemented, the anticipation of such a system could result in price reductions. Failing to win tenders, or the implementation of similar systems or other forms of price controls in other markets leading to further price declines, could have a material adverse effect on our business, financial condition, results of operations, cash flows, and/or share price.

Class action lawsuits could expose us to significant liabilities, result in negative publicity, harm our reputation and have a material adverse effect on the price of our ADSs.

Shareholders of a public company sometimes bring securities class action lawsuits against the company following periods of instability in the market price of that company's securities. As a public company grows in size, the risk of such litigations may increase. If we were to be sued in any such class action suit, irrespective of the merits of the underlying case, it could have adverse effects on us, including among other things: (a) a diversion of management's time and attention and other resources from our business and operations, which could harm our results of operations; (b) negative publicity, which could harm our reputation and restrict our ability to raise capital in the future; (c) require us to incur significant expenses to defend the suit; and (d) if a claim against us is successful, we may be required to pay significant damages and, in certain circumstances, to indemnify our directors and officers if they are named as defendants in the class action suit. Any of the foregoing could, individually or in the aggregate, have a material adverse effect on our financial condition and results of operations and/or the price of our ADSs.

Significant disruptions of information technology systems, breaches of data security or other cyber-attacks could adversely affect our business.

Our business is dependent upon increasingly complex and interdependent information technology systems, including internet and cloud based systems, to support our business processes as well as internal and external communications. In addition, our businesses and operating models increasingly depend on outsourcing and collaboration, which requires exchanging data and information. The size and complexity and interconnectivity of our computer systems make them potentially vulnerable to breakdown, malicious intrusion, computer viruses and other cyber-attacks. Like many companies, we may experience certain of these events given that the external cyber-attack threat continues to grow and although we and our third party service providers have invested in measures to reduce these risks, we cannot be assured that these measures will be successful in preventing the compromise and/or disruption of our information technology systems and related data. Any such compromise or disruption may result in the loss, theft or unauthorized disclosure of key information and/or disruption of production and business processes, such as the conduct of scientific research and clinical trials, the submission of the results of such efforts to regulatory authorities in support of requests for product approvals, the functioning of our manufacturing and supply chain processes, our compliance with legal obligations and other key business activities, any of which could materially and adversely affect our business. We maintain cybersecurity insurance to further mitigate these risks, but there can be no assurance that a policy exclusion will not apply, or that our insurance coverage limits will be sufficient to protect us against the financial, legal, business or reputational losses that may result from an interruption or breach of our systems, or that any such insurance proceeds will be paid to us in a timely manner.

In addition, our systems are potentially vulnerable to data security breaches, whether by employees or others that may expose sensitive data to unauthorized persons. Such data security breaches could lead to the loss of trade secrets or other intellectual property, or could lead to the public exposure of personal information (including sensitive personal information) of our employees, clinical trial patients, customers and others. Such breaches of security could result in reputational damage and could otherwise have a material adverse effect on our business, financial condition and results of operations. Further, increasing use of information technology ("IT") systems in manufacturing processes would require us to manage issues arising out of human error and/or sabotage.

In our pursuit of operational excellence, several change management initiatives across our organization are ongoing, including but not limited to information technology automation in the areas of manufacturing, research and development, supply chain and shared services. We have outsourced our IT hardware and applications in order to improve IT capability and performance. Any failure by such outsourced service providers to deliver timely and quality services and to co-operate with one another could create disruption, which could materially adversely affect our business or results of operations. Further, any failure by us to effectively manage such change initiatives or implement adequate controls in automation, security or availability of information technology systems could have a material adverse effects on our business.

Increased outsourcing or use of cloud services for conducting our business requires highly secure controls to ensure adequate security of information, considering potential for sabotage as well as availability. Data integrity, confidentiality and data privacy requirements are increasingly concerning regulators, and are incorporated into legal contracts. While we have invested heavily in the protection of data and information technology to reduce these risks, there can be no assurance that our efforts or those of our third-party service providers would be sufficient to protect against data deterioration or loss in the event of a system malfunction, or prevent data from being stolen or corrupted in the event of a security breach.

We are subject to data privacy and security laws and regulations in many different jurisdictions and countries where we do business, and our or our partners' failure to comply could result in fines, penalties, reputational damage, and could impact the way we operate our business.

We are subject to laws and regulations governing the collection, use and transmission of health information, including personal data. As the legislative and regulatory landscape for data privacy and protection continues to evolve around the world, there has been an increasing focus on privacy and data protection issues that may affect our business. For example, the European Union's General Data Protection Regulation ("GDPR") that became fully effective in May 2018, requires Companies to satisfy new requirements regarding the handling of personal and sensitive data and includes significant new penalties for non-compliance, with fines up to the higher of EUR 20 million or 4% of total annual worldwide revenue.

Additionally, California recently enacted the California Consumer Privacy Act ("CCPA"), which creates new individual privacy rights for consumers and places increased privacy and security obligations on entities handling personal data of consumers or households. When it goes into effect on January 1, 2020, the CCPA will require covered companies to provide new disclosures to California consumers, provide such consumers new ways to opt-out of certain sales of personal information, and allow for a new cause of action for data breaches.

Other countries in which we do business have, or are developing, laws governing the collection, use and transmission of personal information as well that may affect our business or require us to adapt our technologies or practices. Some countries, including India, are considering legislation implementing data protection requirements or requiring local storage and processing of data or similar requirements.

These and similar initiatives could increase the cost of developing, implementing or maintaining our IT systems and require us to allocate more resources to compliance initiatives thereby increasing our costs. In addition, a failure by us, or our third-party vendors, to comply with applicable data privacy and security laws could result in financial, legal, business, and reputational harm to us and could have a material adverse effect on the way we operate our business, our financial condition and results of operations.

Increasing use of social media could give rise to liability or breaches of data security.

We and our business associates are increasingly relying on social media and mobile tools as a means of communications. To the extent that we seek as a company to use these tools as a means to communicate about our products or about the diseases our products are intended to treat, there are significant uncertainties as to either the rules that apply to such communications, or as to the interpretations that health authorities will apply to the rules that exist. As a result, despite our efforts to comply with applicable rules, there is a significant risk that our use of social media and mobile tools for such purposes may cause us to nonetheless be found in violation of them. In addition, because of the universal availability of social media tools, our associates or third parties may make use of them in ways that may not be sanctioned by us, and that may give rise to liability, or that could lead to the loss of trade secrets or other intellectual property, or could lead to the public exposure of personal information (including sensitive personal information) of our employees, clinical trial patients, customers and others. Such uses of social media could have a material adverse effect on our business, financial condition and results of operations. Social media posts could also contain information purported to be disclosed by us that is false or otherwise damaging, which could have a material adverse effect on our reputation and the price of our equity shares and ADSs.

Our success depends on our ability to successfully develop and commercialize new pharmaceutical products.

Our future results of operations depend, to a significant degree, upon our ability to successfully develop and commercialize additional products in our Global Generics, Pharmaceutical Services and Active Ingredients, and Proprietary Products segments. We must develop, test and manufacture generic products as well as prove that our generic products are bio-equivalent or biosimilar to their branded counterparts, either directly or in partnership with contract research organizations. The development and commercialization process, particularly with respect to proprietary products and biosimilars, is both time consuming and costly and involves a high degree of business risk. Our products currently under development, if and when fully developed and tested, may not perform as we expect or meet our standards of safety and efficacy. Necessary regulatory approvals may not be obtained in a timely manner, if at all, and we may not be able to successfully and profitably produce and market such products. Our approved products may not achieve expected levels of market acceptance.

Our research and development efforts are increasingly dependent on collaborating with third party partners and contract research organizations which have the capability to handle complex technologies and products. Lack of effective project management at our end, or any failure to manage collaboration arrangements among multiple partners, may pose significant risks to product development, to our ability to obtain requisite regulatory approvals in a timely manner, and to our ability to successfully and profitably produce and market such products.

Additionally, if we fail to adequately protect critical proprietary or confidential information or associated intellectual property rights or fail to manage third party partners and contract research organizations that our business depends on, it might have a material adverse impact on our product development execution.

From time to time we also acquire in-process research and development assets, which require significant resources and expenses to continue to develop, both through our own efforts and through collaborations. Because of the inherent risk associated with research and development efforts in our industry, including the high cost and uncertainty of conducting clinical trials (where required), such efforts may not result in the successful introduction of new pharmaceutical products approved by the relevant regulatory bodies.

For example, during the year ended March 31, 2017, we acquired eight Abbreviated New Drug Applications in the United States from Teva Pharmaceutical Industries Limited (“Teva”) and an affiliate of Allergan plc. The consideration for such purchase was U.S.$350 million in cash at closing, which was funded through borrowings from certain institutional lenders. Our results of operations may suffer if these products are not timely developed, approved or successfully commercialized.

Opposition to free trade agreements and changes in trade policies of countries in which we operate could adversely affect the pricing and demand for our products.

Opposition to free trade agreements was an important component of the campaign platform of the new U.S. administration, and there are ongoing efforts to achieve that goal. For example, the United States withdrew from the Trans-Pacific Partnership (“TPP”) free trade agreement and recently announced that it will end preferential trade treatment for India, currently being extended under its Generalized System of Preferences (“GSP”). In the current scheme, there might not be any direct impact on U.S. imports of pharmaceutical products due to this withdrawal. However, any such changes in free trade agreements could, among other things, interfere with free trade in goods, impose additional customs duties or tariffs, increase the costs and difficulties of international transactions and potentially disturb the international flow of goods and, in particular, trade between the United States and other countries, and thus may have a adverse effect on our financial performance.

Any new tariffs or other changes in U.S. trade policy could trigger retaliatory actions by affected countries, potentially escalating and resulting in “trade wars”. For example, in March and April 2018, the U.S. government announced new tariffs on steel and aluminum from China, as well as more than 1,300 other Chinese exports. In response, the Chinese government announced that it would enact retaliatory tariffs on more than 100 American products. Trade policy changes or internal policy changes such as these can result in increased costs for goods, which may reduce customer demand for these products if the parties having to pay those tariffs increase their prices, or in increased costs to trading partners. If these consequences are realized, they may materially and adversely affect our sales and our business.

We may be susceptible to significant product liability claims that are not covered by insurance.

Our business inherently exposes us to potential product liability claims, and the severity and timing of such claims are unpredictable. Notwithstanding pre-clinical and clinical trials conducted during the development of potential products to determine the safety and efficacy of products for use by humans following approval by regulatory authorities, unanticipated side effects may become evident only when drugs are introduced into the marketplace. Due to this fact, our customers and participants in clinical trials may bring lawsuits against us for alleged product defects. In other instances, third parties may perform analyses of published clinical trial results which raise questions regarding the safety of pharmaceutical products, and which may be publicized by the media. Even if such reports are inaccurate or misleading, in whole or in part, they may nonetheless result in claims against us for alleged product defects.

Under the current regulatory scheme in the United States, branded drug manufacturers can independently update product labeling through the "changes being effected" ("CBE") supplement process, but a generic manufacturer is only permitted to use the CBE process to update its label if the branded drug manufacturer changes its label first. This can prevent generic manufacturers from complying with state law warning requirements and, as a result, state product liability suits based on failure-to-warn and design defect claims against generics manufacturers have generally been determined to be preempted by Federal law.

Following the United States Supreme Court's June 2013 ruling in Mutual Pharmaceutical Co. v. Bartlett upholding such preemption and immunity of generic manufacturers, the U.S. FDA had proposed a new rule in November 2013 that would have allowed generic manufacturers to independently update product labeling through the CBE supplement process. If the U.S. FDA's proposed new rule was adopted, it may have eliminated this preemption and increased our potential exposure to lawsuits relating to product safety, side effects and warnings on labels. This new potential exposure to lawsuits would also have increased the risk that, in the future, we would not be able to obtain the type and amount of insurance coverage we desire at an acceptable price and self-insurance may become the sole commercially reasonable means available for managing the product liability risks of our business. After twice delaying publication of a final rule, the U.S. FDA withdrew its proposed rule during 2017.

The risk of exposure to lawsuits is likely to increase as we develop our own new patented products, or limited competition/complex products, such as injectable or biosimilar products, in addition to making generic versions of drugs that have been in the market for some time. In addition, the existence or even threat of a major product liability claim could also damage our reputation and affect consumers' views of our other products, thereby negatively affecting our business, financial condition and results of operations.

If we fail to comply with environmental laws and regulations, or face environmental litigation, our costs may increase or our revenues may decrease.

We may incur substantial costs complying with requirements of environmental laws and regulations. In addition, we may discover currently unknown environmental problems or conditions. In all countries where we have production facilities, we are subject to significant environmental laws and regulations that govern the discharge, emission, storage, handling and disposal of a variety of substances that may be used in or result from our operations. In the normal course of our business, we are exposed to risks relating to possible releases of hazardous substances into the environment, which could cause environmental or property damage or personal injuries, and that could require remediation of contaminated soil and groundwater, which could cause us to incur substantial remediation costs that could adversely affect our consolidated financial position, results of operations or liquidity.

If any of our plants or the operations of such plants are shut down, it may severely hamper our ability to supply our customers and we may continue to incur costs in complying with regulations, appealing any decision to close our facilities, maintaining production at our existing facilities and continuing to pay labor and other costs, which may continue even if the facility is closed.

Increasing scrutiny and changing expectations from customers, regulators, investors, and other stakeholders with respect to our environmental, social and governance practices may impose additional costs on us or expose us to new or additional risks.

Companies are facing increasing scrutiny from customers, regulators, investors, and other stakeholders related to their environmental, social and governance practices. Investor advocacy groups, investment funds and influential investors are also increasingly focused on these practices, especially as they relate to the environment, health and safety, supply chain management, diversity and human rights. Failure to adapt to or comply with regulatory requirements or investor or stakeholder expectations and standards could negatively impact our reputation or harm our business and financial results.

If we improperly handle any of the dangerous materials used in our business and accidents result, we could face significant liabilities that would lower our profits.

We handle dangerous materials including explosive, toxic and combustible materials. If improperly handled or subjected to the wrong conditions, these materials could hurt our employees, cause damage to our properties and harm the environment. Also, increases in business and operations in our plants, and the consequent hiring of new employees, can pose increased safety hazards. Such hazards need to be addressed through training, industrial hygiene assessments and other safety measures and, if not carried out, can lead to industrial accidents. Any of the foregoing could subject us to significant litigation or adversely impact our other litigation matters then outstanding, which could lower our profits in the event we were found liable, and could also adversely impact our reputation.

In a worst case scenario, this could also result in a government forced shutdown of our manufacturing plants, which in turn could lead to product shortages that delay or prevent us from fulfilling our obligations to customers and would adversely affect our business and results of operations.

We have operations in certain countries susceptible to political and economic instability that could lead to disruption or other adverse impact on such operations.

We expect to derive an increasing portion of our sales from regions such as Latin America, Russia and other countries of the former Soviet Union, Central Europe, Eastern Europe and South Africa, all of which may be more susceptible to political and economic instability. For example, as a result of severe political instability and conflict in Ukraine, the United States and the European Union have imposed sanctions on certain individuals and companies in Ukraine and Russia, including sanctions targeted at the Crimea region of Ukraine which was annexed by Russia. Political instability in the region, combined with low worldwide oil prices, resulted in significant devaluation of the Russian rouble

We monitor significant political, legal, regulatory and economic developments in these regions and attempt to mitigate our exposure where possible. However, mitigation is not always possible, and our international operations could be adversely affected by political, legal, regulatory and economic developments, such as changes in capital and exchange controls; expropriation and other restrictive government actions; intellectual property protection and remedy laws; trade regulations; procedures and actions affecting approval, production, pricing and marketing of, reimbursement for and access to our products; and intergovernmental disputes, including embargoes and/or military hostilities.

Significant portions of our manufacturing operations are conducted outside the markets in which our products are sold, and accordingly we often import a substantial number of products into such markets. We may, therefore, be denied access to our customers or suppliers or denied the ability to ship products from any of our sites as a result of closing of the borders of the countries in which we sell our products, or in which our operations are located, due to economic, legislative, political and military conditions, including hostilities and acts of terror, in such countries.

From time to time we enter new markets, and face risks arising out of our limited knowledge of the market and the customs, laws and regulatory systems that may apply.

From time to time we enter new markets in which we have limited knowledge of the market and the customs, laws, regulatory, political and social systems that may apply. Our success in these new markets is dependent upon the acceptability of our product and brand, the ease of doing business in such market and various other social and economic factors that may be specific to such market. Further, limitations by the local authorities of repatriation of generated funds may pose a risk to our success in these new markets. Our sales and profit margins may be adversely affected if we fail to provide competitive options in the market or our brands fail to gain acceptability in the market.

We are subject to the U.S. Foreign Corrupt Practices Act and similar worldwide anti-bribery laws, which impose restrictions and may carry substantial penalties.

The U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and similar anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to public officials for the purpose of obtaining or retaining business. These laws may require not only accurate books and records, but also sufficient controls, policies and processes to ensure business is conducted without the influence of bribery and corruption. Our policies mandate compliance with these anti-bribery laws, which often carry substantial penalties including fines, criminal prosecution and potential debarment from public procurement contracts. Failure to comply may also result in reputational damages.

We operate in certain jurisdictions that experience governmental corruption to some degree or are found to be low on the Transparency International Corruption Perceptions Index and, in some circumstances, anti-bribery laws may conflict with some local customs and practices. In many less-developed markets, we work with third-party distributors and other agents for the marketing and distribution of our products. Although our policies prohibit these third parties from making improper payments or otherwise violating these anti-bribery laws, any lapses in complying with such anti-bribery laws by these third parties may adversely impact us. Business activities in many of these markets have historically been more susceptible to corruption.

If our efforts to screen third-party agents and detect cases of potential misconduct fail, we could be held responsible for the non-compliance of these third parties under applicable laws and regulations, including the U.S. Foreign Corrupt Practices Act. Compliance with the U.S. Foreign Corrupt Practices Act and other anti-bribery laws has been subject to increasing focus and activity by regulatory authorities in recent years. We may be subject to injunctions or limitations on future conduct, be required to modify our business practices and compliance programs and/or have a compliance monitor imposed on us, or suffer other criminal or civil penalties or adverse impacts, including lawsuits by private litigants or investigations and fines imposed by local authorities.

We need to constantly review and update our compliance program to keep it current and active. If we fail to do so, our vulnerabilities may increase and our controls may be found to be inadequate.

Actions by our employees, or third-party intermediaries acting on our behalf, in violation of such laws, whether carried out in the United States or elsewhere, may expose us to liability for violations of such anti-bribery laws and accordingly may have a material adverse effect on our reputation and our business, financial condition or results of operations.

If the world economy is affected due to acts of terrorism, wars or epidemics, it may adversely affect our business and results of operations.

Several areas of the world, including India, have experienced terrorist acts and retaliatory operations in recent years. Local disturbances, terrorist attacks, riots, social disruption, wars, or regional hostilities in the countries in which we or our partners and suppliers operate could affect the economy, our operations and employees by disrupting operations and communications, making travel and the conduct of our business more difficult, and/or causing our customers to be concerned about our ability to meet their needs.If the economy of any of our key markets (including but not limited to the United States, the United Kingdom, Germany, India and Russia) is affected by such acts, our business and results of operations may be adversely affected as a consequence.

Uncertainty and volatility in relation to the UK's planned exit from the EU

On June 23, 2016, the United Kingdom ("U.K.") held a remain-or-leave referendum on its membership within the European Union ("EU"), the outcome of which was a decision for the U.K. to exit from the EU (the "Brexit").This was meant to be effective as of March 29, 2019 after the U.K. invoked Article 50 of the Treaty on European Union. A process of negotiation will likely determine the future terms of the U.K.'s relationship with the EU, as well as whether the U.K. will be able to continue to benefit from the EU's free trade and similar arrangements. As pharmaceutical legislation in the U.K. is largely derived from the EU law and relies on mutual recognition of decision making, implementation of a number of practical steps is required before the U.K. exits the EU.

In November 2018, the U.K. and E.U. agreed upon a draft agreement that set out the terms of the U.K.'s withdrawal. In January 2019, the draft withdrawal agreement was rejected by the U.K. parliament, creating significant uncertainty about the terms (and timing) under which the U.K. will exit the EU. The departure date has now been extended to October 31, 2019, although it could be earlier if the U.K. Parliament approves the draft withdrawal agreement. If the U.K. leaves the EU with no withdrawal agreement, it will likely have an adverse impact on trade, in addition to creating further short-term uncertainty and currency volatility. Brexit could also lead to legal uncertainty and potentially divergent national laws and regulations in the U.K. and E.U.

Given the uncertainty surrounding the terms of the U.K.'s withdrawal and its consequences, until the Brexit negotiation process is completed, it is difficult to anticipate the potential impact on our market share, sales, profitability and operations. For example, in the immediate aftermath of the Brexit, it is possible that the capacity at major ports both in the U.K. and the EU is materially reduced for an indeterminate period of time. This could adversely affect our ability to transport medicines, raw materials and intermediates to the U.K and/or the EU with a consequential adverse impact. The Brexit could also result in restrictions on the movement of persons, deterioration in market access or trading terms, delay or restrictions to the movement of goods, potential changes to intellectual property rights, regulatory approval requirements and pharmaceutical regulations, or increased cost and burdens arising from other new or diverging rules and regulations, any of which may have a significant adverse impact on our operations, profitability and business model.

In addition, following the Brexit vote in the U.K., the EU has decided to move the headquarters of the EU's health authority, the EMA, from the U.K. to the Netherlands by March 2019. It is expected that a significant percentage of the current employees of the EMA will decide not to make the move to the Netherlands. This raises the possibility that new drug approvals in the EU could be delayed as a result.

The longer-term effects of the Brexit are difficult to predict but could include further financial instability and slower economic growth or an economic downturn in the U.K., the EU and/or the global economy. Furthermore, uncertainty around the form and timing of any withdrawal agreement and the form and timing of any post-withdrawal trading arrangements (whether with the EU or third parties) could increase instability and volatility and lead to adverse effects on the economy of the U.K., the EU and the rest of the world. Any of the foregoing could, in turn have an adverse economic impact on our operations. As the process of Brexit evolves, we will continue to assess its impact on us.

Our Proprietary Products segment, particularly our Specialty businesses in the United States, faces intense competition from companies that are more entrenched than we are or have greater resources than ours.

Our risk profile for our Proprietary Products segment is lower than the comparable risk profile of companies working with completely novel entities. Nevertheless, the risk that the businesses in this segment face is higher than that of the Generics business due to several factors outlined below.

Market penetration requires successful commercial positioning in relation not only to past therapies but also new competitors. All of the therapeutic areas in which we compete have many active competitors, each vying for market share in similar indications with products that may have some similar attributes. As such, success in our Proprietary Products segment requires the ability to strategically differentiate our offerings from those of our competitors. .

Even if we are able to successfully develop a differentiated version, favorable unrestricted reimbursement from payors for our products is necessary in order to realize the desired potential. Typically, a managed care plan relies on a committee comprised of physicians and other decision makers and influencers to decide which drugs will appear on its formulary. The randomized clinical trial data generated to obtain U.S. FDA approval will no longer be sufficient to gain a favorable access decision. Typically, all managed care plans attempt to aggressively direct their patients towards generic medicines due to their lack of belief in differentiation or overall cost improvement. Thus it is imperative to satisfy the committee that there is sufficient evidence that the impact of the differentiation and/or incremental innovation of our products is significantly higher, in order to persuade them to list it on their respective formularies. Without our products having a reasonable position on the formulary of managed care plans, patients will not be able to obtain access to our products and physicians become less likely to prescribe our products.

Additionally, because the Specialty business of our Proprietary Products segment works primarily with known active molecules, there remains a risk that these products are easier to engineer around than products possessing composition of matter patents. Although we strive to create a robust intellectual property "ring fence" to protect these assets, the products in our U.S. Specialty business portfolio may nonetheless enjoy fewer years of exclusivity than traditional innovative products.

Research and development efforts invested in our differentiated formulations and biologics products may not achieve expected results.

In our Proprietary Products segment, our business model focuses on building a pipeline in the therapeutic areas of neurology and dermatology. In our biologic segment, our business model focuses on building a pipeline in various therapies targeted at both emerging markets and highly regulated markets. We must invest increasingly significant resources to develop differentiated products and biosimilars, both through our own efforts and through collaborations, in-licensing and acquisition of products from or with third parties. The development of differentiated products and biosimilars involves processes and expertise significantly more complex than those used in the development of generic drugs, which increases the risks of failure. During each stage, we may encounter obstacles that delay the development process and increase expenses, leading to significant risks that we will not achieve our goals and may be forced to abandon a potential product in which we have invested substantial amounts of time and money. These obstacles may include: preclinical failures; difficulty enrolling patients in clinical trials; delays in completing formulation and other work needed to support an application for registration; adverse reactions or other safety concerns arising during clinical testing; insufficient clinical trial data to support the safety or efficacy of the product candidate; and failure to obtain, or delays in obtaining, the required regulatory approvals for the product candidate or the facilities in which it is manufactured.

Because of the amount of capital required to be invested in augmenting our differentiated products and biosimilar pipeline, in some cases we are reliant on partnerships and joint ventures with third parties, and consequently face the risk that some of these third parties may fail to perform their obligations, or fail to reach the levels of success that we are relying on to meet our revenue and profit goals.

If we elect to sell a generic product prior to the final resolution of outstanding patent litigation, we could be subject to liabilities for damages.

At times we seek approval to market generic products before the expiration of patents for those products, based upon our belief that such patents are invalid, unenforceable, or would not be infringed by our products. As a result, we are involved in patent litigation, the outcome of which could materially adversely affect our business. Based upon a complex analysis of a variety of legal and commercial factors, we may elect to market a generic product even though litigation is still pending. This could be before any court decision is rendered or while an appeal of a lower court decision is pending. To the extent we elect to proceed in this manner, if the final court decision is adverse to us, we could be required to cease the sale of the infringing products and face substantial liability for patent infringement. These damages may be significant as they may be measured by a royalty on our sales or by the profits lost by the patent owner and not by the profits we earned.

Because of the discount pricing typically involved with generic pharmaceutical products, patented brand products generally realize a significantly higher profit margin than generic pharmaceutical products. In the case of a willful infringer, the definition of which is unclear, these damages may even be trebled.

Furthermore, there may be risks involved in entering into in-licensing arrangements for products, which are often conditioned upon the licensee's sharing in the patent-related risks.

For business reasons, we continue to examine such product opportunities (i.e., involving non-expired patents) going forward and this could result in patent litigation, the outcomes of which may have a material adverse effect on our results of operations, financial condition and cash flows.

Failure to maintain supply of compliant, quality product.

- We may experience difficulties, delays and interruptions in the manufacturing and supply of our products for various reasons, including among other reasons:
- demand significantly in excess of forecast demand, which may lead to supply shortages (this is particularly challenging before the launch of a new product);
- supply chain disruptions, including those due to natural or man-made disasters at one of our facilities or at a critical supplier or vendor;
- delays in construction of new facilities or the expansion of existing facilities, including those intended to support future demand for our products (the complexities associated with biologics facilities, especially for drug substance, increases the probability of delay);
- the inability to supply products due to a product quality failure or regulatory agency compliance action such as license withdrawal, product recall or product seizure; and
- other manufacturing or distribution problems, including changes in manufacturing production sites, limits to manufacturing capacity due to regulatory requirements, changes in the types of products produced, or physical limitations or other business interruptions that could impact continuous supply.
- We also manufacture and sell a number of sterile products, including oncology products, which are technically complex to manufacture, and require sophisticated environmental controls. Because the production process for such products is so complex and sensitive, any production failures may lead to lengthy supply interruptions.

If there is delay and/or failure in supplies of materials, services and finished goods from third parties or failure of finished goods from our key manufacturing sites, it may adversely affect our business and results of operations.

In some of our businesses, we rely on third parties for the timely supply of active pharmaceutical ingredients ("API"), specified raw materials, equipment, formulation or packaging services and maintenance services, and in some cases there could be a single source of supply. Although, we actively manage these third party relationships to ensure continuity of supplies and services on time and to our required specifications, events beyond our control could result in the complete or partial failure of supplies and services or in supplies and services not being delivered on time.

In the event that we experience a shortage in our supply of raw materials, we might be unable to fulfill all of the API needs of our Global Generics segment, which could result in a loss of production capacity for this segment. Moreover, we may continue to be dependent on vendors, strategic partners and alliance partners for supplies of some of our existing products and new generic launches. Any unanticipated capacity or supply related constraints affecting such vendors, strategic partners or alliance partners can adversely affect our business or results of operations. Our key generics manufacturing sites also may have capacity constraints and, at times, we may not be able to generate sufficient supplies of finished goods.

Any failure to comply with the complex reporting and payment obligations under the Medicare and Medicaid programs or other laws regulating marketing practices may result in litigation or sanctions and adversely impact our business.

The U.S. laws and regulations regarding Medicare and/or Medicaid reimbursement and rebates and other governmental programs are complex. Some of the applicable laws may impose liability even in the absence of a specific intent to defraud. The subjective decisions and complex methodologies used in making calculations under these programs are subject to review and challenge, and it is possible that such reviews could result in material changes in the calculation outcomes. In addition, government authorities have significant leverage to persuade pharmaceutical companies to enter into corporate integrity agreements, which can be expensive and disruptive to operations.

If any of the above queries and/or investigations were to result in a lawsuit that was determined adversely to us or in a large cash settlement, it could require us to pay significant amounts.

If we have difficulty in identifying candidates for or consummating acquisitions and strategic alliances, our competitiveness and our growth prospects may be harmed.

In order to enhance our business, we frequently seek to acquire or make strategic investments in complementary businesses or products, or to enter into strategic partnerships or alliances with third parties. It is possible that we may not identify suitable acquisition, strategic investment or strategic partnership candidates, or if we do identify suitable candidates, we may not complete those transactions on terms commercially acceptable to us. We compete with others to acquire companies, and we believe that this competition has intensified and may result in decreased availability or increased prices for suitable acquisition candidates. Even after we identify acquisition candidates and/or announce that we plan to acquire a company, we may ultimately fail to consummate the acquisition. For example, we may be unable to obtain necessary regulatory approvals, including the approval of antitrust regulatory bodies.

All acquisitions involve known and unknown risks that could adversely affect our future revenues and operating results. For example:

- We may fail to successfully integrate our acquisitions in accordance with our business strategy.
- The initial rationale for the acquisition may not remain viable due to a variety of factors, including unforeseen regulatory changes and market dynamics after the acquisition, and this may result in a significant delay and/or reduction in the profitability of the acquisition.
- We may not be able to retain the skilled employees and experienced management that may be necessary to operate the businesses we acquire. If we cannot retain such personnel, we may not be able to locate or hire new skilled employees and experienced management to replace them.
- We may purchase a company that has contingent liabilities that include, among others, known or unknown patent or product liability claims or environmental liability claims.
- We may purchase companies located in jurisdictions where we do not have operations and as a result we may not be able to anticipate local regulations and the impact such regulations have on our business.

There has been a trend of increased regulatory review of over-the-counter products for safety and efficacy questions, which could potentially affect our over-the-counter products business.

In recent years, significant questions have arisen regarding the safety, efficacy and potential for misuse of certain over-the-counter medicine products. Litigation, particularly in the United States, sometimes gives rise to these questions. As a result, health authorities around the world have begun to re-evaluate some important over-the-counter products, leading to restrictions on the sale of some of them and even the banning of certain products. If the U.S. FDA or another regulator were to review one or more of our over-the-counter products for such purposes, and if such review resulted in the U.S. FDA or another regulator charging us with violations applicable to such product, it could have a significant adverse effect on our sales of such over-the-counter products and, thus, our overall profitability.

Impairment charges or write downs in our books could have a significant adverse effect on our results of operations and financial results.

A substantial portion of the value of our assets pertains to various intangible assets and goodwill. The proportion of the intangible assets and goodwill to our total assets could increase significantly as we pursue various growth strategies. The value of these intangible assets and goodwill could be substantially impaired upon indications of impairment, with adverse effects on our financial condition and the value of our assets.

A relatively small group of products may represent a significant portion of our net revenues, gross profit or net earnings from time to time.

In certain markets, sales of a limited number of products may represent a significant portion of our net revenues, gross profit and net earnings. If the volume or pricing of such products declines in the future, our business, financial position and results of operations could be materially adversely affected.

If we are unable to patent new products and processes or to protect our intellectual property rights or proprietary information, or if we infringe on the patents of others, our business may be materially and adversely impacted.

Our overall profitability depends, among other things, on our ability to continuously and timely introduce new generic as well as proprietary products. Our success depends, in part, on our ability in the future to obtain patents, protect trade secrets, intellectual property rights and other proprietary information and operate without infringing on the proprietary rights of others. Our competitors may have filed patent applications, or hold issued patents, relating to products or processes that compete with those we are developing, or their patents may impair our ability to successfully develop and commercialize new products.

Our success with our proprietary products depends, in part, on our ability to protect our current and future innovative products and to defend our intellectual property rights. If we fail to adequately protect our intellectual property, competitors may manufacture and market products similar to ours. We have been issued patents covering our innovative products and processes and have filed, and expect to continue to file, patent applications seeking to protect our newly developed technologies and products in various countries, including the United States. Any existing or future patents issued to or licensed by us may not provide us with any competitive advantages for our products or may even be challenged, invalidated or circumvented by competitors. In addition, such patent rights may not prevent our competitors from developing, using or commercializing products that are similar or functionally equivalent to our products.

We also rely on trade secrets, unpatented proprietary know-how and continuing technological innovation that we seek to protect, in part by confidentiality agreements with licensees, suppliers, employees and consultants. It is possible that these agreements may be breached and we may not have adequate remedies for any such breach. Disputes may arise concerning the ownership of intellectual property or the applicability of confidentiality agreements. Furthermore, our trade secrets and proprietary technology may otherwise become known or be independently developed by our competitors. Therefore, despite all of our information security systems and practices, we may still not be able to ensure the confidentiality of information relating to such products.

Counterfeit versions of our products could harm our patients and reputation.

Our industry has been increasingly challenged by the vulnerability of distribution channels to illegal counterfeiting and the presence of counterfeit products in a growing number of markets and over the Internet. Third parties may illegally distribute and sell counterfeit versions of our products, which do not meet the rigorous manufacturing and testing standards that our products undergo. Counterfeit products are frequently unsafe or ineffective, and can be potentially life-threatening. Counterfeit medicines may contain harmful substances, the wrong dose of the API or no API at all. However, to distributors and patients, counterfeit products may be visually indistinguishable from the authentic version.

Reports of adverse reactions to counterfeit drugs or increased levels of counterfeiting could materially affect patient confidence in the authentic product, and harm the business of companies such as ours. Additionally, it is possible that adverse events caused by unsafe counterfeit products would mistakenly be attributed to the authentic product. In addition, there could be thefts of inventory at warehouses, plants or while in-transit, which are not properly stored and which are sold through unauthorized channels.

Fluctuations in exchange rates and interest rate movements may adversely affect our business and results of operations.

A significant portion of our revenues are in currencies other than the Indian rupee, especially in the U.S. dollar, the Euro, the Russian rouble, and the U.K. pound sterling, while a significant portion of our costs are in Indian rupees. As a result, if the value of the Indian rupee appreciates relative to these other currencies, our revenues measured in Indian rupees may decrease and our financial performance may be adversely impacted.

Further, we may also be exposed to credit risks in some of the emerging markets from our customers on account of adverse economic conditions.

We use derivative financial instruments to manage interest rate fluctuations and some of our net exposure to currency exchange rate fluctuations in certain key foreign currencies. We do not use derivative financial instruments or other hedging techniques to cover all of our potential exposure.

A significant portion of our borrowing costs are linked to U.S. dollar London Interbank Offered Rate (“LIBOR”), and hence any increase in U.S. dollar LIBOR adversely impacts our financial performance.

In July 2017, the United Kingdom’s Financial Conduct Authority, which regulates LIBOR, announced that it intends to phase out LIBOR by the end of 2021. It is unclear if LIBOR will cease to exist or if new methods of calculating LIBOR will be established such that it continues to exist. As such, depending on the future of LIBOR, a comparable or successor reference rate as determined under our credit agreements may apply, or we may need to renegotiate certain terms of our credit agreements to replace U.S. dollar LIBOR with a new standard. In either case, our interest rates and interest expense could increase, which could adversely affect our financial condition, operating results and cash flows.

Our success depends on our ability to retain and attract qualified personnel and, if we are not able to retain them or recruit additional qualified personnel, we may be unable to successfully develop our business.

We are highly dependent on the principal members of our management and scientific staff, the loss of whose services might significantly delay or prevent the achievement of our business or scientific objectives. In India, it is not our practice to enter into employment agreements with our executive officers and key employees that are as extensive as are generally used in the United States, and each of those executive officers and key employees may terminate their employment upon notice and without cause or good reason. Currently, we are not aware of any executive officer’s or key employee’s departure that has had, or planned departure that is expected to have, any material impact on our operations. Competition among pharmaceutical companies for qualified employees is intense, and the ability to retain and attract qualified individuals is critical to our success. There can be no assurance that we will be able to retain and attract such individuals currently or in the future on acceptable terms, or at all, and the failure to do so would have a material adverse effect on our business, financial condition and results of operations. In addition, we do not maintain “key person” life insurance on any officer, employee or consultant.

Since a large part of our business centers around the United States, changes to the U.S. immigration laws could make it more difficult to obtain nonimmigrant work authorizations in the United States. There have been and will continue to be calls for extensive changes to U.S. immigration laws regarding the admission of highly-skilled temporary and permanent workers.

There are some legislative proposals which, if passed and signed into law, could add further costs and/or restrictions to some of the high-skilled temporary worker categories and, in turn, our cost of doing business in the United States may increase. This could have a material and adverse effect on our business, revenues and operating results.

Compliance with new and changing corporate governance and public disclosure requirements adds uncertainty to our compliance policies and increases our costs of compliance.

Changing laws, regulations and standards relating to accounting, corporate governance and public disclosure, including the Sarbanes Oxley Act of 2002, new SEC regulations, New York Stock Exchange rules, provisions of India's Companies Act 2013, Securities and Exchange Board of India rules and Indian stock market listing regulations, create uncertainty for our company. These new or changed laws, regulations and standards may lack specificity and are subject to varying interpretations. Their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs of compliance as a result of ongoing revisions to such governance standards.

We are committed to maintaining high standards of corporate governance and public disclosure, and our efforts to comply with evolving laws, regulations and standards in this regard have resulted in, and are likely to continue to result in, increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities. In addition, the new laws, regulations and standards regarding corporate governance may make it more difficult for us to obtain director and officer liability insurance. Further, our board members, chief executive officer, chief operating officer and chief financial officer could face an increased risk of personal liability in connection with the performance of their duties. As a result, we may face difficulties attracting and retaining qualified board members and executive officers, which could harm our business. If we fail to comply with new or changed laws or regulations and standards differ, our business and reputation may be harmed.

Fluctuations in our quarterly revenues, operating results and cash flows may adversely affect the trading price of our shares and ADSs.

Our quarterly revenues, operating results and cash flows have fluctuated significantly in the past and may fluctuate substantially from quarter to quarter in the future. Such fluctuations result from a variety of factors, including but not limited to changes in demand for our products, timing of regulatory approvals and of launches of new products by us and our competitors (particularly where we obtain the 180-day period of market exclusivity in the United States provided under the Hatch-Waxman Act of 1984), timing of our retailers' promotional programs and successful development and commercialization of limited competition and complex products. Such fluctuations may result in volatility in the price of our equity shares and our ADSs. In such an event, the trading price of our shares and ADSs may be adversely affected.

Changes in tax regulations of the countries we operate in may increase our tax liabilities and thus adversely affect our financial results.

Currently, we are entitled to various tax benefits and exemptions under Indian tax laws, such as tax benefits on research and development spending and exemptions applicable to income derived from manufacturing facilities located in certain tax exempted zones. Any changes in these laws or their application may increase our tax liability and thus adversely affect our financial results.

For instance, presently under Indian tax laws, weighted deduction on research and development activities is available at 150% which will be reduced to 100% commencing April 1, 2020. Further, Special Economic Zone ("SEZ") units commencing manufacture or production of article and things after April 1, 2020 will not be eligible for SEZ tax deductions currently available.

India's Finance Act, 2016 amended the test of residence for foreign companies. While a non-resident company is generally taxed only on its Indian sourced income, a resident company is taxed on its global income. Under the amended rule, a company not formed under the laws of India would be considered a resident in India if its place of effective management in the previous year was in India. The term "place of effective management" (or "PoEM") has been defined to mean a place where key management and commercial decisions that are necessary for the conduct of the business of an entity as a whole are in substance made.

Effective July 1, 2017, a Goods and Services Tax ("GST") was introduced in India, replacing various taxes such as central excise duty, service tax, octroi, value added tax, sales tax and entry tax, thus avoiding the multiple layers of taxation that had previously existed in India. The GST rate applicable to finished dosages is generally 12%, whereas API are subject to a GST rate of 18%. Taxing finished dosages at lower rates than API reduces the competitiveness of domestically manufactured finished dosages as compared to imported finished dosages - sometimes referred to as an "inverted duty structure". Relevant procedures have been prescribed in the GST legislation relating to tax credits allowing for refunds to offset the adverse impact of such inverted duty structure. Accumulation of tax credits is likely to persist at any point of time owing to the lag between the time the tax credit arises and the time that the refund is received.

Further, the effective rate of corporate dividend distribution tax ("DDT") has been increased several times since 2013. Effective April 1, 2018, the effective rate of DDT increased from 20.3576% to 20.5553%.

In December 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "TCJA"). The TCJA made broad and complex changes to the U.S. Internal Revenue Code, including, but not limited to, reducing the U.S. federal corporate income tax rate from 35% to 21% effective for tax years beginning after December 31, 2017. The TCJA also put in place new tax laws that may impact our taxable income for tax years beginning after December 31, 2017, which include, but are not limited to (i) expanded limitations on the deductibility of interest, (ii) immediate expensing of capital expenditures, (iii) the migration from a "worldwide" system of taxation to a territorial system, (iv) the creation of an anti-base erosion minimum tax system; and (v) the modification or repeal of many business deductions and credits.

Changes in tax regimes in countries other than India, such as the TCJA, could result in a material impact on our cash tax liabilities and tax charges, resulting in either an increase or a reduction in financial results depending upon the nature of the change.

We operate in jurisdictions that impose transfer pricing and other tax-related regulations on our intercompany arrangements, and any failure to comply could materially and adversely affect our profitability.

We are required to comply with various transfer pricing regulations in India and other countries. Failure to comply with such regulations may impact our effective tax rates and consequently affect our net margins. Additionally, we operate in numerous countries and our failure to comply with the local and municipal tax regimes may result in additional taxes, penalties and enforcement actions from such authorities. Although our intercompany arrangements are based on accepted tax standards, tax authorities in various jurisdictions may disagree with and subsequently challenge the amount of profits taxed in such jurisdictions, which may increase our tax liabilities and could have a material adverse effect on the results of our operations. Further, the base erosion and profit shifting ("BEPS") project undertaken by the Organization for Economic Cooperation and Development ("OECD") contemplates changes to numerous international tax principles. Various countries have incorporated such tax principles into their domestic legislations by way of enactment. These enactments are significant in nature and require compliance on a regular basis. Although we will continue to adhere to such compliance, significant uncertainties remain as to the outcome of these efforts.

We enter into various agreements in the normal course of business which periodically incorporate provisions whereby we indemnify the other party to the agreement.

In the normal course of business, we periodically enter into agreements with vendors, customers, alliance partners, innovators and others that incorporate terms for indemnification provisions. Our indemnification obligations under such agreements may be unlimited in duration and amount. We maintain insurance coverage that we believe will effectively mitigate our obligations under certain of these indemnification provisions (for example, in the case of outsourced clinical trials). However, should our obligations under an indemnification provision exceed our coverage or should coverage be denied, it could have a material adverse impact on our business, financial position and results of operations.

Current economic conditions may adversely affect our industry, financial position and results of operations.

In recent years, the global economy has experienced volatility and an unfavorable economic environment, and these trends may continue in the future. Reduced consumer spending, reduced funding for national social security systems or shifting concentrations of payors and their preferences, may force our competitors and us to reduce prices. The growth of our business may be negatively affected by high unemployment levels and increases in co-pays, which may lead some patients to delay treatments, skip doses or use less effective treatments to reduce their costs.

We have exposure to many different industries and counterparties, including our partners under our alliance, research and promotional services agreements, suppliers of raw materials, drug wholesalers and other customers, who may be unstable or may become unstable in the current economic environment. We run the risk of delayed payments or even non-payment by our customers, which consist principally of wholesalers, distributors, pharmacies, hospitals, clinics and government agencies.

Significant changes and volatility in the consumer environment and in the competitive landscape may make it increasingly difficult for us to predict our future revenues and earnings.

Risks from disruption to production, supply chain or operations from natural disasters could adversely affect our business and operations and cause our revenues to decline.

If flooding, droughts, earthquakes, volcanic eruptions or other natural disasters were to directly damage, destroy or disrupt our manufacturing facilities, it could disrupt our operations, delay new production and shipments of existing inventory or result in costly repairs, replacements or other costs, all of which would negatively impact our business. A significant portion of our manufacturing facilities are situated around Hyderabad, India, a region that has experienced earthquakes, floods and droughts in the past.

Even if we take precautions to provide back-up support in the event of such a natural disaster, the disaster may nonetheless affect our facilities, harming production and ultimately our business. And, even if our manufacturing facilities are not directly damaged, a large natural disaster may result in disruptions in distribution channels or supply chains. The impact of such occurrences depends on the specific geographic circumstances but could be significant.

In addition, there is increasing concern that climate change is occurring and may have dramatic effects on human activity without aggressive remediation steps. A modest change in temperature may cause a rising number of natural disasters. We cannot predict the economic impact, if any, of natural disasters or climate change.

Our principal shareholders have significant control over us and, if they take actions that are not in the best interests of our minority shareholders, the value of their investment in our ADSs may be harmed.

Our full time directors and members of their immediate families, in the aggregate, beneficially owned 26.77% of our issued shares as at March 31, 2019. As a result, these people, acting in concert, are likely to have the ability to exercise significant control over most matters requiring approval by our shareholders, including the election and removal of directors and significant corporate transactions. This significant control by these directors and their family members could delay, defer or prevent a change in control, impede a merger, consolidation, takeover or other business combination involving us, or discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of us. As a result, the value of the equity shares and/or ADSs of our minority shareholders may be adversely affected or our minority shareholders might be deprived of a potential opportunity to sell their equity shares and/or ADSs at a premium.

RISKS RELATING TO INVESTMENTS IN INDIAN COMPANIES

We are an Indian company. Our headquarters are located in India, a substantial part of our operations are conducted in India and a significant part of our infrastructure and other assets are located in India. In addition, a substantial portion of our total revenues for the year ended March 31, 2019 continued to be derived from sales in India. As a result, the following additional risk factors apply that are not specific to our company or industry.

We may be subjected to additional compliance and litigation risks as a result of introduction of the Companies Act, 2013 in India and the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015.

As a company that is incorporated in India, we are governed by the rules and regulations covered under the Indian Companies Act, 1956. Significant amendments to the Companies Act were adopted in 2013 and 2014 and a majority of the provisions of the new Act (called the “Companies Act, 2013") were implemented beginning in April, 2014. Some of the significant changes were in the areas of board and governance processes, boardroom responsibilities, disclosures, compulsory corporate social responsibility, audit matters, initiation of class action suits by shareholders or depositors, fraud reporting and whistle-blower mechanisms.

In addition, on September 2, 2015, the Securities and Exchange Board of India (“SEBI”) issued the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 (the “Listing Regulations”) that must be followed by all listed Indian public companies effective December 1, 2015. These Listing Regulations were intended to consolidate and streamline the provisions of the existing listing agreements for different segments of the capital markets (e.g., equity securities, debt securities, Indian depository receipts, etc.). The Listing Regulations have thus been structured to provide ease of reference by consolidating into one single document across various types of securities listed on the stock exchanges. Key features of the Listing Regulations include:

- A framework has been prescribed for disclosure of material events and information by listed entities to the Indian stock exchanges. Certain events mentioned in the regulations are deemed material and disclosure is mandatory. Certain events are to be disclosed based on application of the guidelines for materiality as prescribed. The Board of Directors is required to frame a policy for determination of materiality and disclose the same on the website of the company.

- Entities are required to frame policies on preservation of documents, determination of material subsidiaries, risk management, code of conduct, remuneration of directors, key managerial personnel and other employees, board diversity, materiality of related party transactions and dealing with related party transactions and criteria for evaluation of directors.

However, certain provisions of the Companies Act, 2013 and the new Listing Regulations provisions are subject to varying interpretations and their application in practice may evolve over time as additional guidance is provided by regulatory and governing bodies. Further, the Companies Act, 2013, the rules made thereunder and the new Listing Regulations are subject to various ongoing changes. In 2017, certain amendments to the Companies Act, 2013 were implemented through the Companies (Amendment) Act, 2017 in the areas of related party transactions, financial reporting, audit and auditors, board matters and others. Certain of such amendments are yet to be effective.

In 2018, certain amendments to SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 were amended through the SEBI (Listing Obligations and Disclosure Requirements) (Amendment) Regulations, 2018. These amendments relate to, among other things, governance, related party transactions, financial reporting, audits and auditors, board matters. Such amendments are primarily effective from April 1, 2019.

All of the foregoing may collectively result in continuing uncertainty regarding compliance matters and higher costs of compliance as a result of ongoing revisions.

A slowdown in economic growth in India may adversely affect our business and results of operations.

Our performance and the quality and growth of our business are necessarily dependent on the health of the overall Indian economy. The Indian economy has grown significantly over the past few years. Any future slowdown in the Indian economy could harm us, our customers and other contractual counterparties. In addition, the Indian economy is in a state of transition. The share of the services sector of the Indian economy is rising while that of the industrial, manufacturing and agricultural sector is declining. It is difficult to gauge the impact of these fundamental economic changes on our business.

If wage costs or inflation rise in India, it may adversely affect our competitive advantages over higher cost countries and our profits may decline.

Wage costs in India have historically been significantly lower than wage costs in developed countries and have been one of our competitive strengths. However, wage increases in India may increase our costs, reduce our profit margins and adversely affect our business and results of operations.

Due to various macro-economic factors, the rate of inflation has recently been volatile in India. If the inflation rises, we may not be able to pass these inflationary costs on to our customers by increasing the price we charge for our products.

Stringent labor laws may adversely affect our ability to have flexible human resource policies; labor union problems could negatively affect our production capacity and overall profitability.

Labor laws may restrict our ability to have human resource policies that would allow us to react swiftly to the needs of our business. Approximately 3.54% of our employees belong to a number of different labor unions. If we experience problems with our labor unions, that may adversely affect our production capacity and our overall results and operations.

RISKS RELATING TO OUR ADSS THAT ARE NOT SPECIFIC TO OUR COMPANY OR INDUSTRY

The market price of our ADSs may be volatile, and the value of your investment could materially decline.

Investors who hold our ADSs may not be able to sell their ADSs at or above the price at which they purchased such ADSs. The price of our ADSs fluctuate from time to time, and we cannot predict the price of our ADSs at any given time. The risk factors described herein could cause the price of our ADSs to fluctuate materially. In addition, the stock market in general, including the market for generic and specialty pharmaceutical companies, has experienced price and volume fluctuations. These broad market and industry factors may materially harm the market price of our ADSs, regardless of our operating performance. In addition, the price of our ADSs may be affected by the valuations and recommendations of the analysts who cover us, and if our results do not meet the analysts' forecasts and expectations, the price of our ADSs could decline as a result of analysts lowering their valuations and recommendations or otherwise.

Negative media coverage and public scrutiny may adversely affect the prices of our equity shares and ADSs.

Media coverage, including social media coverage such as blogs, of us has increased dramatically over the past several years. Any negative media coverage, regardless of the accuracy of such reporting, may have an adverse impact on our reputation and investor confidence, resulting in a decline in the share price of our equity shares and our ADSs.

Indian law imposes certain restrictions that limit a holder's ability to transfer the equity shares obtained upon conversion of ADSs and repatriate the proceeds of such transfer, which may cause our ADSs to trade at a premium or discount to the market price of our equity shares.

Under certain circumstances, the Reserve Bank of India must approve the sale of equity shares underlying ADSs by a non-resident of India to a resident of India. The Reserve Bank of India has given general permission to effect sales of existing shares or convertible debentures of an Indian company by a resident to a non-resident, subject to certain conditions, including the price at which the shares must be sold. Additionally, except under certain limited circumstances, if an investor seeks to convert the Indian rupee proceeds from a sale of equity shares in India into foreign currency and then repatriate that foreign currency from India, he or she will have to obtain an additional approval from the Reserve Bank of India for each such transaction. Required approval from the Reserve Bank of India or any other government agency may not be obtained on terms favorable to a non-resident investor or at all.

There are limits and conditions to the deposit of shares into the ADS facility.

Indian legal restrictions may limit the supply of our ADSs. The only way to add to the supply of our ADSs will be through a primary issuance because the depositary is not permitted to accept deposits of our outstanding shares and issue ADSs representing those shares. However, an investor in our ADSs who surrenders an ADS and withdraws our shares will be permitted to redeposit those shares in the depositary facility in exchange for our ADSs. In addition, an investor who has purchased our shares in the Indian market will be able to deposit them in the ADS program, but only in a number that does not exceed the number of underlying shares that have been withdrawn from and not re-deposited into the depositary facility. Moreover, there are restrictions on foreign institutional ownership of our equity shares as opposed to our ADSs.

The persistently weak global economic and financial environment in many other countries, particularly emerging market countries, and increasing political and social instability could have a material adverse effect on our business and the price and liquidity of our shares and our ADSs.

Many of the world's largest economies and financial institutions continue to be impacted by a weak ongoing global economic and financial environment, with some continuing to face financial difficulty, liquidity problems and limited availability of credit. It is uncertain how long these effects will last, or whether economic and financial trends will worsen or improve. In addition, these issues may be further impacted by the difficult conditions existing in parts of the Middle East, anti-immigrant activities, social unrest and fears of terrorism that have followed in many countries.

If U.S. investors in our ADSs are unable to exercise preemptive rights available to our non-U.S. shareholders due to the registration requirements of U.S. securities laws, the investment of such U.S. investors in our ADSs may be diluted.

A company incorporated in India must offer its holders of shares preemptive rights to subscribe and pay for a proportionate number of shares to maintain their existing ownership percentages prior to the issuance of any shares, unless these rights have been waived by at least 75% of its shareholders present and voting at a shareholders' general meeting. U.S. investors in our ADSs may be unable to exercise preemptive rights for the shares underlying our ADSs unless a registration statement under the Securities Act of 1933 is effective with respect to the rights or an exemption from the registration requirements of the Securities Act is available. Our decision to file a registration statement will depend on the costs and potential liabilities associated with a registration statement as well as the perceived benefits of enabling U.S. investors in our ADSs to exercise their preemptive rights and any other factors we consider appropriate at the time. We might choose not to file a registration statement under these circumstances. If we issue any of these securities in the future, such securities may be issued to the depositary, which may sell them in the securities markets in India for the benefit of the investors in our ADSs. There can be no assurances as to the value, if any, the depositary would receive upon the sale of these securities. To the extent that U.S. investors in our ADSs are unable to exercise preemptive rights, their proportional interests in us would be reduced.

Our equity shares and our ADSs may be subject to market price volatility, and the market price of our equity shares and ADSs may decline disproportionately in response to adverse developments that are unrelated to our operating performance.

Market prices for the securities of Indian pharmaceutical companies, including our own, have historically been highly volatile, and the market has from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. Factors such as the following can have an adverse effect on the market price of our ADSs and equity shares:

- general market conditions,
- speculative trading in our shares and ADSs, and
- developments relating to our peer companies in the pharmaceutical industry.

There may be less company information available in Indian securities markets than securities markets in developed countries.

There is a difference between the level of regulation and monitoring of the Indian securities markets over the activities of investors, brokers and other participants, as compared to the level of regulation and monitoring of markets in the United States and other developed economies. The Securities and Exchange Board of India is responsible for improving disclosure and other regulatory standards for the Indian securities markets. The Securities and Exchange Board of India has issued regulations and guidelines on disclosure requirements, insider trading and other matters. There may, however, be less publicly available information about Indian companies than is regularly made available by public companies in developed countries, which could affect the market for our equity shares and ADSs.

Indian stock exchange closures, broker defaults, settlement delays, and Indian Government regulations on stock market operations could affect the market price and liquidity of our equity shares.

The Indian securities markets are smaller than the securities markets in the United States and Europe and have experienced volatility from time to time. The regulation and monitoring of the Indian securities market and the activities of investors, brokers and other participants differ, in some cases significantly, from those in the United States and some European countries. Indian stock exchanges have at times experienced problems, including temporary exchange closures, broker defaults and settlement delays and if similar problems were to recur, they could affect the market price and liquidity of the securities of Indian companies, including our shares. Furthermore, any change in Indian Government regulations of stock markets could affect the market price and liquidity of our equity shares and ADSs.

Sale of our equity shares may adversely affect the prices of our equity shares and ADSs.

The Government of India enacted the Depository Receipts Scheme, 2014, effective as of December 15, 2014. This law permits liberalized rules for sponsored and unsponsored secondary market issue of depository receipts, subject to the existing sectorial cap on foreign investment. Once the regulations are implemented, an Indian company's equity shares can be freely issued to a depository for the purpose of issuing depository receipts through any mode permissible for the issue of such securities to other investors. This would enable us to more readily issue shares to the depositary for our ADSs and conduct U.S. securities issuances of our ADSs, which would impact the share price and available float in Indian stock exchanges as well as the price and availability of our ADSs on the NYSE. Refer to Item 10.D. "Exchange controls – ADS guidelines" for further details.

ITEM 4. INFORMATION ON THE COMPANY

4.A. *History and development of the company*

Dr. Reddy's Laboratories Limited was incorporated in India under the Companies Act, 1956, by its promoter and our former Chairman, the late Dr. K. Anji Reddy, as a Private Limited Company on February 24, 1984. We were converted to a Public Limited Company on December 6, 1985 and listed on the BSE Limited (formerly known as the Bombay Stock Exchange Limited), the National Stock Exchange of India Limited and certain other Indian stock exchanges in August 1986 and on the New York Stock Exchange on April 11, 2001. We are registered with the Registrar of Companies, Hyderabad, Telangana, India as Company No. 4507 (Company Identification No. L85195TG1984PLC004507). Our registered office is situated at 8-2-337, Road No. 3, Banjara Hills, Hyderabad, Telangana 500 034, India and the telephone number of our registered office is +91-40-49002900. The name and address of our registered agent in the United States is Dr. Reddy's Laboratories, Inc., 107 College Road East, Princeton, New Jersey 08540. Our main corporate website address is https://www.drreddys.com.

The SEC maintains an Internet website (at www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. This annual report on Form 20-F and other information filed by us with or furnished by us to the SEC can be accessed via such website. Certain (but not all) of such materials are also available on our website, at www.drreddys.com, as soon as reasonably practicable after having been electronically filed with or furnished to the SEC. Information contained in our website, www.drreddys.com, is not part of this annual report on Form 20-F and no portion of such information is incorporated herein or any other materials filed with or furnished to the SEC.

Key business developments:

Re-Audit of the Warning letter impacted sites

Refer to Note 33 of our consolidated financial statements under "Receipt of warning letter from the U.S. FDA" for details.

In response to the warning letter and subsequent reinspections, we implemented various global corrective actions, as well as some specific corrective actions. Additionally, a detailed response was submitted to the U.S. FDA which included root cause assessments, corrective actions and preventive actions and impact assessment. We remain fully committed to following high standards of quality and strive towards further strengthening of our quality management systems and processes for sustainability. Our plans to enhance our quality management systems and operations include improvements in rigor of investigations and document control systems, standardization of instrument calibrations, strengthening controls with respect to information technology, strengthening shop floor training programs, and simplifying and standardizing standard operating procedures and batch records at the shop floor.

Further, we have initiated additional operational improvements with respect to areas such as shop floor supervision and Gemba walks (also known as process walks) into the shop floor, engineering, implementation of electronic batch records to eliminate manual errors, and focus on robustness of processes.

Throughout the process of remediating issues raised in the Warning Letter, we have been continually engaged with the U.S. FDA in conveying the progress we have made. We are fully committed to produce safe and efficacious products for our patients.

Asset purchase agreement with Teva Pharmaceutical Industries Ltd

During the year ended March 31, 2017, we acquired from Teva Pharmaceutical Industries Limited and an affiliate of Allergan plc a portfolio of eight ANDAs for our North American Generics business. Refer to Note 32 of our consolidated financial statements for further details.

Principal capital expenditures:

During the years ended March 31, 2019, 2018 and 2017, we invested Rs.8,376 million, Rs.8,894 million and Rs.12,234 million (net of sales of capital assets), respectively, in capital expenditures for manufacturing, research and development facilities and other assets. We believe that these investments will create the capacity to support our strategic growth agenda. As of March 31, 2019, we also had contractual commitments of Rs.2,495 million for capital expenditures. We currently intend to finance our additional capital expansion plans entirely through our operating cash flows and through cash and other investments.

4.B. ***Business overview***

Established in 1984, we are an integrated global pharmaceutical company committed to providing affordable and innovative medicines through our three core business segments:

- Global Generics;
- Pharmaceutical Services and Active Ingredients ("PSAI"); and
- Proprietary Products.

Global Generics. This segment consists of our business of manufacturing and marketing prescription and over-the-counter finished pharmaceutical products ready for consumption by the patient, marketed under a brand name (branded formulations) or as generic finished dosages with therapeutic equivalence to branded formulations (generics). This segment includes the operations of our biologics business.

Pharmaceutical Services and Active Ingredients. This segment primarily consists of our business of manufacturing and marketing active pharmaceutical ingredients and intermediates, also known as "API", which are the principal ingredients for finished pharmaceutical products. Active pharmaceutical ingredients and intermediates become finished pharmaceutical products when the dosages are fixed in a form ready for human consumption such as a tablet, capsule or liquid using additional inactive ingredients. This segment also includes our contract research services business and our manufacture and sale of active pharmaceutical ingredients and steroids in accordance with the specific customer requirements.

Proprietary Products. This segment consists of the Company's business that focuses on the research, development, and commercialization of differentiated formulations. These novel products fall within the dermatology and neurology therapeutic areas and are marketed and sold through Promius® Pharma, LLC.

Others. This includes the operations of our wholly-owned subsidiary, Aurigene Discovery Technologies Limited, a discovery stage biotechnology company developing novel and best-in-class therapies in the fields of oncology and inflammation and which works with established pharmaceutical and biotechnology companies in early-stage collaborations, bringing drug candidates from hit generation to pre-clinical development.

We have a strong presence in highly regulated markets such as the United States, the United Kingdom and Germany, as well as other key markets such as India, Russia, Romania, South Africa and certain countries of the former Soviet Union.

OUR STRATEGY

Our strategy is guided by our core purpose of accelerating access to affordable and innovative medicines, because "Good Health Can't Wait".

Spiraling health care costs across the world have put many medicines out of the reach of millions of people who desperately need them. As a global pharmaceutical company, we take very seriously our responsibility to offer affordable alternatives to expensive medicines and help patients manage their disease better.

We deliver on our purpose through a set of promises we make to our customers and partners:

- to bring expensive medicines within reach;
- to address unmet patient needs;
- to help patients manage disease better;
- to work with partners to help them succeed; and
- to enable and help our partners ensure that our products are always available where needed.

Our business strategy and operating priorities strive to fulfill these promises. They are carefully chosen to enable us to deliver the maximum positive impact on the lives of patients around the world. The key elements of our business strategy for achieving these promises include the following:

Strengths in science and technology

Our strengths in science and technology range from synthetic organic chemistry, formulation development, biologics development to small molecule based drug discovery. Such expertise enables us to deliver first-to-market, difficult-to-make products with an industry leading intellectual property and technology leveraged product portfolio.

Product Offerings

Global Generics: Through our branded and unbranded drug products, we aim to offer affordable alternatives to highly-priced innovator brands, both directly and through key partnerships.

- *Branded Generics*: We seek to have a portfolio that is strongly focused on delivering first-to-market, differentiated products to doctors and patients. Many of our brands hold significant market shares in the molecule and therapy areas where they are present. We have also entered into strategic partnerships with third parties to sell our products in markets where we have not established our own sales and distribution operations.

- *Unbranded Generics*: We aim to ensure that our development capabilities remain strong and enable us to deliver products that are first to market, tough-to-make and technologically challenging.

- *Biologics*: Our biologics business seeks to accelerate access to biosimilar products globally through process development and relevant clinical research. We were the first company to launch a biosimilar version of rituximab in 2007, and have launched multiple biosimilar products in India and other key markets.

Our vertical integration and process innovation helps to ensure that quality products are available to patients in need at all times.

Pharmaceutical Services and Active Ingredients: Our PSAI segment is comprised of our API business and our Custom Pharmaceutical Services ("CPS") business. Through our API and CPS businesses, we aim to offer technologically advanced product lines and niche product services through partnerships internally and externally.

- Our product offerings in our API business are positioned to offer intellectual property and technology-advantaged products to enable launches ahead of others at competitive prices.

- Through our CPS business, we aim to offer niche product service capabilities, technology platforms, and competitive cost structures to innovator and biotechnology companies.

Proprietary Products: Our Proprietary Products segment is comprised of our differentiated formulations business in the therapeutic areas of dermatology and neurology. In this segment, we work to improve patient outcomes by identifying unmet and under-met medical needs and addressing them through innovative products and services that are affordable and accessible. We also have an internal pipeline of differentiated products in dermatology and neurology products in various stages of development.

Operating priorities

Execution excellence provides the framework to create sustainable customer value across all of our activities. We have been investing in the following to achieve this:

- Safety: The concept of safety has been imbued in the operating culture throughout our organization. Specific initiatives are being carried out to increase safety awareness, to achieve a safe working environment, to avoid accidents and injuries, and to minimize the loss of manufacturing time.

- Quality: We are fully dedicated to quality and have robust quality processes and systems in place at our developmental and manufacturing facilities to ensure that every product is safe and of high quality. In addition, we have integrated "Quality by Design" to build quality into all processes and use quality tools to minimize process risks.

- Operational Excellence: We apply a continuous improvement framework to the critical operations and processes in our value chain. With an operating and management review rhythm, we review and refine the cross functional/functional business processes across the organization to measure and improve their performance.

- Leadership Development: We are focused on developing leaders, as well as enhancing leadership behavior, across our organization through structured programs.

OUR PRINCIPAL AREAS OF OPERATIONS

The following table shows our revenues and the percentage of total revenues of our business segments for the years ended March 31, 2019, 2018 and 2017, respectively:

Segment	For the year ended March 31,								
	2019			2018			2017		
	(Rs. in millions, U.S.$ in millions)								
Global Generics	U.S.$	1,777	122,903	80%	Rs.	114,014	80%	Rs. 115,409	82%
PSAI		349	24,140	16%		21,992	16%	21,277	15%
Proprietary Products		69	4,750	3%		4,245	3%	2,363	2%
Others		30	2,058	1%		1,777	1%	1,760	1%
Total Revenue	**U.S.$**	**2,225**	**153,851**	**100%**	**Rs.**	**142,028**	**100%**	**Rs. 140,809**	**100%**

Revenues by country and by therapeutic area for the years ended March 31, 2019, 2018 and 2017 are discussed in Note 5 to our consolidated financial statements.

Global Generics Segment

Revenues from our Global Generics segment were Rs.122,903 million for the year ended March 31, 2019, an increase of 8% as compared to Rs.114,014 million for the year ended March 31, 2018. The revenue increase was largely attributable to this segment's operations in "Emerging Markets" (which is comprised of Russia, other countries of the former Soviet Union, Romania and certain other countries from our "Rest of the World" markets, including South Africa, China, Brazil and Australia) and India.

The production processes for finished dosages of generics are similar, to a certain extent, regardless of whether the finished dosages are to be marketed to highly regulated or less regulated markets. In many cases, the processes share common and interchangeable facilities and employee bases, and use similar raw materials. However, differences remain between highly regulated and less regulated markets in terms of manufacturing, packaging and labeling requirements and the intensity of regulatory oversight, as well as the complexity of patent regimes.

While the degree of regulation in certain markets may impact product development, we are observing increasing convergence of development needs throughout both highly regulated and less regulated markets. As a result, when we begin the development of a product, we may not necessarily target it at a particular market, but will instead target the product towards a cluster of markets that will include both highly regulated and less regulated markets.

Today, we are one of the leading generic pharmaceutical companies in the world. With the integration of all the markets where we are selling generic pharmaceuticals into our Global Generics segment, our front-end business strategies in various markets and our support services in India are increasingly being developed with a view to leverage our global infrastructure.

The following is a discussion of the key markets in our Global Generics segment.

India

During the year ended March 31, 2019, India accounted for 21% of our total Global Generics segment sales. In India, our key therapeutic categories include gastro-intestinal, cardiovascular and anti-diabetic, dermatology, oncology, respiratory, stomatology, urology and nephrology.

As of March 31, 2019, we had a total of 300 branded products in India. Our top ten branded products together accounted for 28% of our revenues in India in the year ended March 31, 2019. According to IQVIA, a provider of market research to the pharmaceutical industry, in its moving annual total report for the twelve month period ended March 31, 2019, our secondary sales in India grew by 11.3%. In comparison, the Indian pharmaceutical market experienced growth of 10.5% during such period. Strategic Marketing Solutions and Research Center Private Limited ("SMSRC"), a prescription market research firm, in its report measuring pharmaceutical prescriptions in India for the period from January 2019 to February 2019, ranked us 11th in terms of the number of prescriptions generated in India during such period.

Sales, marketing and distribution network

We generate demand for our products through our 5,050 sales representatives (which include representatives engaged by us on a contract basis through a service provider) and front line managers, who frequently visit doctors to detail our related product portfolio. They also visit various pharmacies to ensure that our brands are adequately stocked.

We sell our products primarily through clearing and forwarding agents to approximately 3,000 wholesalers who decide which brands to buy based on demand. The wholesalers pay for our products within an agreed credit period and in turn sell these products to retailers. Our clearing and forwarding agents are responsible for transporting our products to the wholesalers. We pay our clearing and forwarding agents on a commission basis. We have insurance policies that cover our products during shipment and storage at clearing and forwarding locations.

Competition

We compete with different companies in the Indian formulations market, depending upon therapeutic and product categories and, within each category, upon dosage strengths and drug delivery. On the basis of sales, we were the 13th largest pharmaceutical company in India, with a market share of 2.2%, according to IQVIA in its moving annual total report for the twelve month period ended March 31, 2019.

Our competitors in the Indian market include Cipla Limited, GlaxoSmithKline Pharmaceuticals Limited, Zydus Cadila Healthcare Limited, Sun Pharmaceutical Industries Limited, Alkem Limited, Pfizer Limited, Abbott India, Lupin Limited, Aristo Pharma Limited, Intas Pharmaceuticals Limited, Sanofi India Limited, Glenmark Pharmaceuticals Limited and Emcure Pharmaceuticals Limited.

Government regulations

The manufacturing and marketing of drugs, drug products and cosmetics in India is governed by many statutes, regulations and guidelines, including but not limited to the following:

- The Drugs and Cosmetics Act, 1940 and the Drugs and Cosmetics Rules, 1945;
- The Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954;
- The Narcotic Drugs and Psychotropic Substances Act, 1985;
- The Drugs (Price Control) Order, 1995 and 2013, read in conjunction with the Essential Commodities Act, 1955; and
- The National Pharmaceuticals Pricing Policy, 2012.

These statutes, regulations and guidelines govern the manufacturing, testing, packaging, labeling, storing, record-keeping, safety, approval, pricing, advertising, promotion, sale and distribution of pharmaceutical products.

An approval is required from the Ministry of Health before a generic equivalent of an existing or referenced brand drug can be marketed. When processing a generics application, the Ministry of Health usually waives the requirement of conducting complete clinical studies, although it generally requires bio-availability and/or bio-equivalence studies. "Bio-availability" indicates the rate and extent of absorption and levels of concentration of a drug product in the blood stream needed to produce a therapeutic effect. "Bio-equivalence" compares the bioavailability of one drug product with another, and when established, indicates that the rate of absorption and levels of concentration of the active drug substance in the body are equivalent for the generic drug with the previously approved drug. A generic application may be submitted for a drug on the basis that it is the equivalent of a previously approved drug. Before approving our generic products, the Ministry of Health also requires that our procedures and operations conform to current Good Manufacturing Practice ("cGMP") regulations, relating to good manufacturing practices as defined by various countries. We must follow the cGMP regulations at all times during the manufacture of our products. We continue to spend significant time, money and effort in the areas of production and quality testing to help ensure full compliance with cGMP regulations. The timing of final Ministry of Health approval of a generic application depends on various factors, including patent expiration dates, sufficiency of data and regulatory approvals.

Pursuant to the amendments in May 2005 to Schedule Y of the Drugs and Cosmetics Act, 1940, manufacturers of finished dosages are required to submit additional technical data to the Drugs Controller General of India in order to obtain a no-objection certificate for conducting clinical trials as well as to manufacture new drugs for marketing.

On March 22, 2005, the Government of India passed the Patents (Amendment) Bill, 2005 (the "2005 Amendment"), introducing a product patent regime for food, chemicals and pharmaceuticals in India. The 2005 Amendment specifically provides that new medicines (patentability of which is not specifically excluded) for which a patent has been applied for in India on or after January 1, 1995 and for which a patent is granted cannot be manufactured or sold in India by anyone other than the patent holder and its assignees and licensees. This has resulted in a reduction of new product introductions in India for all Indian pharmaceutical companies engaged in the development and marketing of generic finished dosages and APIs. Processes for the manufacture of APIs and formulations were patentable in India even prior to the 2005 Amendment, so no additional impact results from patenting of such processes.

Under the present drug policy of the Government of India, certain drugs have been specified under the Drugs (Prices Control) Order, 2013 (the "DPCO") as subject to price control. The Government of India established the National Pharmaceutical Pricing Authority, 2012 ("NPPA"), to control pharmaceutical prices. Under the DPCO, the NPPA has the authority to fix the maximum selling price for specified products.

During the year ended March 31, 2013, the Department of Pharmaceuticals under the ministry of Chemicals and Fertilizers of the Government of India proposed the National Pharmaceuticals Pricing Policy, 2012, a revised national Pharmaceutical Pricing policy to apply price controls to 348 drugs listed in National List of Essential Medicines. Some of our formulation products were subject to these price controls. The National List of Essential Medicines, as revised in 2016, now contains 376 drugs. In June 2017, the NPPA announced revisions of the maximum prices for various products scheduled in the National List of Essential Medicines on account of the GST implementation in India. This was followed by an announcement in April 2018 of an increase in the maximum prices of various drugs, as a result of positive inflation as measured by India's Wholesale Price Index.

On March 12, 2016, the Department of Health and Family Welfare under the Ministry of Health and Family Welfare of the Government of India banned 344 fixed dose combination drugs (i.e., two or more active drugs combined in a fixed ratio into a single dosage). A number of pharmaceutical companies, including us, filed a writ petition before the Delhi High Court challenging the ban. The Delhi High Court initially granted an interim stay on the ban notification and on December 1, 2016, it overturned the government imposed ban on the 344 fixed dosage combinations. Subsequently, the Government of India filed an appeal of the decision in the Supreme Court of India. In December 2017, the Supreme Court of India referred the issue to the government's expert body, the Drugs Technical Advisory Board ("DTAB"), for a fresh review of safety, efficacy and therapeutic justification of the drugs before recommending action. DTAB subsequently completed its review and, in September 2018, the Government of India banned 328 fixed dose combination drugs. The impact of this ban was negligible on our revenue.

On February 27, 2019, the NPPA invoked special powers granted under paragraph 19 of the DPCO, and released an Office Memorandum through which it brought 42 non-scheduled anti-cancer medications under price control by capping their trade margin (the difference between the price at which the manufacturers sell the medicines to distributors and the price paid by the end user) at 30%.This Office Memorandum had no material financial impact on our revenue.

In addition, on March 20, 2019 the NPPA announced an upward revision in the maximum prices of various drugs, as a result of positive inflation as measured by India's Wholesale Price Index.

Such ongoing price control changes, product bans and other changes can disrupt the Indian branded pharmaceutical market and negatively impact the revenues and profitability of our Indian business and our company.

Russia and other Countries of the former Soviet Union

Russia

Russia accounted for 12% of our Global Generics segment's revenues in the year ended March 31, 2019. IQVIA ranked us 17th in sales in Russia, with a market share of 1.7% for the twelve months ended March 31, 2019.

According to IQVIA, as per its moving annual total report for the twelve months ended March 31, 2019, our Retail sales value growth was 5.8% and our sales volume decreased by 2.3% for such period, as compared to the Russian pharmaceutical market value growth of 6.1% and sales volume decrease of 3.4% for such period. We were the top ranked Indian pharmaceutical company in Russia for such period.

Our top five brands, Nise, Omez, Nasivin, Femibion, and Ibuclin, accounted for 56% of our retail sales in Russia for the year ended March 31, 2019. Nise (pain management product), Omez (an anti-ulcerant product), Nasivin (for cold and flu), Femibion (for pregnant and lactating women), Ibuclin (for cold and flu) were ranked as the 23rd , 53rd , 115th , 157th and 191st best-selling formulation brands, respectively, in the Russian market by IQVIA in its moving retail segment report for the twelve months ended March 31, 2019. Our strategy in Russia is to focus on the gastro-intestinal, pain management, anti-infectives, respiratory, and therapeutic areas. Our focus is on building leading brands in these therapeutic areas in prescription, over-the-counter and hospital sales.

Our Global Generics segment's revenues in Russia increased by 26% (in Russian rouble absolute currency terms) during the year ended March 31, 2019, which was largely attributable to an improvement in our base business performance. Such revenues, measured in Indian rupees, increased by 21% as compared to the year ended March 31, 2018.

Other Countries of the former Soviet Union and Romania

We operate in other countries of the former Soviet Union, including Ukraine, Kazakhstan, Belarus, Uzbekistan and Romania. For the year ended March 31, 2019, revenues from these countries accounted for 4% of our total Global Generics segment's revenues.

Sales, marketing and distribution network

Our marketing and promotion efforts in our Russian prescription division is driven by a team of 289 medical representatives and 36 managers to detail our products to doctors in 77 cities in Russia.

Our Russian over-the-counter ("OTC") division has 225 medical representatives and 30 managers and is focused on establishing a network of relationships with key pharmacy chains and individual pharmacies. Our Russian hospital division has 42 hospital specialists and 17 key account managers, and is focused on expanding our presence in hospitals and institutes.

In Russia, we generally extend credit only to customers after they have established a satisfactory history of payment with us. The credit terms offered to these customers are based on turnover, payment record and the number of the customers' branches or pharmacies, and are reviewed on a periodic basis. We review the credit terms offered to our key customers on a periodic basis and modify them to take into account the macro-economic scenario in Russia.

Competition

Our principal competitors in the Russian market include Gedeon Richter RUS (an affiliate of Gedeon Ritcher PLC), Krka Pharma Limited, Teva, Lek-Sandoz Pharmaceuticals (an affiliate of Novartis Pharma A.G.), Zao Ranbaxy (an affiliate of Sun Pharmaceutical Industries Limited), Nycomed International Management GmbH and Zentiva N.V.

Government regulations

Healthcare system development in Russia

In order to promote local industry, in October 2009 the Russian government announced the Strategy of Pharmaceutical Industry Development in the Russian Federation for the period up to the year 2020 (or the "Pharma 2020 plan"), which aims to develop the research, development and manufacturing of pharmaceutical products by Russia's domestic pharmaceutical industry. The goal of the Pharma 2020 plan is to reduce Russia's reliance on imported pharmaceutical products and increase Russia's self-sufficiency in that regard.

The Russian government approved the State Program for Healthcare System Development on December 26, 2017. The objectives of this program are increasing life expectancy at birth, reducing mortality of the working-age population, reducing mortality from circulatory diseases and tumors (including malignant ones) and raising medical care quality satisfaction.

Reference pricing regime

During the year ended March 31, 2010, the Russian government announced a reference pricing regime, pursuant to which a price freeze on certain drugs categorized as "essential" was implemented effective as of April 2010. Pharmaceutical companies have had to register maximum import prices for approximately 5,000 drugs on a list of "Essential and Vital Drugs" (also known as the "ZhNVLS"). During the year ended March 31, 2011, the Russian government announced price re-registration in local currency (Russian roubles) for drugs categorized as "essential" and the new registered prices were effective as of December 10, 2010. Also, effective as of September 1, 2010, the price controls on certain drugs categorized as "non-essential" were removed by the Russian Ministry of Health.

For the past several years, the Russian Ministry of Industry and Trade has enacted and renewed short term government regulations under which local manufacturers (i.e., in Russia, Belarus and Kazakhstan) get a 15% price preference over non-local manufacturers in procurement tenders by the state.

A draft of “Rules for State registration and re-registration of the maximum ex-works manufacturer prices of medicines included in EDL” was published by the Russian Ministry of Health in 2017 and has undergone several changes over the last several months. However, there still remains ambiguity on the final form of the document or implementation period and we are in the process of evaluating the impact of these changes on our operations even as we await further clarity on this draft law.

State Regulation of Prices for Vital and Essential Medicines

Russia’s Federal Law No. 34-FZ dated March 8, 2015 amended the Federal Law 61-FZ “On Circulation of Medicines”. The amendments created new rules for the registration, manufacture and quality control of medicines, including new rules for the calculation and registration of the maximum retail prices of vital and essential medicines established by the ZhNVLS (the “EDL”).

Calculation of the maximum sale price for medicines included in the EDL list is determined by the Government of the Russian Federation taking into account a variety of economic and/or social criteria. The updated EDL lists for 2018, approved by the Decree of the Government No. 2323-p dated October 23, 2017, became effective from January 1, 2018. These lists include the list of drugs for provision to specific groups of citizens, medicines prescribed by a decision of a medical commission of medical organizations, medical supplies from the 7 Nosologies program list (which covers expensive treatments for patients with certain severe chronic diseases), as well as the minimum range of medicines required for medical aid.

Restrictions on access of foreign drugs

In 2015, the Russian Government enacted the Priority Action Plan for sustainable economic and social stability development and regulation No. 128. This plan and regulation affects medicines included in the EDL, and some of their key terms that have impacted the pharmaceutical industry are (i) supporting import substitution; (ii) optimizing budget costs and reducing inefficient expenses; and (iii) restrictions on access of foreign drugs to state procurement tenders, if two or more locally manufactured drugs participate in the relevant tender.

Interactions between healthcare professionals and medical product companies

During the year ended March 31, 2012, Russia introduced Federal Law # 323, titled “On the Foundations of Healthcare for Russian Citizens”. This law imposes stringent restrictions on interactions between (i) healthcare professionals, pharmacists, healthcare management organizations, opinion leaders (both governmental and from the private sector) and certain other parties (collectively referred to as “healthcare decision makers”) and (ii) companies that produce or distribute drugs or medical equipment (collectively referred to as “medical product companies”) and any representatives or intermediaries acting on their behalf (collectively referred to as “medical product representatives”). Some of the key provisions of this law are prohibitions on:

- one-on-one meetings and communications between healthcare professionals and medical product representatives, except for participation in clinical trials, pharmacovigilance, group educational events and certain other limited exceptions approved by Russia’s Healthcare Organization Administration;
- the acceptance by a healthcare professional of compensation, gifts or entertainment paid by medical product representatives;
- the agreement by a healthcare professional to prescribe or recommend a drug product or medical equipment; or
- the engagement by a healthcare decision maker in a “conflict of interest” transaction with a medical product representative, unless approved by regulators pursuant to certain specified procedures.

At the end of 2013, the State Duma (i.e., the lower chamber of the Russian parliament) adopted a series of amendments to various healthcare related laws. Among other things, the “Law on Medicines" was amended to add regulations restricting interactions between medical product representatives with medical professionals in connection with events sponsored by medical product companies. Under these regulations, in the event that medical product companies wish to sponsor certain scientific, medical education or similar events, they are required to disclose the date, place and time of the event and the plans, programs and agendas for discussion. Disclosure is to be made by publishing appropriate information on their official websites not later than two months before the indicated events, and the same information shall also be sent to Russia’s Federal Healthcare Service (Roszdravnadzor).

Liability for non-compliance with such restrictions extends to both the healthcare professional and the medical product representative. Except for requiring the disclosure of information on conflicts of interest, no specific liability has been currently prescribed for medical product companies.

On July 2, 2013, the Ministry of Health of the Government of Russia published an order on its website that binds physicians to prescribe medicinal products by International Nonproprietary Name (i.e., active substance) or by combination list (which combines different International Nonproprietary Names in one treatment group).

Russia signed the agreement on a common market for medicines within the Eurasian Economic Union

The Eurasian Economic Union ("EEU"), whose member states are Russia, Belarus, Kazakhstan, Armenia, and Kyrgyzstan, officially started functioning on January 1, 2015. Among other things, the member states of the EEU signed an international agreement establishing common principles and rules of functioning of the market for medicines within the EEU. According to the agreement, the market authorization for a particular medicine received in one EEU member state will be valid throughout the whole EEU territory. On May 6, 2017, the agreement was ratified by the EEU countries. Manufacturers of the EEU countries will be able to apply for re-registration of medicines under common procedures and reduce administrative costs. All medicines registered under the national regulations of the individual EEU member states on or before to December 31, 2020 shall be re-registered under the regulations of the EEU common market on or before December 31, 2025. Furthermore, Russian legislation is being gradually harmonized with the legislation of the EEU.

Russian GMP required for medicines registration

Effective January 1, 2016, foreign medicinal products (i.e., manufactured outside of Russia) became subject to the following requirements:

- for the initial state registration of a foreign medicinal product, it is required to present a statement of conformity of the manufacture thereof to Russian GMP standards issued by a Russian authority; and

- for re-registration of a foreign medicinal product, it was sufficient to present a certificate of GMP compliance (obtained in the country of origin) to the applicable GMP standards in the country of origin, issued by the relevant foreign authority with a certified Russian translation. However, effective January 1, 2017, re-registrations of a foreign medicinal product also are subject to the requirement to present a document regarding conformity to Russian GMP standards issued by a Russian authority.

Monitoring System of Movement of Medicines from the Producer to the Final Consumer

The Ministry of Health in Russia has proposed a full serialization system to track and trace the passage of pharmaceuticals through the entire supply chain, from the manufacturers to the end users. The proposed federal repository and tracking system would provide the manufacturers, supply chain and end users of pharmaceuticals many functionalities. Listed below are some of the functions that would be available in addition to the usual authentication and track and trace services:

- the system would provide price controls on products designated as vital and essential medicines;

- consumers would be able to compare the price of the drug to its official price limit, find which pharmacies do have the drug available, and get the product information.;

- manufacturers would be able to get real time data on the logistics and storage of their products in the market;

- pharmacists could get information related to the price, and monitor expiration dates;

- health care institutions would be able to track registration and prices; and

- federal agencies would have capability to monitor all medicinal products on the market to facilitate price controls as well as report on and analyze the industry.

Marketing authorization holders for medicinal products are required to file registration information for the track-and-trace system with the Russian governing body by January 1, 2019. The provisions on manufacturers' obligations to label the package with the identification marks, to submit the data to the monitoring system as well as the terms governing liability for non-compliance will become effective starting January 1, 2020.

In April 2018, the Russian Government published Resolution No.791-r determining the basic principles and an organizational model of the labelling system using the means of identification in Russia. According to this resolution, a check code must be generated using cryptographic technologies.

The draft law protecting intellectual property rights upon drug registration has been prepared

Currently, the Ministry of Health in Russia carries out state registration of medicines without checking the documents for compliance with third parties intellectual property rights. Therefore, circulation of medicines containing intellectual property of third parties without their consent has been common. Unfortunately, current judicial procedures for protecting the intellectual property rights of patent holders are inefficient in such situations.

Following the EEU Rules for Drug Registration and Examination (Approved by the Decision of the Council of the Eurasian Economic Commission dated 3 November 2016 No.78), the Ministry of Health has prepared a draft law amending the Law on Drug Circulation that obliges manufacturers to provide the following information when submitting an application for state registration of a medicine:

- information on availability of the legally effective patent within the Russian Federation;
- information on registration of a trademark; and
- confirmation that the drug registration does not violate intellectual property rights of a third party.

With regard to medicines already registered within the Russian Federation, the applicant must provide a licensing agreement. In addition, the draft law obliges the existing holders of registration certificates to provide information on availability of intellectual rights to the registered drug to the authorized state agency before January 1, 2020.

North America (the United States and Canada)

During the year ended March 31, 2019, North America (the United States and Canada) accounted for 49% of our total Global Generics segment sales. In the United States, we sell generic drugs that are the chemical and therapeutic equivalents of reference branded drugs, typically sold under their generic chemical names at prices below those of their brand drug equivalents. Generic drugs are finished pharmaceutical products ready for consumption by the patient. These drugs are required to meet the U.S. FDA or Health Canada, as applicable, standards that are similar to those applicable to their brand-name equivalents and must receive regulatory approval prior to their sale.

Generic drugs may be manufactured and marketed only if relevant patents on their brand name equivalents and any additional government-mandated market exclusivity periods have expired, been challenged and invalidated, or otherwise validly circumvented. Generic pharmaceutical companies sometimes conduct “at-risk launches”, in which sales of the product are launched prior to resolution of a patent challenge.

Generic pharmaceutical sales increased significantly in the last decade, primarily due to an increased awareness and acceptance among consumers, physicians and pharmacists that generic drugs are the equivalent of brand name drugs, substantial cost savings and an encouragement by governments through passage of legislation permitting generic drug alternatives. However, the generic pharmaceutical business has been negatively impacted by consolidation among wholesalers and retailers and the formation of group purchasing organizations (“GPOs”), which has lead to increased pricing pressures in the market. In addition, accelerated approval from the U.S. FDA under the timelines of the Generic Drug User Fee Act, as amended, has lead to more competition and resulted in a decline in the growth of the generic companies in North America. We intend to continue building our presence in the region by leveraging our product development capabilities and alliance management, manufacturing capacities inspected by various international regulatory agencies and access to our own APIs, which offer significant supply chain efficiencies.

Key acquisitions in North America:

In April 2008, we acquired BASF’s pharmaceutical contract manufacturing business and related facility in Shreveport, Louisiana, U.S.A. The acquisition included the relevant business, customer contracts, certain supplier contracts, related Abbreviated New Drug Applications (“ANDAs”) and New Drug Applications (“NDAs”), trademarks, as well as the manufacturing facility and assets owned by BASF in Shreveport, Louisiana. The facility is designed to manufacture solid, semi-solid and liquid dosage forms.

Further, in March 2011, we acquired from GlaxoSmithKline plc and Glaxo Group Limited (collectively, “GSK”) a penicillin-based antibiotics manufacturing site in Bristol, Tennessee, U.S.A. and certain related antibiotic product rights. The acquisition enabled us to enter the U.S. oral antibiotics market with a comprehensive product filing and a dedicated manufacturing site. During the three months ended September 30, 2018, we sold our subsidiary Dr. Reddy’s Laboratories Tennessee, LLC and certain related assets to Neopharma Inc., resulting in the disposition of our formulations manufacturing facility and related assets in Bristol, Tennessee.

During the years ended March 31, 2019, and 2018, we continued our efforts to grow the Habitrol® business (an over-the-counter Nicotine Replacement Therapy transdermal patch) that we acquired from Novartis Consumer Healthcare Inc. during the year ended March 31, 2015, having fully integrated the business. The Habitrol® business has shown healthy growth as a result of our expansion of distribution into new channels and our product innovations. We believe that there are significant growth opportunities in the smoking cessation category in the United States, and intend to continue growing the business through our focus on expansion in availability and portfolio augmentation by addition of new dosage forms.

During the year ended March 31, 2017 we acquired from Ducere Pharma the rights to six over-the-counter brand products within the cough-and-cold, pain, and dermatology therapeutic areas, including Doan’s, Bufferin and Nupercainal. Furthermore, during the year ended March 31, 2019, we sold the rights for the Bufferin brand to Gennoma Labs. This divestiture was an outcome of our portfolio optimization efforts and re-alignment of our business priorities.

During the year ended March 31, 2017, we acquired from Teva and an affiliate of Allergan plc a portfolio of eight ANDAs for our North American Generics business. The transaction, valued at $350 million, represents the largest assets acquisition in our history.

Through coordinated efforts of our teams in the United States and India, we constantly seek to expand our pipeline of generic products. During the year ended March 31, 2019, we made 20 new ANDA filings with the U.S. FDA. As of March 31, 2019 our cumulative filings were 279, which includes 4 NDA filings under section 505(b)(2) of the Federal Food, Drug and Cosmetic Act in the United States and 275 ANDA filings. These 275 ANDA filings include 8 ANDAs that we acquired from Teva and an affiliate of Allergan plc. As of March 31, 2019, we had 110 filings pending approval with the U.S. FDA (107 ANDAs and 3 NDAs under the 505(b)(2) route including 16 tentative approvals). Of the 107 ANDAs which are pending approval, 60 are Paragraph IV filings, and we believe that we are the first to file with respect to 34 of these filings. Further, these 107 ANDAs which are pending for approval include 4 ANDAs acquired from Teva and Allergan plc's affiliate, all of which are Paragraph IV filings.

We have also filed two new Investigational New Drugs ("IND") applications, for our proposed biosimilars to rituximab and PEG-GCSF. For rituximab, Phase 1 clinical trials have been successfully completed and Phase 3 clinical trials are currently in progress under the applicable IND. For Peg-GCSF, trials have been run by our collaboration partner Fresenius Kabi and have been successfully completed.

Our Canada business generated revenues of Rs.1,648 million during the year ended March 31, 2019. This business includes revenues from certain profit sharing arrangements with distributors who market certain of our generic products. As of March 31, 2019 we have filed a cumulative total of 33 Abbreviated New Drug Submissions ("ANDS") in Canada, out of which, 26 were approved, 2 are pending approval, and 5 were withdrawn or rejected.

Sales, Marketing and Distribution Network

Dr. Reddy's Laboratories, Inc., our wholly-owned subsidiary headquartered in Princeton, New Jersey, United States, is primarily engaged in the marketing of our generic products in the United States. In early 2003, we commenced sales of generic products under our own label. We have our own sales and marketing team to market these generic products. Our key account representatives for generic products call on procurement buyers for chain drug stores, drug wholesalers and distributors, mass merchandisers, group purchasing organizations ("GPOs") for hospitals, specialty distributors and pharmacy buying groups.

The majority of revenue from our North America generics business is derived from sales of oral solids, as well as sales of various products (both oral solids and OTC products) to retail chains. This portion of the business represents nearly three quarters of this segment's gross revenues for this region. The product portfolio includes a wide range of therapeutic areas.

Our over-the-counter ("OTC") division primarily markets and distributes store brand OTC products, but expanded into the branded OTC segment in May 2016, developing a new channel for our growth. This division has successfully launched over 10 products. OTC products include store brand generic equivalents of products that originally have prescription drug status and are switched to OTC drug status by the innovator upon U.S. FDA approval (sometimes called "Rx-to-OTC switch" products). Our entry into the OTC branded division in May 2016 was through the acquisition from Ducere Pharma of the rights to six OTC brand products, including Doan's, Bufferin and Nupercainal. Our OTC division services a broad range of customers, including drug retailers, mass merchandisers, food chains, drug wholesalers, distributors, and GPOs. For the year ended March 31, 2019, our OTC division generated Rs.9,552 million in revenues.

A portion of our revenue is derived from the sale of injectable products in the therapeutic areas of oncology and critical care. Our injectable product portfolio in the United States primarily consists of products such as azacitidine, decitabine, zoledronic acid, doxorubicin liposomal and bivalrudin. We have also expanded our presence from drug wholesalers to specialty distributors, integrated distribution networks ("IDNs"), clinics, and hospitals to market these products. We also supply products for private label customers for injectable prescription products.

Competition

Revenues and gross profit derived from the sales of generic pharmaceutical products are affected by certain regulatory and competitive factors. As patents and regulatory exclusivity for brand name products expire, the first manufacturer to receive regulatory approval for generic equivalents of such products is generally able to achieve significant market penetration. As competing manufacturers receive regulatory approvals on similar products, market share, revenues and gross profit typically decline, in some cases significantly. Accordingly, the level of market share, revenues and gross profit attributable to a particular generic product is normally dependent upon the number of competitors and the timing of that product's regulatory approval and launch, in relation to competing approvals and launches. Consequently, we must continue to develop and introduce new products in a timely and cost-effective manner to maintain our revenues and gross margins. In addition, the other competitive factors critical to this business include price, product quality, consistent and reliable product supplies, customer service and reputation. Our major competitors in the United States include Teva, Mylan Inc., Sandoz (a division of Novartis Pharma A.G.), Endo International plc (including its subsidiaries Endo Pharmaceuticals Inc. and Par Pharmaceutical Inc.), Sun Pharmaceuticals Limited, Lupin Limited, Aurobindo Pharma Limited, Fresenius Kabi, Sagent Pharmaceuticals and Hikma.

Continued consolidation of customer purchasing power through acquisitions, alliances and joint ventures continues to intensify the competition and drive down prices. Consolidation of manufacturers is also continuing and, at the same time, new manufacturers continue to enter the generic market in the United States, which may further lower our pricing power and adversely affect our revenues in that market.

Brand name manufacturers have devised numerous strategies to delay competition by introducing lower-cost generic versions of their products. One of these strategies is to change the dosage form or dosing regimen of the brand product prior to generic introduction, which may reduce the demand for the original dosage form as sought by a generic ANDA dossier applicant or create regulatory delays, sometimes significant, while the generic applicant, to the extent possible, amends its ANDA dossier to match the changes in the brand product. In many of these instances, the changes to the brand product may be protected by patent or exclusivities, further delaying generic introduction. Another strategy is the launch by the innovator or its licensee of an "authorized generic" during the 180-day generic exclusivity period, resulting in two generic products competing in the market rather than just the product that obtained the generic exclusivity. This may result in reduced revenues for the generic company which has been awarded the generic exclusivity period.

The U.S. market for OTC pharmaceutical products is highly competitive. Competition is based on a variety of factors, including price, quality, product mix, customer service, marketing support, and the reliability and flexibility of the supply chain for products. Our competition in store brand and innovator branded products in the United States consists of several publicly traded and privately owned companies, including large brand-name pharmaceutical companies. The competition is highly fragmented in terms of both geographic market coverage and product categories, such that a competitor generally does not compete across all product lines. In the store brand market, we compete directly with companies, such as Perrigo, Apotex, Aurobindo and Sun Pharma that sell store brand OTC products. In the branded market, we compete directly with companies, such as Bayer and Pfizer, which sell branded OTC products.

With the acquisition of Habitrol®, we now not only compete with store brands but also with large branded companies such as GlaxoSmithKline Consumer Care, which is an industry leader in the nicotine replacement therapy category. In addition, since a majority of our products are generic equivalents of innovator brands, we also compete against large brand-name pharmaceutical companies.

The competitive landscape and market dynamics of the OTC market are rapidly evolving. Large brand-name pharmaceutical companies have begun to more aggressively pursue Rx-to-OTC switches in new categories, which could present opportunities for us and other companies that sell store brand products. At the same time, pricing pressures continue to increase with the entry of new competitors in the market. On key select molecules, the expectation is that competition in this area will continue to grow as newer categories experience Rx-to-OTC switches.

Government regulations

U.S. REGULATORY ENVIRONMENT

All pharmaceutical manufacturers that sell products in the United States are subject to extensive regulation by the U.S. federal government, principally pursuant to the Federal Food, Drug and Cosmetic Act, the Hatch-Waxman Act, the Generic Drug Enforcement Act and other federal government statutes and regulations. These regulations govern or influence the testing, manufacturing, packaging, labeling, storing, record keeping, safety, approval, advertising, promotion, sale and distribution of products.

Our facilities and products are periodically inspected by the U.S. FDA, which has extensive enforcement powers over the activities of pharmaceutical manufacturers. Non-compliance with applicable requirements can result in fines, criminal penalties, civil injunction against shipment of products, recall and seizure of products, total or partial suspension of production, sale or import of products, refusal of the U.S. government to enter into supply contracts or to approve new drug applications and criminal prosecution. The U.S. FDA also has the authority to deny or revoke approvals of drug active pharmaceutical ingredients and dosage forms and the power to halt the operations of non-complying manufacturers. Any failure to comply with applicable U.S. FDA policies and regulations could have a material adverse effect on the operations in our generics business.

U.S. FDA approval of an ANDA is required before a generic equivalent of an existing or referenced brand drug can be marketed. The ANDA approval process is abbreviated because the U.S. FDA waives the requirement of conducting complete clinical studies, although it generally requires bio-availability and/or bio-equivalence studies. An ANDA may be submitted for a drug on the basis that it is the equivalent of a previously approved drug or, in the case of a new dosage form, is suitable for use for the indications specified.

An ANDA applicant in the United States is required to review the patents of the innovator listed in the U.S. FDA publication entitled Approved Drug Products with Therapeutic Equivalence Evaluations, commonly known as the "Orange Book," and make an appropriate certification. There are several different types of certifications that can be made. A Paragraph IV filing is made when the ANDA applicant believes its product or its manufacture, use or sales thereof does not infringe on the innovator's patents listed in the Orange Book or where the applicant believes that such patents are not valid or enforceable. The first generic company to file a Paragraph IV filing may be eligible to receive a six-month marketing exclusivity period starting from either the first commercial marketing of the drug by any of the first applicants or a decision of a court holding the patent that is the subject of the paragraph IV certification to be invalid or not infringed. A Paragraph III filing is made when the ANDA applicant does not intend to market its generic product until the patent expiration. A Paragraph II filing is made where the patent has already expired. A Paragraph I filing is made when there are no patents listed in the Orange Book. Another type of certification is made where a patent claims a method of use, and the ANDA applicant's proposed label does not claim that method of use. When an innovator has listed more than one patent in the Orange Book, the ANDA applicant must file separate certifications as to each patent.

Before approving a product, the U.S. FDA also requires that our procedures and operations conform to cGMP regulations, relating to good manufacturing practices as defined in the U.S. Code of Federal Regulations. We must follow cGMP regulations at all times during the manufacture of our products. We continue to spend significant time, money and effort in the areas of production and quality to help ensure full compliance with cGMP regulations.

The timing of final U.S. FDA approval of an ANDA depends on a variety of factors, including whether the applicant challenges any listed patents for the drug and whether the brand-name manufacturer is entitled to one or more statutory exclusivity periods, during which the U.S. FDA may be prohibited from accepting applications for, or approving, generic products. In certain circumstances, a regulatory exclusivity period can extend beyond the life of a patent, and thus block ANDAs from being approved on the patent expiration date.

The "pediatric exclusivity" program under The Best Pharmaceuticals for Children Act provides a six-month period of extended exclusivity, applicable to certain listed patents and to other regulatory exclusivities for all formulations of an active ingredient, if the sponsor performs and submits pediatric studies requested by the FDA within specified timeframes. An effect of this program has been to delay the launch of numerous generic products by an additional six months.

The Medicare Prescription Drug, Improvement and Modernization Act of 2003 (the "Medicare Act of 2003") modified certain provisions of the Hatch-Waxman Act. In particular, significant changes were made to provisions governing 180-day exclusivity and forfeiture thereof where the first Paragraph IV certification was submitted on or after December 8, 2003.

Under the revised provisions, 180-day exclusivity is awarded to each ANDA applicant submitting a Paragraph IV certification for the same drug with regard to any patent on the first day that any ANDA applicant submits a Paragraph IV certification for the same drug. The180-day exclusivity period begins on the date of first commercial marketing of the drug by any of the first applicants or a decision of a court holding the patent that is the subject of the paragraph IV certification to be invalid or not infringed.

However, a first applicant may forfeit its exclusivity in a variety of ways, including, but not limited to (a) failure to obtain tentative approval within 30 months after the application is filed or (b) failure to market its drug by the later of two dates calculated as follows: (x) 75 days after approval or 30 months after submission of the ANDA, whichever comes first, or (y) 75 days after each patent for which the first applicant is qualified for 180-day exclusivity is either (1) the subject of a final court decision holding that the patent is invalid, not infringed, or unenforceable or (2) withdrawn from listing with the U.S. FDA (court decisions qualify if either the first applicant or any applicant with a tentative approval is a party; a final court decision is a decision by a court of appeals or a decision by a district court that is not appealed). The foregoing is an abbreviated summary of certain provisions of the Medicare Act of 2003, and accordingly such act should be consulted for a complete understanding of both the provisions described above and other important provisions related to 180-day exclusivity and forfeiture thereof.

The federal Controlled Substances Act (the "CSA") and its implementing regulations establish a closed system of controlled substance distribution for legitimate handlers. The CSA imposes registration, security, recordkeeping and reporting, storage, manufacturing, distribution, importation and other requirements upon legitimate handlers under the oversight of the U.S. Drug Enforcement Administration (the "DEA"). The DEA categorizes controlled substances into one of five schedules — Schedule I, II, III, IV, or V — with varying qualifications for listing in each schedule. Facilities that manufacture, distribute, import or export any controlled substance must register annually with the DEA. The DEA inspects manufacturing facilities to review security, record keeping and reporting and handling prior to issuing a controlled substance registration. Failure to maintain compliance with applicable requirements, particularly as manifested in the loss or diversion of controlled substances, can result in enforcement action, such as civil penalties, refusal to renew necessary registrations, or the initiation of proceedings to revoke those registrations. In certain circumstances, violations could lead to criminal prosecution.

Food and Drug Administration Safety and Innovation Act, Generic Drug User Fee Act, Biosimilar User Fee Act and Food and Drug Administration Reauthorization Act

In 2012, the United States enacted the Food and Drug Administration Safety and Innovation Act ("FDASIA"), a landmark legislation intended to enhance the safety and security of the U.S. drug supply chain by imposing stricter oversight and by holding all drug manufacturers supplying products to the United States to the same U.S. FDA inspection standards. Specifically, prior to the passage of FDASIA, U.S. law required U.S. based manufacturers to be inspected by the U.S. FDA every two years but remained silent with respect to foreign manufacturers, causing some foreign manufacturers to go as many as nine years without a routine U.S. FDA cGMP inspection, according to the Government Accountability Office. FDASIA requires foreign manufacturers to have cGMP inspections at least every two years, or more frequently for manufacturers with high risk profiles.

FDASIA also includes the Generic Drug User Fee Act ("GDUFA") and Biosimilar User Fee Act ("BuFA"), programs to provide the U.S. FDA with additional funds through user fees imposed on generic and biosimilar products. Under GDUFA, total fees are derived primarily from facility fees paid by finished dosage form manufacturers and active pharmaceutical ingredient facilities listed or referenced in a pending or approved generic drug application. A significant portion is also derived from application fees, including generic drug application fees, prior approval supplement fees and drug master file fees.

The FDA Reauthorization Act of 2017 ("FDARA") and the GDUFA Amendments ("GDUFA II"), signed into law on August 18, 2017, extended the user fee program for a period of another five years through September, 2022. Under the provisions of these acts, an additional generic drug applicant program fee will be established, which will be based on the number of ANDAs the applicant holds and the prior approval supplement fees will be eliminated. Of the total GDUFA user fee revenue, 35% will be generated from this ANDA-based fee. Further, the GDUFA II commitment letter describes a consolidated review goals scheme for all cohorts of ANDAs, prior approval supplements and amendments. This includes shorter review goals for generic drug submissions that are public health priorities.

The establishment of dedicated biosimilar fees was also intended to help ensure that the U.S. FDA has appropriate resources for managing the introduction of biosimilar products on the U.S. market. Under the FDARA, for the first time, an independent fee structure for biosimilars will be implemented, including an initial biosimilar development fee which will be assessed the first year a manufacturer begins clinical trials. Further, an annual biosimilar development fee for subsequent years of the development process, a biosimilar program fee for approved biosimilars, and an application fee for new biosimilar applications will be introduced. The legislation also reauthorizes several programs that are designed to simplify and expedite the regulatory process for the development of drugs and devices that aid patients with rare diseases.

In addition, under the FDARA, a drug is eligible for designation as a "Competitive Generic Therapy" if the U.S. FDA determines that there is inadequate generic competition i.e., with respect to a drug, there is not more than one approved drug on the list of drugs described in section 505(j)(7)(A) (not including drugs on the discontinued section of such list) that is (a) the reference listed drug; or (b) a generic drug with the same reference listed drug as the drug for which designation as a competitive generic therapy is sought. A draft guidance on Competitive Generic Therapy was published on February 2019 which provides more clarity on eligibility for and forfeiture and relinquishment of Competitive Generic Therapy exclusivity.

As part of GDUFA II, in order to accelerate access to generic version of complex products, GDUFA II pre-ANDA program product development meetings can be initiated by the U.S. FDA for an ongoing ANDA development program for complex products. These meetings will encourage applicants for product development meetings, pre-submission meetings and mid-review cycle meetings to clarify regulatory expectations early in product development. Furthermore, in November 2017, the Manual of Policy and Procedures ("MAPP") 5240.3, "Review Order of Original ANDAs, Amendments, and Supplements" was revised to MAPP 5240.4, "Prioritization of the Review of Original ANDAs, Amendments and Supplements" under which a priority review may be granted by the U.S. FDA if an original ANDA, amendment, or supplement meets one of the prioritization factors set forth in the MAPP, and may receive either a shorter goal date or an expedited review, as defined in the MAPP.

Withdrawal of U.S. FDA Proposed Labeling Rule

On November 13, 2013, the U.S. FDA proposed a new labeling rule which the agency believed would speed up the dissemination of new safety information about generic drugs to health professionals and patients by allowing generic drug manufacturers to use the same process as brand drug manufacturers to update safety information in the product labeling. Under the proposal, generic drug manufacturers would have been able to independently update product labeling (also called prescribing information or package inserts) with newly-acquired safety information before the U.S. FDA's review of the change, in the same way brand drug manufacturers do today. Generic manufacturers would also have been required to inform the brand name manufacturer about the change. The U.S. FDA would then have evaluated whether the proposed change was justified and made an approval decision on the generic drug labeling change and the corresponding brand drug labeling change at the same time, so that brand and generic drug products would ultimately have the same U.S. FDA-approved prescribing information.

Currently, generic manufacturers must wait to update product safety information until the corresponding brand name product has received approval to update its safety information. Brand drug manufacturers are allowed to independently update and promptly distribute updated safety information by submitting a "changes being effected" ("CBE") supplement to the U.S. FDA. Generic manufacturers must notify the U.S. FDA of new safety information, and wait for the U.S. FDA and the brand manufacturer to determine the updated labeling, which may result in a delay in getting new information to health care professionals and patients.

Under current law, generic and brand drug manufacturers are required to promptly review safety information about their drugs and comply with the U.S. FDA's reporting and recordkeeping requirements. When new information becomes available that causes the product labeling to be inaccurate, all drug manufacturers must take steps to update the labeling.

Because the current regulatory scheme only permits a generic manufacturer to use the CBE process to update its label if the branded drug manufacturer changes its label first, this can prevent generic manufacturers from complying with state law warning requirements. As a result, state product liability suits based on failure-to-warn and design defect claims against generics manufacturers have generally been held pre-empted by Federal law, and in June 2013 the United States Supreme Court upheld such pre-emption and immunity of generic manufacturers in *Mutual Pharmaceutical Co. v. Bartlett*.

If the U.S. FDA's proposed new rule was adopted, it may have eliminated this pre-emption and increased our potential exposure to lawsuits relating to product safety, side effects and warnings on labels. This new potential exposure to lawsuits may also have increased the risk that, in the future, we would not have been able to obtain the type and amount of insurance coverage we desire at an acceptable price and self-insurance may have become the sole commercially reasonable means available for managing the product liability risks of our business. After twice delaying publication of a final rule, the U.S. FDA withdrew its proposed rule during 2017.

Prescription Drug Marketing Act and Laws Regulating Payments to Healthcare Professionals

The FDA also enforces the requirements of the Prescription Drug Marketing Act, which, among other things, imposes various requirements in connection with the distribution of product samples to physicians. Sales, marketing and scientific/educational grant programs must comply with the federal anti-kickback statute, the Medicare-Medicaid Anti-Fraud and Abuse Act, as amended, the False Claims Act, as amended, and similar state laws. Pricing and rebate programs must comply with the Medicaid rebate requirements of the Omnibus Budget Reconciliation Act of 1990, as amended. We are also subject to Section 6002 of the Patient Protection and Affordable Care Act, commonly known as the Physician Payment Sunshine Act which regulates disclosure of payments to certain healthcare professionals and providers.

Patient Protection and Affordable Care Act and Medicaid Drug Rebate Program

In March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act (collectively, the "PPACA"), were signed into law. The PPACA is one of the most significant healthcare reform measures in the United States in decades, and significantly impacts the U.S. pharmaceutical industry. The PPACA imposes additional rebates, discounts and fees, mandates certain reporting and contains various other requirements that affect our business. The PPACA made several important changes to the federal anti-kickback statute, false claims laws, and health care fraud statutes that made it easier for the government or whistleblowers to pursue such fraud and abuse violations. In addition, the PPACA increased penalties for fraud and abuse violations. If our past, present or future operations are found to be in violation of any of the laws described above or other similar governmental regulations to which we are subject, we may be subject to the applicable penalty associated with the violation which could adversely affect our ability to operate our business and our financial results.

The PPACA changed the computations used to determine Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program by redefining the average manufacturer's price ("AMP"). In November 2015, the Bipartisan Budget Act of 2015 (the "BBA") amended the Medicaid Drug Rebate Program to impose a penalty rebate on generic drugs whose price increases exceed the inflation rate. Initially, the penalty rebate had only applied to brand drugs and authorized generics, but other generic drugs were subject to a fixed base rebate of 13% of AMP. The BBA imposed a price increase penalty rebate on generic drugs similar to that of the price increase penalty on brand drugs and authorized generics. The additional penalty rebate for generic drugs applies to rebate periods beginning with the first quarter of 2017. The additional penalty rebate due for generic drugs is equal to the AMP for the current quarter minus the baseline AMP adjusted for inflation based upon the Consumer Price Index for Urban Consumers.

The PPACA also increased the number of healthcare organizations eligible to participate in the Public Health Service pharmaceutical pricing program, which provides for government controlled prices that result in substantial discounts for participants. To further facilitate the government's efforts to coordinate and develop comparative clinical effectiveness research, the PPACA established a new Patient-Centered Outcomes Research Institute to oversee and identify priorities in such research. The manner in which the comparative research results would be used by third-party payors is uncertain.

The PPACA has created an abbreviated pathway to U.S. FDA approval of "biosimilar" biological products and allows the first interchangeable biosimilar biological product 18 months of exclusivity, which could increase competition for our biosimilars business. The PPACA also has some anti-generic provisions that could adversely affect our biosimilars business, including provisions granting the innovator of a biological drug product 12 years of exclusive use before generic drugs can be approved based on being biosimilar.

On February 1, 2016, the CMS published in the Federal Register a Final Regulation with comment period to implement the Medicaid Drug Rebate Program. The Final Regulation was to clarify ambiguities in the ACA amendments. The key provisions covered under the Final Regulation included, without limitation, the following: (i) the adoption of a final definition of "retail community pharmacy" ("RCP"), (ii) the adoption of a rule permitting inhalation, infusion, instilled, implanted, or injectable drugs ("5i drugs") to be deemed not to be "generally dispensed" through a RCP, and thus excluded from the calculation of their AMP, if 70% or more of its sales were to entities other than RCPs or wholesalers for drugs distributed to RCPs (the prior threshold was 90%), (iii) the inclusion of authorized generics in calculations of AMP and best price, (iv) narrowing the regulatory definition for "best price", (v) requiring additional Medicaid rebate payments for generic drugs, effective as of April 1, 2017, and (vi) clarification of the definition of "bona fide service fees" based on a four part test. We are still awaiting guidance from CMS on a delay in the participation of the U.S. territories in the Medicaid Drug Rebate Program until April 1, 2020 an aspect of the rule that was deferred for later implementation. We will evaluate the financial impact of this when it becomes effective.

The PPACA required manufacturers to calculate an alternate rebate amount for drugs that are "line extensions" of an oral solid dosage form. CMS was responsible under the PPACA for providing a regulatory definition of "line extension," although the CMS February 2016 final rule did not do so. The Comprehensive Addiction and Recovery Act enacted on July 22, 2016 included a statutory definition of line extension as follows: "with respect to a drug, a new formulation of the drug, such as an extended release formulation, but does not include an abuse-deterrent formulation of the drug (as determined by the Secretary), regardless of whether such abuse-deterrent formulation is an extended release formulation." On April 1, 2019, CMS published a final rule and interim final rule which reiterated prior guidance that manufacturers rely on the statutory definition and where appropriate, may use "reasonable assumptions" to determine if a drug qualifies as a line extension drug. The agency notes that if it should decide to develop a regulatory definition of line extension drug, the normal rulemaking process will be utilized. We are not currently marketing any drugs that we believe would be a line extension.

In 2017, the new U.S. Presidential administration, which had promised to repeal and replace the PPACA, took office in the United States. Although legislative proposals in 2017 to repeal and replace the PPACA in 2017 were never enacted, there are ongoing efforts to achieve that goal. For example, in October 2017, the U.S. President signed an Executive Order directing federal agencies to modify how the PPACA is implemented, ending the subsidies to health care insurance companies that sell insurance to low income consumers through state health insurance marketplaces. Further, the Tax Cuts and Jobs Act enacted in December 2017 effectively repealed the PPACA's individual mandate by removing the penalties imposed for failure to purchase healthcare insurance. In December 2018, a U.S. federal district court ruled that the ACA is unconstitutional, but such decision has been stayed and will not take effect while such decision is on appeal. We cannot predict the outcome of litigation regarding the constitutionality of the ACA or the form any replacement of the ACA may take, if any, although it may have the impact of reducing the number of insured as well as coverage for pharmaceutical products. Included in the many parts of the PPACA that could potentially be affected by the continued litigation is the Biologics Price Competition and Incentives Act. We cannot predict the ultimate effect of the reform on our business, and additional policy changes disruptive to the PPACA exchange markets could arise.

The Bipartisan Budget Act of 2018 amended the PPACA, effective January 1, 2019, to close the coverage gap (commonly referred to as the "donut hole") in most Medicare drug plans, and also increased in 2019 the percentage by which a drug manufacturer must discount the negotiated price of branded prescription drugs dispensed to Medicare Part D patients in the coverage gap from 50% to 70%.

Drug Quality and Security Act

On November 28, 2013, the Drug Quality and Security Act was signed into law in the United States. The legislation introduces a federal track-and-trace system for medicines with serial numbers added to individual packs and (non-mixed) cases within four years of the legislation's adoption, and electronic tracing of production through the supply chain mandated within ten years. It also strengthens licensure requirements for wholesale distributors and third-party logistics providers, and requires the U.S. FDA to maintain a database of wholesalers that will be available to the public through its website. The law also boosts oversight of compounding pharmacies that make drugs to order, and increases the powers of the U.S. FDA to oversee large-volume or 'outsourcing' compounders without individual prescriptions. During 2017, the U.S. FDA delayed the enforcement of serialization requirements for manufacturers until November 2018 to provide manufacturers with additional time to comply and avoid supply disruptions. We completed all of the activities necessary to implement serialization, and the batches packaged after November 26, 2018 are being serialized.

Title XI of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA)

On October 6, 2016, the U.S. FDA issued a final rule to implement new regulations that govern the approval of applications under Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act in the United States, and of ANDAs. This rule revises and clarifies U.S. FDA regulations as to matters such as: the procedures and requirements for providing notice to each patent owner and the NDA holder of certain patent certifications made by applicants submitting 505(b)(2) applications or ANDAs; the availability of 30-month stays of approval on 505(b)(2) applications and ANDAs that are otherwise ready to be approved; submission of amendments and supplements to 505(b)(2) applications and ANDAs; and the types of bioavailability and bioequivalence data that can be used to support these applications. This rule was effective December 5, 2016.

Biologics Pathway

The Biologics Price Competition and Innovation Act of 2009 ("BPCIA") created a statutory pathway and abbreviated approval processes for the approval of biosimilar versions of branded biological products. Under the BPCIA, a biosimilar must be highly similar with no clinically meaningful differences compared to the reference medicine. Approval of a biosimilar in the United States requires the submission of a Biologics License Application ("BLA") to the U.S. FDA, including an assessment of immunogenicity, and pharmacokinetics or pharmacodynamics. The BLA for a biosimilar can be submitted as soon as four years after the initial approval of the reference biologic, but can only be approved 12 years after the initial approval of the reference biologic.

This pathway is still relatively new and some aspects remain untried, controversial and subject to ongoing litigation. Though the U.S. FDA has issued and updated various technical guidance documents addressing quality considerations, scientific considerations and questions and answers regarding commonly posed issues to assist the biopharmaceutical industry in developing biosimilar products in compliance with the BPCIA, there remains some uncertainty regarding the abbreviated biosimilar pathway. On December 11, 2018, the U.S. FDA released final guidance defining biologics, transitioning biological products approved under an NDA to a deemed BLA, and outlining an abbreviated pathway for biosimilar licensure. As part of the publication of the final guidance, the U.S. FDA is allowing for ongoing comments from the public, which may result in further changes or revisions to such guidance. On May 10, 2019, the U.S. FDA issued final guidance on "Considerations in Demonstrating Interchangeability With a Reference Product," which is intended to provide guidance as to how to demonstrate that a proposed therapeutic protein product is interchangeable with a reference product for the purposes of submitting a marketing application or supplement under section 351(k) of the Public Health Service Act (PHS Act) (42 U.S.C. 262(k)).

The overall status of the BPCIA is uncertain, based on a December 2018 U.S. federal court decision which declared the PPACA, of which the BPCIA is a part, to be unconstitutional. Such decision has been stayed and will not take effect while such decision is on appeal.

21st Century Cures Act

On December 13, 2016, the 21st Century Cures Act was enacted into law in the United States, and is intended to promote biomedical innovation and personalized medicines. The 21st Century Cures Act includes increased funding for the National Institutes of Health and the U.S. FDA and provides for the implementation of, among other reforms, enhanced pathways for medical product approval and the modernization and harmonization of clinical trial procedures over a period of several years.

Blueprint to Lower Drug Prices

In May 2018, U.S. President Trump released "American Patients First: The Trump Administration Blueprint to Lower Drug Prices and Reduce Out-of-Pocket Costs," which outlines actions that his administration proposes to take to lower prescription drug prices, including certain actions that can be taken immediately by the U.S. Department of Health and Human Services ("HHS") and issues on which HHS will solicit public feedback before determining any additional reform proposals. This blueprint seeks to increase competition, improve negotiation, incentivize lower list prices and lower out-of-pocket costs. It calls for, among other things, greater transparency of drug prices, better informing consumers about prescription drugs, increased promotion of generic drugs and experimenting with value-based payment. We are currently evaluating the impact of this blueprint on our business, and we cannot yet be certain what the effect will be.

To create better incentives for lower list prices, the blueprint called for HHS to consider requiring the inclusion of list prices in direct-to-consumer advertising. On May 30, 2018, the CMS announced a final rule that will require direct-to-consumer television advertisements for prescription pharmaceuticals covered by Medicare or Medicaid to include the list price if such price is equal to or greater than $35 for a month's supply or the usual course of therapy. This rule is effective starting on July 9, 2019.

State Efforts to Lower Drug Prices

A number of states have passed legislation intended to impact pricing or requiring price transparency reporting (California, Colorado, Connecticut, Louisiana, Maine, Maryland, Nevada, Oregon, Texas, Vermont, and Washington). These laws typically require manufacturers to report certain product price information or other financial data to the state, and, in some cases, provide advance notification of price increases. It is expected that states will continue their focus on pharmaceutical price transparency and that this focus will continue to exert pressure on product pricing.

Right to Try Act

On May 30, 2018, the Trickett Wendler, Frank Mongiello, Jordan McLinn, and Matthew Bellina Right to Try Act of 2017 (the "Right to Try Act") was signed into law in the United States. The law, among other things, provides a federal framework for certain patients to request access to certain investigational new drug products that have completed a Phase I clinical trial and that are undergoing investigation for U.S. FDA approval. There is no obligation for a pharmaceutical manufacturer to make its drug products available to eligible patients as a result of the Right to Try Act.

Final Conscience Rule

In May 2019, the U.S. Department of Health & Human Services ("HHS") published final rules to enforce so-called "conscience laws," a series of previously enacted laws that allow health professionals, insurers and employers to opt out of participating in certain health care activities that violate the worker's conscience or religious beliefs, such as abortion, sterilization, vaccination or assisted suicide. The final rule significantly expands the authority of HHS's Office of Conscience and Religious Freedom to enforce federal conscience protection laws and implements new enforcement mechanisms. This final rule is set to become effective on July 22, 2019, although lawsuits have already been filed challenging its constitutionality. The conscience laws and the final rule could potentially impact certain pharmaceutical products, including the availability of such products from hospitals and other prescribers and the availability of insurance coverage for such products. We are currently evaluating the impact of these conscience laws and the final rule on our business, and we cannot yet be certain what their effect will be.

Other matters

Civil Investigative Demand from the Office of the Attorney General, State of Texas

On or about November 10, 2014, Dr. Reddy's Laboratories, Inc., one of our subsidiaries in the United States, received a Civil Investigative Demand ("CID") from the Office of the Attorney General, State of Texas (the "Texas AG") requesting certain information, documents and data regarding sales and price reporting in the U.S. marketplace of certain products for the period of time between January 1, 1995 and the date of the CID. We have responded to all of the Texas AG's requests to date, and we understand that the investigation is continuing.

Subpeona duces tecum from the Office of the Attorney General, California

On November 3, 2014, Dr. Reddy's Laboratories, Inc. received a subpoena duces tecum to appear before the Office of the Attorney General, California (the "California AG") and produce records and documents relating to the pricing of certain products. A set of five interrogatories related to pricing practices was served as well. On July 18, 2016, the California AG sent a letter to inform Dr. Reddy's Laboratories, Inc. that, in light of the information which had been provided, no further information would be requested at such time in response to this subpoena.

Subpoenas from the Division of the U.S. Department of Justice ("DOJ") and the office of the Attorney General for the State of Connecticut

On July 6, 2016 and August 7, 2016, Dr. Reddy's Laboratories, Inc. received subpoenas from the DOJ and the office of the Attorney General for the State of Connecticut, respectively, seeking information relating to the marketing, pricing and sale of certain of our generic products and any communications with competitors about such products. We have been cooperating, and intend to continue to fully cooperate, with these inquiries.

State Attorneys General Civil Actions and Multi-District Litigation in the United States

On December 18, 2016, the Attorneys General for 19 states filed claims in the United States District Court for the District of Connecticut against a number of pharmaceutical companies alleging conspiracies to fix prices and to allocate bids and customers from 2013 through at least 2016, with respect to two generic drugs for which our company and our U.S. subsidiaries were not named as defendants.

In April 2017, a total of 45 states, plus the District of Columbia and the Commonwealth of Puerto Rico, joined as plaintiffs in this case (the "State AG Action"). In August 2017, the State AG Action was transferred and consolidated with the private plaintiff class actions pending in the multi-district litigation ("MDL-2724") in the United States District Court for the Eastern District of Pennsylvania. On October 31, 2017, the Attorneys General for the 45 States, plus the District of Columbia and the Commonwealth of Puerto Rico, filed an Amended Complaint in the State AG Action in MDL-2724 which has added our U.S. subsidiary as a defendant. The State AG Action alleges that our U.S. subsidiary, Dr. Reddy's Laboratories, Inc., and other named defendants engaged in a conspiracy to fix prices and to allocate bids and customers in the sale of generic zoledronic acid and meprobamate in the United States, and alleges an over-arching conspiracy with the defendants on the other 13 drugs named in the State AG Amended Complaint. The State AG Amended Complaint alleges violations of Section 1 of the Sherman Act, 15 U.S.C. §1, and the consumer and antitrust laws of 45 states, the District of Columbia and the Commonwealth of Puerto Rico, seeking injunctive relief, recovery of treble damages, attorney's fees and other costs. We deny any wrongdoing and intend to vigorously defend against these claims.

On May 10, 2019, the Attorneys General of forty-nine U.S. States, the Commonwealth of Puerto Rico and the District of Columbia, filed a Complaint in the United States District Court for the District of Connecticut against twenty-one generic pharmaceutical companies (including our U.S. subsidiary) and fifteen individual defendants, with respect to 116 generic drugs, alleging that our U.S. subsidiary, Dr. Reddy's Laboratories, Inc., and the other named defendants engaged in a conspiracy to fix prices and to allocate bids and customers in the United States in the sale of the 116 named drugs. Under the multi-district litigation rules, this action will be designated a related "tag along" action and will be transferred to and become a part of the MDL-2724. Our U.S. subsidiary is specifically named as a defendant with respect to five generic drugs (ciprofloxacin HCL tablets, glimepiride tablets, oxaprozin tablets, paricalcitol and tizanidine), and is named as an alleged co-conspirator on an alleged "overarching conspiracy" with respect to the other thirteen generic drugs named. The Complaint alleges violations of Section 1 of the Sherman Act, 15 U.S.C. §1, and the consumer protection and antitrust laws of each of the jurisdictions that are plaintiffs. The Complaint seeks injunctive relief, statutory penalties, punitive damages, and recovery of treble damages, plus attorney's fees and costs, against all named defendants on a joint and several basis, on behalf of the plaintiff jurisdictions and their citizens and inhabitants. We deny the claims asserted and intend to vigorously defend against the claims asserted.

For additional information on the MDL-2724, see Note 35 of our consolidated financial statements.

Civil Investigative Demand from the Division of the U.S DOJ

On May 15, 2018, Dr. Reddy's Laboratories, Inc. received a Civil Investigative Demand from the Civil Division of the U.S. DOJ, enquiring whether there have been any violations of the U.S. False Claims Act, arising from allegations that generic pharmaceutical manufacturers, including us, have engaged in market allocation or price fixing agreements, or paid illegal remuneration, and caused false claims to be submitted in violation of the said Act. We intend to fully cooperate with the DOJ in responding to the demand and cooperate with the investigation.

CANADA REGULATORY ENVIRONMENT

In Canada, we are required to file product dossiers with the Health Canada for permission to market a generic pharmaceutical product. The regulatory authorities may inspect our manufacturing facility before approval of the dossier. As of March 31, 2019, we had filed a total of 33 Abbreviated New Drug Submissions ("ANDS") in Canada, out of which 26 were approved, 2 are pending approval, and 5 were withdrawn or rejected.

Europe

Our sales of generic medicines in Europe for the year ended March 31, 2019 were Rs.7,873 million, which accounted for 6% of our Global Generics segment's sales. Our principal markets in Europe are Germany and the United Kingdom. We have also established our presence in other markets, including Italy, France and Spain.

Sales, Marketing and Distribution Network

Germany

In Germany, we sell a broad range of generic pharmaceutical products under the "betapharm" brand.

Over the last decade, the German pharmaceutical market has significantly changed. Health care reforms by the government have significantly increased the power of insurance companies and statutory health insurance funds ("SHI funds") to influence dispensing of medicines. Pursuant to the reforms, those pharmaceutical products which are covered by rebate contracts with insurance companies and SHI funds will be prescribed by physicians and dispensed by pharmacies with priority. As a result, many SHI funds have enacted tender (i.e., competitive bidding) processes to determine which pharmaceutical companies they will enter into rebate contracts with. This has resulted in more than 90% of generic products currently sold in German retail outlets being supplied through contracts procured in competitive bidding tenders, thereby causing significant pressure on product margins.

United Kingdom and other Countries within Europe

We market our generic products in the United Kingdom and other European Union ("EU") countries through our U.K. subsidiary, Dr. Reddy's Laboratories (U.K.) Limited. This subsidiary was formed in the year ended March 31, 2003 after our acquisition of Meridian Healthcare Limited, a United Kingdom based generic pharmaceutical company. We currently sell more than 50 products in the United Kingdom, covering both International Nonproprietary Name ("INN") generics and branded generics. INN generics are sold via wholesale and retail channels, and hospitals. In the U.K., we work closely with the Clinical Commissioning Groups (i.e., groups that commission healthcare services for their local communities and include all of the general practitioner groups in their geographical area) to promote our range of branded generics. Whilst the retail business covers a broad range of therapeutic areas, the hospital business focuses mainly on oncology, anti-infectives and HIV.

In 2016, we established a commercial structure in Italy, Spain and France to expand our direct footprint in the western European region. Our initial focus has been to supply products through hospitals and to institutional clients. Our product mix in these markets focuses on a limited number of key therapy areas such as oncology, anti-infectives and HIV, leveraging our portfolio. This market's business is predominantly tender-driven, without the need for a large sales force.

Competition

The German market is highly competitive as a result of a large number of generic players and the predominance of a tender system which drives competition. Our key competitors within the German generics market include Sandoz International GmbH, Teva Pharmaceutical Industries Limited ("Teva"), Winthrop Arzneimittel GmbH and Stada Arzneimittel AG.

According to the British Generic Manufacturers Association, the United Kingdom is one of the largest markets for generic pharmaceuticals in Europe, with generic penetration of around 84%, and is also one of the most price competitive markets due to a high degree of vertical integration and consolidation of buyers, as more than 65% of the retail pharmacies are owned by wholesalers or are part of retail chains, and has low barriers of entry. The market is dominated by global pharmaceutical companies such as Teva, the Sandoz group of Novartis Pharma A.G. and Mylan Inc.

In Italy, Spain and France, we compete with companies such as Hospira (an affiliate of Pfizer Limited), Fresenius SE & Co. KGaA, Teva and Accord Healthcare Limited (an affiliate of Intas Pharmaceuticals Ltd.), each of which has a well-established presence in the hospital segment of these countries.

Government regulations

In the EU, the manufacture and sale of pharmaceutical products is regulated in a manner substantially similar to that in the United States. Legal requirements generally prohibit the handling, manufacture, marketing and importation of any pharmaceutical product unless it is properly registered and manufactured in accordance with applicable law. The registration file relating to any particular product must contain scientific data related to product chemistry, efficacy and safety, including results of clinical testing and references to medical publications, as well as detailed information regarding production methods and quality control. Regulatory authorities are authorized to suspend, restrict or cancel the registration of a product if it is found to be harmful or ineffective, or manufactured and marketed other than in accordance with registration conditions. Additionally, a product registration can be cancelled, if the registration is not used for more than three years (under the regulation's "sun-set clause") or the renewal deadline is missed.

The activities of pharmaceutical companies within the EU are governed in particular by Directives 2001/83/EC and 2003/94/EC and Regulation 1234/2008, in each case as amended, and as implemented in national laws within the countries of the EU. The Directives outline the legislative framework, including the legal basis of marketing authorization procedures, and quality standards including manufacture, patient information and pharmacovigilance activities.

Prior approval of a marketing authorization is required to supply products within the EU. Such marketing authorizations may be restricted to one member state, cover a selection of member states or can be for the whole of the EU, depending upon the form of registration procedure selected.

An abridged application can be filed for obtaining EU marketing authorization for a generic drug. Generic or abridged applications contain limited non-clinical and clinical data, depending upon the legal basis of the application or to address a specific issue. However, the applicant is required to demonstrate that its generic product contains the same active pharmaceutical ingredients in an equivalent dosage form for the same indication as the innovator product. Specific data is included in the application to demonstrate that the proposed generic product is interchangeable to the innovator product with respect to quality, safe usage and continued efficacy. EU laws prevent regulatory authorities from accepting applications for registration of generics that rely on the safety and efficacy data of an innovator of a branded product until the expiration of the innovator's data exclusivity period (usually 8 years from the first marketing authorization in the EU, depending on the circumstances). The applicant is also required to demonstrate bioequivalence or bioavailability, respectively, with the EU reference product. Once all these criteria are met, a marketing authorization may be considered for grant.

Unlike in the United States, there is no equivalent regulatory mechanism within the EU to incentivize challenge to any patent protection, nor is any period of market exclusivity conferred upon the first generic approval. In situations where the period of data exclusivity given to the innovator of a branded product expires before their patent expires, the launch of our product would then be delayed until patent expiration.

Our U.K. facilities are licensed and periodically inspected by the U.K. Medicines and Healthcare products Regulatory Agencies ("MHRA") good manufacturing practice Inspectorate, which has extensive enforcement powers over the activities of pharmaceutical manufacturers. Non-compliance can result in product recall, plant closure or other penalties and restrictions. In addition, the U.K. MHRA Inspectorate has approved and periodically inspected our manufacturing facilities based in Hyderabad, Telangana, India for the manufacture of generic medicines for supply to Europe.

All pharmaceutical companies that manufacture and market human medicinal products in Germany are subject to the applicable rules and regulations executed by the Federal Institute for Drugs and Medical devices ("BfArM") or the Paul-Ehrlich-Institut ("PEI") and the supervisory authorities of the respective federal state in Germany. All pharmaceutical companies in Germany are periodically inspected by the Regierung von Oberbayern (the district government of Upper Bavaria in Germany), which has extensive enforcement powers over the activities of pharmaceutical companies. Non-compliance can result in closure of the facility. The Regierung von Oberbayern has also inspected our plants in Hyderabad and Visakhapatnam.

In Germany, the government has in the past decade enacted a number of laws designed to limit pharmaceutical cost increases. During the fiscal year ended March 31, 2011, the German government introduced a new law entitled "Act on the reorganization of the pharmaceutical market in the public health insurance" (or *"Arzneimittelmarktneuordnungsgesetz",* commonly referred to as "AMNOG"), which affects reimbursement of drugs within Germany's statutory health care system in order to further control the costs of medical care. The key elements of this law are as follows:

- Historically, the pharmaceutical companies had been free to set the initial asking price for novel drugs in the German public health system, subject to certain mandatory rebates. Under this new law, a pharmaceutical company determines the price for a new drug or new therapeutic indication for the first year after launch, but must submit to the Joint Federal Committee (the Gemeinsamer Bundesausschuss or "G-BA") a benefit/risk assessment dossier on the drug at or prior to its launch. The G-BA analyzes whether the drug shows an additional clinical benefit in comparison to a corresponding established drug (the "appropriate comparator therapy").

- If an additional benefit is established, the pharmaceutical company must negotiate the price of the drug with the Federal Association of the health insurance funds. If no agreement is reached in the negotiation, then the price is determined pursuant to an arbitration procedure. There must be a minimum term of one year.

- If no additional benefit is established, the drug is immediately included in a group of drugs with comparable pharmaceutical and therapeutic characteristics, for which maximum reimbursement prices have already been set. If this is not possible due to the drug's novelty, then the pharmaceutical company must negotiate a reimbursement price with the Federal Association of the health insurance funds that may not exceed the costs of the appropriate comparator therapy.

- The prices determined pursuant to the above procedures also apply to private insurance agencies, privately insured persons and self-payers, although they may negotiate further discounts.

- For drugs developed specifically to treat rare medical conditions that are designated as "orphan drugs", the orphan drug will be presumed to have an additional benefit under certain circumstances.

- A new regulation for packaging size had to be implemented in 2013. Standard sizes are now based upon the duration of therapies, instead of being based on fixed quantity. Three different types of package sizes are now allowed: N1-packages for treatment periods of 10 days; N2-packages for treatment periods of 30 days; and N3-packages for treatment periods of 100 days.

- The law increases the choice to patients by the use of co-payment as an option for patients opting for a non-rebated generic drug.

In Germany, the German Drug Law (Arzneimittelgesetz) ("AMG"), which implements EU requirements, is the primary regulation applicable to medicinal products. In 2012, the 16th Amendment to the AMG and related laws were enacted in order to implement European Directives into national laws. Among other things, the most important changes refer to pharmacovigilance, clinical trials, protection measures against counterfeited medicines and liberalization of German drug advertising law. These transpositions of EU legislation into national law also took place in the United Kingdom.

The German Social Code's price freeze imposed on reimbursable drugs, which was due to expire at the end of 2017, was extended until December 31, 2022 for all patent free drugs launched before August 1, 2010, although the continued price freeze will not apply to medicines subject to internal reference pricing.

New European pharmacovigilance legislation (Regulation (EU) No 1235/2010 and Directive 2010/84/EU) was enacted in July 2012. These new requirements have not yet been fully implemented. Implementation of the final stages, specifically new obligations for safety signal management, will increase our administrative burdens and therefore our costs. In 2015, the European Commission introduced pharmacovigilance service fees that our industry pays for the simplification and maintenance of the European pharmacovigilance system, as well as fees for the assessment of aggregate safety reports and protocols and study reports mandated following a safety referral. The service fees payable for these reports are unpredictable, as the Pharmacovigilance Risk Assessment Committee ("PRAC") of the European Medicine Agency ("EMA") can initiate a safety referral for any medicine or class of medicines with a significant new safety concern at any time. The costs of such a referral and the consequent costs of any recommendation, such as restrictions on use, cannot be predicted.

The International Standards for Identification of Medicinal Products ("IDMP"), comprised of five International Organization for Standardization ("ISO") standards, were approved in 2012. These standards are designed to allow unambiguous identification of medicinal products across companies and regions in order to support and improve pharmacovigilance and other activities. Full implementation of these standards in the EU has been deferred, but will be implemented in a phased approach for medicinal product information. The timing of such implementation is currently uncertain.

The submission of medicinal product data to support pharmacovigilance has been required since 2012 in the EU. The original European database for data regarding medicinal products, the Eudravigilance Medicinal Product Dictionary ("EVMPD"), was launched by the EMA at the end of 2001. It was designed to standardize the collection, reporting, coding, and evaluation of authorized and investigational medicinal product information. In 2012 it became mandatory for marketing-authorization holders to supply information to the extended version of the EVMPD (xEVMPD or Article 57 database). However, this currently contains only a fraction of the data that eventually will have to be submitted to the IDMP-compliant database for each authorized product in the EU. In order for us to support the maintenance of medicinal product data in the IDMP-compliant database, we are investing in new systems and will have to make significant changes to our processes and procedures.

In order to prevent counterfeit medicines entering into the supply chain, in October 2015, as part of the Falsified Medicines Directive, the European Commission adopted regulations providing detailed rules for the safety features appearing on the packaging of medicinal products for human use. Accordingly, all medicinal products generally subject to prescription must bear safety features that facilitate specifically the identification of individual packs and the verification of their authenticity. Effective as of February 9, 2019, only those prescription drugs which have a unique serial number on the pack, and where the integrity of the pack can be seen, may be marketed in all EU countries. Manufacturers shall be required to put a unique identifier code, in human readable form and in an encrypted two-dimensional matrix, on all secondary packages and shall also be required to include an ”anti-tampering device” safety feature on packages to enable the verification of whether the packaging of a medicinal product has been tampered with. Marketing authorization holders shall upload the serial numbers, along with other product information, to a “EU Hub” operated by the European Medicines Verification Organisation (“EMVO”). End users (e.g., pharmacies and wholesalers) shall be required to verify and decommission the identifier code before handing over the package to the patient. We have invested significantly in machinery, technology and know-how, and are cooperating with relevant international partners, to ensure our timely readiness for implementation without impacting the supply of our products.

The impact of the decision for the United Kingdom to exit from the EU (the “Brexit”) on pharmacovigilance operations remains unclear. The U.K. pharmaceutical industry and the U.K. MHRA have expressed their desire to continue as full participants in the harmonized pharmacovigilance activities of the EU and the EMA. However, which activities and procedures will remain accessible to the U.K. marketing authorization holders (“MAHs”) post Brexit are only likely to become clear as the negotiations between the U.K. government and the European Commission reach their conclusion. In the event of a hard Brexit, full access to the pharmacovigilance activities of the EU and the EMA will not available to U.K. MAHs post Brexit, As part of its Brexit planning, the U.K. MHRA is preparing to introduce parallel processes in the U.K. which are expected to result in increased costs to the MAHs.

In the EU, there must be at least one “Qualified Person” who is responsible for a medicinal product’s batch certification and release. Each batch of a medicinal product placed onto the market in the EU must be tested in laboratory in the EU. The MAH’s Qualified Person must then certify that the product is in accordance with its specification and can therefore be released to the market. As a consequence of the Brexit, this activity will no longer be able to be conducted in the U.K. for the EU. In preparation for this, we are transferring Qualified Person release activities for a number of medicinal products from the U.K. to the EU so that they can continue to be marketed in the EU.

Following the Brexit vote, the EU is moving the headquarters of the EMA from the U.K. to the Netherlands starting in March 2019. A significant percentage of the employees of the EMA will not make the move to the Netherlands. This is expected to mean that further development and enhancement of European pharmaceutical legislation will be put on hold until the EMA is fully established in its new home.

“Rest of the World” markets of our Global Generics segment

We refer to all markets of our Global Generics segment other than North America, Europe, Russia and other countries of the former Soviet Union and Romania and India as our “Rest of the World” markets. Our significant Rest of the World markets include South Africa, Australia, Brazil, Colombia and Myanmar. Our revenues from our “Rest of the World” markets were Rs.8,353 million in the year ended March 31, 2019, an increase of 36% as compared to the year ended March 31, 2018. The growth is largely attributable to increased sales in China and scale up of our operations in Brazil, as well as growth in the volumes of existing products and launches of new products in other “Rest of the World” markets.

Global Generics Manufacturing and Raw Materials

Manufacturing for our Global Generics segment entails converting API into finished dosages. As of March 31, 2019, we had eleven manufacturing facilities within this segment. Ten of these facilities are located in India and one in the United States (Shreveport, Louisiana). In addition, we also have one packaging facility in the United Kingdom. All of the facilities are designed in accordance with and are compliant with current cGMP requirements and are used for the manufacture of tablets, hard gelatin capsules, injections, liquids and creams for sale in India as well as other markets. All of our manufacturing sites’ laboratories and facilities are designed and maintained to meet increasingly stringent requirements of safety and quality. All of our sites outside of India are approved by the respective regulatory bodies in the jurisdictions where they are located.

We manufacture most of our finished products at these facilities and also use contract manufacturing arrangements as we determine necessary. For each of our products, we continue to identify, upgrade and develop alternate vendors as part of risk mitigation and continual improvement.

The ingredients for the manufacture of the finished products are sourced from in-house API manufacturing facilities and from vendors, both local and non-local. Each of these vendors undergo a thorough assessment as part of the vendor qualification process before they qualify as an approved source. We attempt to identify more than one supplier in each drug application or make plans for alternate vendor development from time to time, considering the supplier’s history and future product requirements. Arrangements with international raw material suppliers are subject to, among other things, respective country regulations, various import duties and other government clearances.

The prices of our raw materials generally fluctuate in line with commodity cycles. Raw material expense forms the largest portion of our cost of revenues. We evaluate and manage our commodity price risk exposure through our operating procedures and sourcing policies.

The logistics services for storage and distribution in the United States, the European Union, Russia, South Africa, Australia and other emerging markets are outsourced to a third party service provider.

We manufacture formulations in various dosage forms including tablets, capsules, injections, liquids and creams. These dosage forms are then packaged, quarantined and subject to stringent quality tests, to assure product quality before release into the market. We manufacture our key brands for our Indian markets at our facilities in Baddi, Himachal Pradesh, to take advantage of certain fiscal benefits offered by the Government of India, which includes partial exemption from income taxes for a specified period.

All pharmaceutical manufacturers that sell products in any country are subject to regulations issued by the Ministry of Health (or its equivalent) of the respective country. These regulations govern, or influence the testing, manufacturing, packaging, labeling, storing, record-keeping, safety, approval, advertising, promotion, sale and distribution of products. Our facilities and products are periodically inspected by various regulatory authorities such as the U.S. FDA, the U.K. MHRA, the German BfARM, the South African Medicines Control Council, the Brazilian ANVISA, the Romanian National Medicines Agency, Ukrainian State Pharmacological Center, the local World Health Organization and Drug Control Authority of India, all of which have extensive enforcement powers over the activities of pharmaceutical manufacturers operating within their jurisdiction.

In November 2015, we received a warning letter from the U.S. FDA relating to violations at our injectable oncology formulation manufacturing facility at Duvvada, Visakhapatnam, Andhra Pradesh. Refer to Note 33 of our consolidated financial statements under “Receipt of the warning letter from the U.S.FDA” for further details.

Pharmaceutical Services and Active Ingredients (“PSAI”) segment

Our PSAI segment primarily includes our business of manufacturing and marketing active pharmaceutical ingredients and intermediates, also known as “API”, which are the principal ingredients for finished pharmaceutical products. Active pharmaceutical ingredients and intermediates become finished pharmaceutical products when the dosages are fixed in a form ready for human consumption, such as a tablet, capsule or liquid using additional inactive ingredients. This segment also includes our contract research services business and our manufacture and sale of steroids in accordance with specific customer requirements.

Our PSAI segment’s revenues for the year ended March 31, 2019 were Rs.24,140 million, an increase of 10% as compared to the year ended March 31, 2018. Our PSAI segment accounted for 16% of our total revenues for the year ended March 31, 2019.

During the year ended March 31, 2019, we filed 82 Drug Master Files (“DMFs”) worldwide, of which 9 were filed in the United States, 6 were filed in Europe and 67 were filed in other countries. Cumulatively, our total active DMFs filed worldwide as of March 31, 2019 were 963, including 208(active) DMFs filed in the United States.

We produce and market more than 120 different APIs for numerous markets. Our API business is operated independently from our Global Generics segment and, in addition to supplying API to our Global Generics segment, our PSAI segment sells API to third parties for use in manufacturing generic products, subject to any patent rights of other third parties. We export API to more than 80 countries, and our principal overseas markets in this business segment include North America (the United States and Canada) and Europe. The research and development group within our API business contributes to our business by creating intellectual property (principally with respect to novel and non-infringing manufacturing processes and polymorphs), providing research intended to reduce the cost of production of our products and developing new products.

The pharmaceutical services (contract research and manufacturing) arm of our PSAI segment was established in 2001 to leverage our strength in process chemistry to serve the niche segment of Innovator pharmaceutical and specialty chemicals industry. Our objective is to be the preferred partner for innovator pharmaceutical companies, providing a complete range of services that are necessary to support their innovations to bring the new drug to the market quickly and more efficiently. The focus is to leverage our skills in process development, analytical development, formulation development and Current Good Manufacturing Practice (“cGMP”) to serve outsourcing needs of innovator pharmaceutical companies. We have positioned our PSAI segment’s Custom Pharmaceutical Services business to be the partner of choice for large, medium and emerging innovator companies across the globe, with service offerings spanning the entire value chain of pharmaceutical services.

Sales, Marketing and Distribution

Developed Markets. Our PSAI segment's principal overseas markets are the United States and Europe. Our PSAI segment's sales to these markets were Rs.12,373 million for the year ended March 31, 2019, and accounted for 51% of our PSAI segment's revenues for the year ended March 31, 2019. In the United States and Europe, the patent protection for a large number of high value branded pharmaceutical products expired in years ended March 31, 2011, 2012 and 2013 and this opened the market to generic products that sourced their API from our PSAI segment. However, during the years ended March 31, 2014 through March 31, 2019, such expirations were much less frequent, which resulted in a decrease in new opportunities in these markets for the customers of our PSAI segment. We market our products through our subsidiaries in the United States and Europe. These subsidiaries are engaged in all aspects of marketing activity and support our customers' pursuit of regulatory approval for their products, focusing on building long-term relationships with the customers.

Other Key Markets. India is an important market for our PSAI segment, with total sales of Rs.2,622 million, and it accounted for 11% of the PSAI segment's revenues in the year ended March 31, 2019. In India, we market our API products to Indian and multinational companies, many of whom are also our competitors in our Global Generics segment. The market in India is highly competitive, with severe pricing pressure and competition from lower cost foreign imports in several products. Being the highest growing emerging market, China is a lucrative market to operate in. Our PSAI segment has a strong pipeline of products for the Chinese market has concentrated talent deployment in the region.

Our PSAI segment's sales to all of the other markets (excluding the United States, Europe and India) was Rs.9,145 million for the year ended March 31, 2019 and accounted for 38% of our PSAI segment's revenues for the year. Our PSAI segment's other key markets include Brazil, Mexico, China and Japan. While we work through our agents in these markets, our zonal marketing managers also interact directly with our key customers in order to service their requirements. With the aim of being closer to the customers, our PSAI segment has overseas operations in geographies such as the United States, Europe, Mexico and Brazil. In addition we have plans for our PSAI segment to start offices in China and Japan.

For our custom pharmaceutical services line of business, we have focused business development teams dedicated to our key geographies of North America (the United States and Canada), the European Union and Asia Pacific. These teams target large, medium and emerging innovator companies to build long-term business relationships focused on catering to their outsourcing needs.

Going forward, we expect our PSAI segment to show growth on account of our investments in newer technologies and platforms. We are also pursuing a partnership model to enable our customers to reach more markets faster and efficiently by leveraging our cost leadership and presence across the globe. Our PSAI Segment has been investing in digital solutions to revitalize our engagement and transparency with our customers. We consider this as a small step in the right direction to become partner of choice for our customers.

PSAI Manufacturing

The infrastructure for our PSAI segment consists of eight U.S. FDA-inspected plants (six in India, including one in a Special Economic Zone, one in Mexico, and one in Mirfield, United Kingdom) and two technology development centers (one in Hyderabad, India and one in Cambridge, United Kingdom).

India. All of our facilities in India are located in the states of Andhra Pradesh and Telangana. We have the flexibility to produce quantities that range from a few kilograms to several metric tons. The manufacturing process consumes a wide variety of raw materials that we obtain from sources that comply with the requirements of regulatory authorities in the markets to which we supply our products. We procure raw materials on the basis of our requirement planning cycles. We utilize a broad base of suppliers in order to minimize risk arising from dependence on a single supplier.

In November 2015, we received a warning letter from the U.S. FDA relating to cGMP deviations at our API manufacturing facilities at Miryalguda, Telangana and Srikakulam, Andhra Pradesh. Refer to Note 33 of our consolidated financial statements under "Receipt of warning letter from the U.S. FDA" for further details.

Mexico. Our manufacturing plant in Cuernavaca, Mexico (the "Mexico facility") was acquired from Roche during the year ended March 31, 2006. In addition to active pharmaceutical ingredients, naproxen and naproxen sodium and a range of intermediates, the Mexico facility manufactures steroids as active ingredients for use in human and veterinary pharmaceutical products.

United Kingdom. The small molecules business continues to supply complex chiral APIs to customers at a range of scales. This business is also able to provide cost effective contract development and manufacturing organization solutions to innovators developing new pharmaceutical products, tapping into the expertise of our parent company as required. We have invested in this business to update equipment and implement modern data acquisition systems to meet today's stringent regulatory requirements.

For our contract research services, we have well-resourced synthetic organic chemistry laboratories, analytical laboratories and kilo laboratories at our technology development center at Miyapur in Hyderabad, India. Our chemists and engineers understand cGMP manufacturing and regulatory requirements for synthesis, manufacture and formulation of a NCE from the pre-clinical stage to commercialization. To complete the full value chain in development services, we also provide formulation development services. We have facilities for pre-formulation and formulation development, analytical development, clinical trial supplies, pilot scale and product regulatory support. Larger quantities of APIs are sourced from API plants in India, the United Kingdom and Mexico. We also offer end to end project management support for effective deliveries.

Our contract research and manufacturing business is uniquely positioned in the market where it utilizes assets (both in terms of physical assets and technical know-how) of a vertically integrated pharmaceutical company and combines this with the service model which we have built over the years.

Raw Materials

Raw material expense forms the largest portion of our cost of revenues. Raw materials consist of fine chemicals, bulk chemicals, solvents, catalysts, and basic and advanced intermediates. The prices of these raw materials generally fluctuate in line with commodity cycles, demand supply situations and changes to government policies. We evaluate and manage our commodity price risk exposure through periodical supply contracts as well as agile and responsive sourcing procedures.

Competition

The global API market can broadly be divided into regulated and less regulated markets. The less regulated markets offer low entry barriers in terms of regulatory requirements and intellectual property rights. The regulated markets, like the United States and Europe, have high entry barriers in terms of intellectual property rights and regulatory requirements, including facility approvals. As a result, there is a premium for quality and regulatory compliance along with relatively greater stability for both volumes and prices. As an API supplier, we compete with a number of manufacturers within and outside India, which vary in size. Our main competitors in this segment are Divis Laboratories Limited, Aurobindo Pharma Limited, Cipla Limited, Mylan Laboratories Limited, Sun Pharmaceutical Industries Limited and MSN Laboratories Limited, all based or operating in India. In addition, we experience competition from European and Chinese manufacturers, as well as from Teva Pharmaceuticals Industries Limited, based in Israel.

With respect to our custom pharmaceuticals business, we believe that contract research and manufacturing is a significant opportunity for Indian pharmaceutical companies, based on their strengths of a skilled workforce and low-cost manufacturing infrastructure. Key competitors in India include Divis Laboratories Limited, Dishman Pharmaceuticals & Chemicals Limited and Piramal Enterprises Ltd. Key competitors from outside India include Lonza Group, AMRI Inc., Patheon Inc., Catalent Inc., Cambrex Inc., and WuXi PharmaTech. We distinguish ourselves from Indian competitors by offering a wider range of services spanning the entire pharmaceutical value chain. The inspection of our CPS facility in Hyderabad, India was completed by the U.S. FDA on September 21, 2017 with zero observations, and the U.S. FDA issued an establishment inspection report in December 2017. This facility also follows rigorous Safety and Information Security practices and is certified against ISO 27001:2013 standards for information security. For competitors from outside India, we distinguish ourselves through cost effectiveness. Keeping on par with the advancements in technology and changing needs of the innovator and mid-sized pharmaceutical companies, we are positioning ourselves in niche technologies. With growth in contract research and manufacturing services likely to be driven by increased outsourcing by small and medium size pharmaceutical companies, particularly those focused on biotechnology and therapy, we expect India to emerge as an alliance and outsourcing destination of choice due to speed, skill and cost advantage.

Government regulations

All pharmaceutical companies that manufacture and market drugs and cosmetics in India are subject to various national and state laws and regulations, which principally include the Drugs and Cosmetics Act, 1940 and the Drugs and Cosmetics Rules 1945, the Drugs (Prices Control) Order, 1995, various environmental laws and other government statutes and regulations. These regulations govern the manufacturing, testing, packaging, labeling, storing, recordkeeping, safety, approval, sale and distribution of pharmaceutical products.

In India, manufacturing licenses for drugs, cosmetics and medical devices are generally issued by state drug authorities. Under the Drugs and Cosmetics Act, 1940, the state drug administration agencies are empowered to issue manufacturing licenses for drugs if they are approved for marketing in India by the Drug Controller General of India (“DCGI”). Prior to granting licenses for any new drugs or combinations of new drugs, the DCGI clearance has to be obtained in accordance with the Drugs and Cosmetics Act, 1940.

We submit a DMF for active pharmaceutical ingredients to be commercialized in the United States. Any drug product for which an ANDA is being filed must have a DMF in place with respect to a particular supplier supplying the underlying API. The manufacturing facilities are inspected by the U.S. FDA to assess compliance with cGMP. The manufacturing facilities and production procedures must meet U.S. FDA standards.

For European markets, we submit a European DMF and, wherever applicable, obtain a certificate of suitability from European Directorate for the Quality of Medicines.

Proprietary Products Segment

Our Proprietary Products segment focuses on the research, development, and commercialization of differentiated formulations. These novel products fall within the dermatology and neurology therapeutic areas and are commercialized through Promius® Pharma, LLC.

We continue to leverage our semi-virtual research and development model to expand our portfolio of specialty formulation products. Our efforts primarily focus on repurposing or improving the clinical properties of already approved and well-characterized API for application in the targeted dermatologic and neurologic disease areas. We achieve this by utilizing internal resources as well as efficiently collaborating with leading technology and platform based companies and service providers, tapping into their expertise areas across different phases of the development process. We continue to progress towards building a diversified portfolio with a sustainable mix of branded proprietary formulations generated through research and development with significantly reduced fixed costs.

Our research and development efforts have a unique "medicines-to-molecules" approach to product development. In this approach, we identify areas of medical need and then leverage in an integrated manner the disciplines of biology, chemistry, drug delivery, clinical development, regulatory and commercial positioning to develop differentiated formulations.

Our research and development model is both in-house and virtual (i.e., operations are outsourced, subject to our supervision of strategic and project management functions), and follows these core principles:

- develop creative research and development investment models and partnerships to access external innovation focused on leveraging, rather than replicating, unique core competencies;
- select assets based on potential for early risk mitigation, both with respect to product development and commercialization; and
- leverage knowledge and presence in emerging markets (India and other developing countries) to maximize cost advantages.

Our principal research laboratory is based in Hyderabad, India. As of March 31, 2019, we employed a total of 84 scientists, including 14 scientists who hold Ph.D. degrees and one with a M.D. degree. We pursue an integrated research strategy through a mix of translational, formulation and analytical research at our laboratories. We focus on discovery of new molecular targets, design of assays to screen promising molecules and development of novel formulations of currently marketed drugs or combinations thereof to address unmet medical needs.

Pipeline Status

As of March 31, 2019, we had six late stage projects at various stages of development, ranging from products that have completed Phase 2 clinical trials to products that are undergoing investigation for U.S. FDA approval. In addition we have multiple other programs in the early stages of development in our pipeline. In January and February 2016, we received U.S. FDA approval of our New Drug Applications (each, a "NDA") for two products – our dermatology product SERNIVO® and our neurology product ZEMBRACE®. Both products were launched in the U.S. market during the year ended March 31, 2017. In May and November 2017, we received U.S. FDA approval for two dermatology products – DFD-10 (minocycline hydrochloride) and DFD-06, Impoyz™ our brand of clobetasol propionate cream. Further, in January 2019, we received the U.S.FDA's approval for TOSYMRA™, our brand of sumatriptan intranasal spray (DFN-02).

The details of our late stage assets and the products for which an NDA has been filed with the U.S FDA as of March 31, 2019 are as follows:

Compound	**DFD-11 (Xeglyze™)**
Therapeutic Area	Pediatrics
Indication	Treatment of head lice in patients 6 months of age or older.
Significant developments during the period	The NDA was initially filed by Hatchtech in September 2015; ownership was transferred to us in December 2015.
Significant patents associated with the compound	Three patents were granted in the U.S.A., with estimated expiration in 2026 and one notice of allowance was received that will expire in 2034. Patents were also granted in Australia, Canada, India, and New Zealand. Some other patent applications are pending in certain countries, including the U.S.A.
Current status/ expected NDA filing*	NDA was submitted in September 2015 and we received a complete response letter ("CRL") from the U.S. FDA in August 2016. We are actively working to close out the CRL.

[Continued from prior table, first column repeated]

Compound	PPC-06 (Tepilamide Fumarate)	E7777
Therapeutic Area	Dermatology	Hematology-Oncology
Indication	Treatment of plaque psoriasis in patients 18 years of age or older.	Treatment of Cutaneous T Cell Lymphoma.
Significant developments during the period	This is a NCE program in-licensed from Xenoport Inc. (which was subsequently acquired by Arbor Pharmaceuticals). Phase 2 is completed.	This is an anti-cancer biologic agent in-licensed from EISAI limited.
Significant patents associated with the compound	A total of ten patents were granted, with estimated expiration of the last of such patents in 2035 in the USA. In addition, one notice of allowance has been received. Patents were also granted in multiple other countries such as Australia, China, Europe, Japan and Russia, with estimated expiration in 2029. There are also other patent applications pending in the U.S.A. and some other countries.	None.
Current status/ expected NDA filing*	Phase 2b studies have been concluded and documentation is ongoing.	Approval enabling study is ongoing. Submission of a biologics license application to the U.S. FDA is planned in 2019.

[Continued from prior table, first column repeated]

Compound	DFD-03 (Tazarotene Lotion)	DFN-15 (Celecoxib Oral Solution)
Therapeutic Area	Dermatology	Neurology
Indication	Treatment of acne vulgaris.	Treatment of migraines in adults with or without aura.
Significant developments during the period	Phase 3 and other supporting studies were under progress during the year.	Phase 3 clinical studies were completed and analysis was under progress.
Significant patents associated with the compound	Two patent were granted in the U.S. and two patent applications are pending	Three patents were granted in the U.S one notice of allowance was received.
Current status/ expected NDA filing*	NDA is expected to be filed in late 2019.	NDA is expected to be filed in 2019.

* The timelines for expected filing may change due to various factors, including outcome of Phase 3 studies, completion of Integrated Summary of Safety/Integrated Summary of Effectiveness ("ISS/ISE"), outcome of stability data and internal reprioritization of portfolio.

Patents. Our Proprietary Products segment had the following patent applications filed and patents granted as of March 31, 2019:

Category	USPTO[(1)] (# Filed)	USPTO[(1)] (# Granted)	PCT[(2)] (# Filed)	India (# Filed)	India (# Granted)
Anti-diabetic	85	17	62	117	45
Anti-cancer	18	11	14	45	15
Anti-bacterial	8	7	10	22	4
Anti-inflammation/cardiovascular	47	27	35	26	3
Anti-ulcerant	1	1	-	1	-
Miscellaneous	26	21	4	28	9
Differentiated formulations	63	40	26	57	3
Total	**248**	**124**	**151**	**296**	**79**

(1) "USPTO" means the United States Patent and Trademark Office.

(2) "PCT" means the Patent Cooperation Treaty, an international treaty that facilitates foreign patent filings for residents of member countries when obtaining patents in other member countries.

Competition

The pharmaceutical and biotechnology industries are highly competitive. We face intense competition from organizations such as large and small pharmaceutical companies and biotechnology companies. The major pharmaceutical organizations competing with us have greater capital resources, larger overall research and development staff and facilities, and considerably more experience in drug development. Biotechnology companies competing with us may have these advantages as well.

In addition to competition from collaborators and investors, these companies and institutions also compete with us in recruiting and retaining highly qualified scientific and management personnel.

Government regulations

Virtually all pharmaceutical and biologics products that we or our collaborative partners develop will require regulatory approval by governmental agencies prior to commercialization. The nature and extent to which these regulations apply varies depending on the nature of the products and also vary from country to country. In particular, human pharmaceutical products are subject to rigorous nonclinical and clinical testing and other approval procedures by the relevant regulatory agency. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary widely from country to country.

In order to market a drug in the United States, we or our partners are subject to regulatory requirements governing human clinical trials, marketing approval and post-marketing activities for pharmaceutical products and biologics. Various federal, and in some cases state, statutes and regulations also govern or influence the manufacturing, safety, labeling, storage, record-keeping and marketing of these products. The process of obtaining these approvals and the subsequent compliance with applicable statutes and regulations is time consuming and requires substantial resources, and the approval outcome is uncertain.

Stages of Testing Development. The stages of testing required before a pharmaceutical product can be marketed in the United States are generally as follows:

Stage of Development	**Description**
Nonclinical	Animal studies and laboratory tests to evaluate safety and efficacy, demonstrate activity of a product candidate and identify its chemical and physical properties.
Phase 1	Clinical studies to test safety and pharmacokinetic profile of a drug in normal human subjects.
Phase 2	Clinical studies conducted with groups of patients to determine preliminary efficacy, dosage and expanded evidence of safety.
Phase 3	Larger scale clinical studies conducted in patients to provide sufficient data for statistical proof of efficacy and safety.

For ethical, scientific and legal reasons, animal studies are required in the discovery and safety evaluation of new medicines. Nonclinical tests assess the potential safety and efficacy of a product candidate in animal models. The results of these studies must be submitted to the U.S. FDA as part of an Investigational New Drug (“IND”) application before human testing may proceed.

U.S. law further requires that studies conducted to support approval for product marketing be “adequate and well controlled.” In general, this means that either a placebo or a product already approved for the treatment of the disease or condition under study must be used as a reference control. Studies must also be conducted in compliance with good clinical practice requirements, and adverse event and other reporting requirements must be followed.

The clinical trial process can take five to ten years or more to complete, and there can be no assurance that the data collected in compliance with good clinical practice regulations will demonstrate that the product is safe or effective, or, in the case of a biologic product, pure and potent, or will provide sufficient data to support U.S. FDA approval of the product. The U.S. FDA may place clinical trials on hold at any point in this process if, among other reasons, it concludes that clinical subjects are being exposed to an unacceptable health risk. Trials may also be terminated by Institutional Review Boards (“IRBs”) or Ethics Committees (“ECs”), which must review and approve all research involving human subjects. Side effects or adverse events that are reported during clinical trials can delay, impede, or prevent marketing authorization.

After completion of clinical trials of a new product, U.S. FDA marketing approval must be obtained. If the product is classified as a new pharmaceutical, we or our collaborator are required to file a NDA, and receive approval before commercial marketing of the drug. The testing and approval processes require substantial time and effort. NDAs submitted to the U.S. FDA can take several years to obtain approval and the U.S. FDA is not obligated to grant approval at all.

Even if U.S. FDA regulatory clearances are obtained, a marketed product is subject to continual review. If and when the U.S. FDA approves any of our or our collaborators' products under development, the manufacture and marketing of these products are subject to continuing regulation, including compliance with cGMP, adverse event reporting requirements and prohibitions on promoting a product for unapproved uses. Later discovery of previously unknown problems or failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions. Various federal and, in some cases, state statutes and regulations also govern or influence the manufacturing, safety, labeling, storage, record keeping and marketing of pharmaceutical products.

Our research and development processes involve the controlled use of hazardous materials and controlled substances. We are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of these materials and waste products.

Commercialization

The following are the products commercialized by Promius Pharma through the financial year ended March 31, 2019:

Product	**For treatment of**
Promiseb®	Seborrheic dermatitis
Cloderm® (clocortolone pivalate 0.1%)	Corticosteroid-responsive dermatoses
Trianex®	Inflammatory and pruritic manifestations of corticosteroid-responsive dermatoses
Zembrace® SymTouch® (subcutaneous sumatriptan 3mg)	Autoinjector for treatment of migraine headaches
Sernivo® (betamethasone propionate, 0.05%)	Mild to moderate plaque psoriasis

In August 2017, we sold the future development, manufacturing and commercialization rights of DFD-06, a topical high potency steroid, to Encore Dermatology Inc.

During the three months ended September 30, 2018, we sold our rights of Cloderm® (clocortolone pivalate) Cream 0.1% and its authorized generic to EPI Health, LLC, an affiliate of EPI Group, LLC.

In March 31, 2019 we sold to Encore Dermatology Inc. our rights for SERNIVO® (betamethasone dipropionate) Spray 0.05% and assigned Encore Dermatology Inc. our rights to market and distribute PROMISEB® topical cream and TRIANEX® 0.05% (triamcinolone acetonide ointment, USP) in the United States.

We leverage our research, development and manufacturing facilities in Hyderabad, India and also works with various third party research organizations in conducting product development, non-clinical and clinical studies. Manufacturing is also outsourced to reputable contract manufacturing organizations in the United States and Europe. Both of Promius Pharma's commercial groups - dermatology and neurology have the support of teams spanning marketing, sales operations, market access and medical affairs. As of March 31, 2019, Promius Pharma's dermatology and neurology teams consisted of 109 marketing, sales, and market access and operations professionals.

4.C. ***Organizational structure***

Dr. Reddy's Laboratories Limited is the parent company in our group. Refer to Note 39 of our consolidated financial statements for a list of our subsidiaries and joint ventures.

4.D. ***Property, plant and equipment***

Our principal executive offices are located in Hyderabad, Telangana, India. Our business operates through a number of subsidiaries having offices, research facilities and production sites throughout the world. The following table sets forth current information relating to our principal facilities:

Sl No.	Name/Location	Approximate Area (Square feet)	Segments Which Primarily Use
	Within India		
1	API Hyderabad Plant 1, Telangana, India	645,995	Global Generics and PSAI
2	API Hyderabad Plant 2, Telangana, India	781,379	Global Generics and PSAI
3	API Hyderabad Plant 3, Telangana, India	644,805	Global Generics and PSAI
4	API Nalgonda Plant, Telangana, India	3,397,680	Global Generics and PSAI
5	API Srikakulam Plant, Andhra Pradesh, India	4,027,688	Global Generics and PSAI
6	API Srikakulam Plant (SEZ), Andhra Pradesh, India	9,917,739	Global Generics and PSAI
7	Technology Development Centre Hyderabad 1, Telangana, India	113,256	Global Generics and PSAI
8	Technology Development Centre Hyderabad 2, Telangana, India	68,825	Global Generics and PSAI
9	Formulations Hyderabad Plant 1, Telangana, India	271,379	Global Generics
10	Formulations Hyderabad Plant 2, Telangana, India	3,207,826	Global Generics
11	Formulations Baddi Plant 1, Himachal Pradesh, India	728,234	Global Generics
12	Formulations Baddi Plant 2, Himachal Pradesh, India	381,342	Global Generics
13	Biologics Hyderabad, Telangana, India	1,242,767	Global Generics
14	Formulations Hyderabad Plant 3, Telangana, India	1,539,089	Global Generics
15	Formulations Srikakulam Plant 1 (SEZ), Andhra Pradesh, India	879,041	Global Generics
16	Formulations Srikakulam Plant 2 (SEZ), Andhra Pradesh, India	334,105	Global Generics
17	Formulations Srikakulam Plant 11, Andhra Pradesh, India	122,265	Global Generics
18	Formulations Visakhapatnam Plant 1 (SEZ), Andhra Pradesh, India	582,206	Global Generics
19	Formulations Visakhapatnam Plant 2 (SEZ), Andhra Pradesh, India	544,322	Global Generics
20	ADTL Hyderabad, Telangana, India	187,308	Others
21	ADTL Bengaluru, Karnataka, India	689,216	Others
22	Integrated Product Development Center, Bengaluru, India	29,500	Global Generics
23	Integrated Product Development Center, Telangana, India	103,350	Global Generics, PSAI and Proprietary
	Outside India		
24	API Cuernavaca Plant, Mexico	2,361,840	Global Generics and PSAI
25	API Mirfield Plant, United Kingdom	1,785,960	Global Generics and PSAI
26	API Middleburgh Plant, New York, United States	292,000	Global Generics
27	Technology Development Centre, Cambridge, United Kingdom	32,966	Global Generics and PSAI
28	Technology Development Centre, OctoPlus N.V., Leiden, the Netherlands	56,500	Global Generics and PSAI
29	Formulations Beverley Plant, East Yorkshire, United Kingdom	81,000	Global Generics
30	Formulations Shreveport Plant, Louisiana, United States	2,349,251	Global Generics
31	Aurigene Discovery Technologies, Malaysia	5,672	Others

During the three months ended September 30, 2018, we disposed of our "Formulations Bristol Plant" in Bristol, Tennessee, United States and during the three months ended December 31, 2018, we disposed of our "API Hyderabad Plant 4" in Hyderabad, Telangana, India.

We generally own our facilities. However, some of our sites (primarily office space) are leased. All properties identified above, including leased properties, are either used for manufacturing and packaging of pharmaceutical products or for research and development activities. In addition to the above, we have sales, marketing and administrative offices, some of which are owned and some others are leased properties.

Global Generics

During the year ended March 31, 2014, we set up a new manufacturing facility, "Formulations Visakhapatnam Plant 2 (SEZ)", in a special economic zone located in Visakhapatnam, Andhra Pradesh, India for the manufacture of parenteral (injectable form) products. This facility helps us meet the demand for such products in some of our key markets, including the United States.

During the year ended March 31, 2015, we obtained approvals from the U.S. FDA for products to be manufactured from a recently commissioned oral solid dosage form facility, "Formulations Srikakulam Plant 1 (SEZ)", in a special economic zone located in Visakhapatnam, Andhra Pradesh, India. This plant, which began operations during the year ended March 31, 2016, manufactures new molecules and certain high volume products of our Global Generics segment. Further, during the year ended March 31, 2016, we began manufacturing products from this plant.

During the year ended March 31, 2019, we expanded our biosimilars facility in Hyderabad, Telangana, India to meet growing demand in emerging markets. We also established a new injectable products manufacturing facility, "Formulations Srikakulam Plant 11", located at Visakhapatnam, Andhra Pradesh, India. This facility helps us meet the increasing demand for such injectable products in some of our key markets.

Pharmaceutical Services and Active Ingredients

During the year ended March 31, 2013, we set up a new manufacturing facility in a Special Economic Zone located in Devunipalavalasa, Srikakulam, Andhra Pradesh, India. We have filed some of our new DMFs from this location. This plant is adjacent to an existing plant, in a newly acquired area of approximately 250 acres under a Pharmaceutical-Sector specific Special Economic Zone for fiscal benefits. This location also houses our Global Generics segment's recently commissioned oral solid dosage form facility. The formal governmental approval for designating the property as a Special Economic Zone has been obtained.

Material plans to construct, expand and improve facilities

As of March 31, 2019, we had capital work-in-progress of Rs.4,918 million and capital commitments of Rs.2,495 million for expansion of our manufacturing and research facilities, primarily relating to facilities located in India, the United States and Mexico. Our current capital work-in-progress and capital commitments primarily consist of projects to enhance the capacity of our formulations manufacturing facilities at Visakhapatnam and a corporate learning and development centre in Visakhapatnam. We currently intend to finance our additional expansion plans entirely through our operating cash flows and through cash and other investments. A majority of these projects are expected to be completed during the fiscal years ending March 31, 2020 and March 31, 2021.

Environmental laws and regulations

We are subject to significant national and state environmental laws and regulations which govern the discharge, emission, storage, handling and disposal of a variety of substances that may be used in or result from our operations at the above facilities. Non-compliance with the applicable laws and regulations may subject us to penalties and may also result in the closure of our facilities.

ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

Overview

We are an integrated global pharmaceutical company committed to providing affordable and innovative medicines. We derive our revenues from the sale of finished dosage forms, active pharmaceutical ingredients and intermediates, development and manufacturing services provided to innovator pharmaceutical and biotechnology companies, and license fees from marketing authorizations for our products.

The Chief Operating Decision Maker ("CODM") evaluates our performance and allocates resources based on an analysis of various performance indicators by reportable segments. The CODM reviews revenue and gross profit as the performance indicator for all of the operating segments, and does not review the total assets and liabilities of an operating segment. Our Chief Executive Officer is the CODM of our company.

Our reportable operating segments are as follows:

- Global Generics;
- Pharmaceutical Services and Active Ingredients; and
- Proprietary Products.

Global Generics. This segment consists of our business of manufacturing and marketing prescription and over-the-counter finished pharmaceutical products ready for consumption by the patient, marketed under a brand name (branded formulations) or as generic finished dosages with therapeutic equivalence to branded formulations (generics). This segment includes the operations of our biologics business.

Pharmaceutical Services and Active Ingredients. This segment primarily consists of our business of manufacturing and marketing active pharmaceutical ingredients and intermediates, also known as "API", which are the principal ingredients for finished pharmaceutical products. Active pharmaceutical ingredients and intermediates become finished pharmaceutical products when the dosages are fixed in a form ready for human consumption such as a tablet, capsule or liquid using additional inactive ingredients. This segment also includes our contract research services business and our manufacture and sale of active pharmaceutical ingredients and steroids in accordance with the specific customer requirements.

Proprietary Products. This segment consists of the Company's business that focuses on the research, development, and commercialization of differentiated formulations. These novel products fall within the dermatology and neurology therapeutic areas and are marketed and sold through Promius® Pharma, LLC.

Others. This includes the operations of our wholly-owned subsidiary, Aurigene Discovery Technologies Limited, a discovery stage biotechnology company developing novel and best-in-class therapies in the fields of oncology and inflammation and which works with established pharmaceutical and biotechnology companies in early-stage collaborations, bringing drug candidates from hit generation to pre-clinical development.

The measurement of each segment's revenues, expenses and assets is consistent with the accounting policies that are used in preparation of our consolidated financial statements.

Critical Accounting Policies

Critical accounting policies are defined as those that in our view are the most important to the portrayal of our financial condition and results and that require the most exercise of management's judgment. We consider the policies discussed under the following paragraphs to be critical for an understanding of our financial statements. The basis for preparation of our financial statements, significant accounting policies and application of these are discussed in detail in Notes 2 and 3 to our consolidated financial statements.

Accounting estimates and judgments

While preparing financial statements in conformity with IFRS, we make certain estimates and assumptions that require difficult, subjective and complex judgments. These judgments affect the application of accounting policies and the reported amount of assets, liabilities, income and expenses, disclosure of contingent liabilities at the statement of financial position date and the reported amount of income and expenses for the reporting period. Financial reporting results rely on our estimate of the effect of certain matters that are inherently uncertain. Future events rarely develop exactly as forecast and the best estimates require adjustments, as actual results may differ from these estimates under different assumptions or conditions. We continually evaluate these estimates and assumptions based on the most recently available information.

Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected. In particular, significant areas of estimation uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the financial statements are as below:

- Evaluation of joint arrangements;
- Assessment of functional currency;
- Financial instruments;
- Business combinations;
- Useful lives of property, plant and equipment and intangible assets;
- Valuation of inventories;
- Measurement of recoverable amounts of cash-generating units;
- Assets and obligations relating to employee benefits;
- Provisions and other accruals;
- Measurement of transaction price in a revenue transaction (Sales returns, rebates and chargeback provisions);
- Share-based payments;
- Evaluation of recoverability of deferred tax assets; and
- Contingencies.

New accounting standards adopted by the Company

Revenue from Contracts with Customers

In May 2014, the IASB issued IFRS 15, "*Revenue from Contracts with Customers*". This comprehensive new standard supersedes IAS 18, "Revenue", IAS 11, "Construction contracts" and related interpretations. The new standard amends revenue recognition requirements and establishes principles for reporting information about the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers.

We adopted IFRS 15 effective as of April 1, 2018. The impacts of the adoption of the new standard are summarized below:

Revenue

Our revenue is derived from sales of goods, service income and income from licensing arrangements, each as more particularly described below. Most of such revenue (approximately 97%) is generated from the sale of goods.

Sale of goods

Our revenue from sales of goods consists of the sale of generic and branded products and of active pharmaceutical ingredients and intermediates. Revenue from sales of goods is recognized where control is transferred to our customers at the time of shipment to or receipt of goods by the customers. There was no change in the point of recognition of such revenue upon adoption of IFRS 15.

Service income

Our service income, which primarily relates to revenue from contract research, is recognized as and when the underlying services are performed. There was no change in the point of recognition of such revenue upon adoption of IFRS 15. Upfront non-refundable payments received under these arrangements continue to be deferred and are recognized over the expected period that related services are to be performed.

License fees

Our license fees primarily consist of income from the out-licensing of intellectual property, and other licensing and supply arrangements with various parties. Revenue from license fees is recognized when control transfers to the third party and our performance obligations are satisfied. The adoption of IFRS 15 did not significantly change the timing or amount of revenue recognized by us from these arrangements, nor did it change accounting for these royalty arrangements, as the standard's royalty exception is applied for intellectual property licenses. Upfront non-refundable payments received under these arrangements continue to be deferred and are recognized over the expected period that related services are to be performed.

Profit share revenues and milestone payments

Our revenues from sales of goods also include revenues from profit sharing arrangements with business partners for sales of our products in certain markets. Furthermore, we receive milestone payments related to out-licensing of our intellectual property. Under IFRS 15, the profit share amount is recognized only to the extent that it is highly probable that a significant reversal in the amount of profit share will not occur when the uncertainty associated with the profit share is subsequently resolved. The adoption of IFRS 15 did not significantly change the timing or amount of revenue recognized by us under these arrangements.

We applied the modified retrospective method upon our adoption of IFRS 15 on April 1, 2018. This method requires the recognition of the cumulative effect of initially applying IFRS 15 to retained earnings and not to restate prior years.

Overall, the application of this standard did not have a material impact on our revenue streams from the sale of goods, service income, license fees, profit share revenues and milestone payments, and associated rebates and sales returns provisions.

Financial Instruments

In July 2014, the IASB issued the final version of IFRS 9, "Financial instruments". IFRS 9 significantly differs from IAS 39, "Financial Instruments: Recognition and Measurement", and includes a logical model for classification and measurement, a single, forward-looking "expected loss" impairment model and a substantially-reformed approach to hedge accounting. We applied the modified retrospective method upon adoption of IFRS 9 on April 1, 2018. This method requires the recognition of the cumulative effect of initially applying IFRS 9 to retained earnings and not to restate prior years. The cumulative effect recorded at April 1, 2018 was a decrease to retained earnings of Rs.12 million.

Detailed below is the impact of the implementation of IFRS 9 on us.

Investment in mutual funds

The most significant impact to us, upon adoption of IFRS 9, relates to the treatment of the unrealized gains and losses from changes in fair value on investment in mutual funds. Investment in mutual funds, was previously classified as available-for-sale investments. The unrealized gains and losses which were previously recognized in the consolidated statement of other comprehensive income will now be recognized in the consolidated income statement. Upon transition to IFRS 9, the unrealized gain of Rs.50 million previously recognized in other comprehensive income was transferred to retained earnings.

Investment in equity shares

All equity investments within the scope of IFRS 9 are measured at fair value. Equity instruments which are held for trading and contingent consideration recognized by an acquirer in a business combination to which IFRS 3 applies are classified as at fair value through profit and loss ("FVTPL"). For all other equity instruments, we may make an irrevocable election to present subsequent changes in the fair value through other comprehensive income ("FVTOCI"). We make such election on an instrument by-instrument basis. The classification is made on initial recognition and is irrevocable.

We have elected the irrevocable option to record fair value movements on certain equity investments in the consolidated statement of other comprehensive income with no future reclassification of such gains and losses to the consolidated income statement. Upon transition to IFRS 9, an amount of Rs.1,096 million, representing the change in the fair value of equity instruments as on April 1, 2018, was retained in other comprehensive income and will be reclassified to retained earnings on sale of such instruments.

Impairment of trade receivables

In accordance with IFRS 9, we have implemented the expected credit loss ("ECL") model for measurement and recognition of impairment loss on our trade receivables or any contractual right to receive cash or another financial asset that result from transactions that are within the scope of IFRS 15.

We follow a "simplified approach" which does not require us to track changes in credit risk but rather recognize impairment loss allowance based on lifetime ECLs at each reporting date, right from its initial recognition. For this purpose, we designed a provision matrix to determine impairment loss allowance on the portfolio of our trade receivables. The provision matrix is based on our historically observed default rates over the expected life of the trade receivables and is adjusted for forward-looking estimates. At every reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analyzed.

Hedge accounting

The new hedge accounting model introduced by the standard requires hedge accounting relationships to be based upon our own risk management strategy and objectives, and to be discontinued only when the relationships no longer qualify for hedge accounting. Based on the impact of the adoption assessment performed, we believe that our hedge relationships designated under IAS 39, "Financial Instruments: Recognition and Measurement", will continue to be designated as such under the new hedge accounting requirements.

Tabulated below is the impact of the implementation of IFRS 9 on our financial position on the transition date:

(All amounts in Rupees millions)

		April 1, 2018		IFRS 9 adjustment		Adjusted April 1, 2018
Current assets:						
Trade and other receivables	Rs.	40,617	Rs.	(89)	Rs.	40,528
Non-current assets:						
Deferred tax assets	Rs.	3,628	Rs.	27	Rs.	3,655
Equity:						
Retained earnings	Rs.	113,865	Rs.	(12)	Rs.	113,853
Other components of equity	Rs.	2,781	Rs.	(50)	Rs.	2,731

Accounting policy relating to Revenue from contract with customers

The Company's revenue is derived from sales of goods, service income and income from licensing arrangements. Most of such revenue is generated from the sale of goods.

Accounting policies relating to revenue for the periods after March 31, 2018 are as follows:

Sale of goods

Revenue is recognized when the control of the goods has been transferred to a third party. This is usually when the title passes to the customer, either upon shipment or upon receipt of goods by the customer. At that point, the customer has full discretion over the channel and price to sell the products, and there are no unfulfilled obligations that could affect the customer's acceptance of the product.

Revenue from the sale of goods is measured at the transaction price which is the consideration received or receivable, net of returns, taxes and applicable trade discounts and allowances. Revenue includes shipping and handling costs billed to the customer.

In arriving at the transaction price, the Company considers the terms of the contract with the customers and its customary business practices. The transaction price is the amount of consideration the Company is entitled to receive in exchange for transferring promised goods or services, excluding amounts collected on behalf of third parties. The amount of consideration varies because of estimated rebates, returns and chargebacks, which are considered to be key estimates. Any amount of variable consideration is recognized as revenue only to the extent that it is highly probable that a significant reversal will not occur. The Company estimates the amount of variable consideration using the expected value method.

Presented below are the points of recognition of revenue with respect to the Company's sale of goods:

Particulars	**Point of recognition of revenue**
Sales of generic products in India	Upon delivery of products to distributors by clearing and forwarding agents of the Company. Control over the generic products is transferred by the Company when the goods are delivered to distributors from clearing and forwarding agents.
Sales of active pharmaceutical ingredients and intermediates in India	Upon delivery of products to customers (generally formulation manufacturers), from the factories of the Company.
Export sales and other sales outside of India	Upon delivery of the products to the customers unless the terms of the applicable contract provide for specific revenue generating activities to be completed, in which case revenue is recognized once all such activities are completed.

Profit share revenues

The Company from time to time enters into marketing arrangements with certain business partners for the sale of its products in certain markets. Under such arrangements, the Company sells its products to the business partners at a non-refundable base purchase price agreed upon in the arrangement and is also entitled to a profit share which is over and above the base purchase price. The profit share is typically dependent on the business partner's ultimate net sale proceeds or net profits, subject to any reductions or adjustments that are required by the terms of the arrangement. Such arrangements typically require the business partner to provide confirmation of units sold and net sales or net profit computations for the products covered under the arrangement.

Revenue in an amount equal to the base purchase price is recognized in these transactions upon delivery of products to the business partners. An additional amount representing the profit share component is recognized as revenue only to the extent that it is highly probable that a significant reversal will not occur.

At the end of each reporting period, the Company updates the estimated transaction price (including updating its assessment of whether an estimate of variable consideration is constrained) to represent faithfully the circumstances present at the end of the reporting period and the changes in circumstances during the reporting period.

Out licensing arrangements, milestone payments and royalties

Revenues include amounts derived from product out-licensing agreements. These arrangements typically consist of an initial up-front payment on inception of the license and subsequent payments dependent on achieving certain milestones in accordance with the terms prescribed in the agreement. In cases where the transaction has two or more components, the Company accounts for the delivered item (for example, the transfer of title to the intangible asset) as a separate unit of accounting and record revenue upon delivery of that component, provided that the Company can make a reasonable estimate of the fair value of the undelivered component. Otherwise, non-refundable up-front license fees received in connection with product out-licensing agreements are deferred and recognized over the period in which the Company has pending performance obligations. Milestone payments which are contingent on achieving certain clinical milestones are recognized as revenues either on achievement of such milestones, over the performance period depending on the terms of the contract. If milestone payments are creditable against future royalty payments, the milestones are deferred and released over the period in which the royalties are anticipated to be paid.

Royalty income earned through a license is recognized when the underlying sales have occurred.

Provision for chargeback, rebates and discounts

Provisions for chargeback, rebates, discounts and Medicaid payments are estimated and provided for in the year of sales and recorded as reduction of revenue. A chargeback claim is a claim made by the wholesaler for the difference between the price at which the product is initially invoiced to the wholesaler and the net price at which it is agreed to be procured from the Company. Provisions for such chargebacks are accrued and estimated based on historical average chargeback rate actually claimed over a period of time, current contract prices with wholesalers/other customers and estimated inventory holding by the wholesaler.

Shelf stock adjustments

Shelf stock adjustments are credits issued to customers to reflect decreases in the selling price of products sold by the Company, and are accrued when the prices of certain products decline as a result of increased competition upon the expiration of limited competition or exclusivity periods. These credits are customary in the pharmaceutical industry, and are intended to reduce the customer inventory cost to better reflect the current market prices. The determination to grant a shelf stock adjustment to a customer is based on the terms of the applicable contract, which may or may not specifically limit the age of the stock on which a credit would be offered.

Sales Returns

The Company accounts for sales returns accrual by recording refund liability concurrent with the recognition of revenue at the time of a product sale. This liability is based on the Company's estimate of expected sales returns. The Company deals in various products and operates in various markets. Accordingly, the estimate of sales returns is determined primarily by the Company's historical experience in the markets in which the Company operates. With respect to established products, the Company considers its historical experience of sales returns, levels of inventory in the distribution channel, estimated shelf life, product discontinuances, price changes of competitive products, and the introduction of competitive new products, to the extent each of these factors impact the Company's business and markets. With respect to new products introduced by the Company, such products have historically been either extensions of an existing line of product where the Company has historical experience or in therapeutic categories where established products exist and are sold either by the Company or the Company's competitors. At the time of recognizing the refund liability, the Company also recognizes an asset, (i.e., the right to the returned goods) which is included in inventories for the products expected to be returned. The Company initially measures this asset at the former carrying amount of the inventory, less any expected costs to recover the goods, including any potential decreases in the value of the returned goods.

Along with re-measuring the refund liability at the end of each reporting period, the Company updates the measurement of the asset recorded for any revisions to its expected level of returns, as well as any additional decreases in the value of the returned products.

Services

Revenue from services rendered, which primarily relate to contract research, is recognized in the consolidated income statement as the underlying services are performed. Upfront non-refundable payments received under these arrangements are deferred and recognized as revenue over the expected period over which the related services are expected to be performed.

License fees

License fees primarily consist of income from the out-licensing of intellectual property, and other licensing and supply arrangements with various parties. Revenue from license fees is recognized when control transfers to the third party and the Company's performance obligations are satisfied. Some of these arrangements include certain performance obligations by the Company. Revenue from such arrangements is recognized in the period in which the Company completes all its performance obligations.

Provision for chargeback, rebates, sales returns and discounts

In our North America Generics business, our gross revenues are significantly reduced by chargebacks, rebates, sales returns, discounts, shelf stock adjustments, Medicaid payments and similar "gross-to-net" adjustments. Each of such adjustments are discussed in detail below.

- *Chargebacks*: Chargebacks are issued to wholesalers for the difference between our invoice price to the wholesaler and the contract price through which the product is resold in the retail part of the supply chain. The information that we consider for establishing a chargeback accrual includes the historical average chargeback rate over a period of time, current contract prices with wholesalers and other customers, and estimated inventory holding by the wholesaler. With this methodology, we believe that the results are more realistic and closest to the potential chargeback claims that may be received in the future period relating to inventory on which a claim is yet to be received as at the end of the reporting period. In addition, as part of our book closure process, a chargeback validation is performed in which we track and reconcile the volume of inventory sold for which we should carry an appropriate provision for chargeback. We procure the inventory holding statements and data through an electronic data interface with our wholesalers (representing approximately 95% of the total value of chargebacks outstanding at every year end reporting date) as part of this reconciliation. On the basis of this volume reconciliation, chargeback accrual is validated. For the chargeback rate computation, we consider different contract prices for each product across our customer base. This chargeback rate is adjusted (if necessary) on a periodic basis for expected future price reductions.

- *Shelf Stock Adjustments:* Shelf stock adjustments are credits issued to customers to reflect decreases in the selling price of products sold by us, and are accrued when the prices of certain products decline as a result of increased competition upon the expiration of limited competition or exclusivity periods. These credits are customary in the pharmaceutical industry, and are intended to reduce the customer inventory cost to better reflect the current market prices. The determination to grant a shelf stock adjustment to a customer is based on the terms of the applicable contract, which may or may not specifically limit the age of the stock on which a credit would be offered.

- *Rebates*: Rebates (direct and indirect) are generally provided to customers as an incentive to stock and sell our products. Rebate amounts are based on a customer's purchases made during an applicable period. Rebates are paid to wholesalers, chain drug stores, health maintenance organizations or pharmacy buying groups under a contract with us. We determine our estimates of rebate accruals primarily based on the contracts entered into with our wholesalers and other direct customers and the information received from them for secondary sales made by them. For direct rebates, liability is accrued whenever we invoice to direct customers. For indirect rebates, the accruals are based on a representative weighted average percentage of the contracted rebate amount applied to inventory sold and delivered by us to wholesalers or other direct customers.

- *Sales Return Allowances:* We account for sales returns by recording a provision based on our estimate of expected sales returns. Our estimate of sales returns is determined primarily by our historical experience. In respect of established products, we determine an estimate of sales returns provision primarily based on historical experience of such sales returns. Additionally, other factors that we consider in determining the estimate include levels of inventory in the distribution channel, estimated shelf life, product discontinuances, price changes of competitive products, and introduction of competitive new products, to the extent each of these factors impact our business and markets. We consider all of these factors and adjust the sales return provision to reflect our actual experience. With respect to new products introduced by us, those have historically been either extensions of an existing product line where we have historical experience or in a general therapeutic category where established products exist and are sold either by us or our competitors. We have not yet introduced products in a new therapeutic category where the sales returns experience of such products by us or our competitors (as we understand based on industry publications) is not known. The amount of sales returns for our newly launched products have not historically differed significantly from sales returns experience of the then current products marketed by us or our competitors (as we understand based on industry publications). Accordingly, we do not expect sales returns for new products to be significantly different from expected sales returns of current products. We evaluate sales returns of all our products at the end of each reporting period and record necessary adjustments, if any.

- *Medicaid Payments:* We estimate the portion of our sales that may get dispensed to customers covered under Medicaid programs based on the proportion of units sold in the previous two quarters for which a Medicaid claim could be received as compared to the total number of units sold in the previous two quarters. The proportion is based on an analysis of the actual Medicaid claims received for the preceding four quarters. In addition, we also apply the same percentage on the derived estimated inventory sold and delivered by us to our wholesalers and other direct customers to arrive at the potential volume of products on which a Medicaid claim could be received. We use this approach because we believe that it corresponds to the approximate six month time period it takes for us to receive claims from the various Medicaid programs. After estimating the number of units on which a Medicaid claim is to be paid, we use the latest available Medicaid reimbursement rate per unit to calculate the Medicaid accrual. In the case of new products, accruals are done based on specific inputs from our marketing team or data from the publications of IQVIA.

- *Cash Discounts:* We offer cash discounts to our customers, generally at 2% of the gross sales price, as an incentive for paying within invoice terms, which generally range from 30 to 95 days. Accruals for such cash discounts do not involve any significant variables, and the estimates are based on the gross sales price and agreed cash discount percentage at the time of invoicing.

We believe our estimation processes are reasonable methods of determining accruals for the "gross-to-net" adjustments. Chargeback accrual accounts for the highest element among the "gross-to-net" adjustments, and constituted approximately 69% of such "gross-to-net" adjustments for our North America Generics business for the year ended March 31, 2019. For the purpose of the following discussion, we are therefore restricting our explanations to this specific element. While chargeback accruals depend on multiple variables, the most pertinent variables are our estimates of inventories on which a chargeback claim is yet to be received and the unit price at which the chargeback will be processed. To determine the chargeback accrual applicable for a reporting period, we perform the following procedures to calculate these two variables:

a) *Estimated inventory*—Inventory volumes on which a chargeback claim that is expected to be received in the future are determined using the validation process and methodology described above (see "Chargebacks" above). When such a validation process is performed, we note that the difference represents an immaterial variation. Therefore, we believe that our estimation process in regard to this variable is reasonable.

b) *Unit pricing rate*— At any point in time, inventory volumes on which we carry our chargeback accrual represents approximately 1.1 month of sales volumes. Therefore, the sensitivity of price changes on our chargeback accrual only relates to such volumes. Assuming that the chargebacks were processed within such period, we analyzed the impact of changes of prices for the periods beginning April 1, 2018, 2017 and 2016, respectively, and ended March 31, 2019, 2018 and 2017, respectively, on our estimated inventory levels computed based on the methodology described above (see "Chargebacks" above). We note that the impact on net sales on account of such price variation was negligible.

A roll-forward for each major accrual for our North America Generics business is presented below for our fiscal years ended March 31, 2017, 2018 and 2019:

Particulars	Chargebacks	Rebates	Medicaid	Refund Liability
	(All values in U.S.$ millions)			
Beginning Balance: April 1, 2016	209	257	14	45
Current provisions relating to sales during the year[(1)]	1,963	700	22	28
Provisions and adjustments relating to sales in prior years	*	-	-	-
Credits and payments**	(1,981)	(771)	(23)	(37)
Ending Balance: March 31, 2017	**191**	**186**	**13**	**36**
Beginning Balance: April 1, 2017	191	186	13	36
Current provisions relating to sales during the year [(2)]	1,750	630	18	22
Provisions and adjustments relating to sales in prior years	*	-	-	-
Credits and payments**	(1,771)	(655)	(19)	(30)
Ending Balance: March 31, 2018	**170**	**161**	**12**	**28**
Beginning Balance: April 1, 2018	170	161	12	28
Current provisions relating to sales during the year [(3)]	1,415	461	18	29
Provisions and adjustments relating to sales in prior years	*	-	-	-
Credits and payments**	(1,457)	(530)	(19)	(27)
Ending Balance: March 31, 2019	**128**	**92**	**11**	**30**

* Currently, we do not separately track provisions and adjustments, in each case to the extent relating to prior years for chargebacks. However, the adjustments are expected to be non-material. The volumes used to calculate the closing balance of chargebacks represent approximately 1.1 months equivalent of sales, which corresponds to the pending chargeback claims yet to be processed.

** Currently, we do not separately track the credits and payments, in each case to the extent relating to prior years for chargebacks, rebates, medicaid payments or sales returns.

(1) Chargebacks and rebates provisions for the year ended March 31, 2017 and payments for the year ended March 31, 2017 were each lower as compared to the year ended March 31, 2016, primarily as a result of lower sales, product mix changes and relatively low value of new products.

(2) Chargebacks and rebates provisions for the year ended March 31, 2018 and payments for the year ended March 31, 2018 were each lower as compared to the year ended March 31, 2017, primarily as a result of lower pricing rates per unit for chargebacks, due to a reduction in the invoice price to wholesalers for certain of our products, and due to certain product mix changes.

(3) Chargebacks and rebates provisions for the year ended March 31, 2019 and payments for the year ended March 31, 2019 were each lower as compared to the year ended March 31, 2018, primarily as a result of lower pricing rates per unit for chargebacks, due to a reduction in the invoice price to wholesalers for certain of our products.

The estimates of "gross-to-net" adjustments for our operations in India and other countries outside of the U.S. relate mainly to sales return allowances in all such operations, and certain rebates to healthcare insurance providers are specific to our German operations. The pattern of such sales return allowances is generally consistent with our gross sales. In Germany, the rebates to healthcare insurance providers mentioned above are contractually fixed in nature and do not involve significant estimations by us.

Our overall refund liability as at March 31, 2019 was U.S.$ 30 million, as compared to U.S.$ 28 million as at March 31, 2018. This increase in our liability was primarily attributable to a higher allowance for refund liability created for the year ended March 31, 2019 as compared to the year ended March 31, 2018 which allowance change was primarily based on certain product mix changes and recent trends in actual sales returns, together with our historical experience in the markets in which we operate. For further information regarding our refund liability, Refer to Note 20 to our consolidated financial statements.

For other critical accounting policies, Refer Note no. 3 (3.a to 3.t) of our consolidated financial statements.

5.A. Operating results

Income Statement Data

	For the year ended March 31,							
	2019	**2019**		**2018**		**2017**		
	(Rs. in millions, U.S.$ in millions)							
	Convenience translation into U.S.$							
Revenues	U.S.$ 2,225	Rs.	153,851	Rs.	142,028	Rs.	140,809
Cost of revenues	1,018		70,421		65,724		62,453
Gross profit	**1,206**		**83,430**		**76,304**		**78,356**
Selling, general and administrative expenses	707		48,890		46,910		46,372
Research and development expenses	226		15,607		18,265		19,551
Other (income)/expense, net	(28)		(1,955)		(788)		(1,065)
Results from operating activities	**302**		**20,888**		**11,917**		**13,498**
Finance (expense)/income, net	16		1,117		2,080		806
Share of profit of equity accounted investees, net of tax	6		438		344		349
Profit before tax	**325**		**22,443**		**14,341**		**14,653**
Tax expense	53		3,648		4,535		2,614
Profit for the year	**272**		**18,795**	**Rs.**	**9,806**	**Rs.**	**12,039**

The following table sets forth, for the periods indicated, financial data as percentages of total revenues and the increase (or decrease) by item as a percentage of the amount over the comparable period in the previous years.

	Percentage of Sales For the year ended March 31,			**Percentage Increase/(Decrease)**	
	2019	**2018**	**2017**	**2018 to 2019**	**2017 to 2018**
Revenues	100.0%	100.0%	100.0%	8.3%	0.9%
Gross profit	**54.2%**	**53.7%**	**55.6%**	**9.3%**	**(2.6)%**
Selling, general, and administrative expenses	31.8%	33.0%	32.9%	4.2%	1.2%
Research and development expenses	10.1%	12.9%	13.9%	(14.6)%	(6.6)%
Other (income)/expense, net	(1.3)%	(0.6)%	(0.8)%	148.1%	(26.0)%
Results from operating activities	**13.6%**	**8.4%**	**9.6%**	**75.3%**	**(11.7)%**
Finance (expense)/income, net	0.7%	1.5%	0.6%	(46.3)%	158.1%
Share of profit of equity accounted investees, net of tax	0.3%	0.2%	0.2%	27.3%	(1.4)%
Profit before taxes	**14.6%**	**10.1%**	**10.4%**	**56.5%**	**(2.1)%**
Tax expense	2.4%	3.2%	1.9%	(19.6)%	73.5%
Profit for the year	**12.2%**	**6.9%**	**8.5%**	**91.7%**	**(18.5)%**

The following table sets forth, for the periods indicated, our consolidated revenues by segment:

	For the year ended March 31,					
	2019		**2018**		**2017**	
	(Rs. in millions)					
	Revenues	**% of Segment revenue**	**Revenues**	**% of Segment revenue**	**Revenues**	**% of Segment revenue**
Global Generics	Rs. 122,903	80%	Rs. 114,014	80%	Rs. 115,409	82%
PSAI	24,140	16%	21,992	16%	21,277	15%
Proprietary Products	4,750	3%	4,245	3%	2,363	2%
Others	2,058	1%	1,777	1%	1,760	1%
Total	**Rs. 153,851**	**100%**	**Rs. 142,028**	**100%**	**Rs. 140,809**	**100%**

Fiscal Year Ended March 31, 2019 compared to Fiscal Year Ended March 31, 2018

Revenues

Our overall consolidated revenues were Rs.153,851 million for the year ended March 31, 2019, an increase of 8.3% as compared to Rs.142,028 million for the year ended March 31, 2018. This revenue growth for the year ended March 31, 2019 was primarily due to increase in sales volumes and new product launches across our businesses, and benefits due to the depreciation of the Indian rupee against the U.S. dollar, partially offset by price erosion in our Global Generics segment's North America (the United States and Canada) and Europe businesses.

The following table sets forth, for the periods indicated, our consolidated revenues by geography:

	For the year ended March 31,					
	2019		2018		2017	
	Revenues	% of Total Revenue *	Revenues	% of Total Revenue *	Revenues	% of Total Revenue *
					(Rs. in millions)	
Global Generics	**Rs. 122,903**	**80%**	**Rs. 114,014**	**80%**	**Rs. 115,409**	**82%**
North America (the United States and Canada)	59,957	49%	59,822	53%	63,601	55%
Europe	7,873	6%	8,217	7%	7,606	7%
India	26,179	21%	23,321	20%	23,131	20%
Russia and other countries of the former Soviet Union	20,541	17%	16,528	15%	15,238	13%
Others	8,353	7%	6,126	5%	5,833	5%
PSAI	**24,140**	**16%**	**21,992**	**16%**	**21,277**	**15%**
Proprietary Products and Others	**6,808**	**4%**	**6,022**	**4%**	**4,123**	**3%**
Total	**153,851**	**100%**	**142,028**	**100%**	**140,809**	**100%**

***** This represents the segment's revenue from sales in the respective geography as a percentage of the total segment's revenue.

For the year ended March 31, 2019, the U.S. dollar and the Euro appreciated by approximately 8% and 7% respectively, and the Russian rouble depreciated by 3%, against the Indian rupee as compared to the year ended March 31, 2018. These changes in exchange rates increased our reported revenues.

Segment analysis

Global Generics

Revenues from our Global Generics segment were Rs.122,903 million for the year ended March 31, 2019, an increase of 8% as compared to Rs.114,014 million for the year ended March 31, 2018. The revenue increase was largely attributable to this segment's operations in "Emerging Markets" (which is comprised of Russia, other countries of the former Soviet Union, Romania and certain other countries from our "Rest of the World" markets, including South Africa, China, Brazil and Australia) and India.

After taking into account the impact of exchange rate fluctuations of the Indian rupee against multiple currencies in the markets in which we operate, the foregoing increase in revenues of this segment was attributable to the following factors:

- an increase of approximately 11% resulting from a net increase in the sales volumes of existing products in this segment;
- an increase of approximately 6% resulting from new products launched during the year ended March 31, 2019; and
- the foregoing was partially offset by a decrease of approximately 9% resulting from the net impact of changes in sales prices of the products in this segment

North America (the United States and Canada): Our Global Generics segment's revenues from North America (the United States and Canada) were Rs.59,957 million for the year ended March 31, 2019, an increase of 0.2% as compared to the year ended March 31, 2018. In U.S. dollar absolute currency terms (i.e., U.S. dollars without taking into account the effect of currency exchange rates), such revenues decreased by 6% for the year ended March 31, 2019 as compared to the year ended March 31, 2018.

This revenues decrease was largely attributable to the following:

- reduced sales (primarily due to price erosion) as a result of increased competition for our key products, such as sevelamer, decitabine, metoprolol and valganciclovir;
- the foregoing was partially offset by an increase in volumes for certain of our products; and
- in addition, the foregoing was also partially offset by revenues from new products launched during the year ended March 31, 2019, such as buprenorphine and naloxone sublingual film, levetiracetam bags, colesevalem, hydroxychloroquine and thiotepa injection.

During the year ended March 31, 2019, we made 20 new ANDA filings with the U.S. FDA. As of March 31, 2019 our cumulative filings were 279, which includes 4 NDA filings under section 505(b)(2) and 275 ANDA filings. These 275 ANDA filings include 8 ANDAs that we acquired from Teva and an affiliate of Allergan plc. As of March 31, 2019, we had 110 filings pending approval with the U.S. FDA (107 ANDAs and 3 NDAs under 505(b)(2) route including 16 tentative approvals). Of the 107 ANDAs which are pending approval, 60 are Paragraph IV filings, and we believe that we are the first to file with respect to 34 of these filings. Further, these 107 ANDAs which are pending for approval include 4 ANDAs acquired from Teva and Allergan plc's affiliate, all of which are Paragraph IV filings.

India: Our Global Generics segment's revenues from India were Rs.26,179 million, for the year ended March 31, 2019, an increase of 12% as compared to the year ended March 31, 2018. This growth was largely attributable to an increase in sales volumes and sales prices of our existing products as well as revenues from launches of new products.

Prior to the transition to India's new Goods and Service Tax ("GST") regime, which became effective on July 1, 2017, the excise duty amount was recorded in revenues with a corresponding amount recorded in the cost of revenues. For periods effective on or after July 1, 2017, excise duty has been subsumed in the GST, and is not recorded in revenues or cost of revenues. Consequently, the revenues reported for periods subsequent to the GST transition no longer reflect excise duty, and the reported growth would therefore be lower. According to IQVIA in its Moving Annual Total report for the year ended March 31, 2019, our secondary sales in India grew by 11.3% during such period, as compared to the India pharmaceutical market's growth of 10.5% during such period. During the year ended March 31, 2019, we launched 15 new brands in India.

Emerging Markets: Our Global Generics segment's revenues from "Emerging Markets" (which is comprised of Russia, other countries of the former Soviet Union, Romania and certain other countries from our "Rest of the World" markets, including South Africa, China, Brazil and Australia) were Rs.28,894 million for the year ended March 31, 2019, an increase of 28% as compared to the year ended March 31, 2018. This revenue increase was largely attributable to increased revenues from Russia and further bolstered by increased revenues from many of our other "Emerging Markets" countries, as described below.

Russia: Our Global Generics segment's revenues from Russia were Rs.15,299 million for the year ended March 31, 2019, an increase of 21% as compared to the year ended March 31, 2018. In Russian rouble absolute currency terms (i.e., Russian roubles without taking into account the effect of currency exchange rates), such revenues increased by 25% for the year ended March 31, 2019 as compared to the year ended March 31, 2018. This revenue increase was largely attributable to an improvement in our existing business portfolio and due to seasonality trends. Our over-the-counter ("OTC") division's revenues from Russia for the year ended March 31, 2019 were approximately 40% of our total revenues from Russia.

According to IQVIA, as per its report for the year ended March 31, 2019, our sales value (in Russian roubles) growth and volume growth from Russia for such period, as compared to the Russian pharmaceutical market sales value (in Russian roubles) growth and volume growth for such period, was as follows:

	Year ended March 31, 2019			
	Dr. Reddy's		Russian pharmaceutical market	
	Sales value	Volume	Sales value	Volume
Prescription (Rx)	6.0%	(2.7)%	9.9%	1.8%
Over-the-counter (OTC)	5.6%	(1.6)%	2.6%	(5.7)%
Total (Rx + OTC)	5.8%	(2.3)%	6.1%	(3.4)%

As per the above referenced IQVIA report, our market shares in Russia for the years ended March 31, 2019 and 2018 were as follows:

	Year ended March 31,			
	Volume based		Value based	
	2019	2018	2019	2018
Prescription (Rx)	4.2%	4.2%	2.0%	1.9%
Over-the-counter (OTC)	1.0%	0.5%	1.5%	0.6%
Total (Rx + OTC)	2.0%	1.8%	1.7%	1.5%

Other countries of the former Soviet Union and Romania: Our Global Generics segment's revenues from other countries of the former Soviet Union and Romania were Rs.5,242 million for the year ended March 31, 2019, an increase of 34% as compared to the year ended March 31, 2018. This increase was largely attributable to increased revenues from our existing products, as well as revenues from new products launched during the year ended March 31, 2019.

"Rest of the World" Markets: We refer to all markets of this segment, other than North America (the United States and Canada), Europe, Russia and other countries of the former Soviet Union, Romania and India, as our "Rest of the World" markets. Our Global Generics segment's revenues from our "Rest of the World" markets were Rs.8,353 million for the year ended March 31, 2019, an increase of 37% as compared to the year ended March 31, 2018. The growth is largely attributable to increased sales in China and scale up of our operations in Brazil, as well as growth in volumes of existing products and launches of new products in other "Rest of the World" markets.

Europe: Our Global Generics segment's revenues from Europe are primarily derived from Germany and the United Kingdom, and were Rs.7,873 million for the year ended March 31, 2019, a decrease of 4% as compared to the year ended March 31, 2018. This decrease was primarily on account of lower sales in the United Kingdom partially offset by an increase in our revenues from Germany.

Pharmaceutical Services and Active Ingredients("PSAI")

Our PSAI segment's revenues were Rs.24,140 million for the year ended March 31, 2019, an increase of 10% as compared to the year ended March 31, 2018. After taking into account the impact of exchange rate fluctuations of the Indian rupee against multiple currencies in the markets in which we operate, this increase in revenues was largely attributable to:

- increased sales of active pharmaceutical ingredients for the year ended March 31, 2019, which increased our PSAI segment's revenues by approximately 6%; and
- increased customer orders for our pharmaceutical development services, which increased our PSAI segment's revenues by approximately 4%.

During the year ended March 31, 2019, we filed 82 Drug Master Files ("DMFs") worldwide. Cumulatively, our total active worldwide DMFs as of March 31, 2019 were 963, including 208 active DMFs in the United States.

Gross Profit

Our total gross profit was Rs.83,430 million for the year ended March 31, 2019, representing 54.2% of our revenues for that period, as compared to Rs.76,304 million for the year ended March 31, 2018, representing 53.7% of our revenues for that period.

The following table sets forth, for the period indicated, our gross profit by segment:

	For the year ended March 31,					
	2019		2018		2017	
	(Rs. in millions)					
	Gross Profit	% of Segment Revenue	Gross Profit	% of Segment Revenue	Gross Profit	% of Segment Revenue
Global Generics	Rs. 71,924	59%	Rs. 67,190	59%	Rs. 71,079	62%
PSAI	6,128	25%	4,446	20%	4,473	21%
Proprietary Products	4,182	88%	3,799	89%	1,951	83%
Others	1,196	58%	869	49%	853	49%
Total	**83,430**	**54%**	**76,304**	**54%**	**Rs. 78,356**	**56%**

After taking into account the impact of the exchange rate fluctuations of the Indian rupee against multiple currencies in the markets in which we operate, the gross profit from our Global Generics segment for the year ended March 31, 2019 is 59% which is almost same as the gross profit for year ended March 31, 2018. The gross profit margin of our Global Generics segment has been adversely impacted by price erosion in the United States, partially offset by new product launches with higher margins and by a reduction in the cost of revenues due to our cost optimization initiatives.

The gross profit from our PSAI segment increased to 25% for the year ended March 31, 2019, as compared to 20% for the year ended March 31, 2018. This increase was primarily due to an increase in sales of products with higher gross profit margins during the year ended March 31, 2019.

Selling, general and administrative expenses

Our selling, general and administrative expenses were Rs.48,890 million for the year ended March 31, 2019, an increase of 4.2% as compared to Rs.46,910 million for the year ended March 31, 2018. After taking into account the impact of exchange rate fluctuations of the Indian rupee against multiple currencies in the markets in which we operate, this increase was largely attributable to the following:

- increased personnel costs, primarily on account of annual raises and increases in the number of employees, all of which increased our selling, general and administrative expenses by approximately 2.6%; and

- an increase in freight outward expenses and other costs, which increased our selling, general and administrative expenses by approximately 1.6%.

As a proportion of our total revenues, our selling, general and administrative expenses was at 32% for the year ended March 31, 2019 as compared to 33% for the year ended March 31, 2018.

Research and development expenses

Our research and development expenses were Rs.15,607 million for the year ended March 31, 2019, a decrease of 15% as compared to Rs.18,265 million for the year ended March 31, 2018. The decrease was primarily on account of productivity improvement measures undertaken by us coupled with timing variations in development related activities for certain projects. Our focus continues on building our pipeline of complex generics, biosimilars and differentiated products.

As a proportion of our total revenues, our research and development expense was at 10.1% for the year ended March 31, 2019 as compared to 12.9% for the year ended March 31, 2018.

Other (income)/expense, net

Our net other income was Rs.1,955 million for the year ended March 31, 2019, an increase of 148% as compared to net other income of Rs.788 million for the year ended March 31, 2018. Our net other income for the period ending March 31, 2019 includes the profit on sale of assets as follows:

- Rs.423 million on account of the sale to Therapiva Private Limited of our API manufacturing business unit located in Jeedimetla, Hyderabad, India;
- Rs.423 million on account of the sale by our wholly owned subsidiary Promius Pharma, LLC to EPI Health, LLC, an affiliate of EPI Group, LLC of the rights to Cloderm cream and its authorized generic in the United States; and
- Rs.159 million representing the profit on sale of intangible assets as other income, after adjusting the associated costs by our wholly owned subsidiary Promius Pharma, LLC.

Finance (expense)/income, net

Our net finance income was Rs.1,117 million for the year ended March 31, 2019, as compared to net finance income of Rs.2,080 million for the year ended March 31, 2018. The decrease in net finance income was largely attributable to:

- profit on sale of investments of Rs.466 million for the year ended March 31, 2019, as compared to profit on sale of investments of Rs.2,270 million for the year ended March 31, 2018;
- the foregoing was partially offset by an increase in net interest income to Rs.770 million for the year ended March 31, 2019, as compared to net interest income of Rs.540 million for the year ended March 31, 2018; and
- the foregoing was further partially offset by an increase in net foreign exchange gain to Rs.463 million for the year ended March 31, 2019, as compared to net foreign exchange loss of Rs.58 million for the year ended March 31, 2018.

Profit before tax

As a result of the above, our profit before taxes was Rs.22,443 million for the year ended March 31, 2019, an increase of 56% as compared to Rs.14,341 million for the year ended March 31, 2018.

Tax expense

Our tax expense was Rs.3,648 million for the year ended March 31, 2019, as compared to Rs.4,535 million for the year ended March 31, 2018. Our consolidated weighted average tax rate was 16.3% for the year ended March 31, 2019, as compared to 31.6% for the year ended March 31, 2018.

The effective rate of tax for the year ended March 31, 2018 was higher primarily on account of implementation of the provisions of The Tax Cuts and Jobs Act of 2017 that was enacted into law in the United States on December 22, 2017. Due to this enactment, we re-measured our deferred tax assets and liabilities in our subsidiaries based in the U.S. as per the new tax law and this resulted in a charge of Rs.1,304 million for the year ended March 31, 2018. Such a charge primarily reflected the impact on our U.S. deferred tax assets of the new tax law's reduction in the U.S. corporate federal income tax rate from 35% to 21%.

Profit for the period

As a result of the above, our net profit was Rs.18,795 million for the year ended March 31, 2019, representing 12.2% of our total revenues for such period, as compared to Rs.9,806 million for the year ended March 31, 2018, representing 6.9% of our total revenues for such period.

Fiscal Year Ended March 31, 2018 compared to Fiscal Year Ended March 31, 2017

Refer our annual filings with SEC in Form 20F for the fiscal year ended March 31, 2018.

Fiscal Year Ended March 31, 2017 compared to Fiscal Year Ended March 31, 2016

Refer to “Fiscal Year Ended March 31, 2017 compared to Fiscal Year Ended March 31, 2016” in Item 5.A. of our annual report on Form 20-F for the fiscal year ended March 31, 2018.

5.B. ***Liquidity and capital resources***

Liquidity

We have primarily financed our operations through cash flows generated from operations and a mix of long-term and short-term borrowings. Our principal liquidity and capital needs are for the purchase of property, plant and equipment, regular business operations and research and development.

Our principal sources of short-term liquidity are internally generated funds and short-term borrowings, which we believe are sufficient to meet our working capital requirements.

Our long-term borrowings were incurred primarily for the purpose of funding the acquisition of eight ANDAs from Teva Pharmaceutical Industries Limited and to meet certain anticipated capital expenditures.

Summary of statements of cash flows

The following table summarizes our statements of cash flows for the years presented:

	For the year ended March 31,		
	2019	**2018**	**2017**
	(Rs. in millions)		
Net cash from/(used in):			
Operating activities	Rs. 28,704	Rs. 18,029	Rs. 21,513
Investing activities	(7,727)	(14,883)	(18,471)
Financing activities	(21,326)	(4,440)	(3,692)
Net increase/(decrease) in cash and cash equivalents	**(349)**	**(1,294)**	**(650)**

In addition to cash, inventory and accounts receivable, our unused sources of liquidity included Rs.47,134 million available in credit under revolving credit facilities with banks as of March 31, 2019.

Cash Flow from Operating Activities

Year ended March 31, 2019 compared to year ended March 31, 2018

The result of operating activities was a net cash inflow of Rs.28,704 million for the year ended March 31, 2019, as compared to a cash inflow of Rs.18,029 million for the year ended March 31, 2018.

The increase in net cash inflow of Rs.10,675 million was primarily due to increase in our earnings and a decrease in our trade receivables, which was partially offset by an increase in inventories as of March 31, 2019.

Our average days' sales outstanding ("DSO") as at March 31, 2019 and March 31, 2018 were 90 days and 102 days respectively. The decrease in our DSO between March 31, 2019 and March 31, 2018 was primarily on account of sale of our trade receivables in North America (Refer to Note 12 of our consolidated financial statements for further details).

Year ended March 31, 2018 compared to year ended March 31, 2017

Our profit before interest expense/income, profit/loss on sale of investments, tax expense, impairment loss, depreciation and amortization was Rs.24,082 million for the year ended March 31, 2018, as compared to Rs.25,495 million, for the year ended March 31, 2017.

The net result of our operating activities was a net cash inflow of Rs.18,029 million for the year ended March 31, 2018, as compared to a net cash inflow of Rs.21,513 million for the year ended March 31, 2017. Accordingly, our net cash inflow decreased by Rs.3,484 million during the year ended March 31, 2018 as compared to the year ended March 31, 2017, primarily due to increases in working capital requirements as described below.

Increases in working capital accounted for net cash outflows of Rs.8,992 million and Rs.5,350 million during the years ended March 31, 2018 and 2017, respectively. This increase in working capital requirements during the year ended March 31 2018, as compared to the year ended March 31, 2017, resulted in a significant decrease in our net cash provided by operating activities. The increase in working capital requirements during the year ended March 31, 2018 primarily resulted from an increase in our inventories by Rs.3,233 million and increase in our trade receivables by Rs.2,097 million. The increase in total inventories was primarily on account of an increase in the inventories held for our new product launches.

Our days' sales outstanding ("DSO") as at March 31, 2018 and March 31, 2017, were 102 days and 96 days, respectively. The increase in our DSO was primarily on account of (a) changes in the mix of our receivables, due to increase in the proportion of receivables from our customers with longer credit periods in the United States; and (b) an increase in the trade receivables in our API and Russia businesses.

Cash Flow from Investing Activities

Year ended March 31, 2019 compared to year ended March 31, 2018

Our investing activities resulted in a net cash outflow of Rs.7,727 million and an outflow of Rs.14,883 million for the year ended March 31, 2019 and 2018, respectively.

During the year ended March 31, 2019, net cash outflow was primarily on account of the following:

- the purchase of investments of Rs.78,573 million;
- the acquisition of property, plant and equipment, and other intangible assets of Rs.8,376 million; and
- the foregoing was partially offset by the redemption of investments of Rs.76,291 million and by proceeds from the sale of property, plant and equipment and other intangible assets of Rs. 2,150 million.

During the year ended March 31, 2018, our net cash outflow was primarily on account of the following:

- the purchase of investments of Rs.68,429 million;
- the acquisition of property, plant and equipment and other intangible assets of Rs.11,043 million; and
- the foregoing was partially offset by the redemption of investments of Rs.64,038 million.

Year ended March 31, 2018 compared to year ended March 31, 2017

Our investing activities resulted in a net cash outflow of Rs.14,883 million for the year ended March 31, 2018, as compared to Rs.18,471 million for the year ended March 31, 2017. This decrease in net cash outflow of Rs.3,588 million was primarily due to:

- a net decrease of Rs.26,954 million in the net cash outflow attributable to key acquisitions during the year ended March 31, 2018 as compared to the year ended March 31, 2017, as follows:
    - Rs.23,366 million was paid to Teva and an affiliate of Allergan plc for the acquisition of eight ANDAs during the year ended March 31, 2017 (Refer to Note 32 of our consolidated financial statements for further details); and
    - Rs.3,159 million was paid to XenoPort, Inc. for the acquisition of exclusive U.S. rights for the development and commercialization of a clinical stage oral new chemical entity which forms a part of our Proprietary Products segment, during the year ended March 31, 2017.
- net decrease in amounts spent on property, plant and equipment by Rs.3,082 million during the year ended March 31, 2018 as compared to the year ended March 31, 2017; and
- the foregoing was partially offset by an increase in net cash outflow by Rs.26,335 million for the year ended March 31, 2018, as compared to the year ended March 31, 2017, through investments in mutual funds and fixed deposits having an original maturity of more than three months.

Cash Flow from Financing Activities

Year ended March 31, 2019 compared to year ended March 31, 2018

Our financing activities resulted in a net cash outflow of Rs.21,326 million and a net cash outflow of Rs.4,440 million for the year ended March 31, 2019 and 2018, respectively.

During the year ended March 31, 2019, our net cash outflow was primarily on account of net repayment of borrowings of Rs.15,126 million (primarily by our parent company); dividend payments (including dividend distribution taxes) of Rs.4,002 million and interest payments of Rs.1,607 million.

Year ended March 31, 2018 compared to year ended March 31, 2017

Our financing activities resulted in a net cash outflow of Rs.4,440 million for the year ended March 31, 2018, as compared to Rs.3,692 million for the year ended March 31, 2017.

During the year ended March 31, 2018, there was a decrease in net short-term borrowings by Rs.18,024 million, primarily on account of the repayment of such borrowings of Rs.23,222 million by our Swiss subsidiary, which was offset by an increase in long-term borrowings of Rs.18,907 million incurred by our subsidiaries in Switzerland and Germany. Furthermore, we also paid dividends (including dividend distribution taxes) of Rs.3,992 million.

During the year ended March 31, 2017, we bought back and extinguished 5,077,504 equity shares for an aggregate purchase price of Rs.15,694 million (Refer to Note 15 of our consolidated financial statements for further details). In addition, we repaid long term borrowings of Rs.5,220 million, which primarily consisted of the partial repayment of a U.S.$150 million loan by our parent company (Refer to Note 17 to our consolidated financial statements for further details). Furthermore, we incurred net short-term borrowings of Rs.21,536 million during the year ended March 31, 2017, including borrowings of Rs.23,366 million (U.S.$350 million) by our Swiss subsidiary for the purpose of acquiring eight ANDAs from Teva and an affiliate of Allergan plc (Refer to Note 32 of our consolidated financial statements for further details). Furthermore, we also paid dividends (including dividend distribution taxes) of Rs.3,390 million.

Principal obligations

The following table summarizes our principal debt obligations (excluding capital lease obligations) outstanding as of March 31, 2019:

Principal debt obligations	Payments due by period			
	Total	Less than 1 year	1-5 years	More than 5 years
	(Rs. in millions)			
Short-term borrowings from banks	Rs. 12,125	Rs. 12,125	Rs. -	Rs. -
Long-term debt in foreign currency[1]	26,347	4,256	22,091	-
Total obligations	**Rs. 38,472**	**Rs. 16,381**	**Rs. 22,091**	**Rs. -**

(1) Long-term debt obligations disclosed in the above table do not reflect any netting of transactions costs of Rs.91 million.

Annual rate of interest

The following table provides details of annual rates of interest for our principal debt obligations (excluding finance lease obligations) outstanding as of March 31, 2019:

(All amounts in Rupees millions)

Debt	Amount	Currency[1]	Interest Rate[2]
Pre-shipment credit (short-term)	Rs. 5,463	USD	1 Month LIBOR + 25 to 40 bps
Other short-term borrowings	6,662	USD	1 Month LIBOR + 65 to 95 bps
		MXN	TIIE + 1.25%
		UAH	21.50% *(fixed)*
		ZAR	1 Month JIBAR+120 Bps
		RUB	8.22% *(fixed)*
Long-term borrowings	26,256	USD	1 Month LIBOR + 70 to 105 bps
		EUR	0.81% *(fixed)*

(1) "INR" means Indian rupees, "USD" means United States Dollars, "EUR" means Euros, "RUB" means Russian roubles, "MXN" means Mexican pesos, "UAH" means Ukrainian hryvnia and "ZAR" means South African rand.

(2) "LIBOR" means the London Inter-bank Offered Rate, "TIIE" means the Equilibrium Inter-banking Interest Rate (Tasa de Interés Interbancaria de Equilibrio) and "JIBAR" means the Johannesburg Interbank Average Rate.

The maturities of short term borrowings from banks vary from 6 to 12 months. Our objective in determining the borrowing maturity is to ensure a balance between flexibility, cost and continuing availability of funds.

Subject to obtaining certain regulatory approvals, there are no legal or economic restrictions on the transfer of funds between us and our subsidiaries or for the transfer of funds in the form of cash dividends, loans or advances. However, transfers of funds from Venezuela are subject to certain exchange control regulations. Consistent with our risk management policy, we use interest rate swaps to mitigate the risk of changes in interest rates.

Cash and cash equivalents are primarily held in Indian rupees, U.S. dollars, U.K. pounds sterling, Euros, Kazakhstan tenges, Brazilian reals and Swiss francs.

As of March 31, 2019 and 2018, we had committed to spend Rs.2,495 million and Rs. 3,788 million, respectively, under agreements to purchase property, plant and equipment. This amount is net of capital advances paid in respect of such purchases. These commitments will be funded through the cash flows generated from operations as well as cash flows from our long term borrowings.

5.C. ***Research and development, patents and licenses, etc.***

Research and Development

Our research and development activities can be classified into several categories, which run parallel to the activities in our principal areas of operations:

- *Global Generics*, where our research and development activities are directed at the development of product formulations, process validation, bioequivalence testing and other data needed to prepare a growing list of drugs that are equivalent to numerous brand name products for sale in the highly regulated markets of the United States and Europe as well as emerging markets. Global Generics also includes our biologics business, where research and development activities are directed at the development of biologics products for the emerging as well as highly regulated markets. Our biologics research and development facility caters to the highest development standards, including cGMP, Good Laboratory Practices and bio-safety level IIA.

- *Pharmaceutical Services and Active Ingredients*, where our research and development activities concentrate on development of chemical processes for the synthesis of API for use in our Global Generics segment and for sales in the emerging and developed markets to third parties. Our research and development activities also support our custom pharmaceutical line of business, where we continue to leverage the strength of our process chemistry and finished dosage development expertise to target innovator as well as emerging pharmaceutical companies. The research and development is directed toward providing services to support the entire pharmaceutical value chain, from discovery all the way to the market.

- *Proprietary Products*, where we focus on the research, development, and commercialization of differentiated formulations. These novel products fall within the dermatology and neurology therapeutic areas.

In the years ended March 31, 2019, 2018 and 2017, we expended Rs. 15,607 million, Rs. 18,265 million and Rs. 19,551 million, respectively, on research and development activities. The increase in research and development expenditure was in line with our strategy to expand our research and development efforts in complex formulations, differentiated formulations and biosimilar compounds.

Patents, Trademarks and Licenses

We have filed and been issued numerous patents in our principal areas of operations: Global Generics, Pharmaceutical Services and Active Ingredients and Proprietary Products. We expect to continue to file patent applications seeking to protect our innovations and novel processes in several countries, including the United States. Any existing or future patents issued to or licensed by us may not provide us with any competitive advantages for our products or may even be challenged, invalidated or circumvented by our competitors. In addition, such patent rights may not prevent our competitors from developing, using or commercializing products that are similar or functionally equivalent to our products. As of March 31, 2019, we have more than 1,500 trademarks filed with the Registrar of Trademarks in India which are either registered or are pending registration. We have also filed registration applications for non-U.S. trademarks in other countries in which we do business. We market several products under licenses in several countries where we operate.

5.D. ***Trend Information***

Please see “Item 5: Operating and Financial Review and Prospects” and “Item 4. Information on the Company” for trend information.

5.E. ***Off-balance sheet arrangements***

None.

5.F. ***Tabular Disclosure of Contractual Obligations***

The following summarizes our contractual obligations as of March 31, 2019 and the effect such obligations are expected to have on our liquidity and cash flows in future periods.

	Payments due by period (Rs. in millions)				
Contractual Obligations	**Total**	**Less than 1 year**	**1-3 years**	**3-5 years**	**More than 5 years**
Operating lease obligations	Rs. 1,291	Rs. 405	Rs. 789	Rs. 8	Rs. 89
Capital lease obligations (including interest)	823	109	204	187	323
Property, plant and equipment purchase obligations[1]	2,495	2,495	-	-	-
Short-term debt obligations	12,125	12,125	-	-	-
Long-term debt obligations (excluding capital lease) [2]	25,738	4,199	7,708	13,831	-
Estimated interest payable on long-term debt [3]	1,912	760	1,124	28	-
Post-retirement benefits obligations [4]	2,587	324	470	491	1,302
Total contractual obligations	**Rs. 46,971**	**Rs. 20,417**	**Rs. 10,295**	**Rs. 14,545**	**Rs. 1,714**

(1) Amounts presented are net of capital advances paid in respect of such purchases and are expected to be funded from internally generated funds.

(2) Long-term debt obligations disclosed in the above table do not reflect any netting of transaction costs of Rs.91 million.

(3) Disclosure of estimated interest payments for future periods is only with respect to our long term debt obligations, as the projected interest payments with respect to our short term borrowings and other obligations cannot be reasonably estimated because they are subject to fluctuation in actual utilization of borrowings depending on our daily funding requirements. The estimated interest costs are based on March 31, 2019 applicable benchmark rates and are subject to fluctuation in the future.

(4) Post-retirement benefits obligations in the "More than 5 years" column are estimated for a maximum of 10 years.

We have committed to make potential future milestone and royalty payments to third parties under various agreements. Such payments are contingent upon the achievement of certain regulatory milestones and sales targets. Due to the uncertainty of the timing of these payments, they are not included in the above table.

5.G. ***Safe harbor***

See page 2 under heading "Forward-Looking and Cautionary Statement".

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

6. A. ***Directors and senior management***

The list of our directors and executive officers and their respective age and position as of March 31, 2019 was as follows:

Directors Name[1]	**Age (in yrs.)**	**Position**
Mr. K. Satish Reddy [2][3]	51	Chairman
Mr. G.V. Prasad [2][4]	58	Co-Chairman, Managing Director and Chief Executive Officer
Mr. Anupam Puri	73	Director
Ms. Kalpana Morparia	70	Director
Dr. Omkar Goswami	62	Director
Dr. Bruce L.A. Carter	75	Director
Mr. Sridar Iyengar	71	Director
Mr. Bharat Narotam Doshi	69	Director
Mr. Prasad R. Menon	73	Director
Mr. Leo Puri[5]	58	Director
Ms. Shikha Sharma[6]	60	Director
Mr. Allan Oberman[7]	61	Director

(1) Except for Mr. K. Satish Reddy and Mr. G.V. Prasad, all of the directors are independent directors under the corporate governance rules of the New York Stock Exchange.
(2) Full-time director.
(3) Brother-in-law of Mr. G.V. Prasad.
(4) Brother-in-law of Mr. K. Satish Reddy.
(5) Appointment effective as of October 25, 2018.
(6) Appointment effective as of January 31, 2019.
(7) Appointment effective as of March 26, 2019.

Executive Officers

Our policy is to classify our officers as "executive officers" if they have membership on our Management Council. Our Management Council consists of various business and functional heads and is our senior management organization. As of March 31, 2019, the Management Council consisted of:

Name and Designation	Education/Degrees Held	Age	Experience in years	Date of commencement of employment	Particulars of last employment
Mr. K. Satish Reddy [1] Chairman	B. Tech., M.S. (Medicinal Chemistry)	51	27	January 18, 1993	Director, Globe Organics Limited
Mr. G.V. Prasad [2] Co-Chairman, Managing Director and Chief Executive Officer	B. E. (Chem. Eng.), M.S. (Indl. Admn.)	58	35	June 30, 1990	Promoter Director, Benzex Labs Private Limited
Mr. M.V. Ramana Executive Vice President and Head - Branded Markets (India and Emerging Countries)	MBA	51	27	October 15, 1992	-
Mr. Saumen Chakraborty President and Chief Financial Officer and Global Head of Information Technology and Business Process Excellence	B.Sc. (H), MBA (IIM)	58	35	July 2, 2001	Vice President, Tecumseh Products India Private Limited
Mr. Ganadhish Kamat Executive Vice President and Head - Global Quality Organization	Master of Pharmacy and Diploma in Business Management	57	33	April 18, 2016	Executive Vice President – Corporate Quality, Lupin Limited
Dr. Anil Namboodiripad Senior Vice President and Head - Proprietary Products	Ph.D. Physiology and Molecular Biophysics	53	22	September 17, 2007	Associate Director – Bristol Myers Squibb
Ms. Archana Bhaskar Executive Vice President and Chief Human Resource Officer	MBA (IIM)	52	29	June 15, 2017	Human Resources head (Global commercial business) Royal Dutch Shell
Mr. Sanjay Sharma Executive Vice President and Head – Global Manufacturing Operations	B. Tech (IIT), Business Leader's program (IIM) and General Management program (IIM)	51	28	August 1, 2017	Integrated Supply Chain Operations (Coca Cola) for India and South Asia
Mr. Erez Israeli Chief Operating Officer and Global Head of Generics and PSAI	Graduate Bar Ilan University MBA in Finance and Marketing Bar Ilan University	52	25	April 2, 2018	Executive Officer Enzymotec
Mr. Sauri Gudlavalleti Senior Vice President and Head Integrated Product Development Organization	B Tech, Masters in Mechanics and MBA	41	15	March 16, 2015	Associate Partner, Mckinsey & Company
Mr. P. Yugandhar, Senior Vice President and Head of Global Supply Chain Management	MBA	48	25	February 21, 2001	Manager, Eli Lily Ranbaxy Limited
Dr. Raymond de Vre, Senior Vice President and Head of Biologics	Masters and Ph.D. in Applied Physics and Masters in Engineering	51	23	July 30, 2012	Partner, McKinsey & Company

Name and Designation	Education/Degrees Held	Age	Experience in years	Date of commencement of employment	Particulars of last employment
Deepak Sapra[3] Senior Vice President and Head PSAI	B.E., PGDM, BA	44	19	January 23, 2003	Asst. Divisional Engineer, Indian Railways
Marc Kikuchi[4] CEO, North America Generics	MBA, BA (Molecular and Cell Biology)	50	25	February 1, 2019	CEO, Americas for Zydus Pharmaceuticals, Inc.

(1) Brother-in-law of Mr. G.V. Prasad.
(2) Brother-in-law of Mr. K. Satish Reddy.
(3) Appointment effective from October 1, 2018.
(4) Appointment effective from February 1, 2019.

There was no arrangement or understanding with major shareholders, customers, suppliers or others pursuant to which any director or executive officer referred to above was selected as a director or member of our Management Council.

Biographies – Directors

Mr. K. Satish Reddy is the Chairman of our Board of Directors. Prior to May 2014, he held the offices of Vice Chairman and Managing Director. He has a Master of Science degree in Medicinal Chemistry from Purdue University, Indiana in the United States of America and a Bachelor of Technology degree in Chemical Engineering from Osmania University, Hyderabad. He is the Chairman of the Board of Governors of NIPER, Hyderabad and the Deputy Chairman of the Confederation of Indian Industry (CII), Southern Council. He also chairs the Life Sciences Skill Development Council under The National Skill Development Corporation ("NSDC"), an organization, working in partnership with various stakeholders groups, to serve and address the skill shortfalls in the Life Sciences Sectors across India. He was a member of the Drugs Technical Advisory Board of India, the Chairman of the Andhra Pradesh Chapter of the Confederation of Indian Industries ("CII") and head of its National Committee on Pharmaceuticals. He was the President of the Indian Pharmaceutical Alliance, a premier industry association of leading research-based Indian companies. In May 2015, the Ministry of Labour and Employment, Government of India, nominated Mr. Reddy as Chairman of the Board of Governors of the National Safety Council. In addition to positions held in our subsidiaries and joint ventures, he is also a Director of Green Park Hotels and Resorts Limited, Dr. Reddy's Holdings Limited, Stamlo Industries Limited, Ruthenika Technologies Limited, Araku Originals Private Limited, Dr. Reddy's Institute of Life Sciences, Cipro Estates Private Limited, KAR Therapeutics & Estates Private Limited, Quin Estates Private Limited, Satish Reddy Estates Private Limited, Molecular Connections Private Limited, Dr. Reddy's Trust Services Private Limited, KAR Holdings (Singapore) Private Limited, Singapore, KAREUS Therapeutics (Singapore) Private Limited, Singapore and KAREUS Therapeutics, SA, Switzerland.

Mr. G.V. Prasad is a member of our Board of Directors and serves as our Co-Chairman, Managing Director and Chief Executive Officer. Prior to May 2014, he held the titles of Chairman and Chief Executive Officer. He was the Managing Director of Cheminor Drugs Limited prior to its merger with Dr. Reddy's Laboratories. He has a Bachelor of Engineering degree in Chemical Engineering from Illinois Institute of Technology, Chicago in the United States of America, and an M.S. in Industrial Administration from Purdue University, Indiana in United States of America. Mr. Prasad was listed among the Top 50 CEOs that India ever had by Outlook magazine in 2017 and was recognized as one the top 5 Most Valuable CEOs of India by Business World in 2016. He was also listed in the prestigious 'Medicine Maker 2018 Power List' of most inspirational professionals shaping the future of drug development, and has been named India Business Leader of the year by CNBC Asia, in 2015. In addition to positions held in our subsidiaries and joint ventures, he is a Director of Green Park Hotels and Resorts Limited, Dr. Reddy's Holdings Limited, Stamlo Industries Limited, Ruthenika Technologies Limited, Dr. Reddy's Institute of Life Sciences, International Foundation for Research and Education, Molecular Connections Private Limited and Dr. Reddy's Trust Services Private Limited. Mr. Prasad is active on the boards of public and private institutions such as Indian School of Business (ISB), Andhra Pradesh State Skill Development Corporation and has served on the boards of IIT Hyderabad, Cyient Limited and Acumen Fund.

Mr. Anupam Puri has been a member of our Board of Directors since 2002. He was associated with McKinsey and Company before joining us. He was a Director and played a variety of other leadership roles during his 30-year career there. Before joining McKinsey and Company, he was Advisor for Industrial Development to the President of Algeria, and consultant to General Electric's Center for Advanced Studies. He holds a Bachelor of Arts degree in Economics from St. Stephen's College, Delhi University, and Master of Arts and M. Phil. degrees from Oxford University. He is also on the Board of Directors of Mahindra and Mahindra Limited, Tech Mahindra Limited and our wholly owned subsidiary Dr. Reddy's Laboratories Inc. in the United States of America.

Dr. Omkar Goswami has been a member of our Board of Directors since 2000. He is a founder and Chairman of CERG Advisory Private Limited, a corporate advisory and economic research and consulting company. He was the chief economist at the Confederation of Indian Industry for six years. He also served as editor of Business India, associate professor at the Indian Statistical Institute, Delhi, and as an advisor to the Ministry of Finance. He holds a Bachelor of Economics degree from St. Xavier's College, Calcutta University, a Master of Economics degree from the Delhi School of Economics, Delhi University and a Ph.D. degree from Oxford University. He is also a Director on the Boards of CG Power and Industrial Solutions Limited, Ambuja Cements Limited, Godrej Consumer Products Limited, Bajaj Finance Limited, Max Healthcare Institute Limited, Hindustan Construction Company Limited and Bajaj Auto Limited

Ms. Kalpana Morparia has been a member of our Board of Directors since 2007. Ms. Kalpana Morparia is Chairperson of J.P. Morgan, South and Southeast Asia. Ms. Kalpana Morparia is a member of J.P. Morgan's Asia Pacific Management Committee. Prior to joining J.P. Morgan, India, Ms. Kalpana Morparia served as Vice Chair on the Board of ICICI Group and was a Joint Managing Director of ICICI Group from 2001 to 2007. A graduate in science and law from Mumbai University, Ms. Kalpana Morparia has served on several committees constituted by the Government of India. She has been recognized by the national and international media for her role as one of the leading women professionals. She also serves on the Board of Hindustan Unilever Limited, J.P. Morgan Services India Private Limited, in India and Philip Morris International Inc. in the United States of America. She also serves as a member on the Board of Governors of Bharti Foundation.

Dr. Bruce L.A. Carter has been a member of our Board of Directors since 2008. Dr. Bruce L.A. Carter was the Chairman of the Board and the former Chief Executive Officer of ZymoGenetics, Inc. in Seattle, Washington, in the United States of America. He has also served as the Corporate Executive Vice President and Chief Scientific Officer for Novo Nordisk A/S, the former parent company of ZymoGenetics. From 1982 to 1986, he served various positions at G.D. Searle & Co. Ltd., including Head of Molecular Genetics. He was a Lecturer of Trinity College, University of Dublin from 1975 to 1982. Dr. Bruce L.A. Carter received a B.Sc. with Honors in Botany from the University of Nottingham, England, and a Ph.D. in Microbiology from Queen Elizabeth College, University of London. Dr. Bruce L.A. Carter is also on the Board of Directors of TB Alliance, Mirati Therapeutics Inc., Accelerator Corporation and Enanta Pharmaceutical Inc. in the United States of America and our wholly-owned subsidiary Aurigene Discovery Technologies Limited.

Mr. Sridar Iyengar has been a member of our Board of Directors since 2011. Mr. Sridar Iyengar is an independent mentor investor in early stage startup companies. For more than 35 years, he has worked in the United Kingdom, the United States and India with a large number of companies, advising them on strategy and other issues. Earlier, he was a senior partner with KPMG in the United States and the United Kingdom and served for 3 years as the Chairman and CEO of KPMG's operations in India. Mr. Sridar Iyengar holds a Bachelor of Commerce (Hons.) degree from Calcutta University and he is a Fellow of the Institute of Chartered Accountants in England and Wales. Mr.Sridar Iyengar is also on the Board of Directors of Mahindra Holidays and Resorts India Limited, ICICI Venture Funds Management Company Limited, Cleartrip Private Limited in India, AverQ Inc., in the United States of America, Cleartrip Inc. in the Cayman Islands, Holiday Club Resorts OY, Finland and our wholly owned subsidiary Dr. Reddy's Laboratories S.A. in Switzerland.

Mr. Bharat N. Doshi has been a member of our Board of Directors since 2016. Mr. Bharat N. Doshi is a former Executive Director and Group Chief Financial Officer of Mahindra & Mahindra Limited. He was also the Chairman of Mahindra & Mahindra Financial Services Limited since April 2008, and he stepped down from this position on his nomination as Director on the Central Board of Directors of the Reserve Bank of India in March 2016. He is the Chairman of Mahindra Intertrade Limited**,** Director on the Board of Mahindra Holdings Limited and member of Board of Governors of The Mahindra United World College of India. He is a director on the Boards of Mahindra Foundation (USA) and Mahindra Foundation (UK) and one of the trustees of K C Mahindra Education Trust. He is also an Independent Director of Godrej Consumer Products Limited. He also serves on Advisory Board of Excellence Enablers, an organization committed to promoting corporate governance in India. Mr. Bharat N. Doshi is a fellow Member of the Institute of Chartered Accountants of India and the Institute of Company Secretaries of India and holds Master's degree in Law from Bombay University. He is an alumnus of Harvard Business School (Program for Management Development) and Fellow of the Salzburg Seminar on 'Asian Economies: Regional and Global Relationships'.

Mr. Prasad R. Menon has been a member of our Board of Directors since 2017. Mr. Prasad R Menon is a former Managing Director of Tata Chemicals Limited and Tata Power Company Limited. He has over 40 years of diverse experience in some of the premier multinational and Indian companies in the chemical and power industry. Prior to joining Tata, he was Director Technical of Nagarjuna Fertilisers and Chemicals Limited. Mr. Prasad Menon also holds directorship in the Singapore Tourism Board and Sanmar Group Advisory Board. He holds a chemical engineering degree from the Indian Institute of Technology (IIT), Kharagpur.

Mr. Leo Puri has been a member of our Board of Directors since October 2018. Mr. Leo Puri was the Managing Director of UTI Asset Management Co. Ltd. from August 2013 to August 2018. In his career of more than 30 years, Mr. Leo Puri has previously worked as Director with McKinsey & Company and as Managing Director with Warburg Pincus. Mr. Leo Puri has worked in the U.K., the United States and Asia. Since 1994, he has primarily worked in India. At McKinsey, he has advised leading financial institutions, conglomerates and investment institutions in strategy and operational issues. He has contributed to the development of knowledge and public policy through advice to regulators and government officials. At Warburg Pincus, he was responsible for leading and managing investments across industries in India. He also contributed to financial services investments in the international portfolio as a member of the global partnership. Mr. Leo Puri has held non-executive board positions at Infosys, Bennett Coleman & Co., Max New York Life and Max Bupa Health Insurance. He is also a director on the Boards of Hindustan Unilever Limited, Northern Arc Capital Limited and India Ideas.com Limited. Mr. Leo Puri has a Master's degree in P.P.E. from University of Oxford, and a Master's degree in Law from University of Cambridge.

Ms. Shikha Sharma has been a member of our Board of Directors since January 2019. Ms. Shikha Sharma was the Managing Director and CEO of Axis Bank, India's third largest private sector bank from June 2009 until December 2018. As a leader adept at managing change, she led the Bank on a transformation journey from being primarily a corporate lender to a bank with a strong retail deposit franchise and a balanced lending book. Ms. Shikha Sharma has more than three decades of experience in the financial sector, having begun her career with ICICI Bank Ltd in 1980. During her tenure with the ICICI group, she was instrumental in setting up ICICI Securities. As Managing Director and CEO of ICICI Prudential Life Insurance Company Ltd., she led that company to become the No. 1 private sector life insurance company in India. She was a member of the Reserve Bank of India ("RBI") Technical Advisory Committee, the RBI's panel on Financial Inclusion, and the RBI's Committee on Comprehensive Financial Services for Small Businesses and Low-Income Household. She has chaired CII's National Committee on Banking 2015-2017. Ms. Shikha Sharma holds an MBA from the Indian Institute of Management, Ahmedabad, B.A. (Hons.) in Economics and a Post Graduate Diploma in Software Technology from National Centre for Software Technology (NCST), Mumbai. Ms. Shikha Sharma also holds a directorship in Ambuja Cements Ltd. and Tata Global Beverages Ltd.

Mr. Allan Oberman has been a member of our Board of Directors since March 2019. Mr. Allan Oberman served as the Chief Executive Officer of Concordia International Corp. from November 2016 until May 2018. In his career of more than 35 years he also served as CEO of Sagent Pharmaceuticals Inc., and as President and CEO of Teva Americas Generics, a subsidiary of Teva Pharmaceutical Industries Ltd. Prior to that, Mr. Allan Oberman served as President of Teva EMIA, where from 2010 to 2012 he was responsible for Eastern Europe, Middle East, Israel and Africa. From 2008 to 2010, he served as the Chief Operating Officer of the Teva International Group, and from 2000 to 2008, he served as the President and CEO of Teva Canada (formerly Novopharm Ltd.) From 1996 to 2000, Mr. Allan Oberman was the President of Best Foods Canada Inc. Mr. Allan Oberman was also Vice Chairman of the Association for Accessible Medicines, and Chairman of the Canadian Generic Pharmaceutical Association. He served on the Associate Board of the Canadian Association of Chain Drug Stores, and was a member of the Board of Directors of the Baycrest Centre Foundation, the Electronic Commerce Council, and the Food and Consumer Products Association of Canada. He presently serves on the Board of Planet Shrimp Inc. and Jay Pharma Inc. He holds a MBA from the Schulich School of Business, York University, Toronto and a BA from Western University, London.

Biographies - Executive Officers

Mr. Erez Israeli is the Chief Operating Officer and the Global Head of Generics and PSAI businesses. He has over 25 years of experience in the pharmaceutical industry. Mr. Erez Israeli is an accomplished leader with a proven track record of achievement. Prior to joining us, Erez was President and Chief Executive Officer of Enzymotec. Prior to that, he spent 23 years working at Teva Pharmaceutical Industries Limited ("Teva"), where he held several leadership positions in the API and pharmaceutical (Generics, Specialty and OTC) businesses. He was also the Head of the Global Quality function for Teva, and has held Board positions at subsidiaries of Teva. He graduated from Bar Ilan University in Israel, majoring in art, economics and business administration, and received a MBA in Finance and Marketing from Bar Ilan University.

Mr. M.V. Ramana is the CEO - Branded Markets (India and Emerging countries) effective as of April, 2018. In this role, he leads a multicultural team of 20+ nationalities in 25+ countries. He joined us on October 15, 1992 as a Management Trainee in the International Marketing division of our Branded Formulations business. In his 26 year tenure, he has handled various critical assignments including setting up the businesses in several countries across Asia, Latin America, Africa and the Middle East. Mr. M.V. Ramana is also a frequent speaker at various international forums in the pharmaceutical and generics industry. He holds a MBA degree from Osmania University, Hyderabad, India and has completed the ISB-Kellogg management development program.

Mr. Saumen Chakraborty is the President, Chief Financial Officer and Global Head of IT & BPE. Additionally, he is also responsible for Global Legal & Compliance and Facility Management functions. Mr. Saumen Chakraborty joined us in 2001 as Global Chief of Human Resources. Since 2005, he remained as the Global head of IT & BPE in addition to his other responsibilities. He has gone through various job rotations within the organization including two stints as Chief Financial Officer from 2006 to 2009 and again from 2013 onwards. In between, he was President - Corporate and Global Generics Operations and subsequently President and Global Head of Quality, Human Resources and Information Technology whereby he focused on the integration of people practices, processes and information across the organization. Mr. Saumen Chakraborty has over 35 years of experience in strategic and operational aspects of management. Prior to joining us, he held various line management, human resources and other positions, including Senior Manager (Finance and Accounts) in the Eicher Group and Vice President (Operations) in Tecumseh Products Company. He has received various accolades during his career including India's overall Best CFO awards separately by International Market Assessment ("IMA") and Business Today-Yes Bank, category specific best CFO awards separately by CNBC and BW Businessworld, India's greatest HR professional and awards for HR excellence separately by ITM, Deccan Herald and World HR congress besides various Quality & IT leadership awards. He has also held various Board position including ABP group, Academy of HRD, and served as a member of the National Leadership Committee of CII. He is on the Board of various joint ventures/subsidiaries of our Company. He graduated with honors as the valedictorian of his class from Visva-Bharati University in Physics and holds Post-Graduate Diploma in Management from the Indian Institute of Management, Ahmedabad, Gujarat, India. Currently, he is undergoing the Executive Fellow Program in Management (equivalent to Ph D) from the Indian School of Business (ISB).

Mr. Ganadhish Kamat is the Global Head of Quality. He has joined us in April 2016 and in this role he is responsible for Global Quality. He has close to 35 years of rich experience in the pharmaceutical industry. During his long career, Mr. Ganadhish Kamat has worked in leadership roles in different organizations such as Sandoz, Intas Pharma and Ranbaxy. Prior to joining us, Mr. Ganadhish Kamat was with Lupin as Executive Vice President – Corporate Quality. He is a member of the International Society for Pharmaceutical Engineering (ISPE) and Parenteral Drug Association (PDA). He holds a Master of Pharmacy degree from Mumbai University and a Diploma in Business Management from Goa University.

Dr. Anil Namboodiripad is the Senior Vice President-Proprietary Products and Head, Promius Pharma. Promius Pharma is our wholly owned subsidiary that is responsible for the commercialization of branded products in the United States. He joined us in 2007 and in this role he is responsible for our Proprietary Products business. He has been one of the main architects of our Proprietary Products business since July 2008, when systematic efforts towards differentiated formulations were first undertaken. In earlier roles, he was responsible for leading external research and development and strategic marketing which included establishing research collaborations and "mini incubators" with various external industry partners and academic bodies. Over the years, his role has grown considerably with the inclusion of Proprietary Products drug development, regulatory affairs and the dermatology commercial effort under his leadership. Prior to joining our Company, he spent a number of years at Abbott Laboratories (now Abbvie) and at Bristol-Myers Squibb in various roles of increasing responsibility including strategic planning, corporate development and global commercial operations. He started his career as a management consultant with Booz & Co. in New York (formerly Booz Allen Hamilton), where he served clients on several high level business critical issues within financial services and healthcare. He holds a Ph.D. in Physiology and Molecular Biophysics from the University of Texas.

Ms. Archana Bhaskar is the Executive Vice President and Chief Human Resources Officer ("CHRO"). She joined our Company in June 2017. She has over 26 years of experience across various industries, geographies and companies. She has held senior management roles with Royal Dutch Shell, Singapore where she headed Human Resources for the Global Commercial businesses and with Unilever, where she held positions of European and global responsibility, as well as large Indian corporations with whom she consulted in professionalizing Human Resources policies and practices. She graduated from Lady Shiram College, Delhi University, majoring in Psychology and Mathematics and holds a degree in Management from the Indian Institute of Management, Bengaluru.

Mr. Sanjay Sharma is the Executive Vice President and Head of Global Manufacturing Operations. He joined us in August 2017. He has over 26 years of experience across various industries such as Coca-Cola and United Breweries handling diverse set of roles spanning across Supply Chain, Manufacturing and Sales in both emerging and developed markets. He joined us from Hindustan Coca-Cola where he led their Integrated Supply Chain Operations for India and South Asia. His experience includes running one of the largest sales profit centers for Coca-Cola, India and heading National Technical Operations for United Breweries in South Africa. He graduated from the Indian Institute of Technology (IIT) Delhi with a degree in Chemical Engineering, completed a one year Business Leader's program from the Indian Institute of Management (IIM) Calcutta and a General Management program from IIM Ahmedabad.

Mr. Sauri Gudlavalleti is the Head of Integrated Product Development Organization (IPDO). He joined our Company in 2015 to head global portfolio, project management and external partnerships in IPDO. He has diverse experience spanning the automotive, energy, technology and pharmaceutical sectors. Prior to joining our Company, he was a Management Consultant at McKinsey & Co., India, specializing in Product Development and Operations Transformation. Before that, he has worked at Qualcomm in California developing Micro-Electro-Mechanical Systems, and at General Electric Global Research in New York developing Fuel Cells and Hydrogen production systems. He has 8 U.S. patents to his name, and has published in several peer reviewed technical journals. Mr. Sauri Gudlavalleti holds a Bachelor's degree in Mechanical Engineering from the Indian Institute of Technology, Madras, and a Master's degree in Mechanics of Materials from Massachusetts Institute of Technology. He also holds an MBA from the Indian Institute of Management, Ahmedabad.

Mr. P. Yugandhar is the Senior Vice President and Head of Global Supply Chain Management. He has assumed overall responsibility for the Supply Chain function at our Company. He joined us in 2001 as our Manager Supply Chain and has since held positions of increasing responsibility, including Head of Demand Planning, Mexico Integration, and Head of Europe Supply Chain and Technology. In the last four years, he has contributed significantly in integrating our Supply Chain globally across Formulations, active pharmaceutical ingredients (API), Custom Pharmaceutical Services (CPS), external manufacturing and new product launches. Prior to joining our Company, Mr.P Yugandhar had successful stints in Eli Lilly Ranbaxy, Pharmacia & Upjohn, Max Pharma, Dabur and Hawkins. Mr.P Yugandhar holds a Management degree (Master of Management Studies) from BITS, Pilani.

Dr. Raymond De Vré is the Senior Vice President and Head of Biologics, a division that focuses on the development, manufacturing and commercialization of biosimilar molecules for emerging markets and highly regulated markets. Dr. Raymond De Vré joined our Company in 2012 as head of Commercial for the Biologics division, being based in the Swiss office of our Company. In this role, he was instrumental in building new partnerships and alliances across the world towards further accelerating access to our Company's biosimilars. Over time, he had increasing responsibilities within Biologics, including Commercial, IP, Regulatory, Strategy, Business Development, Portfolio as well as Manufacturing. Prior to joining Dr. Reddy's, Dr. Raymond De Vré was a partner with the management consulting firm McKinsey and Company. Dr. Raymond De Vré worked for 15 years at McKinsey and Company, serving mostly the Generics, Specialty Chemicals, and Biotech industries across the globe, including the United States, Western Europe and India. Dr. Raymond De Vré holds a Master's and Ph.D. degree in Applied Physics from Stanford University, U.S.A and a Master's degree in Engineering from the Université Libre of Brussels, Belgium.

Mr. Deepak Sapra is the Senior Vice President and Global Business Head for our Pharmaceutical Services and Active Ingredients (PSAI) business. Mr. Deepak Sapra joined our Company in 2003 from IIM Bangalore campus and has worked in various roles in Marketing, Sales, Business Development and Portfolio covering most major markets across the world. He has led important projects on several key organizational initiatives around market opening and building new businesses. He has also worked as the business unit head for the Custom Pharma Services (CPS) business and helped contribute significantly towards making it a profitable, sustainable and long term business. Mr. Deepak Sapra's education is in engineering and management. Prior to joining our Company, he worked in the Indian Railway Services. He has been a Fulbright fellow and a Chevening scholar. His first book was published in 2018. He is also the co-founder of a charitable trust that works for people with disabilities in eastern India.

Mr. Marc Kikuchi serves as Chief Executive Officer, North America Generics, and is based in the Princeton, New Jersey, office. He is responsible for leading the North America business and serves as a member of the Board of Dr. Reddy's Laboratories, Inc. Mr. Marc Kikuchi is an accomplished CEO, senior supply chain management and business development executive. He has more than 20 years' experience in the Pharmaceutical Industry with extensive knowledge and understanding of Generics. Prior to joining our Company, Mr. Marc Kikuchi served as CEO, Americas for Zydus Pharmaceuticals, Inc. He has also held professional leadership roles of increasing responsibility with AmerisourceBergen Corporation, Medrad Inc., PRTM, Johnson & Johnson and Incyte Pharmaceuticals. Mr. Marc Kikuchi earned his Master of Business Administration from Carnegie Mellon University with concentration in Strategy, Marketing, and Operations Management. He has a B.A. in Molecular and Cell Biology with Biochemistry emphasis from the University of California at Berkeley.

6.B. ***Compensation***

Directors' compensation

Full-Time Directors: The compensation of our Chairman of the Board and our Co-Chairman, Managing Director and Chief Executive Officer (who we refer to as our "full-time directors") is divided into salary, commission and benefits. They are not eligible to participate in our stock option plans. The Nomination, Governance and Compensation Committee of the Board of Directors initially recommends the compensation for full-time directors. If the Board of Directors (the "Board") approves the recommendation, it is then submitted to the shareholders for approval at the general shareholders meeting along with the proposal for their appointment or re-appointment.

The Chairman of our Board and our Co-Chairman, Managing Director and Chief Executive Officer are each entitled to receive a maximum commission of up to 0.75% of our net profit (as defined under the Indian Companies Act, 2013) for the fiscal year. The Nomination, Governance and Compensation Committee, which is entirely composed of independent directors, recommends the commission for the Chairman of our Board and our Co-Chairman, Managing Director and Chief Executive Officer within the limits of 0.75% each, of our net profits (as defined under the Indian Companies Act, 2013) for each fiscal year.

Non-Full Time Directors: In the year ended March 31, 2019, none of our non-full time directors were paid any sum as attendance fees. Non-full time directors are eligible to receive a commission on our net profit (as defined under the Indian Companies Act) for each fiscal year. Our shareholders have approved a maximum commission of up to 1% of the net profits (as defined under the Indian Companies Act, 2013) for each fiscal year for all non-full time directors in a year. The Board determines the entitlement of each of the non-full time directors to commission within the overall limit. The non-full time directors were not granted stock options under the Dr. Reddy's Employees Stock Option Scheme, 2002, the Dr. Reddy's Employees ADR Stock Option Scheme, 2007 or the Dr. Reddy's Employees Stock Option Scheme, 2018 in the year ended March 31, 2019.

For the year ended March 31, 2019, the directors were entitled to the following amounts as compensation:

	(Amounts Rs. in millions)			
Name of Directors	**Commission**	**Salary**	**Perquisites**	**Total**
Mr. K. Satish Reddy	63.00	18.35	4.24	85.59
Mr. G.V. Prasad	100.00	18.35	5.52	123.87
Dr. Omkar Goswami	9.68	-	-	9.68
Mr. Anupam Puri	11.48	-	-	11.48
Ms. Kalpana Morparia	9.68	-	-	9.68
Dr. Bruce L.A. Carter	10.20	-	-	10.20
Mr. Sridar Iyengar	10.44	-	-	10.44
Mr. Bharat N. Doshi	11.07	-	-	11.07
Mr. Prasad R. Menon	9.34	-	-	9.34
Mr. Leo Puri*	4.84	-	-	4.84
Ms. Shikha Sharma **	2.59	-	-	2.59
Mr. Allan Oberman ***	0.87	-	-	0.87

* Compensation for part of the year, appointment effective as of October 25, 2018.

** Compensation for part of the year, appointment effective as of January 31, 2019.

*** Compensation for part of the year, appointment effective as of March 26, 2019.

Executive officers' compensation

The initial compensation to all our executive officers is determined through appointment letters issued at the time of employment. The appointment letter provides the initial amount of salary and benefits the executive officer will receive as well as a confidentiality provision and a non-compete provision applicable during the course of the executive officer's employment with us. We provide salary, certain perquisites, retirement benefits, stock options and variable pay to our executive officers. The Nomination, Governance and Compensation Committee of the Board reviews the compensation of executive officers on a periodic basis.

All of our employees at the managerial and staff levels are eligible to participate in a variable pay program, which consists of performance bonuses based on the performance of their function or business unit, and a profit sharing plan through which part of our profits can be shared with our employees. Our variable pay program is aimed at rewarding the individual based on performance of such individual, their business unit/function and our company as a whole, with significantly higher rewards for superior performances.

We also have three employee stock option schemes: the Dr. Reddy's Employees Stock Option Scheme, 2002, the Dr. Reddy's Employees ADR Stock Option Scheme, 2007 and the Dr. Reddy's Employees Stock Option Scheme, 2018. The stock option schemes are applicable to all of our employees including directors and employees and directors of our subsidiaries. The stock option schemes are not applicable to promoter directors, promoter employees, non-full time directors (independent directors) and persons holding 2% or more of our outstanding share capital. The Nomination, Governance and Compensation Committee of the Board of Directors awards options pursuant to the stock option schemes based on the employee's performance appraisal. Some employees have also been granted options upon joining us.

Compensation for executive officers who are full time directors is summarized in the table under "Directors' compensation" above.

The following table presents the annual compensation paid or payable to other executive officers for services rendered to us for the year ended March 31, 2019 and stock options issued to all of our other executive officers during the year ended March 31, 2019:

Compensation for Executive Officers

	Compensation[1] (2) (3)	**FMV Value**		**Par Value**	
Name	**(Rs. in millions)**	**Exercise Price**	**No. of options[4]**	**Exercise Price**	**No. of options[4]**
Mr. P. Yugandhar	31	Rs. 2,607	4,600	Rs.5	2,392
Mr. Alok Sonig (until September 7, 2018)	22	-	-	-	-
Dr. Cartikeya Reddy (until September 30, 2018)	20	-	-	-	-
Mr. Saumen Chakraborty	71	2,607	10,900	5	1,500
Mr. M.V. Ramana	56	2,607	8,400	5	1,200
Dr. Amit Biswas (until June 21, 2018)	12	-	-	-	-
Dr. K.V.S. Ram Rao (until October 1, 2018)	22	-	-	-	-
Ms. Archana Bhaskar	46	2,607	6,800	5	900
Mr. Ganadhish Kamat	40	2,607	6,300	5	900
Dr. Anil Namboodiripad	49	-	-	5	4,000
Mr. Sanjay Sharma	45	2,607	5,900	5	800
Mr. Erez Israeli	123	1,982	102,960	5	8,810
Mr. Sauri Gudlavalleti	23	2,607	3,900	5	2,292
Dr. Raymond de Vre (from June 1, 2018)	43	2,607	7,300	5	4,100
Mr. Deepak Sapra (from October 1, 2018)	15	2,607	3,900	5	1,440
Mr. Marc Kikuchi (from February 1, 2019)	11	-	-	-	-

(1) These compensation amounts do not include share based payment expense arising from stock options. However, the number of options granted during the year are mentioned separately in the above table.

(2) These compensation amounts include variable pay accrued for the year. The actuals could differ based on the completion of performance evaluation and differences are adjusted at the time of payouts.

(3) These compensation amounts include superannuation benefits and provident fund benefits. The executive officers are also covered under our Gratuity and Compensated Absences Plans along with the other employees. Proportionate amounts of the cost for gratuity and compensated absences accrued under the plans have not been separately computed or included in the above disclosure, as the amount payable to the officer is inherently variable and our annual contributions to funds established to furnish such payments are lump sums based on actuarial projections for the fund as a whole. Refer to Note 18 of our consolidated financial statements for further details on the foregoing benefits.

(4) The options vest 25% each year on various dates beginning in the year ended March 31, 2020 and ending in the year ended March 31, 2023 subject to the employee being in continued service on the date of vesting. The options expire after five years from the date of vesting. The options are granted under the Dr. Reddy's Employees Stock Option Scheme, 2002, the Dr. Reddy's Employees ADR Stock Option Scheme, 2007 and the Dr. Reddy's Employees Stock Option Scheme, 2018. For each of the foregoing options, one equity share will be issued upon its exercise.

6.C. ***Board practices***

Our Articles of Association require us to have a minimum of three and a maximum of fifteen directors. As of March 31, 2019, we had twelve directors on our Board, of which ten were non-full time independent directors.

The Companies Act, 2013 and our Articles of Association require that at least two-thirds of our directors be subject to re-election by our shareholders in rotation and that, at every annual general meeting, one-third of the directors who are subject to re-election must retire from the Board. However, if eligible for re-election, they may be re-elected by our shareholders at the annual general meeting.

Due to India's adoption of the Companies Act, 2013, effective as of April 1, 2014, non-full time independent directors are no longer required to retire from the Board by rotation. As a result, at annual general meetings held after April 1, 2014, our non-full time independent directors are excluded from the calculation of the two-thirds directors who are subject to re-election by our shareholders in rotation.

The Ministry of Corporate Affairs, Government of India, by a circular dated June 9, 2014, stated that all non-full time independent directors (including existing non-full time independent directors) are required to be appointed expressly under the provisions of the Companies Act, 2013 before March 31, 2015. Accordingly, all of our then non-full time independent directors were re-appointed by our shareholders at the July, 2014 annual general meeting.

The terms of each of our directors and their expected expiration dates are provided in the table below:

Name	Expiration of Current Term of Office	Term of Office	Period of Service
Mr. G.V. Prasad [1]	January 29, 2021	5 years	33 years
Mr. K. Satish Reddy [1]	September 30, 2022	5 years	26 years
Mr. Anupam Puri [2]	July 26, 2019	1 year	17 years
Ms. Kalpana Morparia [2] [3]	July 31, 2019	5 years	12 years
Dr. Omkar Goswami [2] [3]	July 31, 2019	5 years	18.5 years
Dr. Bruce L.A. Carter [2] [3] [4]	July 31, 2019	5 years	11 years
Mr. Sridar Iyengar [2] [3]	July 31, 2019	5 years	8 years
Mr. Bharat N. Doshi [2]	May 10, 2021	5 years	3 years
Mr. Prasad R. Menon [2]	October 29, 2022	5 years	1.5 year
Mr. Leo Puri [2]	October 24, 2023	5 years	0.5 year
Ms. Shikha Sharma [2]	January 30, 2024	5 years	0.2 year
Mr. Allan Oberman [2]	March 25, 2024	5 years	0.1 year

(1) Full time director.
(2) Non-full time independent director.
(3) These non-full time independent directors were appointed at our annual general meeting on July 31, 2014, under the provisions of the Companies Act, 2013 for a term stated in the above table. This appointment of our non-full time independent directors was to comply with the circular dated June 9, 2014 issued by the Ministry of Corporate Affairs, Government of India requiring us to appoint all of our non-full time independent directors specifically under the provisions of the Companies Act, 2013.
(4) Shareholders approved second term of 3 continuous years effective July 31, 2019.

The directors are not eligible for any termination benefit on the termination of their tenure with us. Our full time directors are subject to retirement by rotation. As a result, Mr. G.V.Prasad shall retire by rotation and the proposal to reappoint him is being placed before our shareholders at our annual general meeting scheduled in July 2019.

Committees of the Board

Committees appointed by the Board focus on specific areas and take decisions within the authority delegated to them.

The Committees also make specific recommendations to the Board on various matters from time-to-time. All decisions and recommendations of the Committees are placed before the Board for information or approval. We had seven Board-level Committees as of March 31, 2019:

- Audit Committee.
- Nomination, Governance and Compensation Committee.
- Science, Technology and Operations Committee.
- Risk Management Committee.
- Stakeholders' Relationship Committee.
- Banking and Authorization Committee (formerly known as the Management Committee).
- Corporate Social Responsibility Committee.

We have adopted charters for our Audit Committee, Nomination, Governance and Compensation Committee, Science, Technology and Operations Committee, Risk Management Committee, Stakeholders' Relationship Committee and Corporate Social Responsibility Committee, formalizing the applicable committee's procedures and duties. Each of these charters is available on our website at http://www.drreddys.com/investors/governance/committees-of-the-board/

Audit Committee.

Our management is primarily responsible for our internal controls and financial reporting process. Our independent registered public accounting firm is responsible for performing independent audits of our financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States) and for issuing reports based on such audits. The Board of Directors has entrusted the Audit Committee to supervise these processes and thus ensure accurate and timely disclosures that maintain the transparency, integrity and quality of financial controls and reporting.

The Audit Committee consists of the following four non-full time, independent directors as of March 31, 2019:

- Mr. Sridar Iyengar (Chairman);
- Dr. Omkar Goswami;
- Mr. Bharat Narotam Doshi; and
- Ms. Shikha Sharma

Our Company Secretary is the Secretary of the Audit Committee. This Committee met five times during the year ended March 31, 2019. Our independent registered public accounting firm was generally present at all Audit Committee meetings during the year.

The primary responsibilities of the Audit Committee are inter alia to:

- Supervise our financial reporting process;
- Review our quarterly and annual financial results, along with related public disclosures and filings, before providing them to the Board;
- Review the adequacy of our internal controls, including the plan, scope and performance of our internal audit function;
- Discuss with management our major policies with respect to risk assessment and risk management.
- Hold discussions with external auditors on the nature, scope and process of audits and any views that they have about our financial control and reporting processes;
- Ensure compliance with accounting standards and with listing requirements with respect to the financial statements;
- Recommend the appointment and removal of external auditors and their remuneration;
- Recommend the appointment of cost auditors;
- Review the independence of auditors;
- Ensure that adequate safeguards have been taken for legal compliance both for us and for our subsidiaries;
- Review the financial statements of our subsidiary companies, in particular investments made by them;
- Review and approve related party transactions;
- Review the functioning of whistle blower mechanism;
- Review the implementation of applicable provisions of the Sarbanes-Oxley Act, 2002;
- Scrutinize our inter-company loans and investments;
- Examine the valuation of our undertakings or assets, wherever it is necessary;
- Evaluate internal financial controls; and
- Review suspected fraud, if any, committed against our Company.

Nomination, Governance and Compensation Committee.

The primary functions of the Nomination, Governance and Compensation Committee are inter alia to:

- Examine the structure, composition and functioning of the Board, and recommend changes, as necessary, to improve the Board’s effectiveness;
- Formulate policies on remuneration of Directors, key managerial personnel and other employees, and on Board diversity;

- Formulate criteria for evaluation of Independent Directors and the Board;
- Assess our policies and processes in key areas of corporate governance, other than those explicitly assigned to other Board Committees, with a view to ensuring that we are at the forefront of good governance practices; and
- Regularly examine ways to strengthen our organizational health, by improving the hiring, retention, motivation, development, deployment and behavior of management and other employees. In this context, the Committee also reviews the framework and processes for motivating and rewarding performance at all levels of the organization, reviews the resulting compensation awards, and makes appropriate proposals for Board approval. In particular, it recommends all forms of compensation to be granted to our Directors, executive officers and key managerial personnel.

The Nomination, Governance and Compensation Committee also administers our Employee Stock Option Schemes.

The Nomination, Governance and Compensation Committee consists of the following non-full time, independent directors as of March 31, 2019:

- Mr. Anupam Puri (Chairman);
- Mr. Prasad R. Menon;
- Mr. Bharat Narotam Doshi; and
- Mr. Leo Puri.

The corporate officer heading our Human Resources function serves as the Secretary of the Committee. The Nomination, Governance and Compensation Committee met five times during the year ended March 31, 2019.

Science, Technology and Operations Committee.

The primary functions of the Science, Technology and Operations Committee are inter alia to:

- Advise our Board and management on scientific, medical and technical matters and operations involving our development and discovery programs (generic and proprietary), including major internal projects, business development opportunities, interaction with academic and other outside research organizations;
- Assist our Board and management in staying abreast of novel scientific and technologies developments and innovations, anticipating emerging concepts and trends in therapeutic research and development, and be assured that we are making well-informed choices in committing our resources;
- Assist our Board and management in creating valuable intellectual property;
- Review the status of non-infringement patent challenges; and
- Assist our Board and management in building and nurturing science in our organization in line with our business strategy.

The Science, Technology and Operations Committee consists of the following non-full time, independent directors as of March 31, 2019:

- Dr. Bruce L.A. Carter (Chairman);
- Mr. Anupam Puri;
- Ms. Kalpana Morparia;
- Mr. Prasad R. Menon; and
- Mr. Leo Puri; and
- Mr. Allan Oberman.

The corporate officers heading our Integrated Product Development Operations, Proprietary Products and Biologics functions serve as the Secretary of the Committee with regard to their respective businesses. The Science, Technology and Operations Committee met four times during the year ended March 31, 2019.

Risk Management Committee.

The primary function of the Risk Management Committee are inter alia to:

- Discuss with senior management our enterprise risk management and provide oversight as may be needed;

- Ensure that it is apprised of our more significant risks, including certain country risks and cyber security risks, along with the risk mitigation steps implemented to ensure effective enterprise risk management; and
- Review risk disclosure statements in any public documents or disclosures, where applicable.

The Risk Management Committee consists of the following non-full time, independent directors as of March 31, 2019:

- Dr. Omkar Goswami (Chairman);
- Dr. Bruce L.A. Carter;
- Mr. Sridar Iyengar;
- Ms. Shikha Sharma; and
- Mr. Allan Oberman

Our Chief Financial Officer is the Secretary of the Risk Management Committee. This Committee met three times during the year ended March 31, 2019.

Corporate Social Responsibility ("CSR") Committee.

The primary function of the Corporate Social Responsibility Committee are inter alia to:

- Formulate, review and recommend to the Board a corporate social responsibility policy indicating the activities to be undertaken by us as specified in Schedule VII of the Companies Act, 2013.
- Recommend the amount of expenditures to be incurred in connection with our corporate social responsibility initiatives;
- Provide guidance on our corporate social responsibility initiatives and monitor their progress; and
- Monitor implementation and adherence to our corporate social responsibility policy from time to time.

The Corporate Social Responsibility Committee consists of the following directors as of March 31, 2019:

- Mr. Bharat Narotam Doshi (Chairman);
- Mr. G.V. Prasad; and
- Mr. K. Satish Reddy.

Our corporate officer heading our Corporate Social Responsibility function serves as the Secretary of the Corporate Social Responsibility Committee. This Committee met four times during the year ended March 31, 2019.

Stakeholders Relationship Committee.

Effective May 13, 2014, the name of our "Shareholders Grievance Committee" has been changed to "Stakeholders Relationship Committee" in accordance with the provisions of Section 178 of the Indian Companies Act, 2013. The primary function of the Stakeholders' Relationship Committee are inter alia to:

- Review of investor complaints and how they were redressed;
- Review of queries received from investors;
- Review of work done by our share transfer agent; and
- Review of corporate actions related to our security holders.

The Stakeholders Relationship Committee consists of the following directors as of March 31, 2019:

- Ms. Kalpana Morparia (Chairperson);
- Mr. Bharat Narotam Doshi;
- Mr. G.V. Prasad; and
- Mr. K. Satish Reddy.

Our Company Secretary is the Secretary of the Stakeholders' Relationship Committee. This Committee met four times during the year ended March 31, 2019.

6.D. ***Employees***

The following table sets forth the number of our employees as at March 31, 2019, 2018 and 2017.

	As at March 31, 2019				
	India	**North America**	**Europe**	**Rest of World**	**Total**
Manufacturing[(1)]	10,106	216	186	332	10,840
Sales and marketing[(2)]	6,039	178	62	1,337	7,616
Research and development[(3)]	2,052	31	90	41	2,214
Others[(4)]	938	89	53	216	1,296
Total	**19,135**	**514**	**391**	**1,926**	**21,966**

	As at March 31, 2018				
	India	**North America**	**Europe**	**Rest of World**	**Total**
Manufacturing[(1)]	11,424	293	168	300	12,185
Sales and marketing[(2)]	5,972	181	62	1,403	7,618
Research and development[(3)]	2,196	37	124	28	2,385
Others[(4)]	966	101	53	216	1,336
Total	**20,558**	**612**	**407**	**1,947**	**23,524**

	As at March 31, 2017				
	India	**North America**	**Europe**	**Rest of World**	**Total**
Manufacturing[(1)]	11,261	293	164	300	12,018
Sales and marketing[(2)]	5,778	161	48	1,351	7,338
Research and development[(3)]	1,945	60	143	59	2,207
Others[(4)]	768	100	51	189	1,108
Total	**19,752**	**614**	**406**	**1,899**	**22,671**

(1) Includes quality, technical services and warehouse.
(2) Includes business development.
(3) Includes employees engaged in contract research services provided to other companies.
(4) Includes shared services, corporate business development and the intellectual property management team.

We did not experience any significant work stoppages in the years ended March 31, 2018 and 2017, and we consider our relationship with our employees and labor unions to be good. Approximately 4% of our employees belong to labor unions.

6.E. ***Share ownership***

The following table sets forth, as of March 31, 2019 for each of our directors and executive officers, the total number of our equity shares and options owned by them:

			FMV Value		Par Value	
Name	**No. of Shares Held [(1) (2)]**	**% of Outstanding Capital**	**Exercise Price**	**No. of options held[(4)]**	**Exercise Price**	**No. of options held[(4)]**
Mr. G.V. Prasad [(3)]	1,117,940	0.67	-	-	-	-
Mr. K. Satish Reddy [(3)]	898,432	0.54	-	-	-	-
Dr. Omkar Goswami [(3)]	22,800	0.01	-	-	-	-
Mr. Anupam Puri (ADRs) [(3)]	13,500	0.01	-	-	-	-
Ms. Kalpana Morparia [(3)]	10,800	0.01	-	-	-	-
Dr. Bruce L.A. Carter (ADRs) [(3)]	7,800	0.00	-	-	-	-
Mr. Prasad R. Menon [(3)]	-	-	-	-	-	-
Mr. Sridar Iyengar [(3)]	-	-	-	-	-	-
Mr. Bharat N. Doshi [(3)]	1,000	0.00	-	-	-	-
Mr. Leo Puri[(3)]	-	-	-	-	-	-
Ms. Shikha Sharma[(3)]	-	-	-	-	-	-
Mr. Allan Oberman[(3)]	-	-	-	-	-	-
Mr. Saumen Chakraborty	42,875	0.03	Rs. 2,607	10,900	Rs. 5	8,750
Mr. M.V. Ramana	24,776	0.01	2,607	8,400	5	7,580
Mr. Ganadhish Kamat	2,423	0.00	2,607	6,300	5	5,073
Dr. Amit Biswas(until June 21, 2018)	-	-	-	-	5	5,850
Mr. Deepak Sapra	4,107	0.00	2,607	3,900	5	2,641
Dr. Anil Namboodiripad (ADRs)	9,758	0.01	-	-	5	7,920
Ms. Archana Bhaskar	1,600	0.00	2,607	6,800	5	5,700

Name	No. of Shares Held [1] [2]	% of Outstanding Capital	FMV Value		Par Value	
			Exercise Price	No. of options held[4]	Exercise Price	No. of options held[4]
Mr. Sanjay Sharma	-	-	2,607	5,900	5	800
Mr. Erez Israeli (ADRs)	-	-	1,982	102,960	5	8,810
Mr. Sauri Gudlavalleti	388	0.00	2,607	3,900	5	3,456
Mr. Raymond de Vre	7,834	0.00	2,607	7,300	5	9,534
Mr. Marc Kikuchi	-	-	-	-	-	-
Mr. P. Yugandhar	500	0.00	Rs. 2,607	4,600	Rs. 5	3,650

(1) Shares held in their individual name only.
(2) All shares have voting rights.
(3) Not eligible for grant of stock options.
(4) The options vest on various dates between the year ending March 31, 2020 and the year ending March 31, 2023.
(5) The options expire after five years from the date of vesting. Each of the options results in the issuance of one equity share upon its exercise.

Employee Stock Incentive Plans

We have adopted a number of stock option incentive plans covering either our ordinary shares or our ADSs, and we are currently operating under the Dr. Reddy's Employees Stock Option Scheme, 2002(the "DRL 2002 Plan"), the Dr. Reddy's Employees ADR Stock Option Scheme, 2007 (the "DRL 2007 Plan") and the Dr. Reddy's Employees Stock Option Scheme, 2018 (the "DRL 2018 Plan"). During the year ended March 31, 2019, options to purchase ordinary shares and ADSs were awarded to various of our executive officers and other employees under the DRL 2002 Plan and the DRL 2007 Plan. An aggregate of 385,296 options were granted having an exercise price of Rs.5 per share or ADS and an aggregate of 102,960 and 43,100 options were granted at a fair market value based exercise price of Rs.1,982 per share and Rs.2,607 per share respectively. Each such option granted had an expiration date of five years from the vesting date, and each grant provided for time-based vesting in 25% increments over four years.

Under the DRL 2018 Plan, an aggregate of 229,600 options were granted at fair market value, having an average exercise price of Rs.2,607 per share. The Dr. Reddy's Employees ESOS Trust was formed to support the DRL 2018 Plan by acquiring, including through secondary market acquisitions, equity shares which are issued to eligible employees upon exercise of stock options thereunder. Under the DRL 2018 Plan, out of the 229,600 options granted at fair market value, the Dr. Reddy's Employees ESOS Trust has purchased 217,976 shares at an average rate of Rs.2,453.8 for transferring the shares to such employees upon exercise of these options.

For the years ended March 31, 2019 and 2018, Rs. 389 million and Rs. 454 million, respectively, have been recorded as employee share-based payment expense under all of our employee stock incentive plans. As of March 31, 2019, there was Rs.519 million of total unrecognized compensation cost related to unvested stock options. This cost is expected to be recognized over a weighted-average period of 2.09 years. For further information regarding our options and stock option incentive plans, see Note 19 to our consolidated financial statements.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

7.A. *Major shareholders*

All of our equity shares have the same voting rights. As of March 31, 2019, a total of 26.77% of our equity shares were held by the following parties:

- Mr. G.V. Prasad (Co-Chairman, Managing Director and Chief Executive Officer);
- Mr. K. Satish Reddy (Chairman of the Board);
- Mrs. K. Samrajyam, mother of Mr. K. Satish Reddy, and Mrs. G. Anuradha, wife of Mr. G.V. Prasad (hereafter collectively referred as the "Family Members"); and
- Dr. Reddy's Holdings Limited (formerly known as Dr. Reddy's Holdings Private Limited), a company in which the APS Trust owns 83.11% of the equity and the remainder is held by Mr. G.V. Prasad HUF, Mr. K. Satish Reddy individually and as HUF and the Family Members. Mr. G.V. Prasad, Mr. K. Satish Reddy, Mrs. G. Anuradha, Mrs. Deepti Reddy and their bloodline descendants are the beneficiaries of the APS Trust. Mr. G.V. Prasad, Mr. K. Satish Reddy, Mrs. G. Anuradha and Mrs. Deepti Reddy are the sole members of the Board of Directors of Dr. Reddy's Holdings Limited. Mr. G.V. Prasad and Mr. K. Satish Reddy are the sole trustees of the APS trust.

The following table sets forth information regarding the beneficial ownership of our shares by the foregoing persons as of March 31, 2019:

	Equity Shares Beneficially Owned[1]	
Name	**Number of Shares**	**Percentage of Shares**
Dr. Reddy's Holdings Limited[2]	41,325,300	24.88%
Mr. G.V. Prasad[2]	1,117,940	0.67%
Mr. K. Satish Reddy[2]	898,432	0.54%
Family Members	1,116,856	0.68%
Subtotal	44,458,528	26.77%
Others/public float	121,607,420	73.23%
Total number of shares outstanding	**166,065,948**	**100.00%**

(1) Beneficial ownership is determined in accordance with rules of the U.S. Securities and Exchange Commission, which provides that shares are beneficially owned by any person who has voting or investment power with respect to the shares. All information with respect to the beneficial ownership of any principal shareholder has been furnished by that shareholder and, unless otherwise indicated below, we believe that persons named in the table have sole voting and sole investment power with respect to all shares shown as beneficially owned, subject to community property laws where applicable.

(2) The APS Trust owns approximately 83.11% of the equity of Dr. Reddy's Holdings Limited, and thus may be deemed to beneficially own all of the equity shares directly held by Dr. Reddy's Holdings Limited. Mr. G.V. Prasad and Mr. K. Satish Reddy are the sole trustees of the APS Trust. Accordingly, each of Mr. G.V. Prasad and Mr. K. Satish Reddy may be deemed to beneficially own all of the equity shares directly held by Dr. Reddy's Holdings Limited. Each of Mr. G.V. Prasad and Mr. K. Satish Reddy disclaims such beneficial ownership pursuant to Rule 13d-4 of the Securities Exchange Act of 1934.

In addition, the Deed of Family Settlement of the APS Trust provides for the parties thereto to exercise all rights, including voting rights, with respect to their personally held equity shares in accordance with the directions of the board of trustees of the APS Trust. As a result, each of Mr. K. Satish Reddy and Mr. G.V. Prasad may be deemed to beneficially own all of the equity shares directly held by each other or by any of the other parties to such Deed of Family Settlement. Based on the Amendment No. 3 to Schedule 13D filed with the U.S. Securities and Exchange Commission on October 18, 2017, such equity shares held by other parties to the Deed of Family Settlement consisted of, in each case as of October 4, 2017, an aggregate of 1,115,360 equity shares directly held by Mrs. K. Samrajyam (mother of Mr. K. Satish Reddy) and 1,496 equity shares directly held by Mrs. G. Anuradha (wife of Mr. G.V. Prasad). Each of Mr. G.V. Prasad and Mr. K. Satish Reddy disclaims all such beneficial ownership pursuant to Rule 13d-4 of the Securities Exchange Act of 1934.

As otherwise stated above and to the best of our knowledge, we are not owned or controlled directly or indirectly by any government or by any other corporation or by any other natural or legal persons. We are not aware of any arrangement, the consummation of which may at a subsequent date result in a change in our control.

The following shareholders held more than 5% of our equity shares as of:

	March 31, 2019		March 31, 2018		March 31, 2017	
Name	**No. of equity shares held**	**% of equity shares held**	**No. of equity shares held**	**% of equity shares held**	**No. of equity shares held**	**% of equity shares held**
Dr. Reddy's Holdings Limited [1]	41,325,300	24.88%	41,083,500	24.76%	40,627,000	24.51%
First State Investments Management (UK) Limited, Commonwealth Bank of Australia and their associates [2]	11,838,598	7.13%	10,726,942	6.47%	14,907,551	8.99%

(1) Each of the APS Trust, Mr. G.V. Prasad and Mr. K. Satish Reddy may be deemed to beneficially own all of the equity shares directly held by Dr. Reddy's Holdings Limited, as described in footnote [2] to the table on the preceding page.

(2) In addition to the equity shares disclosed in the above table, First State Investments Management (UK) Limited, Commonwealth Bank of Australia and their associates held an additional 1,725,306 ADSs of our company as of March 31, 2019, bringing their total percentage of equity shares held to 8.17%.

As of March 31, 2019, we had 166,065,948 outstanding equity shares. As of March 31, 2019, there were 118,219 record holders of our equity shares listed and traded on the Indian stock exchanges. Our American Depositary Shares ("ADSs") are listed on the New York Stock Exchange. One ADS represents one equity share of Rs.5 par value per share. As of March 31, 2019, 14.11% of our issued and outstanding equity shares were held by ADS holders. On March 31, 2019 we had approximately 59 registered shareholders and 15,966 beneficial shareholders of record in the United States.

7.B. ***Related party transactions***

Refer to Note 28 of our consolidated financial statements.

7.C. ***Interests of experts and counsel***

Not applicable.

ITEM 8. FINANCIAL INFORMATION

8.A. Consolidated statements and other financial information

The following financial statements and auditors' report appear under Item 18 of this Annual Report on Form 20-F and are incorporated herein by reference:

- Report of Independent Registered Public Accounting Firms
- Consolidated statement of financial position as of March 31, 2019 and 2018
- Consolidated income statement for the years ended March 31, 2019, 2018 and 2017
- Consolidated statement of comprehensive income for the years ended March 31, 2019, 2018 and 2017
- Consolidated statement of changes in equity for the years ended March 31, 2019, 2018 and 2017
- Consolidated statement of cash flows for the years ended March 31, 2019, 2018 and 2017
- Notes to the consolidated financial statements

Our financial statements included in this Annual Report on Form 20-F have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board. The financial statements included herein are for our three most recent fiscal years.

Amount of Export Sales

For the year ended March 31, 2019, our export revenues (i.e., revenues from all geographies other than India) were Rs.125,047 million, and accounted for 81% of our total revenues.

Legal Proceedings

Refer to Note 35 of our consolidated financial statements.

Dividend Policy

In the years ended March 31, 2017, 2018 and 2019, we paid cash dividends of Rs.20 per equity share per year. Every year our Board of Directors recommends the amount of dividends to be paid to shareholders, if any, based upon conditions then existing, including our earnings, financial condition, capital requirements and other factors. At our Board of Directors' meeting held on May 17, 2019, the Board of Directors proposed a dividend per share of Rs.20 and aggregating to Rs.3,321 million plus an additional amount of Rs.683 million, which is intended to equal the applicable dividend tax, all of which is subject to the approval of our shareholders.

Holders of our ADSs are entitled to receive dividends payable on equity shares represented by such ADSs. Cash dividends on equity shares represented by our ADSs are paid to the depositary in Indian rupees and are converted by the depositary into U.S. dollars and distributed, net of depositary fees, taxes, if any, and expenses, to the holders of such ADSs.

8.B. *Significant changes*

Refer to Note 38 to our consolidated financial statements.

ITEM 9. THE OFFER AND LISTING

9.A. *Offer and listing details*

See Item 9.C "Markets" below.

9.B. *Plan of distribution*

Not applicable.

9.C. *Markets*

Markets on Which Our Shares Trade

Our equity shares are traded on the BSE Limited (formerly known as the Bombay Stock Exchange Limited) ("BSE") and National Stock Exchange of India Limited ("NSE"), (collectively, the "Indian Stock Exchanges") under the ticker symbol "DRREDDY". Our American Depositary Shares (or "ADSs"), as evidenced by American Depositary Receipts (or "ADRs"), are traded in the United States on the New York Stock Exchange ("NYSE"), under the ticker symbol "RDY." Each ADS represents one equity share. Our ADSs began trading on the NYSE on April 11, 2001. Our shareholders approved the delisting of our shares from the Hyderabad Stock Exchange Limited, The Ahmedabad Stock Exchange Limited, The Madras Stock Exchange Limited and The Calcutta Stock Exchange Association Limited at the general shareholders meeting held on August 25, 2003.

9.D. *Selling shareholders*

Not applicable.

9.E. *Dilution*

Not applicable.

9.F. *Expenses of the issue*

Not applicable.

ITEM 10. ADDITIONAL INFORMATION

10.A. *Share capital*

Not applicable.

10.B. *Memorandum and articles of association*

Dr. Reddy's Laboratories Limited was incorporated under the Indian Companies Act, 1956. We are registered with the Registrar of Companies, Hyderabad, Telangana, India, with Company Identification No. L85195AP1984PLC004507. Our company's registration number changed to L85195TG1984PLC004507 effective as of June 2, 2014.

Our registered office is located at 8-2-337, Road No. 3, Banjara Hills, Hyderabad, Telangana 500 034, India and the telephone number of our registered office is +91-40-49002900. The summary of our Articles of Association and Memorandum of Association that is included in our registration statement on Form F-1 filed with the U.S. Securities and Exchange Commission (the "SEC") on April 11, 2001, together with copies of the Articles of Association and Memorandum of Association that are included in our registration statement on Form F-1, are incorporated herein by reference.

The Memorandum and Articles of Association were amended at the 17th Annual General Meeting held on September 24, 2001, 18th Annual General Meeting held on August 26, 2002, the 20th Annual General Meeting held on July 28, 2004 and the 22nd Annual General Meeting held on July 28, 2006. A full description of these amendments was given in the Form 20-F filed with the SEC on September 30, 2003, September 30, 2004 and October 2, 2006, which description is incorporated herein by reference. The Memorandum and Articles of Association were amended at the 22nd Annual General Meeting held on July 28, 2006 to increase the authorized share capital in connection with the stock split effected in the form of a stock dividend that occurred on August 30, 2006.

The Memorandum and Articles of Association were further amended in accordance with the terms of an Order of the High Court of Judicature, Andhra Pradesh, dated June 12, 2009 to effect an increase in our parent company's authorized share capital pursuant to the amalgamation of Perlecan Pharma Private Limited into our parent company. In a related order dated June 12, 2009, the High Court concluded that there was no need to have a shareholders' meeting in order to affect such amendment.

The Memorandum and Articles of Association were further amended in accordance with the terms of an Order of the High Court of Judicature, Andhra Pradesh, dated July 19, 2010 to provide for the capitalization or utilization of undistributed profit or retained earnings or security premium account or any other reserve or fund of ours with the approval of our shareholders in connection with our bonus debentures.

The Memorandum and Articles of Association were amended by adopting a new set of Articles of Association which replaced and superseded in its entirety our then existing Articles of Association. This was primarily done to align the Articles of Association with the new Companies Act, 2013 and the rules thereunder. This amendment was approved by our shareholders on September 17, 2015. The new Articles of Association were furnished to the SEC on a Form 6-K on September 25, 2015.

10.C. ***Material contracts***

Other than the contracts entered into in the ordinary course of business, there are no material contracts to which we or any of our direct and indirect subsidiaries is a party that are to be performed in whole or in part at or after the filing of this Form 20- F.

10.D. ***Exchange controls***

Foreign investment in Indian securities, whether in the form of foreign direct investment or in the form of portfolio investment, is governed by the Foreign Exchange Management Act, 1999, as amended ("FEMA"), and the rules, regulations and notifications issued thereunder. Set forth below is a summary of the restrictions on transfers applicable to both foreign direct investments and portfolio investments, including the requirements under Indian law applicable to the issuance and transfer of ADSs.

Foreign Direct Investment

FEMA empowers the Reserve Bank of India (the "RBI") to frame regulations to prohibit, restrict or regulate the transfer or issuance of any security by a person resident outside India. These regulations were published as the Foreign Exchange Management (Transfer or Issue of Security by a Person resident Outside India) Regulations, 2017.

As per these regulations, foreign direct investments can be made in India, other than in certain prohibited sectors, through the "automatic route" or, if the sectors or activities are not permitted under the automatic route, then under the "government route". If the automatic route applies, then the non-resident investor or the Indian company does not require any approval from Government of India for the investment. If the government route applies, then prior approval of the Government of India is required. Proposals for foreign investment under the government route, are considered by the respective administrative ministry or department.

These regulations also contain provision regarding sector specific guidelines for foreign direct investment and the levels of permitted equity participation. The total foreign investment shall not exceed the sectoral or statutory cap limit indicated for each sector. In sectors or activities for which no sectoral or statutory cap limit is indicated or not prohibited under these regulations, foreign investment is permitted up to 100% under the automatic route, subject to applicable laws/regulations, security and other conditions.

In May 1994, the Government of India announced that purchases by foreign investors of ADSs, as evidenced by ADRs, and foreign currency convertible bonds of Indian companies would be treated as foreign direct investment in the equity issued by Indian companies for such offerings. Therefore, offerings that involve the issuance of equity that results in Foreign Direct Investors holding more than the stipulated percentage of direct foreign investments (which depends on the category of industry) would require approval from the Foreign Investment Promotion Board.

For investments in the pharmaceutical sector, the Foreign Direct Investment limit is 100%. However, unlike Foreign Direct Investments in new pharmaceutical projects (sometimes called "greenfield" investments), Foreign Direct Investments in existing Indian pharmaceutical companies (sometimes called "brownfield" investments) are nonetheless subject to approval by the Foreign Investment Promotion Board in excess of 74% (which can incorporate conditions for its approval at the time of grant). Thus, foreign ownership of in excess of 74% of our equity shares would be allowed but would require certain approvals.

The Ministry of Finance abolished the Foreign Investment Promotion Board in May 2017 and the processing of applications for Foreign Direct Investment and approval of the Government thereon under the Policy and FEMA, was transferred to be handled by the concerned Ministries/Departments in consultation with the Department of Industrial Policy Promotion.

Portfolio Investment Scheme

Under Indian law, persons or entities residing outside of India cannot acquire securities of an Indian company listed on a stock exchange ("Portfolio Investments") unless such non-residents are (a) persons of Indian nationality or origin residing outside of India (also known as Non-Resident Indians or "NRIs") or (b) registered Foreign Institutional Investors ("FIIs") or Foreign Portfolio Investors ("FPIs").

Portfolio Investments by NRIs

A variety of methods for investing in shares of Indian companies are available to NRIs. These methods allow NRIs to make Portfolio Investments in existing shares and other securities of Indian companies on a basis not generally available to other foreign investors.

Portfolio Investments by FIIs

In September 1992, the Government of India issued guidelines that enable FIIs, including institutions such as pension funds, investment trusts, asset management companies, nominee companies and incorporated/institutional portfolio managers, to invest in all of the securities traded on the primary and secondary markets in India. Under the guidelines, FIIs are required to obtain an initial registration from the Securities and Exchange Board of India ("SEBI"), and a general permission from the RBI to engage in transactions regulated under the Foreign Exchange Management Act. FIIs must also comply with the provisions of the SEBI (Foreign Institutional Investors Regulations) 1995. When it receives the initial registration, the FII also obtains general permission from the RBI to engage in transactions regulated under the Foreign Exchange Management Act. Together, the initial registration and the RBI's general permission enable the registered FII to: (i) buy (subject to the ownership restrictions discussed below) and sell unrestricted securities issued by Indian companies; (ii) realize capital gains on investments made through the initial amount invested in India; (iii) participate in rights offerings for shares; (iv) appoint a domestic custodian for custody of investments held; and (v) repatriate the capital, capital gains, dividends, interest income and any other compensation received pursuant to rights offerings of shares.

Portfolio Investments by FPIs

Effective June 1, 2014, the regime permitting Portfolio Investments by FIIs has been replaced with the SEBI (Foreign Portfolio Investors) Regulations, 2014 (the "FPI Regulations"), a new regime permitting Portfolio Investments by Foreign Portfolio Investors ("FPIs"). A FPI is defined as any investment made by a person resident outside India in capital instruments where such investment is (a) less than 10% of the post issue paid-up equity capital on a fully diluted basis of a listed Indian company or (b) less than 10% of the paid up value of each series of capital instruments of a listed Indian company. FPIs are subject to ownership limits in Portfolio Investments, as further described below, and only certain categories of FPIs may invest or deal in "offshore derivative instruments" (defined under the FPI Regulations as any instrument which is issued overseas by a FPI against underlying securities held by it that are listed or proposed to be listed on any recognized stock exchange in India). FPIs are required to be registered with the designated depositary participant on behalf of SEBI subject to compliance with "Know Your Customer" rules.

Certain FIIs may continue to remain eligible to make Portfolio Investments for a limited time under the transition rules. Any FII or Qualified Foreign Investor ("QFI") who holds a valid certificate of registration will be deemed to be a FPI until the expiration of three years from the date on which fees have been paid per the Securities and Exchange Board of India (Foreign Institutional Investors) Regulations, 1995. All existing FIIs and sub accounts, subject to payment of conversion fees specified in the FPI Regulations, may continue to buy, sell or otherwise deal in securities subject to the provisions of the FPI Regulations, until the earlier of (i) expiration of its registration as a FII or sub-account, or (ii) obtaining a certificate of registration as a FPI. Effective as of June 1, 2015, a QFI must obtain a certificate of registration as a FPI in order to be eligible to buy, sell or otherwise deal in securities.

Subject to compliance with the FPI Regulations, a FPI may issue or otherwise deal in "offshore derivative instruments" directly or indirectly, only in the event (i) such offshore derivative instruments are issued only to persons who are regulated by an appropriate regulatory authority; (ii) such offshore derivative instruments are issued after compliance with "know your client" norms; and (iii) such offshore derivative instruments shall not be issued to or transferred to persons who do not satisfy the eligibility criteria of foreign portfolio investor as defined in the FPI Regulations. Offshore derivative instruments may not be dealt with by "Category III" FPIs, or by unregulated broad based funds which are classified as "Category II" FPIs by virtue of their investment manager being appropriately regulated. A FPI is also required to ensure that no further issue or transfer of any offshore derivative instrument is made by or on behalf of it to any persons that are not regulated by an appropriate foreign regulatory authority and prior consent of the foreign portfolio investor is obtained for such transfer, except when the persons to whom the offshore derivative instruments are to be transferred to are pre-approved by the foreign portfolio investor.

The Foreign Exchange Management (Transfer or Issue of Security by a Person Resident outside India) Regulations, 2017 also recognizes a FPI registered under the FPI Regulations as a "Registered Foreign Portfolio Investor (or "RFPI").

A FPI may purchase or sell capital instruments of an Indian company on a recognized stock exchange in India as well as purchase shares and convertible debentures offered to the public under the FPI Regulations.

Further, a FPI may sell shares or convertible debentures so acquired (i) in an open offer in accordance with the Securities Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011; or (ii) in an open offer in accordance with the Securities Exchange Board of India (Delisting of Equity Shares) Regulations, 2009; or (iii) through buyback of shares by a listed Indian company in accordance with the Securities Exchange Board of India (Buy-back of Securities) Regulations, 2018. A RFPI may also acquire shares or convertible debentures (i) in any bid for, or acquisition of securities in response to an offer for disinvestment of shares made by the central government or any state government of India; or (ii) in any transaction in securities pursuant to an agreement entered into with merchant banker in the process of market making or subscribing to unsubscribed portion of the issue in accordance with SEBI (ICDR) Regulations, 2018.

Ownership restrictions

The SEBI and the RBI regulations restrict portfolio investments in Indian companies by FIIs, NRIs, RFPIs and OCBs, all of which we refer to as "foreign portfolio investors." Under current Indian law, FIIs or FPIs may in the aggregate hold not more than 24.0% of the equity shares of an Indian company, and NRIs in the aggregate may hold not more than 10.0% of the shares of a publicly traded Indian company through portfolio investments. The 24.0% limit referred to above can be increased to sectoral cap/statutory limits as applicable if a resolution is passed by the board of directors of the company followed by a special resolution passed by the shareholders of the company to that effect. The 10.0% limit referred to above may be increased to 24.0% if the shareholders of the company pass a special resolution to that effect.

No single FII or FPI may hold more than 10.0% of the shares of an Indian company and no single NRI may hold more than 5.0% of the shares of an Indian company. If multiple entities have at least 50% overlap in their ownership (direct or ultimate beneficial owners), then such entities shall be treated as part of the same group and the above percentage of FPI investment limit shall apply to the entire group as if they were a single FPI.

Our shareholders have passed a resolution enhancing the limits of portfolio investment by FIIs in the aggregate to 49%. NRIs in the aggregate may hold not more than 10.0% of our equity shares through portfolio investments. Holders of ADSs are not subject to the rules governing FIIs or FPIs unless they convert their ADSs into equity shares.

As of March 31, 2019, FIIs and FPIs collectively held 30.93% of our equity shares and NRIs held 1.05% of our equity shares.

In September 2011, the Securities and Exchange Board of India ("SEBI") enacted the SEBI (Substantial Acquisition of Shares and Takeovers) Regulations, 2011 (the "2011 Takeover Code"), which replaces the SEBI (Substantial Acquisition of Shares and Takeovers) Regulations, 1997.

Under the 2011 Takeover Code, upon acquisition of shares or voting rights in a publicly listed Indian company (the "target company") such that the aggregate shareholding of the acquirer (meaning a person who directly or indirectly, acquires or agrees to acquire shares or voting rights in the target company, or acquires or agrees to acquire control over the target company, either alone or together with any persons acting in concert), is 5% or more of the shares of the target company, the acquirer is required to, within two working days of such acquisition, disclose the aggregate shareholding and voting rights in the target company to the target company and to the stock exchanges in which the shares of the target company are listed.

Furthermore, an acquirer who, together with persons acting in concert with such acquirer, holds shares or voting rights entitling them to 5% or more of the shares or voting rights in a target company must disclose every sale or acquisition of shares representing 2% or more of the shares or voting rights of the target company to the target company and to the stock exchanges in which the shares of the target company are listed within two working days of such acquisition or sale or receipt of intimation of allotment of such shares.

Every acquirer, who together with persons acting in concert with such acquirer, holds shares or voting rights entitling such acquirer to exercise 25% or more of the voting rights in a target company, has to disclose to the target company and to stock exchanges in which the shares of the target company are listed, their aggregate shareholding and voting rights as of the thirty-first day of March, in such target company within seven working days from the end of the financial year of that company.

The acquisition of shares or voting rights that entitles the acquirer to exercise 25% or more of the voting rights in or control over the target company triggers a requirement for the acquirer to make an open offer to acquire additional shares representing at least 26% of the total shares of the target company for an offer price determined as per the provisions of the 2011 Takeover Code. The acquirer is required to make a public announcement for an open offer on the date on which it is agreed to acquire such shares or voting rights. Such open offer shall only be for such number of shares as is required to adhere to the maximum permitted non-public shareholding.

Since we are a listed company in India, the provisions of the 2011 Takeover Code will apply to us and to any person acquiring our ADSs, equity shares or voting rights in our company.

Pursuant to the 2011 Takeover Code, we must report to the Indian stock exchanges on which our equity shares are listed, any disclosures made to us under 2011 Takeover Code.

Holders of ADSs may be required to comply with such notification and disclosure obligations pursuant to the provisions of the Deposit Agreement entered into by such holders, our company and the depositary of our ADRs.

Subsequent transfer of shares

A person resident outside India holding the shares or debentures of an Indian company may transfer the shares or debentures so held by him, in compliance with the conditions specified in the relevant Schedule of Foreign Exchange Management (Transfer or Issue of Security by a Person Resident outside India) Regulations, 2017 (the "Foreign Exchange Management Regulations") as follows:

(i) A person resident outside India who is not a NRI , an Overseas citizen of India or a former OCB, may transfer by way of sale or gift, the shares or convertible debentures held by him or it to any person resident outside India;

(ii) A NRI may transfer by way of sale or gift, the shares or convertible debentures held by that person to another NRI;

(iii) A person resident outside India holding the shares or convertible debentures of an Indian company in accordance with the Foreign Exchange Management Regulations, (a) may transfer such shares or convertible debentures to a person resident in India by way of sale or gift; or (b) may sell such shares or convertible debentures on a recognized Stock Exchange in India through a registered broker.

The RBI superseded the Foreign Exchange Management (Transfer or Issue of Security by a Person Resident outside India) Regulations, 2000, FEMA 20/2000-RB and FEMA 24/20000-RB, both dated May 3, 2000, as amended from time to time, by notifying implementation of Foreign Exchange Management (Transfer or Issue of Securities by a person Resident Outside India) Regulations, 2017 on November 7, 2017 (the "New Foreign Exchange Management Regulations"). These regulations consolidate all the amendments at one place and also incorporate certain new concepts with respect to the issue or transfer of securities of an Indian company by a person resident outside India.

The New Foreign Exchange Management Regulations give the readers a consolidated view of the transfer or issue of securities by a person resident outside India and also clarifies several aspects of Foreign Direct Investment ("FDI"). These Regulations aim towards further simplification and provide greater clarity on differentiation between FDI and FPI.

ADS guidelines

Shares of Indian companies represented by ADSs may be approved for issuance to foreign investors by the Government of India under the Issue of Foreign Currency Convertible Bonds and Ordinary Shares (Through Depositary Receipt Mechanism) Scheme, 1993 (the "1993 Scheme"), as modified from time to time, promulgated by the Government of India. The 1993 Scheme is in addition but without prejudice to the other policies or facilities, as described below, relating to investments in Indian companies by foreign investors. The issuance of ADSs pursuant to the 1993 Scheme also affords to holders of the ADSs the benefits of Section 115AC of the Income Tax Act, 1961 for purpose of the application of Indian tax laws. In March 2001, the RBI issued a notification permitting, subject to certain conditions, two-way fungibility of ADSs. This notification provides that ADSs converted into Indian shares can be converted back into ADSs, subject to compliance with certain requirements and the limits of sectorial caps.

The Ministry of Finance, Government of India, enacted The Depository Receipts Scheme, 2014 (the "Depository Receipts Scheme") effective as of December 15, 2014. In order to facilitate the issuance of depository receipts by Indian companies outside India, the Depository Receipts Scheme repeals the former provisions dealing with depository receipts in the Foreign Currency Convertible Bonds and Ordinary Shares (Through Depositary Receipt Mechanism) Scheme, 1993. The Depository Receipts Scheme now governs the issue or transfer of permissible securities to a foreign depository by eligible persons and defines the rights and duties of a foreign depository and obligations of a domestic custodian. The Depository Receipts Scheme has not been fully implemented yet.

There are certain relaxations provided under the Depository Receipts Scheme subject to prior approval of the Ministry of Finance. For example, a registered broker is permitted to purchase shares of an Indian company on behalf of a person resident outside of India for the purpose of converting those shares into ADSs. However, such conversion is subject to compliance with the provisions of the Depository Receipts Scheme and the periodic guidelines issued by the regulatory authorities. Therefore depository receipts converted into Indian shares may be converted back into depository receipts, subject to certain limits of sectorial caps.

Under the Depository Receipts Scheme, a foreign depository may take instructions from depository receipts holders to exercise the voting rights with respect to the underlying equity securities. Additionally, a domestic custodian has been defined to include a custodian of securities, an Indian depository, a depository participant or a bank having permission from SEBI to provide services as custodian. Further, the Depository Receipts Scheme provides that the aggregate of permissible securities which may be issued or transferred to foreign depositories for issue of depository receipts, along with permissible securities already held by persons resident outside India, shall not exceed the limit on foreign holding of such permissible securities under the Foreign Exchange Management Act, 1999.

The Department of Economic Affairs, Ministry of Finance made amendments to certain provisions of the Securities Contracts (Regulation) Rules, 1957 vide Securities Contracts (Regulation) (Amendment) Rules, 2015, on February 25, 2015. An amended, the "public shareholding" for our equity shares held by the public includes shares underlying depository receipts if the holder of such depository receipts has the right to issue voting instruction and such depository receipts are listed on an international stock exchange in accordance with the Depository Receipts Scheme.

Fungibility of ADSs

A registered broker in India can purchase shares of an Indian company that issued ADSs, on behalf of a person residing outside India, for the purposes of converting the shares into ADSs.

The Depository Receipts Scheme states that the aggregate of permissible securities which may be issued or transferred to foreign depositories for issue of depository receipts, along with permissible securities already held by persons resident outside lndia, shall not exceed the limit on foreign holding of such permissible securities under the Foreign Exchange Management Act, 1999.

Transfer of ADSs

A person resident outside India may transfer ADSs held in an Indian company to another person resident outside India without any permission. A person resident in India is not permitted to hold ADSs of an Indian company, except in connection with the exercise of stock options.

Shareholders resident outside India who intend to sell or otherwise transfer equity shares within India should seek the advice of Indian counsel to understand the requirements applicable at that time.

The RBI placed various restrictions on the eligibility of OCBs to make investments in Indian companies in AP (DIR) Series Circular No. 14 dated September 16, 2003. For further information on these restrictions, the circular is available on www.rbi.org.in for review.

10.E. ***Taxation***

Indian Taxation

General. The following summary is based on the law and practice of the Income-tax Act, 1961 (the "Income-tax Act"), including the special tax regime contained in Sections 115AC and 115ACA of the Income-tax Act read with the Issue of Foreign Currency Convertible Bonds and Ordinary Shares (through Depository Receipt Mechanism) Scheme, 1993 (collectively, the "Income-tax Act Scheme"), as amended on January 19, 2000. The Income-tax Act is amended every year by the Finance Act of the relevant year. Some or all of the tax consequences of Sections 115AC and 115ACA may be amended or changed by future amendments to the Income-tax Act.

We believe this information is materially complete as of the date hereof. However, this summary is not intended to constitute an authoritative analysis of the individual tax consequences to non-resident holders or employees under Indian law for the acquisition, ownership and sale of ADSs and equity shares.

EACH PROSPECTIVE INVESTOR SHOULD CONSULT TAX ADVISORS WITH RESPECT TO TAXATION IN INDIA OR THEIR RESPECTIVE LOCATIONS ON ACQUISITION, OWNERSHIP OR DISPOSING OF EQUITY SHARES OR ADSS.

Residence. For purposes of the Income-tax Act, an individual is considered to be a resident of India during any fiscal year (i.e., April 1 to March 31) if he or she is in India in that year for:

- a period or periods of at least 182 days; or
- at least 60 days and, within the four preceding fiscal years has been in India for a period or periods amounting to at least 365 days.

The period of 60 days referred to above shall be 182 days in case of a citizen of India or a Person of Indian Origin living outside India for the purpose of employment outside India who is visiting India.

The Finance Act 2016 amended section 6 of the Income-tax Act. Pursuant to the amended provision, a company is deemed to be a resident in India in any previous year, if (i) it is a company formed under the laws of India; or (ii) its place of effective management, in that year, is in India. For such purposes, "place of effective management" means a place where key management and commercial decisions that are necessary for the conduct of business of an entity as a whole are in substance made.

Individuals and companies that are not residents of India are treated as non-residents for purposes of the Income-tax Act.

Taxation of Distributions.

a) As per Section 10(34) of the Income-tax Act, dividends paid by Indian companies to their shareholders are not subject to tax in the hands of the shareholders, except as discussed in paragraph (b) below. For periods prior to March 31, 2013, Indian companies were liable to pay a dividend distribution tax ("DDT") at the rate of 16.22%, inclusive of applicable surcharges, a special 2% levy called the "Education Cess" and a special 1% levy called the "Secondary and Higher Education Cess". Effective April 1, 2013, the Finance Act, 2013 increased the surcharge on the DDT from 5% to 10%, which resulted in an increase in the effective rate of DDT from 16.22% to 16.995%. The Finance Act (No 2) 2014 amended section 115-O, which requires grossing up of the dividend amount distributed for purposes of computing DDT. Pursuant to the amendment, effective October 1, 2014, the effective rate of DDT increased from 16.995% to 19.994%, inclusive of applicable surcharges and education cess, and as a result, dividend amounts receivable by our shareholders after taxes are reduced. As a result of the increase in rate of surcharge in the Finance Act, 2015, effective April 1, 2015, the effective rate of DDT has further increased from 19.994% to 20.3576%. Furthermore, the Finance Act, 2018 replaced Education Cess of 2% and the Secondary and Higher Education Cess of 1% with a Health and Education Cess of 4% (hereinafter, the "education cess"). Pursuant to the Finance Act, 2018, effective April 1, 2018, the effective rate of DDT has further increased from 20.3576% to 20.5553%.

b) The Finance Act, 2018 amended section 115R of the Indian Income Tax Act 1961, according to the amendment, any income is distributed by a Mutual Fund being, an equity oriented fund to its unit holders, the mutual fund shall be liable to pay additional income tax on such distributed income at a 10% rate, plus applicable surcharges and the education cess.

c) Dividends received by resident individuals, HUFs or firms exceeding Rs.1,000,000 are taxable at a 10% rate. This tax will not be withheld by the company paying the dividend and has to be paid by the shareholder receiving such dividend.

d) Any distributions of additional ADSs or equity shares by way of bonus shares (i.e., stock dividends) to resident or non- resident holders will not be subject to Indian tax.

Taxation of Capital Gains. The following is a brief summary of capital gains taxation of non-resident holders and resident employees relating to the sale of ADSs and equity shares received upon redemption of ADSs. The relevant provisions are contained mainly in sections 10(36), 10(38), 45, 47(viia), 111A, 115AC and 115ACA, of the Income-tax Act, in conjunction with the Income- tax Scheme. *You should consult your own tax advisor concerning the tax consequences of your particular situation.*

A non-resident investor transferring our ADS or equity shares outside India to a non-resident investor will not be liable for income taxes arising from capital gains on such ADS or equity shares under the provisions of the Income-tax Act in certain circumstances. Equity shares (including equity shares issuable on the conversion of the ADSs) held by the non-resident investor for a period of more than 12 months are treated as long-term capital assets. If the equity shares are held for a period of less than 12 months from the date of conversion of the ADSs, the capital gains arising on the sale thereof is to be treated as short-term capital gains.

Capital gains are taxed as follows:

- gains from a sale of ADSs outside India by a non-resident to another non-resident are not taxable in India;
- long-term capital gains realized by a resident and an employee from the transfer of the ADSs will be subject to tax at the rate of 10%, plus the applicable surcharges and the education cess; short-term capital gains on such a transfer will be taxed at graduated rates with a maximum of 30%, plus the applicable surcharges and the education cess;
- long-term capital gains realized by a non-resident upon the sale of equity shares obtained from the conversion of ADSs are subject to tax at a rate of 10%, excluding the applicable surcharges and the Education Cess; and short-term capital gains on such a transfer will be taxed at the rate of tax applicable to the seller; and
- long-term capital gain realized by a non-resident upon the sale of equity shares obtained from the conversion of ADSs is exempt from tax. However, effective as of April 1, 2018, long-term capital gains on sales of equity shares in excess of Rs.100,000 are subject to tax at a rate of 10% without indexation. However, gains incurred on or prior to January 31, 2018 will be grandfathered. Consequently, the current exemption under Section 10(38) of the Income-tax Act has been withdrawn and short term capital gain is taxed at 15%, excluding the applicable surcharges and the Education Cess, if the sale of such equity shares is settled on a recognized stock exchange and the applicable securities transaction tax ("STT") is paid on such sale.

As per the Finance Act, 2015, the rate of surcharge for Indian companies having total taxable income exceeding Rs.10,000,000 but not exceeding Rs.100,000,000 is 7% and in the case of Indian companies whose total taxable income is greater than Rs.100,000,000, the applicable surcharge is 12%. For foreign companies, the rate of surcharge is 2% if the total taxable income exceeds Rs.10,000,000 but does not exceed Rs.100,000,000 and it is 5% if the total taxable income of the foreign company exceeds Rs.100,000,000.

The Finance Act, 2016 has increased the surcharge for individuals having income exceeding Rs.10,000,000 from 12% to 15%.

As per the Finance Act, 2017, the rate of surcharge for every individual or Hindu undivided family or association of persons or body of individuals, whether incorporated or not, or every artificial juridical person referred to in sub-clause (vii) of clause (31) of section 2 of the Income-tax Act having income exceeding Rs.5,000,000 but not exceeding Rs.10,000,000 is 10%.

As discussed above, the Finance Act, 2018 replaced the Education Cess, which imposed a 2% income tax, and the Secondary and Higher Education Cess, which imposed a 1% income tax, with a new Health and Education Cess, which imposes a 4% income tax.

All assessees, including individuals, whose advance tax payable is Rs.10,000 or more during the year are required to pay advance tax in four installments as follows:

Due Date of Installment	**Amount Payable**
On or before June 15	Not less than 15% of such advance tax.
On or before September 15	Not less than 45% of such advance tax, as reduced by the amounts (if any) paid in earlier installments.
On or before December 15	Not less than 75% of such advance tax, as reduced by the amounts (if any) paid in earlier installments.
On or before March 15	The whole amount of such advance tax, as reduced by the amounts (if any) paid in earlier installments.

As per Section 10(38) of the Income-tax Act, long term capital gains arising from the transfer of equity shares on or after October 1, 2004 in a company completed through a recognized stock exchange in India and on which sale the STT has been paid are exempt from Indian tax. The Finance Act, 2017 amended section 10(38) to provide that exemption under this section for capital gains arising upon the transfer of equity shares acquired on or after October 1, 2004 shall not be available if STT is not chargeable on the acquisition of such equity shares, unless the acquisition of equity shares falls within the scope of certain STT payment exceptions specified by the Central Government in a notification. The Finance Act, 2018, withdrew the exemption under Section 10(38) effective as of April 1, 2018.

As per Section 111A of the Income-tax Act, short term capital gains arising from the transfer of equity shares on or after October 1, 2004 in a company completed through a recognized stock exchange in India are subject to tax at a rate of 15%, plus the applicable surcharges and the education cess.

As per the Finance Act, 2004, as modified by the Finance Act, 2008 and the Finance Act, 2013, in a sale and purchase of securities entered into through a recognized stock exchange, a Securities Transaction Tax ("STT") may be imposed upon one or both of the parties as follows:

- With respect to a sale and purchase of equity shares (i) both the buyer and seller are required to pay a STT at the rate of 0.1% of the transaction value of the securities, if the transaction is a delivery based transaction (i.e., the transaction involves actual delivery or transfer of shares); or (ii) the seller of the shares is required to pay a STT at the rate of 0.025% of the transaction value of the securities, if the transaction is a non-delivery based transaction (i.e., the transaction is settled without taking delivery of the shares).

- With respect to a sale and purchase of an option with respect to securities (i) upon the sale of the option, the seller is required to pay a STT at the rate of 0.05% of the option premium; and (ii) upon exercise of the option, the buyer is required to pay a STT at the rate of 0.125% of the settlement price.

- With respect to a sale and purchase of futures with respect to securities, the seller is required to pay a STT at the rate of 0.01% of the transaction value.

The applicable provisions of the Income Tax Act, in the case of non-residents, may offset the above taxes, except the STT. The capital gains tax is computed by applying the appropriate tax rates to the difference between the sale price and the purchase price of the equity shares or ADSs. Under the Income-tax Scheme, the purchase price of equity shares in an Indian listed company received in exchange for ADSs will be the market price of the underlying shares on the date that the Depositary gives notice to the custodian of the delivery of the equity shares in exchange for the corresponding ADSs, or the "stepped up" basis purchase price. The market price will be the price of the equity shares prevailing on the Stock Exchange, Bombay or the National Stock Exchange. There is no corresponding provision under the Income-tax Act in relation to the "stepped up" basis for the purchase price of equity shares. However, the tax department in India has not denied this benefit. In the event that the tax department denies this benefit, the original purchase price of ADSs would be considered the purchase price for computing the capital gains tax.

According to the Income-tax Scheme, a non-resident holder's holding period for the purposes of determining the applicable Indian capital gains tax rate relating to equity shares received in exchange for ADSs commences on the date of the notice of the redemption by the Depositary to the custodian. However, the Income-tax Scheme does not address this issue in the case of resident employees, and it is therefore unclear as to when the holding period for the purposes of determining capital gains tax commences for such a resident employee.

It is unclear as to whether section 115AC of the Income Tax Act and the rest of the Income-tax Scheme are applicable to a non- resident who acquires equity shares outside India from a non-resident holder of equity shares after receipt of the equity shares upon redemption of the ADSs.

It is unclear as to whether capital gains derived from the sale of subscription rights or other rights by a non-resident holder not entitled to an exemption under a tax treaty will be subject to Indian capital gains tax. If such subscription rights or other rights are deemed by the Indian tax authorities to be situated within India, the gains realized on the sale of such subscription rights or other rights will be subject to Indian taxation. The capital gains realized on the sale of such subscription rights or other rights, which will generally be in the nature of short-term capital gains, will be subject to tax (i) at variable rates with a maximum rate of 40%, excluding the prevailing surcharge and education cess, in the case of a foreign company and (ii) at the rate of 30% excluding the prevailing surcharge and education cess in the case of resident employees.

Withholding Tax on Capital Gains. Any gain realized by a non-resident or resident employee on the sale of equity shares is subject to Indian capital gains tax, which, in the case of a non-resident is to be withheld at the source by the buyer. However, as per the provisions of Section 196D(2) of the Income-tax Act, no withholding tax is required to be deducted from any income by way of capital gains arising to FIIs (as defined in Section 115AD of the Act) on the transfer of securities (as defined in Section 115AD of the Act).

Buy-back of Securities. Indian companies are not subject to any tax on the buy-back of their shares. However, the shareholders are taxed on any resulting gains. We are required to deduct tax at the source according to the capital gains tax liability of a non-resident shareholder. Furthermore, in the case of a buy-back of unlisted securities as per section 115QA of the Finance Act 2013, unlisted domestic companies are subject to tax on the buy-back of their securities. However, section 10(34A) of the Finance Act 2013 exempts shareholders from the gain, if any, arising from such transaction.

Stamp Duty and Transfer Tax. Upon issuance of the equity shares underlying our ADSs, we are required to pay a stamp duty of Rs.0.3 per share certificate evidencing such underlying equity shares. A transfer of ADSs is not subject to Indian stamp duty. A sale of equity shares in physical form by a non-resident holder is also subject to Indian stamp duty at the rate of 0.25% of the market value of the equity shares on the trade date, although customarily such duty is borne by the transferee. Shares must be traded in dematerialized form. The issuance or transfer of shares in dematerialized form is currently not subject to stamp duty.

Wealth Tax. Wealth Tax was abolished effective as of April 1, 2015.

Gift Tax and Estate Duty. Currently, there are no gift taxes or estate duties. These taxes and duties could be restored in future. Non-resident holders are advised to consult their own tax advisors regarding this issue.

Service Tax. Brokerage fees or commissions paid to stockbrokers in connection with the sale or purchase of shares is subject to a service tax of 12.36%. The stockbroker is responsible for collecting the service tax from the shareholder and paying it to the relevant authority. Effective June 1, 2015, the Finance Act 2015 increased the rate of service tax from 12.36% (inclusive of surcharge and cess) to a consolidated rate of 14%. Furthermore, effective November 2015, the service tax of 14% was increased by an additional 0.5% cess called the "Swatch Bharat Cess" to a consolidated rate of 14.50%. Effective June 1, 2016, the Finance Act 2016 further increased the service tax rate to 15% through introduction of another 0.5% cess called the "Krishi Kalyan Cess". Effective July 1, 2017, GST is applicable on such fees or commissions at the rate of 18%.

Material United States Federal Income and Estate Tax Consequences

The following is intended only as a descriptive summary of the material U.S. federal income and estate tax consequences that may be relevant with respect to the acquisition, ownership and disposition of our equity shares or ADSs and is for general information only and does not purport to be a complete analysis or listing of all potential tax effects relevant to the ownership or disposition of our equity shares or ADSs. This summary addresses the U.S. federal income and estate tax considerations of holders that are U.S. holders. "U.S. holders" are beneficial holders of our equity shares or ADSs who are (i) citizens or residents of the United States, (ii) corporations (or other entities treated as corporations for U.S. federal tax purposes) created in or organized in the United States or under the laws of the United States or any state thereof or any political subdivision thereof or therein, (iii) estates, the income of which is subject to U.S. federal income taxation regardless of its source, and (iv) trusts having a valid election to be treated as U.S. persons in effect under U.S. Treasury Regulations or for which a U.S. court exercises primary supervision and a U.S. person has the authority to control all substantial decisions.

This summary is limited to U.S. holders who will hold our equity shares or ADSs as capital assets (generally, property held for investment). In addition, this summary is limited to U.S. holders who are not residents in India for purposes of the Convention between the Government of the United States of America and the Government of the Republic of India for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion With Respect to Taxes on Income (the "Treaty"). If a partnership, including any entity treated as a partnership for U.S. federal income tax purposes, holds our equity shares or ADSs, the tax treatment of a partner will generally depend upon the status of the partner and upon the activities of the partnership. A partner in a partnership holding our equity shares or ADSs should consult his, her or its own tax advisor regarding the tax treatment of an investment in our equity shares or ADSs.

This summary does not address tax considerations applicable to holders that may be subject to special tax rules, such as banks, insurance companies, certain financial institutions, regulated investment companies, real estate investment trusts, broker dealers, traders in securities that elect to use the mark–to-market method of accounting, United States expatriates, persons liable for alternative minimum tax, persons holding our equity shares or ADSs through partnerships or other pass-through entities, persons that have a "functional currency" other than the U.S. dollars, tax-exempt entities, persons that will hold our equity shares or ADSs as a position in a "straddle" or as part of a "hedging" or "conversion" transaction for tax purposes and/or corporate holders of 10% or more, by voting power or value, of the shares of our company. This summary is based on the U.S. Internal Revenue Code of 1986, as amended and as in effect on the date of this Annual Report on Form 20-F and on United States Treasury Regulations in effect or, in some cases, proposed, as of the date of this Annual Report on Form 20-F, as well as judicial and administrative interpretations thereof available on or before such date, and is based in part on the assumption that each obligation in the deposit agreement and any related agreement will be performed in accordance with its terms. All of the foregoing is subject to change, which change could apply retroactively, or the Internal Revenue Service may interpret existing authorities differently, and a court may sustain such an interpretation, any of which could affect the tax consequences described below. This summary does not address the U.S. federal tax laws other than income or estate tax, and does not address U.S. state or local or non-U.S. tax laws.

EACH INVESTOR OR PROSPECTIVE INVESTOR SHOULD CONSULT HIS, HER OR ITS OWN TAX ADVISOR WITH RESPECT TO THE U.S. FEDERAL, STATE, LOCAL AND NON-U.S. TAX CONSEQUENCES OF ACQUIRING, OWNING OR DISPOSING OF OUR EQUITY SHARES OR ADSs.

Ownership of ADSs. For U.S. federal income tax purposes, holders of our ADSs will generally be treated as the holders of equity shares represented by such ADSs.

Dividends. Subject to the passive foreign investment company rules described below, except for our equity shares or ADSs, if any, distributed pro rata to all of our shareholders, including holders of our ADSs, the gross amount of any distributions of cash or property with respect to our equity shares or ADSs (before reduction for any Indian withholding taxes) will generally be included in income by a U.S. holder as foreign source dividend income at the time of receipt, which in the case of a U.S. holder of ADSs generally should be the date of receipt by the Depositary, to the extent such distributions are made from our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Such dividends will not be eligible for the dividends received deduction generally allowed to corporate U.S. holders in respect of dividends received from other United States corporations. To the extent, if any, that the amount of any distribution by us exceeds our current and accumulated earnings and profits (as determined under U.S. federal income tax principles) such excess will be treated first as a tax-free return of capital to the extent of the U.S. holder's tax basis in our equity shares or ADSs, and thereafter as capital gain.

With respect to certain non-corporate U.S. holders, subject to certain limitations, including certain limitations based on taxable income and filing status, qualifying dividends paid to non-corporate U.S. holders, including individuals, may be eligible for a reduced rate of taxation if we are deemed to be a "qualified foreign corporation" for United States federal income tax purposes and certain holding period requirements are met (including the requirement that the non-corporate U.S. holder holds the ADSs for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date). A qualified foreign corporation includes a foreign corporation if (1) its shares (or, according to legislative history, its ADSs) are readily tradable on an established securities market in the United States or (2) it is eligible for the benefits under a comprehensive income tax treaty with the United States. In addition, a corporation is not a qualified foreign corporation if it is a passive foreign investment company (as discussed below) for either its taxable year in which the dividend is paid or the preceding taxable year. Our ADSs are traded on the New York Stock Exchange, an established securities market in the United States as identified by Internal Revenue Service guidance. Due to the absence of specific statutory provisions addressing ADSs, however, there can be no assurance that we are a qualified foreign corporation solely as a result of our listing on the New York Stock Exchange. Nonetheless, we may be eligible for benefits under the Treaty. Each U.S. holder should consult his, her or its own tax advisor regarding the treatment of such dividends and such holder's eligibility for a reduced rate of taxation.

Qualifying dividends will generally be taxed at a maximum income tax rate of 15% except for U.S. holders with incomes exceeding $434,550 or, in the case of taxpayers filing joint tax returns, with incomes exceeding $461,700 which will be subject to tax at the rate of 20% on such qualifying dividends. Further, qualifying dividends received by U.S holders with incomes less than $39,375 or, in the case of taxpayers filing joint returns, $78,750 will be subject to tax at the rate of 0% on such qualifying dividends. Each U.S. holder should consult its own tax advisor regarding the treatment of dividends and such holder's eligibility for a reduced rate of taxation.

Subject to certain conditions and limitations, any Indian withholding tax imposed upon distributions paid to a U.S. holder with respect to our equity shares or ADSs should be eligible for credit against the U.S. holder's federal income tax liability. Alternatively, a U.S. holder may claim a deduction for such amount, but only for a year in which a U.S. holder does not claim a credit with respect to any foreign income taxes. The overall limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. For this purpose, distributions on our equity shares or ADSs generally will be foreign source income, for purposes of computing the United States foreign tax credit allowable to a U.S. holder. The rules governing the foreign tax credit are very complex and each U.S. holder should consult his, her or its own tax advisors regarding the availability of the foreign tax credit under such holder's own particular circumstances.

If dividends are paid in Indian rupees, the amount of the dividend distribution included in the income of a U.S. holder will be in the U.S. dollar value of the payments made in Indian rupees, determined utilizing the spot exchange rate between Indian rupees and U.S. dollars applicable to the date such dividend is included in the income of the U.S. holder. Generally, any gain or loss resulting from currency exchange fluctuations during the period from the dividend date to the date such payment is converted into U.S. dollars will be treated as U.S. source ordinary income or loss. You are urged to consult your tax advisors regarding the taxation of currency gain or loss.

EACH U.S. HOLDER SHOULD CONSULT HIS, HER OR ITS OWNS TAX ADVISOR REGARDING THE TREATMENT OF DIVIDENDS AND SUCH HOLDER'S ELIGIBILITY FOR REDUCED RATE OF TAXATION UNDER THE LAW IN EFFECT FOR THE YEAR OF THE DIVIDEND.

Sale or exchange of our equity shares or ADSs. Subject to the passive foreign investment company rules described below, a U.S. holder generally will recognize gain or loss on the sale or exchange of our equity shares or ADSs equal to the difference between the amount realized on such sale or exchange and the U.S. holder's adjusted tax basis in such equity shares or ADSs, as the case may be. Such gain or loss will be capital gain or loss, and will be long-term capital gain or loss if such equity shares or ADSs, as the case may be, were held for more than one year (currently long-term capital gains are taxed at a maximum rate of 20%). Gain or loss, if any, recognized by a U.S. holder generally will be treated as U.S. source passive category income or loss for U.S. foreign tax credit purposes. In the case of capital losses, a U.S. holder is eligible to claim a capital loss deduction subject to significant limitations. If a U.S. holder is unable to claim these losses on its, his or her U.S. Federal Tax Return, the U.S. holder may be eligible to carryover the amount of the unused capital loss to future years, subject to additional limitations provided under U.S. tax regulations. Capital gains realized by a U.S. holder upon the sale of our equity shares (but not ADSs) may be subject to certain tax in India. See "Taxation-Indian Taxation-Taxation of Capital Gains" Set forth above in this Annual Report. Due to limitations on foreign tax credits, however, a U.S. holder may not be able to utilize any such taxes as a credit against the U.S. holder's federal income tax liability.

Estate taxes. An individual U.S. holder who is a citizen or resident of the United States for U.S. federal estate tax purposes will have the value of our equity shares or ADSs held by such holder included in his or her gross estate for U.S. federal estate tax purposes. An individual holder who actually pays Indian estate tax with respect to our equity shares will, however, be entitled to credit the amount of such tax against his or her U.S. federal estate tax liability, subject to a number of conditions and limitations.

Additional Tax on Investment Income. U.S. holders that are individuals, estates or trusts and whose income exceeds certain thresholds (the lesser of the U.S holder's net investment income or modified adjusted gross income, to that extent such amount in a taxable year exceeds $200,000.00 or, in the case of taxpayers filing joint tax returns, $250,000.00) will be subject to a 3.8% Medicare contribution tax on certain net investment income, including, among other things, dividends on, and capital gains from the sale or other taxable disposition of, our equity shares or ADSs, subject to certain limitations and exceptions.

Backup withholding tax and information reporting requirements. Any dividends paid on, or proceeds from a sale of, our equity shares or ADSs to or by a U.S. holder may be subject to U.S. information reporting, and a backup withholding tax (currently at a rate of 24%) may apply unless the holder establishes that he, she or it is an exempt recipient or provides a U.S. taxpayer identification number and certifies under penalty of perjury that such number is correct and that such holder is not subject to backup withholding and otherwise complies with any applicable backup withholding requirements.

Any amount withheld under the backup withholding rules will be allowed as a refund or credit against the holder's U.S. federal income tax liability, provided that the required information is timely furnished to the Internal Revenue Service. Certain U.S. holders are required to report information with respect to their investment in our equity shares or ADSs not held through a custodial account with a U.S. financial institution on Internal Revenue Service Form 8938, which must be attached to the U.S. holder's annual income tax return. Investors who fail to report required information could become subject to substantial penalties. In addition, a U.S. holder should consider the possible obligation to file online a FinCEN Form 114 – Foreign Bank and Financial Accounts Report as a result of holding ordinary shares or ADSs. Each U.S. holder should consult his, her or its tax advisor concerning its obligation to file Internal Revenue Service Form 8938 and/or FinCEN Form 114.

Passive foreign investment company. A non-U.S. corporation will be classified as a passive foreign investment company for U.S. Federal income tax purposes if either:

- 75% or more of its gross income for the taxable year is passive income; or
- on average for the taxable year, 50% or more of the total value of its assets produce or are held for the production of passive income (as of the end of each quarter of its taxable year).

We do not believe that we satisfy either of the tests for passive foreign investment company status for the fiscal year ended March 31, 2019. Because this determination is made on an annual basis and depends on a variety of factors (including the value of our ADS), no assurance can be given that we will not be considered a passive foreign investment company in future taxable years. If we were to be a passive foreign investment company for any taxable year, dividends would not be eligible for the preferential tax treatment applicable to qualified dividends income but would instead be taxable at rates applicable to ordinary income. Further, if we were to be a passive foreign investment company for any taxable year, U.S. holders would be required to:

- pay an interest charge together with tax calculated at ordinary income rates on "excess distributions" (as the term is defined in relevant provisions of the U.S. tax laws) and on any gain on a sale or other disposition of our equity shares or ADSs;

- if an election is made to be a "qualified electing fund" (as the term is defined in relevant provisions of the U.S. tax laws), include in their taxable income their pro rata share of undistributed amounts of our income; or

- if the equity shares are "marketable" and a mark-to-market election is made, to mark-to-market the equity shares each taxable year and recognize ordinary gain and, to the extent of prior ordinary gain, recognize ordinary loss for the increase or decrease in market value for such taxable year.

If we are treated as a passive foreign investment company, we do not plan to provide information necessary for the U.S. holder to make a "qualified electing fund" election.

In addition, certain information reporting obligations (i.e., filing Internal Revenue Service Form 8621) may apply to U.S holders if we are determined to be a passive foreign investment company.

THE ABOVE SUMMARY IS NOT INTENDED TO CONSTITUTE A COMPLETE ANALYSIS OF ALL TAX CONSEQUENCES RELATING TO THE OWNERSHIP, ACQUISITION OR DISPOSITION OF OUR EQUITY SHARES OR ADSs. YOU SHOULD CONSULT YOUR OWN TAX ADVISOR CONCERNING THE TAX CONSEQUENCES TO YOU BASED ON YOUR PARTICULAR SITUATION.

10.F. ***Dividends and paying agents***

Not applicable.

10.G. ***Statements by experts***

Not applicable.

10.H. ***Documents on display***

This annual report on Form 20-F and other information filed or to be filed by us with or furnished by us to the SEC can be accessed via the SEC's website at www.sec.gov. Certain (but not all) of such materials are also available on our website at https://www.drreddys.com, as soon as reasonably practicable after having been electronically filed or furnished to the SEC. Information contained in our website, www.drreddys.com, is not part of this annual report on Form 20-F and no portion of such information is incorporated herein or any other materials filed with or furnished to the SEC.

Additionally, documents referred to in this Form 20-F may be inspected at our corporate office, which is located at 8-2-337, Road No. 3, Banjara Hills, Hyderabad, Telangana, 500 034, India.

10.I. ***Subsidiary information***

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk is the risk of loss of future earnings or fair values or future cash flows that may result from a change in the price of a financial instrument. The value of a financial instrument may change as a result of changes in the interest rates, foreign currency exchange rates and other market changes that affect market risk sensitive instruments. Market risk is attributable to all market risk sensitive financial instruments including foreign currency receivables and payables and long term debt. We are exposed to market risk primarily related to foreign exchange rate risk, interest rate risk and the market value of our investments. Thus, our exposure to market risk is a function of investing and borrowing activities and revenue generating and operating activities in foreign currency. The objective of market risk management is to avoid excessive exposure in our foreign currency revenues and costs.

Our Board of Directors and its Audit Committee are responsible for overseeing our risk assessment and management policies. Our major market risks of foreign exchange, interest rate and counter-party risk are managed centrally by our group treasury department, which evaluates and exercises independent control over the entire process of market risk management.

We have a written treasury policy, and we do regular reconciliations of our positions with our counter-parties. In addition, internal audits of the treasury function are performed at regular intervals.

Components of Market Risk

Foreign Exchange Rate Risk

Our foreign exchange risk arises from our foreign operations, foreign currency revenues and expenses (primarily in U.S. dollars, Russian roubles, British pound sterling and Euros) and foreign currency borrowings in U.S. dollars, Russian roubles, Ukrainian hryvnias and Euros. A significant portion of our revenues are in these foreign currencies, while a significant portion of our costs are in Indian rupees. As a result, if the value of the Indian rupee appreciates relative to these foreign currencies, our revenues measured in Indian rupees may decrease. The exchange rate between the Indian rupee and these foreign currencies has changed substantially in recent periods and may continue to fluctuate substantially in the future. Consequently, we use both derivative and non-derivative financial instruments, such as foreign exchange forward contracts, option contracts, currency swap contracts and foreign currency financial liabilities, to mitigate the risk of changes in foreign currency exchange rates in respect of our highly probable forecast transactions and recognized assets and liabilities. We do not use derivative financial instruments for trading or speculative purposes.

We had the following derivative financial instruments to hedge the foreign exchange rate risk as of March 31, 2019:

Category	Instrument	Currency	Cross Currency		Amounts in millions	Buy/Sell
Hedges of recognized assets and liabilities	Forward contract	U.S.$	INR	U.S.$	261	Sell
	Forward contract	RUB	INR	RUB	2,710	Sell
	Forward contract	GBP	INR	GBP	18	Sell
	Forward contract	U.S.$	RUB	U.S.$	30	Buy
	Forward contract	GBP	USD	GBP	23	Buy
Hedges of highly probable forecast transactions	Forward contract	RUB	INR	RUB	1,350	Sell
	Option contract	U.S.$	INR	U.S.$	300	Sell

Sensitivity Analysis of Exchange Rate Risk.

In respect of our forward and option contracts, a 10% decrease/increase in the respective exchange rates of each of the currencies underlying such contracts would have resulted in an approximately Rs.1,872/(1,349) million increase/(decrease) in our hedging reserve and an approximately Rs.1,789/(1,873) million increase/(decrease) in our net profit as at March 31, 2019.

For a detailed analysis of our foreign exchange rate risk, please Refer to Notes 29 and 30 in our consolidated financial statements.

Commodity Rate Risk

Our exposure to market risk with respect to commodity prices primarily arises from the fact that we are a purchaser and seller of active pharmaceutical ingredients and the components for such active pharmaceutical ingredients. These are commodity products whose prices can fluctuate sharply over short periods of time. The prices of our raw materials generally fluctuate in line with commodity cycles, though the prices of raw materials used in our active pharmaceutical ingredients business are generally more volatile. Raw material expense forms the largest portion of our operating expenses. We evaluate and manage our commodity price risk exposure through our operating procedures and sourcing policies. We have not entered into any material derivative contracts to hedge our exposure to fluctuations in commodity prices.

Interest Rate Risk

As of March 31, 2019, we had Rs. 31,154 million of loans carrying a floating interest rate ranging from 1 Month LIBOR plus 25 bps to 1 Month LIBOR plus 105 bps; Rs. 72 million of loans carrying a floating interest rate of 1 Month JIBAR plus 120 bps and Rs. 1,749 million of loans carrying a floating interest rate of TIIE+1.25%. These loans expose us to risks of changes in interest rates. Our treasury department monitors the interest rate movement and manages the interest rate risk based on its policies, which include entering into interest rate swaps as considered necessary.

Interest Rate Profile.

The interest rate profile of our short term borrowings from banks is as follows:

	As at March 31,			
	2019		2018	
	Currency[1]	**Interest Rate[2]**	**Currency[1]**	**Interest Rate[2]**
Packing credit borrowings	USD	1 Month LIBOR + 25 to 40 bps	USD	1 Month LIBOR + (30) to 30 bps
	-	-	INR	6.00%
	-	-	RUB	6.75%
	USD	1 Month LIBOR + 65 to 95 bps	USD	1 Month/3 Months LIBOR + 65 to 85 bps
	UAH	21.50%	UAH	18.00%
Other foreign currency borrowings	MXN	TIIE+1.25%	-	-
	ZAR	1 Month JIBAR+120 Bps	-	-
	RUB	8.22%	RUB	8.20%

The interest rate profile of our long-term loans and borrowings is as follows:

	As at March 31,			
	2019		2018	
	Currency[1]	**Interest Rate[2]**	**Currency[1]**	**Interest Rate[2]**
Foreign currency borrowings	USD	1 Month LIBOR + 70 to 105 bps	USD	1 Month LIBOR + 45 to 82.7 bps
	EUR	0.81%	EUR	0.81%

(1) "INR" means Indian rupees, "USD" means United States Dollar, "EUR" means Euro, "RUB" means Russian roubles, "MXN" means Mexican pesos, "UAH" means Ukrainian hryvnia and "ZAR" means the South African rand.

(2) "LIBOR" means the London Inter-bank Offered Rate, "TIIE" means the Equilibrium Inter-banking Interest Rate (Tasa de Interés Interbancaria de Equilibrio) and "JIBAR" means the Johannesburg Interbank Average Rate.

Maturity profile.

The aggregate maturities of interest-bearing long-term loans and borrowings (excluding finance lease obligations), based on contractual maturities, as of March 31, 2019 are as follows:

Maturing in the year ending March 31,[1]	(All amounts in Rupees millions)
2020	Rs. 4,199
2021	6,621
2022	1,087
2023	13,831
	Rs. 25,738

(1) Long-term debt obligations disclosed in the above table do not reflect any netting of transactions costs of Rs.91 million.

Counter-party risk encompasses settlement risk on derivative contracts and credit risk on cash and term deposits (i.e., certificates of deposit). Exposure to these risks is closely monitored and kept within predetermined parameters. Our group treasury department does not expect any losses from non-performance by these counter-parties.

In respect of our interest rate swap, a 10% decrease/increase in the respective interest rates would have resulted in an approximately Rs.14/(12) million increase/(decrease) in our hedging reserve as at March 31, 2019.

For the year ended March 31, 2019, every 10% increase or decrease in the floating interest rate component (i.e., LIBOR, JIBAR and TIIE) applicable to our loans and borrowings would affect our net profit by Rs.93 million.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

A. Debt Securities.

Not applicable.

B. Warrants and Rights.

Not applicable.

C. Other Securities.

Not applicable.

D. American Depositary Shares.

Fees and Charges for Holders of American Depositary Shares

J.P. Morgan Chase Bank, N.A., as the depositary for our ADSs (the "Depositary"), collects fees for the issuance and cancellation of ADSs from the holders of our ADSs, or intermediaries acting on their behalf, against the deposit or withdrawal of ordinary shares in the custodian account. The Depositary also collects the following fees from holders of ADRs or intermediaries acting in their behalf:

Category (as defined by SEC)	Depositary actions	Associated Fee
(a) Depositing or substituting the underlying shares	Issuing ADSs upon deposits of shares, including deposits and issuances in respect of share distributions, stock splits, rights, mergers, exchanges of securities or any other transaction or event or other distribution affecting the ADSs or the deposited shares.	U.S.$5.00 for each 100 ADSs (or portion thereof) evidenced by the new shares deposited.
(b) Receiving or distributing dividends	Distribution of dividends.	U.S.$0.02 or less per ADS (U.S.$2.00 per 100 ADSs).
(c) Selling or exercising rights	Distribution or sale of securities.	U.S.$5.00 for each 100 ADSs (or portion thereof), the fee being in an amount equal to the fee for the execution and delivery of ADSs which would have been charged as a result of the deposit of such securities.
(d) Withdrawing an underlying security	Acceptance of ADSs surrendered for withdrawal of deposited shares.	U.S.$5.00 for each 100 ADSs (or portion thereof) evidenced by the shares withdrawn.
(e) Transferring, splitting or grouping receipts	Transfers, combining or grouping of depositary receipts.	U.S.$1.50 per ADS.
(f) General depositary services, particularly those charged on an annual basis.	Other services performed by the depositary in administering the ADSs.	U.S.$0.02 per ADS (or portion thereof) not more than once each calendar year.
(g) Other	Expenses incurred on behalf of holders in connection with: • compliance with foreign exchange control regulations or any law or regulation relating to foreign investment; • the depositary's or its custodian's compliance with applicable law, rule or regulation; • stock transfer or other taxes and other governmental charges; • cable, telex, facsimile transmission/delivery; • expenses of the depositary in connection with the conversion of foreign currency into U.S. dollars (which are paid out of such foreign currency); or • any other charge payable by depositary or its agents.	The amount of such expenses incurred by the Depositary.

As provided in the Deposit Agreement, the Depositary may charge fees for making cash and other distributions to holders by deduction from distributable amounts or by selling a portion of the distributable property. The Depositary may generally refuse to provide services until its fees for those services are paid.

Fees paid by Depositary

Direct Payments

The Depositary has agreed to reimburse certain reasonable expenses related to our ADS program and incurred by us in connection with the program. In the year ended March 31, 2019, the Depositary reimbursed us for an amount of U.S.$ 681,684. The amounts the Depositary reimburses are not related to the fees collected by the Depositary from ADS holders. Under certain circumstances, including termination of our ADS program prior to May 11, 2022, we are required to repay to the Depositary amounts reimbursed in prior periods.

The table below sets forth the types of expenses that the Depositary has agreed to reimburse us for and the amounts reimbursed during the fiscal year ended March 31, 2019.

Category of expenses	**Amount reimbursed during the year ended March 31, 2019**	
Legal and accounting fees incurred in connection with preparation of Form 20-F and ongoing SEC compliance and listing requirements	U.S.$	681,684
Listing fees		None
Investor relations		None
Advertising and public relations		None
Broker reimbursements		None

Indirect Payments

As part of its service to us, the Depositary has agreed to waive fees for the standard costs associated with the administration of our ADS program, associated operating expenses and investor relations advice. The Depository has not paid any expenses on our behalf.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

Modification in the rights of security holders

None.

Use of Proceeds

Not applicable.

ITEM 15. CONTROLS AND PROCEDURES

(a) *Disclosure Controls and Procedures*

As of the end of the period covered by this Annual Report on Form 20-F, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act).

Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures are effective, as of March 31, 2019, to provide reasonable assurance that the information required to be disclosed in filings and submissions under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified by the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions about required disclosure.

(b) *Management's Annual Report on Internal Control Over Financial Reporting*

Our management is responsible for establishing and maintaining adequate internal control over financial reporting and for the assessment of the effectiveness of internal control over financial reporting. As defined by the SEC, internal control over financial reporting is a process designed under the supervision of our principal executive and principal financial officers, and effected by our board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with International Financial Reporting Standards, as issued by the International Accounting Standards Board.

Our internal control over financial reporting is supported by written policies and procedures, that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management conducted an assessment of the effectiveness of our internal control over financial reporting as of March 31, 2019 based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO Framework"). Based on this assessment, our management has concluded that our internal control over financial reporting was effective as of March 31, 2019.

The effectiveness of our internal control over financial reporting as of March 31, 2019 has been audited by EY, the independent registered public accounting firm that audited our financial statements, as stated in their report, a copy of which is included in this annual report on Form 20-F.

/s/G.V. Prasad	/s/Saumen Chakraborty
Co-Chairman and Chief Executive Officer	President and Chief Financial Officer

(c) *Attestation Report of the Registered Public Accounting Firm.*

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Dr. Reddy's Laboratories Limited

Opinion on Internal Control Over Financial Reporting

We have audited Dr. Reddy's Laboratories Limited and subsidiaries' (the Company) internal control over financial reporting as of March 31, 2019, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), (the COSO criteria). In our opinion, Dr. Reddy's Laboratories Limited and subsidiaries' (the Company) maintained, in all material respects, effective internal control over financial reporting as of March 31, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements of the Company and our report dated June 3, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young Associates LLP

Hyderabad, India
June 3, 2019

(d) Changes in internal control over financial reporting

There were no changes to our internal control over financial reporting that occurred during the period covered by this Form 20-F that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 16. [RESERVED]

ITEM 16.A. AUDIT COMMITTEE FINANCIAL EXPERT

The Audit Committee of our Board of Directors is entirely composed of independent directors and brings in expertise in the fields of finance, economics, human resource development, strategy and management. Please see "Item 6. Directors, Senior Management and Employees" for the experience and qualifications of the members of the Audit Committee of our Board of Directors. Our Board of Directors has determined that Mr. Sridar Iyengar is an audit committee financial expert, as defined in Item 401(h) of Regulation S-K, and is independent pursuant to applicable NYSE rules.

ITEM 16.B. CODE OF ETHICS

We have adopted a Code of Business Conduct and Ethics (the "CoBE"), which applies to all Directors and employees of our company and its subsidiaries and affiliates. The CoBE is available on our corporate website at http://www.drreddys.com/investors/governance/code-of-business-conduct-and-ethics-cobe/. The CoBE has provisions for employees and other stakeholders to raise concerns regarding possible violations of the CoBE to the Chief Compliance Officer or the Chief Ombudsperson. Further, our Ombudsperson Policy includes certain safeguards relating to non-retaliation in order to protect persons who raise concerns in good faith.

ITEM 16.C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

KPMG served as our independent registered public accountant for the year ended March 31, 2018 and Ernst & Young Associates LLP served as our independent registered public accountant for the year ended March 31, 2019 for which audited statements appear in this Annual Report.

The following table sets forth the aggregate fees paid to KPMG and various member firms of KPMG for various services in fiscal year 2018, and the aggregate fees paid to Ernst & Young Associates LLP and the various member firms of Ernst & Young Associates LLP in fiscal year 2019.

	For the year ended March 31,			
Type of Service	**2019**		**2018**	**Description of Services**
	(Rs. in millions)			
Audit fees	Rs. 68.2	Rs.	33.0	Audit and review of financial statements
Audit related fees	2.1		-	Statutory certifications and other matters.
Tax fees	10.7		9.2	Tax returns filing and transfer pricing related services
Total	**Rs. 81.0**	**Rs.**	**42.2**	

In accordance with the requirement of the charter of the Audit Committee of our Board of Directors, we obtain the prior approval of the Audit Committee on every occasion we engage our principal accountants or their associated entities to provide us any services. We disclose to the Audit Committee of our Board of Directors the nature of services that are provided and the fees to be paid for the services. The fees listed in the above table were approved by the Audit Committee of our Board of Directors.

ITEM 16.D. EXEMPTION FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

We have not sought any exemption from the listing standards for audit committees applicable to us as a foreign private issuer.

ITEM 16.E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

On July 27, 2018, pursuant to the special resolution approved by our shareholders at the Annual General Meeting, we formed Dr. Reddy's Employees ESOS Trust (the"ESOS Trust") to support the Dr. Reddy's Employees Stock Option Scheme, 2018 by acquiring, including through secondary market acquisitions, equity shares which are used for issuance to eligible employees upon exercise of stock options thereunder.

Tabulated below are the details of the shares acquired under such plan.

Period	Total Number of Equity Shares Purchased	Average Price Paid per Equity Share	Maximum number of Equity Shares that may yet be purchased under the Plans or Programs
April 1,2018 - March 31, 2019	217,976	Rs. 2,453.8	2,282,024

Refer to Note 19 of these financial statements for further details on the Dr. Reddy's Employees Stock Option Scheme, 2018.

ITEM 16.F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT

Based on the recommendation of our Audit Committee, our Board of Directors, on June 15, 2018, approved the appointment of Ernst & Young Associates LLP ("EY") as our independent registered public accounting firm for U.S. reporting purposes for the year ended March 31, 2019. This appointment was effective as of June 15, 2018, and EY accepted the engagement.

EY has audited our annual financial statements included in this Annual Report on Form 20-F for the year ending March 31, 2019. KPMG was our independent registered public accounting firm through the completion of the audit for the year ended March 31, 2018 and for the purpose of filing such audited financial statements in this Form 20-F for the year ended March 31, 2018 which was filed on June 15, 2018.

In addition, in accordance with disclosure requirements under SEC regulations, the following may be noted:

- During the two fiscal years ended March 31, 2018 and March 31, 2017, KPMG has not issued any report on the financial statements that contained an adverse opinion or disclaimer of opinion, nor were the reports of KPMG qualified or modified as to uncertainty, audit scope or accounting principles; and

- During the two fiscal years ended March 31, 2018 and March 31, 2017 and through June 15, 2018, (i) there was no disagreement with KPMG on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedures that, if not resolved to the satisfaction of KPMG, would have caused them to make reference to the subject matter of the disagreement in connection with its audit reports on our consolidated financial statements for the two fiscal years ended March 31, 2018 and March 31, 2017, and (ii) there was no "reportable event" as described in Item 16F(a)(1)(v) of Form 20-F.

- During the two fiscal years ended March 31, 2018 and March 31, 2017 and through June 15, 2018, we did not consult with EY for any matters regarding either:

  (i) the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered with respect to our consolidated financial statements; or

  (ii) any matter that was the subject of a disagreement as defined in Item 16F(a)(1)(iv) of Form 20-F and the related instructions to this Item or a "reportable event" as described in Item 16F (a)(1)(v) of Form 20-F.

We have provided KPMG with a copy of the disclosures given above and requested that KPMG furnish us with a letter addressed to the Commission stating whether it agrees with such disclosures and, if not, stating the respects in which it does not agree. A copy of the letter dated June 15, 2018 from KPMG was filed as Exhibit 15.2 to our Annual Report on Form 20-F for the year ended March 31, 2018.

ITEM 16.G. CORPORATE GOVERNANCE

Companies listed on the New York Stock Exchange ("NYSE") must comply with certain standards regarding corporate governance as codified in Section 303A of the NYSE's Listed Company Manual. Listed companies that are foreign private issuers (as such term is defined in Rule 3b-4 under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) are permitted to follow home country practice in lieu of the provisions of Section 303A, except that such companies are required to comply with the requirements of Sections 303A.06, 303A.11 and 303A.12(b) and (c), which are as follows:

(i) establish an independent audit committee that has specified responsibilities;

(ii) provide prompt certification by its chief executive officer of any non-compliance with any corporate governance rules;

(iii) provide periodic written affirmations to the NYSE with respect to its corporate governance practices; and

(iv) provide a brief description of significant differences between its corporate governance practices and those followed by U.S. companies.

The following table compares our principal corporate governance practices to those required of U.S. NYSE listed companies.

Standard for U.S. NYSE Listed Companies	**Our practice**
Listed companies must have a majority of "independent directors," as defined by the NYSE.	We comply with this standard. Ten of our twelve directors are "independent directors," as defined by the NYSE.
The non-management directors of each listed company must meet at regularly scheduled executive sessions without management.	We comply with this standard. Our non-management directors meet periodically without management directors in scheduled executive sessions.
Listed companies must have a nominating/corporate governance committee composed entirely of independent directors. The nominating/corporate governance committee must have a written charter that is made available on the listed company's website and that addresses the committee's purpose and responsibilities, subject to the minimum purpose and responsibilities established by the NYSE, and an annual evaluation of the committee.	We have a Nomination, Governance and Compensation Committee composed entirely of independent directors that meets these requirements. The committee has a written charter that meets these requirements. We have evaluated the performance of the Nomination, Governance and Compensation Committee.
Listed companies must have a compensation committee composed entirely of independent directors. The compensation committee must have a written charter that is made available on the listed company's website and that addresses the committee's purpose and responsibilities, subject to the minimum purpose and responsibilities established by the NYSE, and an annual evaluation of the committee.	We have a Nomination, Governance and Compensation Committee composed entirely of independent directors that meets these requirements. The committee has a written charter that meets these requirements. We have evaluated the performance of our Nomination, Governance and Compensation Committee.
Listed companies must have an audit committee that satisfies the requirements of Rule 10A-3 under the Exchange Act.	Our Audit Committee satisfies the requirements of Rule 10A-3 under the Exchange Act.
The audit committee must have a minimum of three members all being independent directors. The audit committee must have a written charter that is made available on the listed company's website and that addresses the committee's purpose and responsibilities, subject to the minimum purpose and responsibilities established by the NYSE, and an annual evaluation of the committee.	We have an Audit Committee composed of four members, all being independent directors. The committee has a written charter that meets these requirements. We have evaluated the performance of our Audit Committee.
Each listed company must have an internal audit function.	We have an internal audit function.
Shareholders must be given the opportunity to vote on all equity-compensation plans and material revisions thereto, with limited exceptions.	We comply with this standard. Our Employee Stock Option Plans were approved by our shareholders.
Listed companies must adopt and disclose corporate governance guidelines.	We have not adopted corporate governance guidelines.

Standard for U.S. NYSE Listed Companies	Our practice
All listed companies, U.S. and foreign, must adopt and disclose a code of business conduct and ethics for directors, officers and employees that is made available on the listed company's website and, and promptly disclose any waivers of the code for directors or executive officers.	We comply with this standard. More details on our Code of Business Conduct and Ethics are given under Item 16.B.
Listed companies must solicit proxies for all meetings of shareholders.	We do not solicit proxies because we are prohibited from doing so under Section 105 of the Indian Companies Act, 2013. However, we give each of our shareholders written notices of all of our shareholder meetings.
Listed foreign private issuers must disclose any significant ways in which their corporate governance practices differ from those followed by domestic companies under NYSE listing standards.	This requirement is being addressed by way of this table.
Each listed company CEO must certify to the NYSE each year that he or she is not aware of any violation by the company of NYSE corporate governance listing standards, qualifying the certification to the extent necessary.	We do not have such a practice.
Each listed company CEO must promptly notify the NYSE in writing after any executive officer of the listed company becomes aware of any non-compliance with any applicable provisions of this Section 303A.	There have been no such instances.
Each listed company must submit an executed Written Affirmation annually to the NYSE. In addition, each listed company must submit an interim Written Affirmation each time that any of the following occurs: • an audit committee member who was deemed independent is no longer independent; • a member has been added to the audit committee; • the listed company or a member of its audit committee is eligible to rely on and is choosing to rely on a Securities Exchange Act Rule 10A-3 ("Rule 10A-3") exemption; • the listed company or a member of its audit committee is no longer eligible to rely on or is choosing to no longer rely on a previously applicable Rule 10A-3 exemption; • a member has been removed from the listed company's audit committee resulting in the company no longer having a Rule 10A-3 compliant audit committee; or • the listed company determined that it no longer qualifies as a foreign private issuer and will be considered a domestic company under Section 303A. The annual and interim Written Affirmations must be in the form specified by the NYSE.	We filed our most recent annual written affirmation, in the form specified by NYSE, on June 21, 2018. We filed our most recent interim written affirmation consequent to appointment of Ms. Shikha Sharma as a member of our audit committee, in the form specified by NYSE, on February 13, 2019.

ITEM 16.H. MINE SAFETY DISCLOSURE

Not Applicable.

PART III

ITEM 17. FINANCIAL STATEMENTS

Not applicable.

ITEM 18. FINANCIAL STATEMENTS

The following financial statement and auditor's report for the year ended March 31, 2019 are incorporated herein by reference and are included in this Item 18 of this report on Form 20-F:

• Report of Independent Registered Public Accounting Firms 120

• Consolidated statements of financial position as of March 31, 2019 and 2018 122

• Consolidated income statements for the years ended March 31, 2019, 2018 and 2017 123

• Consolidated statements of comprehensive income for the years ended March 31, 2019, 2018 and 2017 124

• Consolidated statements of changes in equity for the years ended March 31, 2019, 2018 and 2017 125

• Consolidated statements of cash flows for the years ended March 31, 2019, 2018 and 2017 128

• Notes to the consolidated financial statements 129

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Dr. Reddy's Laboratories Limited

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statement of financial position of Dr. Reddy's Laboratories Limited and subsidiaries (the Company) as of March 31, 2019, the related consolidated income statement, statement of comprehensive income**,** changes in equity and cash flows for the year in the period ended March 31, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at March 31, 2019 and the results of its operations and its cash flows for the year in the period ended March 31, 2019, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of March 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated June 3, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young Associates LLP

We have served as the Company's auditor since 2018.

Hyderabad, India
June 3, 2019

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Dr. Reddy's Laboratories Limited

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of financial position of Dr. Reddy's Laboratories Limited, its subsidiaries and joint ventures (the Company) as of March 31, 2018 and the related consolidated income statements, statements of comprehensive income, changes in equity, and cash flows for each of the years in the two year period ended March 31, 2018, (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of March 31, 2018, and the results of its operations and its cash flows for each of the years in the two year period ended March 31, 2018, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board (IFRS).

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit(s) in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provides a reasonable basis for our opinion.

KPMG

Hyderabad, Telangana
June 15, 2018

We served as the Company's auditor from 2001 to 2018

DR. REDDY'S LABORATORIES LIMITED AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(in millions, except share and per share data)

Particulars	Note	As of March 31, 2019 (Unaudited convenience translation into U.S.$ (See Note 2(d))		As of March 31, 2019		As of March 31, 2018
ASSETS						
Current assets						
Cash and cash equivalents	14	U.S.$	32	Rs.	2,228	Rs.2,638
Other investments	10		326		22,529	18,330
Trade and other receivables	12		576		39,869	40,617
Inventories	11		486		33,579	29,089
Derivative financial instruments	29		5		360	103
Tax assets			49		3,400	4,567
Other current assets	13		181		12,536	14,301
Total current assets		**U.S.$**	**1,656**	**Rs.**	**114,501**	**Rs. 109,645**
Non-current assets						
Property, plant and equipment	6	U.S.$	782	Rs.	54,088	Rs. 57,869
Goodwill	7		56		3,902	3,945
Other intangible assets	8		642		44,367	44,665
Trade and other receivables	12		2		113	169
Investment in equity accounted investees	9		37		2,529	2,104
Other investments	10		12		813	2,549
Deferred tax assets	26		60		4,168	3,628
Other non-current assets	13		14		946	1,030
Total non-current assets		**U.S.$**	**1,604**	**Rs.**	**110,926**	**Rs. 115,959**
Total assets		**U.S.$**	**3,259**	**Rs.**	**225,427**	**Rs. 225,604**
LIABILITIES AND EQUITY						
Current liabilities						
Trade and other payables	21	U.S.$	210	Rs.	14,553	Rs. 16,052
Short-term borrowings	17		175		12,125	25,466
Long-term borrowings, current portion	17		62		4,256	63
Provisions	20		60		4,166	3,732
Tax liabilities			3		181	1,530
Derivative financial instruments	29		1		68	85
Bank overdraft	14		-		-	96
Other current liabilities	22		352		24,351	22,668
Total current liabilities		**U.S.$**	**863**	**Rs.**	**59,700**	**Rs. 69,692**
Non-current liabilities						
Long-term borrowings	17	U.S.$	318	Rs.	22,000	Rs. 25,089
Deferred tax liabilities	26		9		610	730
Provisions	20		1		52	53
Other non-current liabilities	22		41		2,868	3,580
Total non-current liabilities		**U.S.$**	**369**	**Rs.**	**25,530**	**Rs. 29,452**
Total liabilities		**U.S.$**	**1,232**	**Rs.**	**85,230**	**Rs. 99,144**
Equity						
Share capital	15	U.S.$	12	Rs.	830	Rs. 830
Treasury shares			(8)		(535)	-
Share premium			119		8,211	7,790
Share-based payment reserve			14		990	1,021
Capital redemption reserve			2		173	173
Retained earnings			1,860		128,646	113,865
Other components of equity			27		1,882	2,781
Total equity		**U.S.$**	**2,027**	**Rs.**	**140,197**	**Rs. 126,460**
Total liabilities and equity		**U.S.$**	**3,259**	**Rs.**	**225,427**	**Rs. 225,604**

The accompanying notes form an integral part of these consolidated financial statements.

DR. REDDY'S LABORATORIES LIMITED AND SUBSIDIARIES CONSOLIDATED
INCOME STATEMENTS
(in millions, except share and per share data)

Particulars	Note	For the Years Ended March 31,							
			2019		2019		2018		2017
			Unaudited convenience translation into U.S.$ (See Note 2(d))						
Revenues	23	**U.S.$**	**2,225**	**Rs.**	**153,851**	**Rs.**	**142,028**	**Rs.**	**140,809**
Cost of revenues			1,018		70,421		65,724		62,453
Gross profit			**1,206**		**83,430**		**76,304**		**78,356**
Selling, general and administrative expenses			707		48,890		46,910		46,372
Research and development expenses			226		15,607		18,265		19,551
Other income, net	24		(28)		(1,955)		(788)		(1,065)
Total operating expenses			**904**		**62,542**		**64,387**		**64,858**
Results from operating activities (A)			**302**		**20,888**		**11,917**		**13,498**
Finance income			33		2,280		2,897		1,587
Finance expense			(17)		(1,163)		(817)		(781)
Finance income, net (B)	25		**16**		**1,117**		**2,080**		**806**
Share of profit of equity accounted investees, net of tax **(C)**			6		438		344		349
Profit before tax [(A)+(B)+(C)]			**325**		**22,443**		**14,341**		**14,653**
Tax expense	26		53		3,648		4,535		2,614
Profit for the year			**272**		**18,795**		**9,806**		**12,039**
Earnings per share:	16								
Basic earnings per share of Rs.5/- each		U.S.$	1.64	Rs.	113.28	Rs.	59.13	Rs.	72.24
Diluted earnings per share of Rs.5/- each		U.S.$	1.64	Rs.	113.09	Rs.	59.00	Rs.	72.09

The accompanying notes form an integral part of these consolidated financial statements.

DR. REDDY'S LABORATORIES LIMITED AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (in millions, except share and per share data)

Particulars	For the Years Ended March 31,					
		2019		2019	2018	2017
		Unaudited convenience translation into U.S.$ (See Note 2(d))				
Profit for the year	**U.S.$**	**272**	**Rs.**	**18,795**	**Rs. 9,806**	**Rs. 12,039**
Other comprehensive income/(loss)						
Items that will not be reclassified to the consolidated income statement:						
Changes in the fair value of financial instruments	U.S.$	(6)	Rs.	(403)	-	-
Actuarial gains/(losses) on post-employment benefit obligations		-		10	Rs. 39	Rs. (39)
Tax impact on above items		(6)		(414)	(12)	14
Total of items that will not be reclassified to the consolidated income statement	**U.S.$**	**(12)**	**Rs.**	**(807)**	**Rs. 27**	**Rs. (25)**
Items that will be reclassified subsequently to the consolidated income statement:						
Changes in fair value of available for sale financial instruments	U.S.$	-	Rs.	-	Rs. (5,160)	Rs. 2,209
Foreign currency translation adjustments		(1)		(53)	(32)	(339)
Foreign currency translation reserve re-classified to the income statement on disposal of foreign operation		(2)		(113)	-	-
Effective portion of changes in fair value of cash flow hedges, net		3		180	(82)	968
Tax impact on above items		(1)		(55)	1,394	(411)
Total of items that will be reclassified subsequently to the consolidated income statement	**U.S.$**	**(1)**	**Rs.**	**(41)**	**Rs. (3,880)**	**Rs. 2,427**
Other comprehensive income/(loss) for the year, net of tax	**U.S.$**	**(12)**	**Rs.**	**(848)**	**Rs. (3,853)**	**Rs. 2,402**
Total comprehensive income for the year	**U.S.$**	**260**	**Rs.**	**17,947**	**Rs. 5,953**	**Rs. 14,441**

The accompanying notes form an integral part of these consolidated financial statements.

DR. REDDY'S LABORATORIES LIMITED AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(in millions, except share and per share data)

Particulars	Share capital	Share premium	Treasury Shares	Share based payment reserve	FVTOCI equity instruments[3]	Foreign currency translation reserve	Hedging reserve	Capital redemption reserve	Actuarial gains/ (losses)	Retained earnings	Total
Balance as of April 1, 2018	**Rs. 830**	**Rs. 7,790**	**Rs. -**	**Rs. 1,021**	**Rs. (1,046)**	**Rs. 4,184**	**Rs. 45**	**Rs. 173**	**Rs. (402)**	**Rs. 113,865**	**Rs. 126,460**
Adjustment on account of transition to IFRS 9[1]	-	-	-	-	(50)	-	-	-	-	(12)	(62)
Adjusted balance as of April 1, 2018(A)	**Rs. 830**	**Rs. 7,790**	**Rs. -**	**Rs. 1,021**	**Rs. (1,096)[2]**	**Rs. 4,184**	**Rs. 45**	**Rs. 173**	**Rs. (402)**	**Rs. 113,853**	**Rs. 126,398**
Profit for the year	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. 18,795	Rs. 18,795
Net change in fair value of equity instruments, net of tax expense of Rs.411	-	-	-	-	(814)	-	-	-	-	-	(814)
Foreign currency translation adjustments, net of tax benefit of Rs.14	-	-	-	-	-	(152)	-	-	-	-	(152)
Effective portion of changes in fair value of cash flow hedges, net of tax expense of Rs.69	-	-	-	-	-	-	111	-	-	-	111
Actuarial gain/(loss) on post-employment benefit obligations, net of tax expense of Rs.3	-	-	-	-	-	-	-	-	7	-	7
Total comprehensive income (B)	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. (814)**	**Rs. (152)**	**Rs. 111**	**Rs. -**	**Rs. 7**	**Rs. 18,795**	**Rs. 17,947**
Issue of equity shares on exercise of options	Rs. -*	Rs. 420		Rs. (420)	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -
Share-based payment expense	-	-		389	-	-	-	-	-	-	389
Purchase of treasury shares			(535)								(535)
Dividend paid (including corporate dividend tax)	-	-		-	-	-	-	-	-	(4,002)	(4,002)
Total contributions and distributions	**Rs. -**	**Rs. 420**	**Rs. (535)**	**Rs. (31)**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. (4,002)**	**Rs. (4,148)**
Changes in ownership interests	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**
Total transactions with owners of the Company (C)	**Rs. -**	**Rs. 420**	**Rs. (535)**	**Rs. (31)**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. (4,002)**	**Rs. (4,148)**
Balance as of March 31, 2019 [(A)+(B)+(C)]	**Rs. 830**	**Rs. 8,210**	**Rs. (535)**	**Rs. 990**	**Rs. (1,910)**	**Rs. 4,032**	**Rs. 156**	**Rs. 173**	**Rs. (395)**	**Rs. 128,646**	**Rs. 140,197**
Convenience translation into U.S.$ (See note 2(d))	**U.S.$ 12**	**U.S.$ 119**	**U.S.$ (8)**	**U.S.$ 14**	**U.S.$ (28)**	**U.S.$ 58**	**U.S.$ 2**	**U.S.$ 2**	**U.S.$ (6)**	**U.S.$ 1,860**	**U.S.$ 2,027**

**Rounded to millions*

DR. REDDY'S LABORATORIES LIMITED AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(in millions, except share and per share data)

Particulars	Share capital	Share premium	Treasury Shares	Share based payment reserve	Fair value reserve	Foreign currency translation reserve	Hedging reserve	Capital redemption reserve	Actuarial gains/ (losses)	Retained earnings	Total
Balance as of April 1, 2017 (A)	**Rs. 829**	**Rs. 7,359**	**Rs. -**	**Rs. 998**	**Rs. 2,744**	**Rs. 4,233**	**Rs. 86**	**Rs. 173**	**Rs. (429)**	**Rs. 108,051**	**Rs. 124,044**
Total comprehensive income											
Profit for the year	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. 9,806	Rs. 9,806
Net change in fair value of available for sale financial instruments, net of tax benefit of Rs.1,370	-	-	-	-	(3,790)	-	-	-	-	-	(3,790)
Foreign currency translation adjustments, net of tax expense of Rs.17	-	-	-	-	-	(49)	-	-	-	-	(49)
Effective portion of changes in fair value of cash flow hedges, net of tax benefit of Rs.41	-	-	-	-	-	-	(41)	-	-	-	(41)
Actuarial gain/(loss) on post-employment benefit obligations, net of tax expense of Rs.12	-	-	-	-	-	-	-	-	27	-	27
Total comprehensive income (B)	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. (3,790)**	**Rs. (49)**	**Rs. (41)**	**Rs. -**	**Rs. 27**	**Rs. 9,806**	**Rs. 5,953**
Transactions with owners of the Company											
Contributions and distributions											
Issue of equity shares on exercise of options	Rs. 1	Rs. 431	Rs. -	Rs. (431)	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. 1
Share-based payment expense	-	-	-	454	-	-	-	-	-	-	454
Dividend paid (including corporate dividend tax)	-	-	-	-	-	-	-	-	-	(3,992)	(3,992)
Total contributions and distributions	**Rs. 1**	**Rs. 431**	**Rs. -**	**Rs. 23**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. (3,992)**	**Rs. (3,537)**
Changes in ownership interests	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -
Total transactions with owners of the Company (C)	**Rs. 1**	**Rs. 431**	**Rs. -**	**Rs. 23**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. (3,992)**	**Rs. (3,537)**
Balance as of March 31, 2018 [(A)+(B)+(C)]	**Rs. 830**	**Rs. 7,790**	**Rs. -**	**Rs. 1,021**	**Rs. (1,046)**	**Rs. 4,184**	**Rs. 45**	**Rs. 173**	**Rs. (402)**	**Rs. 113,865**	**Rs. 126,460**

[Continued on next page]

The accompanying notes form an integral part of these consolidated financial statements.

DR. REDDY'S LABORATORIES LIMITED AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(in millions, except share and per share data)

[Continued from above table, first column repeated]

Particulars	Share capital	Share premium	Share based payment reserve	Fair value reserve	Foreign currency translation reserve	Hedging reserve	Capital redemption reserve	Actuarial gains/ (losses)	Retained earnings	Total
Balance as of April 1, 2016 (G)	**Rs. 853**	**Rs. 22,601**	**Rs. 1,100**	**Rs. 1,034**	**Rs. 4,424**	**Rs. (822)**	**Rs. 148**	**Rs.(404)**	**Rs. 99,402**	**Rs. 128,336**
Total comprehensive income										
Profit for the year	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. -	Rs. 12,039	Rs. 12,039
Net change in fair value of available for sale financial instruments, net of tax expense of Rs.499	-	-	-	1,710	-	-	-	-	-	1,710
Foreign currency translation adjustments, net of tax benefit of Rs.148	-	-	-	-	(191)	-	-	-	-	(191)
Effective portion of changes in fair value of cash flow hedges, net of tax expense of Rs.60	-	-	-	-	-	908	-	-	-	908
Actuarial gain/(loss) on post-employment benefit obligations, net of tax benefit of Rs.14	-	-	-	-	-	-	-	(25)	-	(25)
Total comprehensive income (H)	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. 1,710**	**Rs. (191)**	**Rs. 908**	**Rs. -**	**Rs. (25)**	**Rs. 12,039**	**Rs. 14,441**
Transactions with owners of the Company										
Contributions and distributions										
Issue of equity shares on exercise of options	Rs. 1	Rs. 452	Rs. (452)	Rs. -	Rs. -	Rs. -	Rs. -	Rs. .-	Rs. -	Rs. 1
Buyback of equity shares[4]	(25)	(15,669)	-	-	-	-	-	-	-	(15,694)
Share-based payment expense	-	-	350	-	-	-	-	-	-	350
Dividend paid (including corporate dividend tax)	-	-	-	-	-	-	-	-	(3,390)	(3,390)
Transfer to capital redemption reserve	-	(25)	-	-	-	-	25	-	-	-
Total contributions and distributions	**Rs. (24)**	**Rs. (15,242)**	**Rs. (102)**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. (3,390)**	**Rs. (18,733)**
Changes in ownership interests	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**
Total transactions with owners of the Company (I)	**Rs. (24)**	**Rs. (15,242)**	**Rs. (102)**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. -**	**Rs. (3,390)**	**Rs. (18,733)**
Balance as of March 31, 2017 [(G)+(H)+(I)]	**Rs. 829**	**Rs. 7,359**	**Rs. 998**	**Rs. 2,744**	**Rs. 4,233**	**Rs. 86**	**Rs. 173**	**Rs. (429)**	**Rs. 108,051**	**Rs. 124,044**

The accompanying notes form an integral part of these consolidated financial statements.

(1) Consists of mark to market gains on mutual funds amounting to Rs.50, offset by an impairment loss of Rs.62 on trade receivables. The net impact of Rs.12 was considered in retained earnings.

(2) Represents mark to market gain/(loss) on available-for-sale financial instruments (under IAS 39) recognized in other comprehensive income ("OCI"). The amount will be retained in OCI and will be re-classified to retained earnings only on disposal of these investments.

(3) "FVTOCI" means fair value through other comprehensive income.

(4) Refer Note no.15 of the consolidated financial statements.

DR. REDDY'S LABORATORIES LIMITED AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions, except share and per share data)

	For the Years Ended March 31,					
	2019		**2019**	**2018**		**2017**
Particulars	*Unaudited convenience translation into U.S.$ (See Note 2(d))*					
Cash flows from/(used in) operating activities:						
Profit for the year	U.S.$ 272	Rs.	18,795	Rs. 9,806	Rs.	12,039
Adjustments for:						
Income tax expense	53		3,648	4,535		2,614
Dividend and profit on sale of investments	(12)		(773)	(2,270)		(956)
Depreciation and amortization	176		12,190	11,710		11,277
Impairment loss on property, plant and equipment and other intangible assets	3		210	53		445
Inventory write-downs	58		4,016	2,946		3,085
Allowance for credit losses on trade receivables and other advances	6		420	155		138
(Gain)/loss on sale/disposal of property, plant and equipment and other intangible assets, net	(18)		(1,264)	55		80
Refund liability	52		3,592	2,702		3,177
Share of profit of equity accounted investees	(6)		(438)	(344)		(349)
Foreign exchange (gain)/loss, net	(23)		(1,588)	(296)		609
Interest (income)/expense, net	2		119	248		76
Equity settled share-based payment expense	6		389	454		350
Changes in operating assets and liabilities:						
Trade and other receivables	26		1,797	(2,097)		3,037
Inventories	(123)		(8,496)	(3,233)		(6,325)
Trade and other payables	6		398	2,501		1,886
Other assets and other liabilities, net	8		530	(6,135)		(3,900)
Cash generated from operations	**485**		**33,545**	**20,790**		**27,283**
Income tax paid, net	(70)		(4,841)	(2,761)		(5,770)
Net cash from operating activities	**U.S.$ 415**	**Rs.**	**28,704**	**Rs. 18,029**	**Rs.**	**21,513**
Cash flows from/(used in) investing activities:						
Expenditures on property, plant and equipment	U.S.$ (101)	Rs.	(6,955)	Rs. (9,291)	Rs.	(12,278)
Proceeds from sale of property, plant and equipment	18		1,265	139		44
Expenditures on other intangible assets, net	(8)		(536)	(1,752)		(28,706)
Investment in equity accounted investees	-		-	-		(86)
Purchase of other investments	(1,136)		(78,573)	(68,429)		(49,651)
Proceeds from sale of other investments	1,103		76,291	64,038		71,595
Cash paid for acquisition of business, net of cash acquired	-		-	-		(17)
Interest and dividend received	11		781	412		628
Net cash used in investing activities	**U.S.$ (112)**	**Rs.**	**(7,727)**	**Rs. (14,883)**	**Rs.**	**(18,471)**
Cash flows from/(used in) financing activities:						
Proceeds from issuance of equity shares	U.S.$ -	Rs.	-*	Rs. 1	Rs.	1
Buyback of equity shares	-		-	-		(15,694)
Purchase of treasury shares	(8)		(535)	-		-
Proceeds from/(repayment of) short term borrowings, net *(Refer Note 17)*	(219)		(15,126)	(18,025)		21,536
Proceeds from/(repayment of) long term borrowings, net *(Refer Note 17)*	(1)		(56)	18,907		(5,220)
Dividend paid (including corporate dividend tax)	(58)		(4,002)	(3,992)		(3,390)
Interest paid	(23)		(1,607)	(1,331)		(925)
Net cash used in financing activities	**U.S.$ (308)**	**Rs.**	**(21,326)**	**Rs. (4,440)**	**Rs.**	**(3,692)**
Net increase/(decrease) in cash and cash equivalents	(5)		(349)	(1,294)		(650)
Effect of exchange rate changes on cash and cash equivalents	1		35	57		(492)
Cash and cash equivalents at the beginning of the year	37		2,542	3,779		4,921
Cash and cash equivalents at the end of the year	**U.S.$ 32**	**Rs.**	**2,228**	**Rs. 2,542**	**Rs.**	**3,779**

**Rounded to millions*

Supplemental schedule of non-cash investing activities:

Investment in shares of Curis, Inc.	U.S.$ -	Rs.	-	Rs. -	Rs.	1,247

1. Reporting entity

Dr. Reddy's Laboratories Limited (the "parent company"), together with its subsidiaries and joint ventures (collectively, the "Company"), is a leading India-based pharmaceutical company headquartered and having its registered office in Hyderabad, Telangana, India. Through its three businesses - Pharmaceutical Services and Active Ingredients, Global Generics and Proprietary Products – the Company offers a portfolio of products and services, including Active Pharmaceutical Ingredients ("APIs"), Custom Pharmaceutical Services ("CPS"), generics, biosimilars and differentiated formulations. The Company's principal research and development facilities are located in the states of Telangana and Andhra Pradesh in India, Cambridge in the United Kingdom and Leiden in the Netherlands; its principal manufacturing facilities are located in the states of Telangana, Andhra Pradesh and Himachal Pradesh in India, Cuernavaca-Cuautla in Mexico, Mirfield in the United Kingdom, and Louisiana in the United States; and its principal markets are in India, Russia, the United States, the United Kingdom, and Germany. The Company's shares trade on the Bombay Stock Exchange and the National Stock Exchange in India and on the New York Stock Exchange in the United States.

2. Basis of preparation of financial statements

a. Statement of compliance

These consolidated financial statements as at and for the year ended March 31, 2019 have been prepared in accordance with the International Financial Reporting Standards and its interpretations ("IFRS") as issued by the International Accounting Standards Board ("IASB").

These consolidated financial statements have been prepared by the Company as a going concern on the basis of relevant IFRS that are effective or elected for early adoption at the Company's annual reporting date, March 31, 2019. These consolidated financial statements were authorized for issuance by the Company's Board of Directors on June 3, 2019.

b. Basis of measurement

These consolidated financial statements have been prepared on the historical cost convention and on an accrual basis, except for the following material items in the statement of financial position:

- derivative financial instruments are measured at fair value;
- financial assets are measured either at fair value or at amortized cost, depending on the classification;
- employee defined benefit assets/(liabilities) are recognized as the net total of the fair value of plan assets, adjusted for actuarial gains/(losses) and the present value of the defined benefit obligation;
- long term borrowings, except obligations under finance leases, are measured at amortized cost using the effective interest rate method;
- assets held for sale are measured at fair value less costs to sell;
- share-based payments are measured at fair value; and
- investments in joint ventures are accounted for using the equity method.

c. Functional and presentation currency

These consolidated financial statements are presented in Indian rupees, which is the functional currency of the parent company. All financial information presented in Indian rupees has been rounded to the nearest million.

In respect of certain non-Indian subsidiaries that operate as marketing arms of the parent company in their respective countries/regions, the functional currency has been determined to be the functional currency of the parent company (i.e., the Indian rupee). The operations of these entities are largely restricted to importing of finished goods from the parent company in India, sales of these products in the foreign country and making of import payments to the parent company. The cash flows realized from sales of goods are available for making import payments to the parent company and cash is paid to the parent company on a regular basis. The costs incurred by these entities are primarily the cost of goods imported from the parent company. The financing of these subsidiaries is done directly or indirectly by the parent company.

In respect of subsidiaries whose operations are self-contained and integrated within their respective countries/regions, the functional currency has been generally determined to be the local currency of those countries/regions, unless use of a different currency is considered appropriate.

d. Convenience translation (unaudited)

These consolidated financial statements have been prepared in Indian rupees. Solely for the convenience of the reader, these consolidated financial statements as of and for the year ended March 31, 2019 have been translated into U.S. dollars at the certified foreign exchange rate of U.S.$1.00 = Rs.69.16, as published by the Federal Reserve Board of Governors on March 29, 2019. No representation is made that the Indian rupee amounts have been, could have been or could be converted into U.S. dollars at such a rate or any other rate. Such convenience translation is not subject to audit by the Company's Independent Registered Public Accounting Firm.

2. Basis of preparation of financial statements (continued)

e. Use of estimates and judgments

The preparation of financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected. In particular, information about significant areas of estimation uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the financial statements is included in the following notes:

- Note 2(c) — Assessment of functional currency;
- Notes 3(a) and 9 — Evaluation of joint arrangements;
- Notes 3(c), 29 and 30 — Financial instruments;
- Notes 3(d) — Business combinations;
- Notes 3(e) and (f) — Useful lives of property, plant and equipment and intangible assets;
- Notes 3(h) and 11— Valuation of inventories;
- Notes 3(i), 6, 7 and 8— Measurement of recoverable amounts of cash-generating units;
- Notes 3 (j) and 18 — Assets and obligations relating to employee benefits;
- Notes 3 (j) and 19— Share-based payments;
- Note 3(k) — Provisions and other accruals;
- Note 3(l) — Measurement of transaction price in a revenue transaction (Sales returns, rebates and chargeback provisions);
- Note 3(o) — Evaluation of recoverability of deferred tax assets; and
- Note 35 — Contingencies

f. Current and non-current classification

All assets and liabilities have been classified as current or non-current as per the Company's normal operating cycle and other criteria set out in IAS 1, *"Presentation of financial statements"*.

Assets:

An asset is classified as current when it satisfies any of the following criteria:

a) it is expected to be realized in, or is intended for sale or consumption in, the Company's normal operating cycle;
b) it is held primarily for the purpose of being traded;
c) it is expected to be realized within twelve months after the reporting date; or
d) it is cash or a cash equivalent unless it is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting date.

Liabilities:

A liability is classified as current when it satisfies any of the following criteria:

a) it is expected to be settled in the Company's normal operating cycle;
b) it is held primarily for the purpose of being traded;
c) it is due to be settled within twelve months after the reporting date; or
d) the Company does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting date. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

Current assets and liabilities include the current portion of non-current assets and liabilities respectively. All other assets and liabilities are classified as non-current. Deferred tax assets and liabilities are always disclosed as non-current.

3. Significant accounting policies

New Standards adopted by the Company

IFRS 9, Financial Instruments

In July 2014, the IASB issued the final version of IFRS 9, "*Financial instruments*". IFRS 9 significantly differs from IAS 39, "Financial Instruments: Recognition and Measurement", and includes a logical model for classification and measurement, a single, forward-looking "expected loss" impairment model and a substantially-reformed approach to hedge accounting. The Company applied the modified retrospective method upon adoption of IFRS 9 on April 1, 2018. This method requires the recognition of the cumulative effect of initially applying IFRS 9 to retained earnings and not to restate prior years. The cumulative effect recorded at April 1, 2018 was a decrease to retained earnings of Rs.12.

(in millions, except share and per share data)

3. Significant accounting policies (continued)

Detailed below is the impact of the implementation of IFRS 9 on the Company.

Investment in mutual funds

The most significant impact to the Company, upon adoption of IFRS 9, relates to the treatment of the unrealized gains and losses from changes in fair value on investment in mutual funds. Investment in mutual funds, was previously classified as available-for-sale investments. The unrealized gains and losses which were previously recognized in the consolidated statement of other comprehensive income will now be recognized in the consolidated income statement. Upon transition to IFRS 9, the unrealized gain of Rs.50 previously recognized in other comprehensive income was transferred to retained earnings.

Investment in equity shares

All equity investments within the scope of IFRS 9 are measured at fair value. Equity instruments which are held for trading and contingent consideration recognized by an acquirer in a business combination to which IFRS 3 applies are classified as at fair value through profit and loss ("FVTPL"). For all other equity instruments, the Company may make an irrevocable election to present subsequent changes in the fair value through other comprehensive income ("FVTOCI"). The Company makes such election on an instrument by-instrument basis. The classification is made on initial recognition and is irrevocable.

The Company has elected the irrevocable option to record fair value movements on certain equity investments in the consolidated statement of other comprehensive income with no future reclassification of such gains and losses to the consolidated income statement. Upon transition to IFRS 9, gain of Rs.1,096, representing the change in the fair value of equity instruments as on April 1, 2018, was retained in other comprehensive income and will be reclassified to retained earnings on sale of such instruments.

Impairment of trade receivables/other financial assets

In accordance with IFRS 9, the Company has implemented the expected credit loss ("ECL") model for measurement and recognition of impairment loss on its trade receivables or any contractual right to receive cash or another financial asset that result from transactions that are within the scope of IFRS 15.

The Company follows a "simplified approach" which does not require the Company to track changes in credit risk but rather recognize impairment loss allowance based on lifetime ECLs at each reporting date, right from its initial recognition. For this purpose, the Company designed a provision matrix to determine impairment loss allowance on the portfolio of its trade receivables. The provision matrix is based on its historically observed default rates over the expected life of the trade receivables and is adjusted for forward-looking estimates. At every reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analyzed.

Hedge accounting

The new hedge accounting model introduced by the standard requires hedge accounting relationships to be based upon the Company's own risk management strategy and objectives, and to be discontinued only when the relationships no longer qualify for hedge accounting. Based on the impact of the adoption assessment performed, the Company believes that its hedge relationships designated under IAS 39, "Financial Instruments: Recognition and Measurement", will continue to be designated as such under the new hedge accounting requirements.

Tabulated below is the impact of the implementation of IFRS 9 on the financial position of the Company on the transition date:

		April 1, 2018		IFRS 9 adjustment		Adjusted April 1, 2018
Current assets:						
Trade and other receivables	Rs.	40,617	Rs.	(89)	Rs.	40,528
Non-current assets:						
Deferred tax assets	Rs.	3,628	Rs.	27	Rs.	3,655
Equity:						
Retained earnings	Rs.	113,865	Rs.	(12)	Rs.	113,853
Other components of equity	Rs.	2,781	Rs.	(50)	Rs.	2,731

3. Significant accounting policies (continued)

IFRS 15, Revenue from Contracts with Customers

In May 2014, the IASB issued IFRS 15, "*Revenue from Contracts with Customers*". This comprehensive new standard supersedes IAS 18, "Revenue", IAS 11, "Construction contracts" and related interpretations. The new standard amends revenue recognition requirements and establishes principles for reporting information about the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers.

The Company adopted IFRS 15 effective as of April 1, 2018. The impacts of the adoption of the new standard are summarized below:

Revenue

The Company's revenue is derived from sales of goods, service income and income from licensing arrangements, each as more particularly described below. Most of such revenue (approximately 97%) is generated from the sale of goods.

Sale of goods

Revenue from sales of goods consists of the sale of generic and branded products and the sale of active pharmaceutical ingredients and intermediates. Revenue from sale of goods is recognized where control is transferred to the Company's customers at the time of shipment to or receipt of goods by the customers. There was no change in the point of recognition of revenue upon adoption of IFRS 15.

Service income

Service income, which primarily relates to revenue from contract research, is recognized as and when the underlying services are performed. There was no change in the point of recognition of revenue upon adoption of IFRS 15. Upfront non-refundable payments received under these arrangements continue to be deferred and are recognized over the expected period that related services are to be performed.

License fees

License fees primarily consist of income from the out-licensing of intellectual property, and other licensing and supply arrangements with various parties. Revenue from license fees is recognized when control transfers to the third party and the Company's performance obligations are satisfied. The adoption of IFRS 15 did not significantly change the timing or amount of revenue recognized by the Company from these arrangements, nor did it change accounting for these royalty arrangements, as the standard's royalty exception is applied for intellectual property licenses. Upfront non-refundable payments received under these arrangements continue to be deferred and are recognized over the expected period that related services are to be performed.

Profit share revenues and milestone payments

Revenues from sales of goods also include revenues from profit sharing arrangements with business partners for sales of the Company's products in certain markets. Furthermore, the Company receives milestone payments related to out-licensing of the intellectual property. Under IFRS 15, the profit share amount is recognized only to the extent that it is highly probable that a significant reversal in the amount of profit share will not occur when the uncertainty associated with the profit share is subsequently resolved. The adoption of IFRS 15 did not significantly change the timing or amount of revenue recognized by the Company under these arrangements.

The Company applied the modified retrospective method upon adoption of IFRS 15 on April 1, 2018. This method requires the recognition of the cumulative effect of initially applying IFRS 15 to retained earnings and not to restate prior years.

Overall, the application of this standard did not have a material impact on the Company's revenue streams from the sale of goods, service income, license fees, profit share revenues and milestone payments, and associated rebates and sales returns provisions.

Summary of significant accounting policies

a. Basis of consolidation

Subsidiaries

Subsidiaries are all entities (including special purpose entities) that are controlled by the Company. Control exists when the Company is exposed to, or has rights to variable returns from its involvement with the entity and has the ability to affect those returns through power over the entity. In assessing control, potential voting rights are considered only if the rights are substantive. The financial statements of subsidiaries are included in these consolidated financial statements from the date that control commences until the date that control ceases.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated statement of profit or loss, statement of comprehensive income, statement of changes in equity and balance sheet respectively.

For the purpose of preparing these consolidated financial statements, the accounting policies of subsidiaries have been changed where necessary to align them with the policies adopted by the Company.

Joint arrangements (equity accounted investees)

Joint arrangements are those arrangements over which the Company has joint control, established by contractual agreement and requiring unanimous consent for strategic financial and operating decisions.

A joint arrangement is either a joint operation or a joint venture. A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement.

3. Significant accounting policies (continued)

a. Basis of consolidation (continued)

With respect to joint operations, the Company recognizes its direct right to the assets, liabilities, revenues and expenses of joint operations and its share of any jointly held or incurred assets, liabilities, revenues and expenses.

Investments in joint ventures are accounted for using the equity method and are initially recognized at cost. The carrying value of the Company's investment includes goodwill identified on acquisition, net of any accumulated impairment losses. The Company does not consolidate entities where the non-controlling interest ("NCI") holders have certain significant participating rights that provide for effective involvement in significant decisions in the ordinary course of business of such entities. Investments in such entities are accounted by the equity method of accounting. When the Company's share of losses exceeds its interest in an equity accounted investee, the carrying amount of that interest (including any long-term investments) is reduced to zero and the recognition of further losses is discontinued except to the extent that the Company has an obligation or has made payments on behalf of the investee.

For the purpose of preparing these consolidated financial statements, the accounting policies of joint ventures have been changed where necessary to align them with the policies adopted by the Company. Furthermore, the financial statements of the joint ventures are prepared for the same reporting period as of the Company.

Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealized income and expenses arising from intra-group transactions, are eliminated in full while preparing these consolidated financial statements. Unrealized gains or losses arising from transactions with equity accounted investees are eliminated against the investment to the extent of the Company's interest in the investee.

Acquisition of non-controlling interests

Acquisition of some or all of the NCI is accounted for as a transaction with equity holders in their capacity as equity holders. Consequently, the difference arising between the fair value of the purchase consideration paid and the carrying value of the NCI is recorded as an adjustment to retained earnings that is attributable to the parent company. The associated cash flows are classified as financing activities. No goodwill is recognized as a result of such transactions.

Loss of Control

Upon loss of control, the Company derecognizes the assets and liabilities of the subsidiary, any NCIs and the other components of equity related to the subsidiary. Any surplus or deficit arising on the loss of control is recognized in the consolidated income statement. If the Company retains any interest in the previous subsidiary, then such interest is measured at fair value at the date that control is lost. Subsequently, depending on the level of influence retained, it is accounted for as an equity-accounted investee or as an investment measured at FVTOCI or FVTPL under IFRS 9.

b. Foreign currency

Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of entities within the Company at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated into the functional currency at the exchange rate at that date. Non-monetary items that are measured based on historical cost in a foreign currency are translated at the exchange rate at the date of the transaction. Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was measured.

Exchange differences arising on the settlement of monetary items or on translating monetary items at rates different from those at which they were translated on initial recognition during the period or in previous financial statements are recognized in the consolidated income statement in the period in which they arise.

However, foreign currency differences arising from the translation of the following items are recognized in other comprehensive income ("OCI"):

- certain debt instruments classified as measured at fair value through other comprehensive income;
- certain equity instruments where the Company had made an irrevocable election to present in other comprehensive income subsequent changes in the fair value;
- a financial liability designated as a hedge of the net investment in a foreign operation, to the extent that the hedge is effective; and
- qualifying cash flow hedges, to the extent that the hedges are effective.

When several exchange rates are available, the rate used is that at which the future cash flows represented by the transaction or balance could have been settled if those cash flows had occurred at the measurement date.

Foreign operations

Foreign exchange gains and losses arising from a monetary item receivable from a foreign operation, the settlement of which is neither planned nor likely in the foreseeable future, are considered to form part of the net investment in the foreign operation and are recognized in OCI and presented within equity as a part of foreign currency translation reserve ("FCTR").

3. Significant accounting policies (continued)

In case of foreign operations whose functional currency is different from the parent company's functional currency, the assets and liabilities of such foreign operations, including goodwill and fair value adjustments arising upon acquisition, are translated to the reporting currency at exchange rates at the reporting date. The income and expenses of such foreign operations are translated to the reporting currency at the monthly average exchange rates prevailing during the year. Resulting foreign currency differences are recognized in OCI and presented within equity as part of FCTR. When a foreign operation is disposed of, in part or in full, such that control, significant influence or joint control is lost, the relevant amount in the FCTR is transferred to the consolidated income statement.

c. Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

Accounting policies relating to financial instruments after March 31, 2018 are as follows:

Financial assets

Initial recognition and measurement

All financial assets are recognized initially at fair value plus, in the case of financial assets not recorded at fair value through profit or loss, transaction costs that are attributable to the acquisition of the financial asset. Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the market place (e.g., regular way trades) are recognized on the trade date, i.e., the date that the Company commits to purchase or sell the asset.

Trade receivables are recognized initially at the amount of consideration that is unconditional unless they contain significant financing components, in which case they are recognized at fair value. The Company's trade receivables do not contain any significant financing component and hence are measured at the transaction price measured under IFRS 15.

Subsequent measurement

For purposes of subsequent measurement, financial assets are classified in four categories:

- Debt instruments at amortized cost;
- Debt instruments at fair value through other comprehensive income ("FVTOCI");
- Debt instruments, derivatives and equity instruments at fair value through profit or loss ("FVTPL"); and
- Equity instruments measured at fair value through other comprehensive income ("FVTOCI").

Debt instruments at amortized cost

A "debt instrument" is measured at the amortized cost if both the following conditions are met:

a) the asset is held within a business model whose objective is to hold assets for collecting contractual cash flows; and
b) contractual terms of the asset give rise on specified dates to cash flows that are solely payments of principal and interest (SPPI) on the principal amount outstanding.

After initial measurement, such financial assets are subsequently measured at amortized cost using the effective interest rate (EIR) method. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in other income in the consolidated income statement. The losses arising from impairment are recognized in the consolidated income statement. This category generally applies to trade and other receivables.

Debt instrument at FVTOCI

A "debt instrument" is classified as at the FVTOCI if both of the following criteria are met:

a) the objective of the business model is achieved both by collecting contractual cash flows and selling the financial assets; and

b) the asset's contractual cash flows represent SPPI.

Debt instruments included within the FVTOCI category are measured initially as well as at each reporting date at fair value. Fair value movements are recognized in the other comprehensive income (OCI). However, the Company recognizes interest income, impairment losses and reversals and foreign exchange gain or loss in the consolidated income statement. On derecognition of the asset, cumulative gain or loss previously recognized in OCI is reclassified to the consolidated income statement. Interest earned while holding a FVTOCI debt instrument is reported as interest income using the EIR method.

Debt instrument at FVTPL

FVTPL is a residual category for debt instruments. Any debt instrument, which does not meet the criteria for categorization as at amortized cost or as FVTOCI, is classified as at FVTPL.

In addition, the Company may elect to designate a debt instrument, which otherwise meets amortized cost or FVTOCI criteria, as at FVTPL. However, such election is allowed only if doing so reduces or eliminates a measurement or recognition inconsistency (referred to as an "accounting mismatch").

Debt instruments included within the FVTPL category are measured at fair value with all changes recognized in the consolidated income statement.

3. Significant accounting policies (continued)

Equity investments

All equity investments within the scope of IFRS 9 are measured at fair value. Equity instruments which are held for trading and contingent consideration recognized by an acquirer in a business combination to which IFRS 3 applies, are classified as at FVTPL. For all other equity instruments, the Company may make an irrevocable election to present in other comprehensive income subsequent changes in the fair value. The Company makes such election on an instrument -by-instrument basis. The classification is made upon initial recognition and is irrevocable.

If the Company decides to classify an equity instrument as at FVTOCI, then all fair value changes on the instrument, excluding dividends, are recognized in the OCI. There is no recycling of the amounts from OCI to the consolidated income statement, even on sale of investment. However, the Company may transfer the cumulative gain or loss within equity. Equity investments designated as FVTOCI are not subject to impairment assessment.

Equity instruments included within the FVTPL category are measured at fair value with all changes recognized in the consolidated income statement.

Derecognition

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognized (i.e. removed from the Company's consolidated balance sheet) when:

- the rights to receive cash flows from the asset have expired; or
- Both (1) the Company has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a "pass-through" arrangement; and (2) either (a) the Company has transferred substantially all the risks and rewards of the asset, or (b) the Company has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Company has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if and to what extent it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Company continues to recognize the transferred asset to the extent of the Company's continuing involvement. In that case, the Company also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Company has retained.

Impairment of trade receivables and other financial assets

In accordance with IFRS 9, the Company applies the expected credit loss (ECL) model for measurement and recognition of impairment loss on trade receivables or any contractual right to receive cash or another financial asset.

For this purpose, the Company follows a "simplified approach" for recognition of impairment loss allowance on the trade receivable balances. The application of this simplified approach does not require the Company to track changes in credit risk. Rather, it recognizes impairment loss allowance based on lifetime ECLs at each reporting date, right from its initial recognition.

As a practical expedient, the Company uses a provision matrix to determine impairment loss allowance on portfolio of its trade receivables. The provision matrix is based on its historically observed default rates over the expected life of the trade receivables and is adjusted for forward-looking estimates. At every reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analyzed.

Financial liabilities

Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognized initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Company's financial liabilities include trade and other payables, loans and borrowings including bank overdrafts and derivative financial instruments.

Subsequent measurement

The measurement of financial liabilities depends on their classification, as described below:

3. Significant accounting policies (continued)

Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss. Financial liabilities are classified as held for trading if they are incurred for the purpose of repurchasing in the near term. This category also includes derivative financial instruments entered into by the Company that are not designated as hedging instruments in hedge relationships as defined by IFRS 9. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments.

Gains or losses on liabilities held for trading are recognized in the consolidated income statement.

Financial liabilities designated upon initial recognition at fair value through profit or loss are designated as such at the initial date of recognition, and only if the criteria in IFRS 9 are satisfied. For liabilities designated as FVTPL, fair value gains/ losses attributable to changes in own credit risk are recognized in OCI. These gains or losses are not subsequently transferred to the consolidated income statement. However, the Company may transfer the cumulative gain or loss within equity. All other changes in fair value of such liability are recognized in the consolidated income statement. The Company has not designated any financial liability as fair value through profit and loss.

Loans and borrowings

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortized cost using the EIR method. Gains and losses are recognized in the consolidated income statement when the liabilities are derecognized as well as through the EIR amortization process.

Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included as finance costs in the consolidated income statement.

Derecognition

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognized in the consolidated income statement.

Derivative financial instruments

The Company is exposed to exchange rate risk which arises from its foreign exchange revenues and expenses, primarily in U.S. dollars, U.K. pounds sterling, Russian roubles, Brazilian reals, South African rands ("ZAR"), Romanian new leus ("RON") and Euros, and foreign currency debt in U.S. dollars, Russian roubles, Ukrainian hryvnias and Euros.

The Company uses derivative financial instruments such as foreign exchange forward contracts, option contracts and swap contracts to mitigate its risk of changes in foreign currency exchange rates. The Company also uses non-derivative financial instruments as part of its foreign currency exposure risk mitigation strategy.

Hedges of highly probable forecasted transactions

The Company classifies its derivative financial instruments that hedge foreign currency risk associated with highly probable forecasted transactions as cash flow hedges and measures them at fair value. The effective portion of such cash flow hedges is recorded in the Company's hedging reserve as a component of equity and re-classified to the consolidated income statement as part of the hedged item in the period corresponding to the occurrence of the forecasted transactions. The ineffective portion of such cash flow hedges is recorded in the consolidated income statement as finance costs immediately.

The Company also designates certain non-derivative financial liabilities, such as foreign currency borrowings from banks, as hedging instruments for hedge of foreign currency risk associated with highly probable forecasted transactions. Accordingly, the Company applies cash flow hedge accounting to such relationships. Remeasurement gain or loss on such non-derivative financial liabilities is recorded in the Company's hedging reserve as a component of equity and reclassified to the consolidated income statement as part of the hedged item in the period corresponding to the occurrence of the forecasted transactions.

If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated or exercised, then hedge accounting is discontinued prospectively. The cumulative gain or loss previously recognized in other comprehensive income, remains there until the forecasted transaction occurs. If the forecasted transaction is no longer expected to occur, then the balance in other comprehensive income is recognized immediately in the consolidated income statement.

Hedges of recognized assets and liabilities

Changes in the fair value of derivative contracts that economically hedge monetary assets and liabilities in foreign currencies, and for which no hedge accounting is applied, are recognized in the consolidated income statement. The changes in fair value of such derivative contracts, as well as the foreign exchange gains and losses relating to the monetary items, are recognized in the consolidated income statement. If the hedged item is derecognized, the unamortized fair value is recognized immediately in the consolidated income statement.

Hedges of changes in the interest rates

Consistent with its risk management policy, the Company uses interest rate swaps to mitigate the risk of changes in interest rates. The Company does not use them for trading or speculative purposes.

3. Significant accounting policies (continued)

Cash and cash equivalents

Cash and cash equivalents consist of cash on hand, demand deposits and short-term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to insignificant risk of changes in value. For this purpose, "short-term" means investments having original maturities of three months or less from the date of investment. Bank overdrafts that are repayable on demand form an integral part of the Company's cash management and are included as a component of cash and cash equivalents for the purpose of the consolidated statement of cash flows.

Accounting policies relating to financial instruments for the periods ending on or prior to March 31, 2018 are as follows:

Non-derivative financial instruments

Non-derivative financial instruments consist of investments in mutual funds, bonds, equity securities, trade and other receivables, cash and cash equivalents, loans and borrowings, trade and other payables and certain other assets and liabilities.

Non-derivative financial instruments are recognized initially at fair value plus any directly attributable transaction costs, except for those instruments that are designated as being fair value through profit and loss upon initial recognition. Subsequent to initial recognition, non-derivative financial instruments are measured as described below.

Cash and cash equivalents

Cash and cash equivalents consist of cash on hand, demand deposits and short-term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to insignificant risk of changes in value. For this purpose, "short-term" means investments having original maturities of three months or less from the date of investment. Bank overdrafts that are repayable on demand form an integral part of the Company's cash management and are included as a component of cash and cash equivalents for the purpose of the consolidated statement of cash flows.

Held-to-maturity investments

Held-to-maturity investments consist of investments in bonds with fixed or determinable payments and fixed maturity that the Company has the positive intention and the ability to hold to maturity. Such investments are initially measured at fair value, with subsequent measurements made at amortized cost using the effective interest rate method.

Other investments

Other investments consist of term deposits with original maturities of more than three months, and investments in mutual funds and equity securities.

Investments in mutual funds and equity securities are classified as available-for-sale financial assets. Subsequent to initial recognition, they are measured at fair value and changes therein, other than impairment losses, are recognized in OCI and presented within equity under "fair value reserve". When an investment is derecognized, the cumulative gain or loss in equity is transferred to the consolidated income statement.

Trade payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Trade payables are classified as current liabilities if payment is expected within one year or within the normal operating cycle of the business. After initial recognition, trade payables are recognized at amortized cost using the effective interest rate method.

Trade receivables

Trade receivables are amounts due from customers for merchandise sold or services performed in the ordinary course of business. Trade receivables are classified as current assets if the collection is expected within one year or within the normal operating cycle of the business. After initial recognition, trade receivables are recognized at amortized cost using the effective interest rate method.

3. Significant accounting policies (continued)

Financial instruments (continued)

Debt instruments and other financial liabilities

The Company initially recognizes debt instruments issued on the date that they originate. All other financial liabilities are recognized initially on the trade date, which is the date that the Company becomes a party to the contractual provisions of the instrument. These are recognized initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, these financial liabilities are measured at amortized cost using the effective interest method.

Other non-derivative financial instruments

Other non-derivative financial instruments are initially recognized at fair value. Subsequent to initial recognition, these assets are measured at amortized cost using the effective interest method, less any impairment losses.

De-recognition of financial assets and liabilities

The Company derecognizes a financial asset when the contractual right to the cash flows from that asset expires, or when it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. If the Company retains substantially all the risks and rewards of ownership of a transferred financial asset, the Company continues to recognize the financial asset and also recognizes a collateralized borrowing, at amortized cost, for the proceeds received.

The Company derecognizes a financial liability when its contractual obligations are discharged, cancelled or expired. The difference between the carrying amount of the derecognized financial liability and the consideration paid is recognized as profit or loss in the consolidated income statement.

Offsetting financial assets and liabilities

Financial assets and liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Company has a legal right and ability to offset the amounts and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

Derivative financial instruments

The Company is exposed to exchange rate risk which arises from its foreign exchange revenues and expenses, primarily in U.S. dollars, U.K. pounds sterling, Russian roubles, Brazilian reals, South African rands ("ZAR"), Romanian new leus ("RON") and Euros, and foreign currency debt in U.S. dollars, Russian roubles, Ukrainian hryvnias and Euros.

The Company uses foreign exchange forward contracts, option contracts and swap contracts (derivative financial instruments) to mitigate its risk of changes in foreign currency exchange rates. The Company also uses non-derivative financial instruments as part of its foreign currency exposure risk mitigation strategy.

Hedges of highly probable forecast transactions

The Company classifies its derivative financial instruments that hedge foreign currency risk associated with highly probable forecast transactions as cash flow hedges and measures them at fair value. The effective portion of such cash flow hedges is recognized in OCI and presented within equity under "hedging reserve" and reclassified to the consolidated income statement as revenue in the period corresponding to the occurrence of such transactions. The ineffective portion of such cash flow hedges is recorded in the consolidated income statement as finance expense immediately.

The Company also designates certain non-derivative financial liabilities, such as foreign currency borrowings from banks, as hedging instruments for hedge of foreign currency risk associated with highly probable forecast transactions. Accordingly, the Company applies cash flow hedge accounting to such relationships. Re-measurement gain/loss on such non-derivative financial liabilities is recognized in OCI and presented within equity under "hedging reserve" and reclassified to the consolidated income statement as revenue in the period corresponding to the occurrence of the forecast transactions.

Upon initial designation of a hedging instrument, the Company formally documents the relationship between the hedging instrument and hedged item, including the risk management objectives and strategy in undertaking the hedge transaction and the hedged risk, together with the methods that will be used to assess the effectiveness of the hedging relationship. The Company makes an assessment, both at the inception of the hedge relationship as well as on an ongoing basis, of whether the hedging instruments are expected to be "highly effective" in offsetting the changes in the fair value or cash flows of the respective hedged items attributable to the hedged risk, and whether the actual results of each hedge are within a range of 80%-125% relative to the gain or loss on the hedged items. For cash flow hedges to be "highly effective", a forecast transaction that is the subject of the hedge must be highly probable and must present an exposure to variations in cash flows that could ultimately affect profit or loss.

If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated or exercised, then hedge accounting is discontinued prospectively. The cumulative gain or loss previously recognized in OCI, remains there until the forecast transaction occurs. If the forecast transaction is no longer expected to occur, then the balance in OCI is recognized immediately in the consolidated income statement.

3. Significant accounting policies (continued)

Financial instruments (continued)

Hedges of recognized assets and liabilities

Changes in the fair value of derivative contracts that economically hedge monetary assets and liabilities in foreign currencies, and for which no hedge accounting is applied, are recognized in the consolidated income statement. The changes in fair value of such derivative contracts, as well as the foreign exchange gains and losses relating to the monetary items, are recognized as part of "finance income/(expense), net" in the consolidated income statement.

Hedges of changes in the interest rates

Consistent with its risk management policy, the Company uses interest rate swaps to mitigate the risk of changes in interest rates. The Company does not use them for trading or speculative purposes.

d. Business combinations

The Company uses the acquisition method of accounting to account for business combinations that occurred on or after April 1, 2009. The acquisition date is the date on which control is transferred to the acquirer. Judgment is applied in determining the acquisition date and determining whether control is transferred from one party to another. Control exists when the Company is exposed to, or has rights to variable returns from its involvement with the entity and has the ability to affect those returns through power over the entity. In assessing control, potential voting rights are considered only if the rights are substantive. The Company measures goodwill as of the applicable acquisition date at the fair value of the consideration transferred, including the recognized amount of any non-controlling interest in the acquiree, less the net recognized amount of the identifiable assets acquired and liabilities assumed. When the fair value of the net identifiable assets acquired and liabilities assumed exceeds the consideration transferred, a bargain purchase gain is recognized immediately in the consolidated income statement. Consideration transferred includes the fair values of the assets transferred, liabilities incurred by the Company to the previous owners of the acquiree, and equity interests issued by the Company. Consideration transferred also includes the fair value of any contingent consideration. Consideration transferred does not include amounts related to the settlement of pre-existing relationships. Any goodwill that arises on account of such business combination is tested annually for impairment.

Any contingent consideration is measured at fair value at the date of acquisition. If an obligation to pay contingent consideration that meets the definition of a financial instrument is classified as equity, then it is not re-measured and the settlement is accounted for within equity. Otherwise, other contingent consideration is re-measured at fair value at each reporting date and subsequent changes in the fair value of the contingent consideration are recorded in the consolidated income statement.

A contingent liability of the acquiree is assumed in a business combination only if such a liability represents a present obligation and arises from a past event, and its fair value can be measured reliably.

On an acquisition-by-acquisition basis, the Company recognizes any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's identifiable net assets. Transaction costs that the Company incurs in connection with a business combination, such as finder's fees, legal fees, due diligence fees and other professional and consulting fees, are expensed as incurred.

e. Property, plant and equipment

Recognition and measurement

Items of property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment losses, if any. Cost includes expenditures that are directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and other costs directly attributable to bringing the asset to a working condition for its intended use. Borrowing costs that are directly attributable to the construction or production of a qualifying asset are capitalized as part of the cost of that asset.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Gains and losses upon disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and are recognized net within "Other (income)/expense, net" in the consolidated income statement.

The cost of replacing part of an item of property, plant and equipment is recognized in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Company and its cost can be measured reliably. The costs of repairs and maintenance are recognized in the consolidated income statement as incurred.

Items of property, plant and equipment acquired through exchange of non-monetary assets are measured at fair value, unless the exchange transaction lacks commercial substance or the fair value of either the asset received or asset given up is not reliably measurable, in which case the asset exchanged is recorded at the carrying amount of the asset given up.

Depreciation

Depreciation is recognized in the consolidated income statement on a straight line basis over the estimated useful lives of property, plant and equipment. Leased assets are depreciated over the shorter of the lease term and their useful lives. The depreciation expense is included in the costs of the functions using the asset. Land is not depreciated.

(in millions, except share and per share data)

3. Significant accounting policies (continued)

Leasehold improvements are depreciated over the period of the lease agreement or the useful life, whichever is shorter.

Depreciation methods, useful lives and residual values are reviewed at each reporting date. The estimated useful lives are as follows:

Buildings	
- Factory and administrative buildings	20 - 50 years
- Ancillary structures	3 - 15 years
Plant and equipment	3 - 15 years
Furniture, fixtures and office equipment	3 - 10 years
Vehicles	4 - 5 years

Software for internal use, which is primarily acquired from third-party vendors and which is an integral part of a tangible asset, including consultancy charges for implementing the software, is capitalized as part of the related tangible asset. Subsequent costs associated with maintaining such software are recognized as expense as incurred. The capitalized costs are amortized over the estimated useful life of the software or the remaining useful life of the tangible fixed asset, whichever is lower.

Advances paid towards the acquisition of property, plant and equipment outstanding at each reporting date and the cost of property, plant and equipment not ready to use before such date are disclosed under capital work-in-progress. Assets not ready for use are not depreciated but are tested for impairment.

f. Goodwill and other intangible assets

Recognition and measurement

Goodwill	Goodwill represents the excess of consideration transferred, together with the amount of non-controlling interest in the acquiree, over the fair value of the Company's share of identifiable net assets acquired. Goodwill is measured at cost less accumulated impairment losses. In respect of equity accounted investees, the carrying amount of goodwill is included in the carrying amount of the investment, and any impairment loss on such an investment is not allocated to any asset, including goodwill, that forms part of the carrying value of the equity accounted investee.
Other intangible assets	Other intangible assets that are acquired by the Company and that have finite useful lives are measured at cost less accumulated amortization and accumulated impairment losses.
Research and development	Expenditures on research activities undertaken with the prospect of gaining new scientific or technical knowledge and understanding are recognized in the consolidated income statement when incurred. Development activities involve a plan or design for the production of new or substantially improved products and processes. Development expenditures are capitalized only if: • development costs can be measured reliably; • the product or process is technically and commercially feasible; • future economic benefits are probable; and • the Company intends to, and has sufficient resources, to complete development and to use or sell the asset. The expenditures to be capitalized include the cost of materials and other costs directly attributable to preparing the asset for its intended use. Other development expenditures are recognized in the consolidated income statement as incurred. As of March 31, 2019, none of the development expenditure amounts has met the aforesaid recognition criteria.
Separate acquisition of intangible assets	Payments to third parties that generally take the form of up-front payments and milestones for in-licensed products, compounds and intellectual property are capitalized. The Company's criteria for capitalization of such assets are consistent with the guidance given in paragraph 25 of International Accounting Standard 38 ("IAS 38") (i.e., the receipt of economic benefits embodied in each intangible asset separately purchased or licensed in the transaction is considered to be probable).
In-Process Research and Development assets ("IPR&D")	Acquired research and development intangible assets that are under development are recognized as In-Process Research and Development assets ("IPR&D"). IPR&D assets are not amortized, but evaluated for potential impairment on an annual basis or when there are indications that the carrying value may not be recoverable. Any impairment charge on such IPR&D assets is recorded in the consolidated income statement under "Research and Development expenses".

3. Significant accounting policies (continued)

Subsequent expenditure

Other intangible assets	Subsequent expenditures are capitalized only when they increase the future economic benefits embodied in the specific asset to which they relate. All other expenditures, including expenditures on internally generated goodwill and brands, is recognized in the consolidated income statement as incurred.
IPR&D assets	Subsequent expenditure on an IPR&D project acquired separately or in a business combination and recognized as an intangible asset is: • recognized as an expense when incurred, if it is a research expenditure; • recognized as an expense when incurred, if it is a development expenditure that does not satisfy the criteria for recognition as an intangible asset in paragraph 57 of IAS 38; and • added to the carrying amount of the acquired in-process research or development project, if it is a development expenditure that satisfies the recognition criteria in paragraph 57 of IAS 38.

Amortization

Amortization is recognized in the consolidated income statement on a straight-line basis over the estimated useful lives of intangible assets. Intangible assets that are not available for use are amortized from the date they are available for use.

The estimated useful lives are as follows:

Product related intangibles	3 - 15 years
Customer-related intangibles	1 - 11 years
Other intangibles	3 - 15 years

The amortization period and the amortization method for intangible assets with a finite useful life are reviewed at each reporting date.

Goodwill, intangible assets relating to products in development, other intangible assets not available for use and intangible assets having indefinite useful life are subject to impairment testing at each reporting date. All other intangible assets are tested for impairment when there are indications that the carrying value may not be recoverable. All impairment losses are recognized immediately in the consolidated income statement.

De-recognition of intangible assets

Intangible assets are de-recognized either on their disposal or where no future economic benefits are expected from their use. Losses arising on such de-recognition are recorded in the consolidated income statement, and are measured as the difference between the net disposal proceeds, if any, and the carrying amount of respective intangible assets as at the date of de-recognition.

g. Leases

At the inception of each lease, the lease arrangement is classified as either a finance lease or an operating lease, based on the substance of the lease arrangement.

Finance leases

A finance lease is recognized as an asset and a liability at the commencement of the lease, at the lower of the fair value of the asset and the present value of the minimum lease payments. Initial direct costs, if any, are also capitalized and, subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy applicable to that asset. Minimum lease payments made under finance leases are apportioned between the finance expense and the reduction of the outstanding lease liability. The finance expense is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Operating leases

Other leases are operating leases, and the leased assets are not recognized on the Company's statements of financial position. Payments made under operating leases are recognized in the consolidated income statement on a straight-line basis over the term of the lease.

Operating lease incentives received from the landlord are recognized as a reduction of rental expense on a straight line basis over the lease term.

3. Significant accounting policies (continued)

h. Inventories

Inventories consist of raw materials, stores and spares, work in progress and finished goods and are measured at the lower of cost and net realizable value. The cost of all categories of inventories is based on the weighted average method. Cost includes expenditures incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition. In the case of finished goods and work in progress, cost includes an appropriate share of overheads based on normal operating capacity. Stores and spares consists of packing materials, engineering spares (such as machinery spare parts) and consumables (such as lubricants, cotton waste and oils), which are used in operating machines or consumed as indirect materials in the manufacturing process.

Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

The factors that the Company considers in determining the provision for slow moving, obsolete and other non-saleable inventory include estimated shelf life, planned product discontinuances, price changes, aging of inventory and introduction of competitive new products, to the extent each of these factors impact the Company's business and markets. The Company considers all these factors and adjusts the inventory provision to reflect its actual experience on a periodic basis.

i. Impairment

Non-financial assets

The carrying amounts of the Company's non-financial assets, other than inventories and deferred tax assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. For goodwill and intangible assets that have indefinite lives or that are not yet available for use, an impairment test is performed each year at March 31.

The recoverable amount of an asset or cash-generating unit (as defined below) is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or the cash-generating unit. For the purpose of impairment testing, assets are grouped together into the smallest group of assets that generate cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the "cash-generating unit").

The goodwill acquired in a business combination is, for the purpose of impairment testing, allocated to cash-generating units that are expected to benefit from the synergies of the combination.

An impairment loss is recognized in the consolidated income statement if the estimated recoverable amount of an asset or its cash-generating unit is lower than its carrying amount. Impairment losses recognized in respect of cash-generating units are allocated first to reduce the carrying amount of any goodwill allocated to the units and then to reduce the carrying amount of the other assets in the unit on a pro-rata basis.

An impairment loss in respect of goodwill is not reversed. In respect of other assets, impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized. Goodwill that forms part of the carrying amount of an investment in an associate is not recognized separately, and therefore is not tested for impairment separately. Instead, the entire amount of the investment in an associate is tested for impairment as a single asset when there is objective evidence that the investment in an associate may be impaired.

An impairment loss in respect of equity accounted investee is measured by comparing the recoverable amount of investment with its carrying amount. An impairment loss is recognized in the consolidated income statement, and reversed if there has been a favorable change in the estimates used to determine the recoverable amount.

j. Employee benefits

Short-term employee benefits

Short-term employee benefits are expensed as the related service is provided. A liability is recognized for the amount expected to be paid if the Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

Defined contribution plans

The Company's contributions to defined contribution plans are charged to the consolidated income statement as and when the services are received from the employees.

3. Significant accounting policies (continued)

j. Employee benefits (continued)

Defined benefit plans

The liability in respect of defined benefit plans and other post-employment benefits is calculated using the projected unit credit method consistent with the advice of qualified actuaries. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related defined benefit obligation. In countries where there is no deep market in such bonds, the market interest rates on government bonds are used. The current service cost of the defined benefit plan, recognized in the consolidated income statement in employee benefit expense, reflects the increase in the defined benefit obligation resulting from employee service in the current year, benefit changes, curtailments and settlements. Past service costs are recognized immediately in the consolidated income statement. The net interest cost is calculated by applying the discount rate to the net balance of the defined benefit obligation and the fair value of plan assets. This cost is included in employee benefit expense in the consolidated income statement. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are recognized in OCI in the period in which they arise.

When the benefits under a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognized immediately in the consolidated income statement. The Company recognizes gains or losses on the settlement of a defined benefit plan obligation when the settlement occurs.

Termination benefits

Termination benefits are recognized as an expense in the consolidated income statement when the Company is demonstrably committed, without realistic possibility of withdrawal, to a formal detailed plan to either terminate employment before the normal retirement date, or to provide termination benefits as a result of an offer made to encourage voluntary redundancy. Termination benefits for voluntary redundancies are recognized as an expense in the consolidated income statement if the Company has made an offer encouraging voluntary redundancy, it is probable that the offer will be accepted, and the number of acceptances can be estimated reliably.

Other long-term employee benefits

The Company's net obligation in respect of other long term employee benefits is the amount of future benefit that employees have earned in return for their service in the current and previous periods. That benefit is discounted to determine its present value. Re-measurements are recognized in the consolidated income statement in the period in which they arise.

Compensated absences

The Company's current policies permit certain categories of its employees to accumulate and carry forward a portion of their unutilized compensated absences and utilize them in future periods or receive cash in lieu thereof in accordance with the terms of such policies. The Company measures the expected cost of accumulating compensated absences as the additional amount that the Company incurs as a result of the unused entitlement that has accumulated at the reporting date. Such measurement is based on actuarial valuation as at the reporting date carried out by a qualified actuary.

Equity settled share-based payment transactions

The grant date fair value of options granted to employees is recognized as an employee expense in the consolidated income statement, with a corresponding increase in equity, over the period that the employees become unconditionally entitled to the options. The amount recognized as an expense is adjusted to reflect the number of awards for which the related service and performance conditions are expected to be met, such that the amount ultimately recognized is based on the number of awards that meet the related service and performance conditions at the vesting date. The expense is recorded for each separately vesting portion of the award as if the award was, in substance, multiple awards. The increase in equity recognized in connection with share-based payment transaction is presented as a separate component in equity under "share-based payment reserve". The amount recognized as an expense is adjusted to reflect the actual number of stock options that vest.

Cash settled share-based payment transactions

The fair value of the amount payable to employees in respect of share-based payment transactions which are settled in cash is recognized as an expense, with a corresponding increase in liabilities, over the period during which the employees become unconditionally entitled to payment. The liability is re-measured at each reporting date and at the settlement date based on the fair value of the share-based payment transaction. Any changes in the liability are recognized in the consolidated income statement.

k. Provisions

A provision is recognized in the consolidated income statement if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognized as a finance cost.

3. Significant accounting policies (continued)

Restructuring

A provision for restructuring is recognized in the consolidated income statement when the Company has approved a detailed and formal restructuring plan, and the restructuring either has commenced or has been announced publicly. Future operating costs are not provided.

Onerous contracts

A provision for onerous contracts is recognized in the consolidated income statement when the expected benefits to be derived by the Company from a contract are lower than the unavoidable cost of meeting its obligations under the contract. The provision is measured at the present value of the lower of the expected cost of terminating the contract and the expected net cost of continuing with the contract. Before a provision is established, the Company recognizes any impairment loss on the assets associated with that contract.

Reimbursement rights

Expected reimbursements for expenditures required to settle a provision are recognized in the consolidated income statement only when receipt of such reimbursements is virtually certain. Such reimbursements are recognized as a separate asset in the statement of financial position, with a corresponding credit to the specific expense for which the provision has been made.

Contingent liabilities and contingent assets

A disclosure for a contingent liability is made when there is a possible obligation or a present obligation that may, but probably will not, require an outflow of resources. Where there is a possible obligation or a present obligation in respect of which the likelihood of outflow of resources is remote, no provision or disclosure is made.

Contingent assets are not recognized in the financial statements. A contingent asset is disclosed where an inflow of economic benefits is probable. Contingent assets are assessed continually and, if it is virtually certain that an inflow of economic benefits will arise, the asset and related income are recognized in the period in which the change occurs.

l. Revenue

The Company's revenue is derived from sales of goods, service income and income from licensing arrangements. Most of such revenue is generated from the sale of goods.

Accounting policies relating to revenue for the periods after March 31, 2018 are as follows:

Sale of goods

Revenue is recognized when the control of the goods has been transferred to a third party. This is usually when the title passes to the customer, either upon shipment or upon receipt of goods by the customer. At that point, the customer has full discretion over the channel and price to sell the products, and there are no unfulfilled obligations that could affect the customer's acceptance of the product.

Revenue from the sale of goods is measured at the transaction price which is the consideration received or receivable, net of returns, taxes and applicable trade discounts and allowances. Revenue includes shipping and handling costs billed to the customer.

In arriving at the transaction price, the Company considers the terms of the contract with the customers and its customary business practices. The transaction price is the amount of consideration the Company is entitled to receive in exchange for transferring promised goods or services, excluding amounts collected on behalf of third parties. The amount of consideration varies because of estimated rebates, returns and chargebacks, which are considered to be key estimates. Any amount of variable consideration is recognized as revenue only to the extent that it is highly probable that a significant reversal will not occur. The Company estimates the amount of variable consideration using the expected value method.

Presented below are the points of recognition of revenue with respect to the Company's sale of goods:

Particulars	**Point of recognition of revenue**
Sales of generic products in India	Upon delivery of products to distributors by clearing and forwarding agents of the Company. Control over the generic products is transferred by the Company when the goods are delivered to distributors from clearing and forwarding agents.
Sales of active pharmaceutical ingredients and intermediates in India	Upon delivery of products to customers (generally formulation manufacturers), from the factories of the Company.
Export sales and other sales outside of India	Upon delivery of the products to the customers unless the terms of the applicable contract provide for specific revenue generating activities to be completed, in which case revenue is recognized once all such activities are completed.

3. Significant accounting policies (continued)

l. Revenue (continued)

Profit share revenues

The Company from time to time enters into marketing arrangements with certain business partners for the sale of its products in certain markets. Under such arrangements, the Company sells its products to the business partners at a non-refundable base purchase price agreed upon in the arrangement and is also entitled to a profit share which is over and above the base purchase price. The profit share is typically dependent on the business partner's ultimate net sale proceeds or net profits, subject to any reductions or adjustments that are required by the terms of the arrangement. Such arrangements typically require the business partner to provide confirmation of units sold and net sales or net profit computations for the products covered under the arrangement.

Revenue in an amount equal to the base purchase price is recognized in these transactions upon delivery of products to the business partners. An additional amount representing the profit share component is recognized as revenue only to the extent that it is highly probable that a significant reversal will not occur.

At the end of each reporting period, the Company updates the estimated transaction price (including updating its assessment of whether an estimate of variable consideration is constrained) to represent faithfully the circumstances present at the end of the reporting period and the changes in circumstances during the reporting period.

Out licensing arrangements, milestone payments and royalties

Revenues include amounts derived from product out-licensing agreements. These arrangements typically consist of an initial up-front payment on inception of the license and subsequent payments dependent on achieving certain milestones in accordance with the terms prescribed in the agreement. In cases where the transaction has two or more components, the Company accounts for the delivered item (for example, the transfer of title to the intangible asset) as a separate unit of accounting and record revenue upon delivery of that component, provided that the Company can make a reasonable estimate of the fair value of the undelivered component. Otherwise, non-refundable up-front license fees received in connection with product out-licensing agreements are deferred and recognized over the period in which the Company has pending performance obligations. Milestone payments which are contingent on achieving certain clinical milestones are recognized as revenues either on achievement of such milestones, over the performance period depending on the terms of the contract. If milestone payments are creditable against future royalty payments, the milestones are deferred and released over the period in which the royalties are anticipated to be paid.

Royalty income earned through a license is recognized when the underlying sales have occurred.

Provision for chargeback, rebates and discounts

Provisions for chargeback, rebates, discounts and Medicaid payments are estimated and provided for in the year of sales and recorded as reduction of revenue. A chargeback claim is a claim made by the wholesaler for the difference between the price at which the product is initially invoiced to the wholesaler and the net price at which it is agreed to be procured from the Company. Provisions for such chargebacks are accrued and estimated based on historical average chargeback rate actually claimed over a period of time, current contract prices with wholesalers/other customers and estimated inventory holding by the wholesaler.

Shelf stock adjustments

Shelf stock adjustments are credits issued to customers to reflect decreases in the selling price of products sold by the Company, and are accrued when the prices of certain products decline as a result of increased competition upon the expiration of limited competition or exclusivity periods. These credits are customary in the pharmaceutical industry, and are intended to reduce the customer inventory cost to better reflect the current market prices. The determination to grant a shelf stock adjustment to a customer is based on the terms of the applicable contract, which may or may not specifically limit the age of the stock on which a credit would be offered.

Sales Returns

The Company accounts for sales returns accrual by recording refund liability concurrent with the recognition of revenue at the time of a product sale. This liability is based on the Company's estimate of expected sales returns. The Company deals in various products and operates in various markets. Accordingly, the estimate of sales returns is determined primarily by the Company's historical experience in the markets in which the Company operates. With respect to established products, the Company considers its historical experience of sales returns, levels of inventory in the distribution channel, estimated shelf life, product discontinuances, price changes of competitive products, and the introduction of competitive new products, to the extent each of these factors impact the Company's business and markets. With respect to new products introduced by the Company, such products have historically been either extensions of an existing line of product where the Company has historical experience or in therapeutic categories where established products exist and are sold either by the Company or the Company's competitors. At the time of recognizing the refund liability, the Company also recognizes an asset, (i.e., the right to the returned goods) which is included in inventories for the products expected to be returned. The Company initially measures this asset at the former carrying amount of the inventory, less any expected costs to recover the goods, including any potential decreases in the value of the returned goods.

Along with re-measuring the refund liability at the end of each reporting period, the Company updates the measurement of the asset recorded for any revisions to its expected level of returns, as well as any additional decreases in the value of the returned products.

3. Significant accounting policies (continued)

l. Revenue (continued)

Services

Revenue from services rendered, which primarily relate to contract research, is recognized in the consolidated income statement as the underlying services are performed. Upfront non-refundable payments received under these arrangements are deferred and recognized as revenue over the expected period over which the related services are expected to be performed.

License fees

License fees primarily consist of income from the out-licensing of intellectual property, and other licensing and supply arrangements with various parties. Revenue from license fees is recognized when control transfers to the third party and the Company's performance obligations are satisfied. Some of these arrangements include certain performance obligations by the Company. Revenue from such arrangements is recognized in the period in which the Company completes all its performance obligations.

Accounting policies relating to revenue for periods ending on or prior to March 31, 2018 are as follows:

Revenue

Sale of goods

Revenue is recognized when the significant risks and rewards of ownership have been transferred to the buyer, recovery of the consideration is probable, the associated costs and possible return of goods can be estimated reliably, there is no continuing management involvement with the goods and the amount of revenue can be measured reliably. Revenue from the sale of goods includes relevant taxes and is measured at the fair value of the consideration received or receivable, net of returns, sales tax and applicable trade discounts and allowances. Revenue includes shipping and handling costs billed to the customer.

Revenue from sales of generic products in India is recognized upon delivery of products to distributors by clearing and forwarding agents of the Company. Significant risks and rewards in respect of ownership of generic products are transferred by the Company when the goods are delivered to distributors from clearing and forwarding agents. Clearing and forwarding agents are generally compensated on a commission basis as a percentage of sales made by them. Revenue from sales of active pharmaceutical ingredients and intermediates in India is recognized upon delivery of products to customers (generally formulation manufacturers) from the factories of the Company.

Revenue from export sales and other sales outside of India is recognized when the significant risks and rewards of ownership of products are transferred to the customers. Such transfer occurs upon delivery of the products to the customers unless the terms of the applicable contract provide for specific revenue generating activities to be completed, in which case revenue is recognized once all such activities are completed.

Profit share revenues

The Company from time to time enters into marketing arrangements with certain business partners for the sale of its products in certain markets. Under such arrangements, the Company sells its products to the business partners at a non-refundable base purchase price agreed upon in the arrangement and is also entitled to a profit share which is over and above the base purchase price. The profit share is typically dependent on the business partner's ultimate net sale proceeds or net profits, subject to any reductions or adjustments that are required by the terms of the arrangement. Such arrangements typically require the business partner to provide confirmation of units sold and net sales or net profit computations for the products covered under the arrangement.

Revenue in an amount equal to the base purchase price is recognized in these transactions upon delivery of products to the business partners. An additional amount representing the profit share component is recognized as revenue in the period which corresponds to the ultimate sales of the products made by business partners only when the collectability of the profit share becomes probable and a reliable measurement of the profit share is available. Otherwise, recognition is deferred to a subsequent period pending satisfaction of such collectability and measurability requirements. In measuring the amount of profit share revenue to be recognized for each period, the Company uses all available information and evidence, including any confirmations from the business partner of the profit share amount owed to the Company, to the extent made available before the date the Company's Board of Directors authorizes the issuance of its financial statements for the applicable period.

Milestone payments and out licensing arrangements

Revenues include amounts derived from product out-licensing agreements. These arrangements typically consist of an initial up-front payment on inception of the license and subsequent payments dependent on achieving certain milestones in accordance with the terms prescribed in the agreement. Non-refundable up-front license fees received in connection with product out-licensing agreements are deferred and recognized over the period in which the Company has continuing performance obligations. Milestone payments which are contingent on achieving certain clinical milestones are recognized as revenues either on achievement of such milestones, if the milestones are considered substantive, or over the period the Company has continuing performance obligations, if the milestones are not considered substantive. If milestone payments are creditable against future royalty payments, the milestones are deferred and released over the period in which the royalties are anticipated to be paid.

3. Significant accounting policies (continued)

l. Revenue (continued)

Provision for chargeback, rebates and discounts

Provisions for chargeback, rebates, discounts and Medicaid payments are estimated and provided for in the year of sales and recorded as reduction of revenue. A chargeback claim is a claim made by the wholesaler for the difference between the price at which the product is initially invoiced to the wholesaler and the net price at which it is agreed to be procured from the Company. Provisions for such chargebacks are accrued and estimated based on historical average chargeback rate actually claimed over a period of time, current contract prices with wholesalers and other customers and estimated inventory holding by the wholesaler.

Shelf stock adjustments

Shelf stock adjustments are credits issued to customers to reflect decreases in the selling price of products sold by the Company, and are accrued when the prices of certain products decline as a result of increased competition upon the expiration of limited competition or exclusivity periods. These credits are customary in the pharmaceutical industry, and are intended to reduce the customer inventory cost to better reflect the current market prices. The determination to grant a shelf stock adjustment to a customer is based on the terms of the applicable contract, which may or may not specifically limit the age of the stock on which a credit would be offered.

Sales Returns

The Company accounts for sales returns accrual by recording an allowance for sales returns concurrently with the recognition of revenue at the time of a product sale. This allowance is based on the Company's estimate of expected sales returns. The Company deals in various products and operates in various markets. Accordingly, the estimate of sales returns is determined primarily by the Company's historical experience in the markets in which the Company operates. With respect to established products, the Company considers its historical experience of sales returns, levels of inventory in the distribution channel, estimated shelf life, product discontinuances, price changes of competitive products, and the introduction of competitive new products, to the extent each of these factors impact the Company's business and markets. With respect to new products introduced by the Company, such products have historically been either extensions of an existing line of product where the Company has historical experience or in therapeutic categories where established products exist and are sold either by the Company or the Company's competitors.

Services

Revenue from services rendered, which primarily relate to contract research, is recognized in the consolidated income statement as the underlying services are performed. Upfront non-refundable payments received under these arrangements are deferred and recognized as revenue over the expected period over which the related services are expected to be performed.

Export entitlements

Export entitlements from government authorities are recognized in the consolidated income statement as a reduction from "Cost of Revenues" when the right to receive credit as per the terms of the scheme is established in respect of the exports made by the Company, and where there is no significant uncertainty regarding the ultimate collection of the relevant export proceeds.

License fees

The Company from time to time enters into certain dossier sales, licensing and supply arrangements with various parties. Income from licensing arrangements is generally recognized over the term of the contract. Some of these arrangements include certain performance obligations by the Company. Revenue from such arrangements is recognized in the period in which the Company completes all its performance obligations.

m. Shipping and handling costs

Shipping and handling costs incurred to transport products to customers, and internal transfer costs incurred to transport the products from the Company's factories to its various points of sale, are included in selling, general and administrative expenses.

n. Finance income and expense

Finance income consists of interest income on funds invested, dividend income and gains on the disposal of financial assets. Interest income is recognized in the consolidated income statement as it accrues, using the effective interest method. Dividend income is recognized in the consolidated income statement on the date that the Company's right to receive payment is established. The associated cash flows are classified as investing activities in the statement of cash flows. Finance expenses consist of interest expense on loans and borrowings.

Borrowing costs are recognized in the consolidated income statement using the effective interest method. The associated cash flows are classified as financing activities in the statement of cash flows.

Foreign currency gains and losses are reported on a net basis within finance income and expense. These primarily include: exchange differences arising on the settlement or translation of monetary items; changes in the fair value of derivative contracts that economically hedge monetary assets and liabilities in foreign currencies and for which no hedge accounting is applied; and the ineffective portion of cash flow hedges.

3. Significant accounting policies (continued)

o. Income tax

Income tax expense consists of current and deferred tax. Income tax expense is recognized in the consolidated income statement except to the extent that it relates to items recognized directly in equity, in which case it is recognized in equity. Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognized using the balance sheet method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognized for the following temporary differences:

- temporary differences on the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit;
- temporary differences relating to investments in subsidiaries and jointly controlled entities to the extent that it is probable that they will not reverse in the foreseeable future; and
- taxable temporary differences arising upon the initial recognition of goodwill.

Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realized simultaneously.

A deferred tax asset is recognized to the extent that it is probable that future taxable profits will be available against which the temporary difference can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized. Unrecognized deferred tax assets are reassessed at each reporting date and are recognized to the extent that it has become probable that the future taxable profits will allow the deferred tax assets to be recovered.

Any deferred tax asset or liability arising from deductible or taxable temporary differences in respect of unrealized inter-company profit or loss on inventories held by the Company in different tax jurisdictions is recognized using the tax rate of the jurisdiction in which such inventories are held. Withholding tax arising out of payment of dividends to shareholders under the Indian Income tax regulations is not considered as tax expense for the Company and all such taxes are recognized in the statement of changes in equity as part of the associated dividend payment.

Current and deferred tax is recognized in profit or loss, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively.

p. Earnings per share

The Company presents basic and diluted earnings per share ("EPS") data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the period. Diluted EPS is determined by adjusting the profit or loss attributable to ordinary shareholders and the weighted average number of ordinary shares outstanding for the effects of all dilutive potential ordinary shares, which includes all stock options granted to employees.

q. Government grants

The Company recognizes government grants only when there is reasonable assurance that the conditions attached to them will be complied with, and the grants will be received. Government grants received in relation to assets are presented as a reduction to the carrying amount of the related asset. Grants related to income are deducted in reporting the related expense in the consolidated income statement.

Export entitlements from government authorities are recognized in the consolidated income statement as a reduction from "Cost of Revenues" when the right to receive credit as per the terms of the scheme is established in respect of the exports made by the Company, and where there is no significant uncertainty regarding the ultimate collection of the relevant export proceeds.

r. Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief executive officer of the Company is responsible for allocating resources and assessing performance of the operating segments and accordingly is identified as the chief operating decision maker.

s. Treasury shares

Own equity instruments that are reacquired (treasury shares) are recognized at cost and deducted from equity. No gain or loss is recognized in profit or loss on the purchase, sale, issue or cancellation of the Company's own equity instruments. Any difference between the carrying amount and the consideration, if reissued, is recognized in the share premium.

3. Significant accounting policies (continued)

t. Recent accounting pronouncements

Standards issued but not yet effective and not early adopted by the Company

IFRS 16, Leases

In January 2016, the IASB issued a new standard, IFRS 16, "Leases". The new standard brings most leases on-balance sheet for lessees under a single model, eliminating the distinction between operating and finance leases. Lessor accounting, however, remains largely unchanged and the distinction between operating and finance leases is retained. IFRS 16 supersedes IAS 17, "Leases", and related interpretations and is effective for annual reporting periods beginning on or after January 1, 2019. Earlier adoption of IFRS 16 is permitted if IFRS 15, "Revenue from Contracts with Customers", has also been applied.

Upon adoption, a portion of the annual operating lease expense, which is currently fully recognized as functional expense, will be recognized as finance expense. Further, a portion of the annual lease payments recognized in the cash flow statement as reduction of lease liability will be recognized as outflow from financing activities, which are currently fully recognized as an outflow from operating activities.

The undiscounted and non-cancellable operating lease commitments of Rs.1,291 and Rs.1,929 as at March 31, 2019 and 2018, respectively, as disclosed in Note 27 to these consolidated financial statements, provide an indicator of the impact of implementation of IFRS 16 on the consolidated financial statements of the Company. Accordingly, the Company believes that the adoption of IFRS 16 will not have a material impact on its consolidated financial statements.

IFRIC 23, Uncertainty over Income Tax Treatments

On June 7, 2017, the IFRS Interpretations Committee issued IFRIC 23 "Uncertainty over Income Tax Treatments", which clarifies how the recognition and measurement requirements of IAS 12 "Income Taxes", are applied where there is uncertainty over income tax treatments.

IFRIC 23 explains how to recognize and measure deferred and current income tax assets and liabilities where there is uncertainty over a tax treatment. An uncertain tax treatment is any tax treatment applied by an entity where there is uncertainty over whether that treatment will be accepted by the applicable tax authority. For example, a decision to claim a deduction for a specific expense or not to include a specific item of income in a tax return is an uncertain tax treatment if its acceptability is uncertain under applicable tax law. The interpretation provides specific guidance in several areas where previously IAS 12 was silent. IFRIC 23 applies to all aspects of income tax accounting where there is an uncertainty regarding the treatment of an item, including taxable profit or loss, the tax bases of assets and liabilities, tax losses and credits and tax rates.

The interpretation is effective for annual reporting periods beginning on or after January 1, 2019. Earlier application is permitted. An entity can, on initial application, elect to apply this interpretation either:

- retrospectively applying IAS 8, "Accounting Policies, Changes in Accounting Estimates and Errors", if possible without the use of hindsight; or
- retrospectively, with the cumulative effect of initially applying the interpretation recognized at the date of initial application as an adjustment to the opening balance of retained earnings (or other component of equity, as appropriate).

The Company believes that the adoption of IFRIC 23 will not have a material impact on its consolidated financial statements.

u. Rounding of amounts

All amounts disclosed in the consolidated financial statements and notes have been rounded off to the nearest million currency units unless otherwise stated.

4. Determination of fair values

The Company's accounting policies and disclosures require the determination of fair value, for certain financial and non-financial assets and liabilities. Fair values have been determined for measurement and/or disclosure purposes based on the following methods. When applicable, further information about the assumptions made in determining fair values is disclosed in the notes specific to that asset or liability.

(i) Property, plant and equipment

Property, plant and equipment, if acquired in a business combination or through an exchange of non-monetary assets, is measured at fair value on the acquisition date. For this purpose, fair value is based on appraised market values and replacement cost.

(ii) Intangible assets

The fair value of brands, technology related intangibles, and patents and trademarks acquired in a business combination is based on the discounted estimated royalty payments that have been avoided as a result of these brands, technology related intangibles, patents or trademarks being owned (the "relief of royalty method"). The fair value of customer related, product related and other intangibles acquired in a business combination has been determined using the multi-period excess earnings method. Under this method, value is estimated as the present value of the benefits anticipated from ownership of the intangible assets in excess of the returns required or the investment in the contributory assets necessary to realize those benefits.

(iii) Inventories

The fair value of inventories acquired in a business combination is determined based on its estimated selling price in the ordinary course of business less the estimated costs of completion and sale, and a reasonable profit margin based on the effort required to complete and sell the inventories.

(iv) Investments in equity and debt securities and units of mutual funds

The fair value of marketable equity and debt securities is determined by reference to their quoted market price at the reporting date. For debt securities where quoted market prices are not available, fair value is determined using pricing techniques such as discounted cash flow analysis.

In respect of investments in mutual funds, the fair values represent net asset value as stated by the issuers of these mutual fund units in the published statements. Net asset values represent the price at which the issuer will issue further units in the mutual fund and the price at which issuers will redeem such units from the investors.

Accordingly, such net asset values are analogous to fair market value with respect to these investments, as transactions of these mutual funds are carried out at such prices between investors and the issuers of these units of mutual funds.

(v) Derivatives

The fair value of foreign exchange forward contracts is estimated by discounting the difference between the contractual forward price and the current forward price for the residual maturity of the contract using a risk-free interest rate (based on government bonds). The fair value of foreign currency option and swap contracts and interest rate swap contracts is determined based on the appropriate valuation techniques, considering the terms of the contract.

(vi) Non-derivative financial liabilities

Fair value, which is determined for disclosure purposes, is calculated based on the present value of future principal and interest cash flows, discounted at the market rate of interest at the reporting date. For finance leases the market rate of interest is determined by reference to similar lease agreements. In respect of the Company's borrowings that have floating rates of interest, their fair value approximates carrying value.

(vii) Share-based payment transactions

The fair value of employee stock options is measured using the Black-Scholes-Merton valuation model. Measurement inputs include share price on grant date, exercise price of the instrument, expected volatility (based on weighted average historical volatility), expected life of the instrument (based on historical experience), expected dividends, and the risk free interest rate (based on government bonds).

(in millions, except share and per share data)

5. Segment reporting

The Chief Operating Decision Maker ("CODM") evaluates the Company's performance and allocates resources based on an analysis of various performance indicators by operating segments. The CODM reviews revenue and gross profit as the performance indicator for all of the operating segments, and does not review the total assets and liabilities of an operating segment. The Chief Executive Officer is the CODM of the Company.

The Company's reportable operating segments are as follows:

- Global Generics;
- Pharmaceutical Services and Active Ingredients ("PSAI"); and
- Proprietary Products.

Global Generics. This segment consists of the Company's business of manufacturing and marketing prescription and over-the-counter finished pharmaceutical products ready for consumption by the patient, marketed either under a brand name (branded formulations) or as generic finished dosages with therapeutic equivalence to branded formulations (generics). This segment includes the operations of the Company's biologics business.

Pharmaceutical Services and Active Ingredients. This segment primarily consists of the Company's business of manufacturing and marketing active pharmaceutical ingredients and intermediates, also known as "API", which are the principal ingredients for finished pharmaceutical products. Active pharmaceutical ingredients and intermediates become finished pharmaceutical products when the dosages are fixed in a form ready for human consumption such as a tablet, capsule or liquid using additional inactive ingredients. This segment also includes the Company's contract research services business and the manufacture and sale of active pharmaceutical ingredients and steroids in accordance with the specific customer requirements.

Proprietary Products. This segment consists of the Company's business that focuses on the research, development, and commercialization of differentiated formulations. These novel products fall within the dermatology and neurology therapeutic areas and are marketed and sold through Promius® Pharma, LLC.

Others. This includes the operations of the Company's wholly-owned subsidiary, Aurigene Discovery Technologies Limited, a discovery stage biotechnology company developing novel and best-in-class therapies in the fields of oncology and inflammation and which works with established pharmaceutical and biotechnology companies in early-stage collaborations, bringing drug candidates from hit generation to pre-clinical development.

The measurement of each segment's revenues, expenses and assets is consistent with the accounting policies that are used in preparation of the Company's consolidated financial statements.

Segment information:	**For the Year Ended March 31,**								
	Global Generics			**PSAI**			**Proprietary Products**		
Reportable segments	**2019**	**2018**	**2017**	**2019**	**2018**	**2017**	**2019**	**2018**	**2017**
Revenues[(1) (2)]	**Rs. 122,903**	**Rs. 114,014**	**Rs. 115,409**	**Rs. 24,140**	**Rs. 21,992**	**Rs. 21,277**	**Rs. 4,750**	**Rs. 4,245**	**Rs. 2,363**
Gross profit	**Rs. 71,924**	**Rs. 67,190**	**Rs. 71,079**	**Rs. 6,128**	**Rs. 4,446**	**Rs. 4,473**	**Rs. 4,182**	**Rs. 3,799**	**Rs. 1,951**
Selling, general and administrative expenses									
Research and development expenses									
Other income, net									
Results from operating activities									
Finance (expense)/income, net									
Share of profit of equity accounted investees, net of tax									
Profit before tax									
Tax expense									
Profit for the year									

[Continued on next page]

(in millions, except share and per share data)

5. Segment reporting (continued)

[Continued from above table, first column repeated]

Segment information:	**For the Year Ended March 31,**					
	Others			**Total**		
Reportable segments	**2019**	**2018**	**2017**	**2019**	**2018**	**2017**
Revenues[1] [2]	**Rs. 2,058**	**Rs. 1,777**	**Rs. 1,760**	**Rs. 153,851**	**Rs. 142,028**	**Rs. 140,809**
Gross profit	**Rs. 1,196**	**Rs. 869**	**Rs. 853**	**Rs. 83,430**	**Rs. 76,304**	**Rs. 78,356**
Selling, general and administrative expenses				48,890	46,910	46,372
Research and development expenses				15,607	18,265	19,551
Other income, net				(1,955)	(788)	(1,065)
Results from operating activities				**Rs. 20,888**	**Rs. 11,917**	**Rs. 13,498**
Finance income, net				1,117	2,080	806
Share of profit of equity accounted investees, net of tax				438	344	349
Profit before tax				**Rs. 22,443**	**Rs. 14,341**	**Rs. 14,653**
Tax expense				3,648	4,535	2,614
Profit for the year				**Rs. 18,795**	**Rs. 9,806**	**Rs. 12,039**

(1) Revenues for the year ended March 31, 2019 do not include inter-segment revenues from the PSAI segment to the Global Generics segment, which amount to Rs.5,785 (as compared to Rs.5,492 and Rs.6,181 for the years ended March 31, 2018 and 2017, respectively).

(2) Effective July 1, 2017, Goods and Services Tax ("GST") was introduced in India replacing the excise duty and various other taxes. Following the principles of IFRS 15, "Revenue from Contracts with Customers", revenue from operations are disclosed net of GST. For periods prior to July 1, 2017, the excise duty amount was recorded as part of revenues with a corresponding amount recorded in the cost of revenues. Accordingly, revenues and cost of revenues for the year ended March 31, 2019 are not comparable with those of the previous years presented.

Tabulated below are the details of excise duty included in revenues:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Excise duty included in revenues	-	Rs. 173	Rs. 939

Analysis of revenues by geography:

The following table shows the distribution of the Company's revenues by country, based on the location of the customers:

	For the Year Ended March 31,		
Country	**2019**	**2018**	**2017**
India	Rs. 28,804	Rs. 25,209	Rs. 24,927
United States	69,299	68,124	69,816
Russia	15,299	12,610	11,547
Others	40,449	36,085	34,519
	Rs. 153,851	**Rs. 142,028**	**Rs. 140,809**

Analysis of revenues within the Global Generics segment:

An analysis of revenues by therapeutic areas in the Company's Global Generics segment is given below:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Gastrointestinal	Rs. 19,250	Rs. 19,153	Rs. 21,190
Oncology	18,357	16,999	17,054
Cardiovascular	15,106	16,501	15,553
Pain Management	13,806	12,898	14,323
Central Nervous System	15,909	12,509	12,749
Anti-Infective	7,073	6,557	7,189
Others	33,402	29,397	27,351
Total	**Rs. 122,903**	**Rs. 114,014**	**Rs. 115,409**

(in millions, except share and per share data)

5. Segment reporting (continued)

Analysis of revenues within the PSAI segment:

An analysis of revenues by therapeutic areas in the Company's PSAI segment is given below:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Cardiovascular	Rs. 7,019	Rs. 6,191	Rs. 5,078
Pain Management	3,364	3,228	3,290
Central Nervous System	2,741	2,331	2,758
Anti-Infective	1,247	1,968	1,859
Dermatology	1,622	1,606	1,606
Oncology	2,212	1,650	1,534
Others	5,935	5,018	5,152
Total	**Rs. 24,140**	**Rs. 21,992**	**Rs. 21,277**

Analysis of assets by geography:

The following table shows the distribution of the Company's non-current assets (other than financial instruments and deferred tax assets) by country, based on the location of assets:

	As of March 31,	
Country	**2019**	**2018**
India	Rs. 57,205	Rs. 57,818
Switzerland	33,536	32,287
United States	7,013	8,361
Germany	2,103	2,876
Others	5,241	7,515
	Rs. 105,098	**Rs. 108,857**

The following table shows the distribution of the Company's property, plant and equipment including capital work in progress and intangible assets acquired during the year (other than goodwill arising on business combination) by country, based on the location of assets:

	For the Year Ended March 31,	
Country	**2019**	**2018**
India	Rs. 5,341	Rs. 7,807
Switzerland	1,112	1,100
United States	206	723
Others	787	1,284
	Rs. 7,446	**Rs. 10,914**

Analysis of depreciation and amortization, included in cost of revenues, by reportable segments:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Global Generics	Rs. 3,791	Rs. 3,606	Rs. 3,381
PSAI	2,906	2,923	2,674
Proprietary Products	-	-	-
Others	71	66	62
	Rs. 6,768	**Rs. 6,595**	**Rs. 6,117**

Information about major customers

Revenues from two customers of the Company's Global Generics segment were Rs.10,639 and Rs.10,024, representing approximately 7% each of the Company's total revenues for the year ended March 31, 2019.

Revenues from two customers of the Company's Global Generics segment were Rs.13,486 and Rs.10,755, representing approximately 9% and 8%, respectively, of the Company's total revenues for the year ended March 31, 2018.

(in millions, except share and per share data)

6. Property, plant and equipment

The following is a summary of the changes in carrying value of property, plant and equipment.

Particulars	Land	Buildings	Plant and equipment	Furniture, fixtures and office equipment	Vehicles	Total
Gross carrying value						
Balance as at April 1, 2017	Rs. 3,868	Rs. 21,291	Rs. 62,429	Rs. 5,155	Rs. 751	Rs. 93,494
Additions	324	1,030	5,458	507	293	7,612
Disposals	(7)	(42)	(1,071)	(154)	(275)	(1,549)
Effect of changes in foreign exchange rates	31	162	399	36	1	629
Balance as at March 31, 2018	**Rs. 4,216**	**Rs. 22,441**	**Rs. 67,215**	**Rs. 5,544**	**Rs. 770**	**Rs. 100,186**
Balance as at April 1, 2018	Rs. 4,216	Rs. 22,441	Rs. 67,215	Rs. 5,544	Rs. 770	Rs. 100,186
Additions	3	1,476	6,002	707	125	8,313
Disposals[1] [2]	(51)	(892)	(2,444)	(541)	(120)	(4,048)
Effect of changes in foreign exchange rates	24	81	167	7	-	279
Balance as at March 31, 2019	**Rs. 4,192**	**Rs. 23,106**	**Rs. 70,940**	**Rs. 5,717**	**Rs. 775**	**Rs. 104,730**
Accumulated Depreciation						
Balance as at April 1, 2017	Rs. 38	Rs. 5,318	Rs. 33,225	Rs. 4,007	Rs. 392	Rs. 42,980
Depreciation for the year	-	972	6,455	613	245	8,285
Disposals	-	(29)	(955)	(144)	(264)	(1,392)
Effect of changes in foreign exchange rates	-	82	260	29	1	372
Balance as at March 31, 2018	**Rs. 38**	**Rs. 6,343**	**Rs. 38,985**	**Rs. 4,505**	**Rs. 374**	**Rs. 50,245**
Balance as at April 1, 2018	Rs. 38	Rs. 6,343	Rs. 38,985	Rs. 4,505	Rs. 374	Rs. 50,245
Depreciation for the year	-	1,040	6,538	614	170	8,362
Impairment	12	59	17	1	-	89
Disposals[1][2]	(50)	(612)	(1,945)	(523)	(102)	(3,232)
Effect of changes in foreign exchange rates	-	43	47	6	-	96
Balance as at March 31, 2019	**Rs. -**	**Rs. 6,873**	**Rs. 43,642**	**Rs. 4,603**	**Rs. 442**	**Rs. 55,560**
Net carrying value						
As at April 1, 2017	Rs. 3,830	Rs. 15,973	Rs. 29,204	Rs. 1,148	Rs. 359	Rs. 50,514
As at March 31, 2018	Rs. 4,178	Rs. 16,098	Rs. 28,230	Rs. 1,039	Rs. 396	Rs. 49,941
Add: Capital-work-in-progress						Rs. 7,928
Total as at March 31, 2018						Rs. 57,869
As at March 31, 2019	Rs. 4,192	Rs. 16,233	Rs. 27,298	Rs. 1,114	Rs. 333	Rs. 49,170
Add: Capital-work-in-progress						Rs. 4,918
Total as at March 31, 2019						**Rs. 54,088**

(Gain)/loss on disposal during the year

[1] During the three months ended September 30, 2018, the Company sold its subsidiary Dr. Reddy's Laboratories Tennessee, LLC and certain related assets to Neopharma Inc., resulting in the disposition of the Company's formulations manufacturing facility and related assets in Bristol, Tennessee.

The aforesaid transaction pertains to the Company's Global Generics segment.

The below table captures the accounting implications of such transaction:

Particulars	Amount
Impairment loss on items of property, plant and equipment measured under IFRS 5, Non-current assets held for sale and discontinued operations	Rs. 94
Reclassification of cumulative amount of foreign exchange gain relating to the foreign operation from FCTR to the income statement	Rs. 113

[2] During the three months ended December 31, 2018, the Company sold one of its API manufacturing business units located in Jeedimetla, Hyderabad to Therapiva Private Limited. This sale was done on a slump sale basis (an Indian tax law concept which refers to the transfer of a business as a going concern without values being assigned to individual assets and liabilities), including all related property, plant and equipment, current assets, current liabilities, and transfer of employees. An amount of Rs.423 representing the profit on the sale of such business unit was included under the heading "Other income, net".

(in millions, except share and per share data)

6. Property, plant and equipment (continued)

Capital commitments

As of March 31, 2019 and 2018, the Company was committed to spend Rs.2,495 and Rs. 3,788, respectively, under agreements to purchase property, plant and equipment. This amount is net of capital advances paid in respect of such purchase commitments.

Interest capitalization

During the years ended March 31, 2019 and 2018, the Company capitalized interest cost of Rs.74 and Rs. 71, respectively, with respect to qualifying assets. The rate for capitalization of interest cost for the years ended March 31, 2019 and 2018 was approximately 3.21% and 2.76%, respectively.

Assets acquired under finance leases

Property, plant and equipment include Rs.463 and Rs. 502 of assets acquired (net of accumulated depreciation) under finance leases as of March 31, 2019 and 2018, respectively.

7. Goodwill

Goodwill arising upon business combinations is not amortized but tested for impairment at least annually or more frequently if there is any indication that the cash generating unit to which goodwill is allocated is impaired.

The following table presents the changes in goodwill during the years ended March 31, 2019 and 2018:

	As of March 31,	
	2019	**2018**
Opening balance, gross	Rs. 20,219	Rs. 20,026
Effect of translation adjustments	(43)	193
Impairment loss[1]	(16,274)	(16,274)
Closing balance	**Rs. 3,902**	**Rs. 3,945**

(1) The impairment loss of Rs.16,274 includes Rs.16,003 pertaining to the Company's German subsidiary, betapharm Arzneimittel GmbH, which is part of the Company's Global Generics segment. This impairment loss was recorded for the years ended March 31, 2009 and 2010.

For the purpose of impairment testing, goodwill is allocated to a cash generating unit, representing the lowest level within the Company at which goodwill is monitored for internal management purposes and which is not higher than the Company's operating segment.

The carrying amount of goodwill (other than those arising upon investment in a joint venture) was allocated to the cash generating units as follows:

	As of March 31,	
	2019	**2018**
PSAI-Active Pharmaceutical Operations	Rs. 997	Rs. 997
Global Generics-Complex Injectables	1,287	1,339
Global Generics-North America Operations	1,005	995
Global Generics-Branded Formulations	491	491
Others	122	123
	Rs. 3,902	**Rs. 3,945**

The recoverable amounts of the above cash generating units have been assessed using a value-in-use model. Value in use is generally calculated as the net present value of the projected post-tax cash flows plus a terminal value of the cash generating unit to which the goodwill is allocated. Initially, a post-tax discount rate is applied to calculate the net present value of the post-tax cash flows. Key assumptions upon which the Company has based its determinations of value-in-use include:

a) Estimated cash flows for five years, based on management's projections.

b) A terminal value arrived at by extrapolating the last forecasted year cash flows to perpetuity, using a constant long-term growth rate of 0%. This long-term growth rate takes into consideration external macroeconomic sources of data. Such long-term growth rate considered does not exceed that of the relevant business and industry sector.

(in millions, except share and per share data)

7. Goodwill (continued)

c) The after tax discount rates used are based on the Company's weighted average cost of capital.

d) The after tax discount rates used range from 6.97% to 13.74% for various cash generating units. The pre-tax discount rates range from 7.56% to 16.63%.

The Company believes that any reasonably possible change in the key assumptions on which a recoverable amount is based would not cause the aggregate carrying amount to exceed the aggregate recoverable amount of the cash-generating unit.

8. Other intangible assets

The following is a summary of changes in the carrying value of intangible assets:

		Product related intangibles		Customer related intangibles		Others		Total
Gross carrying value								
Balance as at April 1, 2017	Rs.	75,946	Rs.	357	Rs.	2,763	Rs.	79,066
Additions		2,377		-		228		2,605
Effect of changes in foreign exchange rates		3,864		-		6		3,870
Balance as at March 31, 2018	**Rs.**	**82,187**	**Rs.**	**357**	**Rs.**	**2,997**	**Rs.**	**85,541**
Balance as at April 1, 2018	Rs.	82,187	Rs.	357	Rs.	2,997	Rs.	85,541
Additions		1,542		-		602		2,144
Disposals/De-recognitions[(1)]		(3,219)		(357)		-		(3,576)
Effect of changes in foreign exchange rates		1,461		-		1		1,462
Balance as at March 31, 2019	**Rs.**	**81,971**	**Rs.**	**-**	**Rs.**	**3,600**	**Rs.**	**85,571**
Amortization/impairment loss								
Balance as at April 1, 2017	Rs.	32,841	Rs.	357	Rs.	943	Rs.	34,141
Amortization for the year		3,139		-		286		3,425
Impairment loss		53		-		-		53
Effect of changes in foreign exchange rates		3,256		-		1		3,257
Balance as at March 31, 2018	**Rs.**	**39,289**	**Rs.**	**357**	**Rs.**	**1,230**	**Rs.**	**40,876**
Balance as at April 1, 2018	Rs.	39,289	Rs.	357	Rs.	1,230	Rs.	40,876
Amortization for the year		3,432		-		396		3,828
Impairment loss		116		-		-		116
Disposals/De-recognitions[(1)]		(2,815)		(357)		-		(3,172)
Effect of changes in foreign exchange rates		(445)		-		1		(444)
Balance as at March 31, 2019	**Rs.**	**39,577**	**Rs.**	**-**	**Rs.**	**1,627**	**Rs.**	**41,204**
Net carrying value								
As at April 1, 2017	Rs.	43,105	Rs.	-	Rs.	1,820	Rs.	44,925
As at March 31, 2018	Rs.	42,898	Rs.	-	Rs.	1,767	Rs.	44,665
As at March 31, 2019	**Rs.**	**42,394**	**Rs.**	**-**	**Rs.**	**1,973**	**Rs.**	**44,367**

(1) Gain on disposal of assets for the year ended March 31, 2019 includes an amount of Rs.682 representing the profit on sale of intangible assets forming part of the Company's Proprietary Products segment.

(in millions, except share and per share data)

8. Other intangible assets (continued)

Details of significant separately acquired intangible assets as at March 31, 2019:

Particulars of the asset	Acquired from	Carrying cost
ANDAs	Teva and an affiliate of Allergan	Rs. 24,489
Select portfolio of dermatology, respiratory and pediatric assets	UCB India Private Limited and affiliates	5,578
Intellectual property rights relating to PPC-06	Xenoport, Inc.	3,527
Habitrol® brand	Novartis Consumer Health Inc.	2,421
Beta brand	3i Group plc	1,084
Commercialization rights for an anti-cancer biologic agent	Eisai Company Limited	1,620
Intellectual property rights relating to Xeglyze™ lotion	Hatchtech Pty Limited	1,072
OTC product brands	Ducere Pharma LLC	798
Intellectual property rights relating to fondaparinux sodium	Alchemia Limited	187
ANDAs	Gland Pharma Limited	312

In-process research and development assets ("IPR&D"):

Tabulated below is the reconciliation of amounts relating to in-process research and development assets as at the beginning and at the end of the year:

	As of March 31,	
	2019	**2018**
Opening balance	Rs. 27,027	Rs. 27,150
Add: Additions during the year	1,171	523
Less: Capitalizations during the year(1)	(5,445)	(778)
Less: Impairments during the year	-	-
Effect of changes in exchange rates	1,857	132
Closing balance	**Rs. 24,610**	**Rs. 27,027**

(1) During the year ended March 31, 2019, the products buprenorphine and naloxone sublingual film and tobramycin were available for use and are subject to amortization. Accordingly, the Company reclassified the amount from IPR&D to product related intangibles.

Interest capitalization

During the years ended March 31, 2019 and 2018, the Company capitalized interest cost of Rs.655 and Rs.458, respectively, with respect to certain qualifying assets. The rate for capitalization of interest cost for the years ended March 31, 2019 and 2018 ranged from 1.98% to 4.12% and from 0.81% to 2.76%, respectively.

Impairment loss on other intangible assets:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Selling, general and administrative expenses	Rs. 82	Rs. 53	Rs. 72
Research and development expenses	34	-	38
Cost of revenues	-	-	-
	Rs. 116	**Rs. 53**	**Rs. 110**

Impairment losses recorded for the year ended March 31, 2019

As a result of the Company's decision to discontinue a few products pertaining to its Global Generics segment, product related intangibles of Rs.82 were recorded as impairment loss for the year ended March 31, 2019 under "Selling, general and administrative expenses" and Rs.34 was recorded as impairment loss for the year ended March 31, 2019 under "Research and development expenses", in the consolidated income statement.

Impairment losses recorded for the year ended March 31, 2018

As a result of the Company's decision to discontinue a few products pertaining to its Global Generics segment, product related intangibles of Rs.20 and Rs.33 were recorded as impairment loss for the year ended March 31, 2018 under "Selling, general and administrative expenses" in the consolidated income statement.

Impairment losses recorded for the year ended March 31, 2017

As a result of the Company's decision to discontinue further development of certain IPR&D assets pertaining to its Proprietary Products segment and PSAI segment, Rs.27 and Rs.11, respectively, were recorded as impairment loss for the year ended March 31, 2017 under "Research and development expenses" in the consolidated income statement.

The balance impairment loss of Rs.72 pertains to a write down of certain brands and product related intangibles forming part of the Company's Global Generics segment. The same was recorded under "Selling, general and administrative expenses" in the consolidated income statement.

(in millions, except share and per share data)

9. Investment in equity accounted investees

	As at March 31,			
		2019		**2018**
Equity shares held in Kunshan Rotam Reddy Pharmaceutical Company Limited, China	Rs.	2,464	Rs.	2,029
Equity shares held in DRES Energy Private Limited, India		65		75
	Rs.	**2,529**	**Rs.**	**2,104**

Details of the Company's investment in Kunshan Rotam Reddy Pharmaceuticals Company Limited:

Kunshan Rotam Reddy Pharmaceuticals Company Limited ("Reddy Kunshan") is engaged in manufacturing and marketing of finished dosages in China. The Company's interest in Reddy Kunshan was 51.3% as of March 31, 2019 and 2018. Four directors of the Company are on the board of Reddy Kunshan, which consists of eight directors. Under the terms of the joint venture agreement, all major decisions with respect to operating activities, significant financing and other activities are taken by the approval of at least five of the eight directors of Reddy Kunshan's board. As the Company does not control Reddy Kunshan's board and the other partners have significant participation rights, the Company's interest in Reddy Kunshan has been accounted for under the equity method of accounting under IFRS 11.

Summary financial information of Reddy Kunshan, as translated into the reporting currency of the Company and not adjusted for the percentage ownership held by the Company, is as follows:

		As of/for the Year Ended March 31,				
		2019		**2018**		**2017**
Ownership		51.3%		51.3%		51.3%
Total current assets	Rs.	6,195	Rs.	4,933	Rs.	3,385
Total non-current assets		374		347		296
Total assets	**Rs.**	**6,569**	**Rs.**	**5,280**	**Rs.**	**3,681**
Equity	Rs.	4,448	Rs.	3,600	Rs.	2,603
Total current liabilities		2,121		1,680		1,078
Total equity and liabilities	**Rs.**	**6,569**	**Rs.**	**5,280**	**Rs.**	**3,681**
Revenues	Rs.	7,436	Rs.	5,482	Rs.	4,980
Expenses		6,558		4,792		4,295
Profit for the year	**Rs.**	**878**	**Rs.**	**690**	**Rs.**	**685**
Company's share of profits for the year	Rs.	449	Rs.	354	Rs.	351
Carrying value of the Company's investment[(1)]	Rs.	2,464	Rs.	2,029	Rs.	1,519
Translation adjustment arising out of translation of foreign currency balances	Rs.	241	Rs.	255	Rs.	97

[(1)]Includes Rs.181 representing the goodwill on acquisition of investment.

Details of the Company's investment in DRES Energy Private Limited:

	As of March 31,			
		2019		**2018**
Carrying value of the Company's investment	Rs.	65	Rs.	75
Company's share of loss for the year		(11)		(10)

(in millions, except share and per share data)

10. Other investments

Other investments consist of investments in units of mutual funds, equity securities, bonds, commercial paper, and term deposits with banks (i.e., certificates of deposit having an original maturity period exceeding 3 months). The details of such investments as of March 31, 2019 are as follows:

		Cost		Unrealized gain/(loss)		Fair value/ amortized cost[2]
In units of mutual funds	Rs.	15,933	Rs.	307	Rs.	16,240
In equity securities[1]		2,703		(1,911)		792
In bonds		5,272		-		5,272
In commercial paper		459		-		459
Term deposits with banks		558		-		558
Others		21		-		21
	Rs.	**24,946**	**Rs.**	**(1,604)**	**Rs.**	**23,342**
Current portion						
In units of mutual funds	Rs.	15,933	Rs.	307	Rs.	16,240
In bonds		5,272		-		5,272
In commercial paper		459		-		459
Term deposits with banks		558		-		558
	Rs.	**22,222**	**Rs.**	**307**	**Rs.**	**22,529**
Non-current portion						
In equity securities[1]	Rs.	2,703	Rs.	(1,911)	Rs.	792
In bonds		-		-		-
Others		21		-		21
	Rs.	**2,724**	**Rs.**	**(1,911)**	**Rs.**	**813**

(1) Primarily represents the shares of Curis, Inc. Refer to Note 31of these consolidated financial statements for further details.
(2) Interest accrued but not due on bonds, commercial paper and term deposits with banks is included in other current assets.

As of March 31, 2018, the details of such investments were as follows:

		Cost		Gain recognized directly in equity		Fair value/ amortized cost[2]
In units of mutual funds	Rs.	14,703	Rs.	75	Rs.	14,778
In equity securities [1]		2,703		(1,508)		1,195
In bonds		4,633		-		4,633
In commercial paper		232		-		232
Term deposits with banks		41		-		41
	Rs.	**22,312**	**Rs.**	**(1,433)**	**Rs.**	**20,879**
Current portion						
In units of mutual funds	Rs.	14,703	Rs.	75	Rs.	14,778
In bonds		3,279		-		3,279
In commercial paper		232		-		232
Term deposits with banks		41		-		41
	Rs.	**18,255**	**Rs.**	**75**	**Rs.**	**18,330**
Non-current portion						
In equity securities[1]		2,703		(1,508)		1,195
In bonds		1,354		-		1,354
	Rs.	**4,057**	**Rs.**	**(1,508)**	**Rs.**	**2,549**

(1) Primarily represents the shares of Curis, Inc. Refer to Note 31 of these consolidated financial statements for further details.
(2) Interest accrued but not due on term deposits with banks is included in other current assets.

(in millions, except share and per share data)

11. Inventories

Inventories consist of the following:

	As of March 31,	
	2019	**2018**
Raw materials	Rs. 8,920	Rs. 7,294
Work-in-progress	7,201	7,175
Finished goods (includes stock-in-trade)	14,969	12,226
Packing materials, stores and spares	2,489	2,394
	Rs. 33,579	**Rs. 29,089**

Details of inventories recognized in the consolidated income statement are as follows:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Raw materials, consumables and changes in finished goods and work in progress	Rs. 40,932	Rs. 32,410	Rs. 27,165
Inventory write-downs	4,016	2,946	3,085

12. Trade and other receivables

	As of March 31,	
	2019	**2018**
Current		
Trade and other receivables, gross	Rs. 41,041	Rs. 41,569
Less: Allowance for credit losses	(1,172)	(952)
Trade and other receivables, net	**Rs. 39,869**	**Rs. 40,617**
Non-current		
Trade and other receivables, gross[(1)]	Rs. 113	Rs. 169
Less: Allowance for credit losses	-	-
Trade and other receivables, net	**Rs. 113**	**Rs. 169**

(1) Represents amounts receivable pursuant to an out-licensing arrangement with a customer. As these amounts are not expected to be realized within twelve months from the end of the reporting date, they are disclosed as non-current.

During the year ended March 31, 2019, the Company entered into an arrangement with a bank for sale of trade receivables. Under the arrangement, the Company sold to the Bank certain of its trade receivables forming part of its Global Generics segment, on a non-recourse basis. The receivables sold were mutually agreed with the Bank after considering the credit worthiness of the customers and also other contractual terms with the customer including any gross to net adjustments due to rebates, discounts etc. from the contracted amounts, such that the receivables sold are generally lower than the net amount receivables from trade receivables. The Company has transferred substantially all the risks and rewards of ownership of such receivables sold to the Bank and accordingly, the same are derecognized in the Balance Sheet.

As on March 31, 2019, the amount of trade receivables de-recognized pursuant to the aforesaid arrangement was Rs.7,592 (U.S.$110).

In accordance with IFRS 9, the Company has implemented the expected credit loss ("ECL") model for measurement and recognition of impairment loss on its trade receivables or any contractual right to receive cash or another financial asset that result from transactions that are within the scope of IFRS 15. For this purpose, the Company uses a provision matrix to compute the expected credit loss amount for trade receivables. The provision matrix takes into account external and internal credit risk factors and historical data of credit losses from various customers. Before adoption of IFRS 9, the Company used to maintain an allowance for impairment of doubtful accounts based on the financial condition of the customer, aging of the customer accounts receivable and historical experience of collections from customers.

The details of changes in allowance for credit losses during the years ended March 31, 2019 and 2018, are as follows:

	For the Year Ended March 31,	
	2019	**2018**
Balance at the beginning of the year	Rs. 952	Rs. 861
Adjustment on account of transition to IFRS 9	89	-
Adjusted balance at the beginning of the year	**Rs. 1,041**	**Rs. 861**
Provision made during the year, net of reversals	371	146
Trade and other receivables written off & exchange differences	(240)	(55)
Balance at the end of the year	**Rs. 1,172**	**Rs. 952**

(in millions, except share and per share data)

13. Other assets

Other assets consist of the following:

	As of March 31,			
		2019		2018
Current				
Balances and receivables from statutory authorities[1]	Rs.	4,398	Rs.	6,741
Export benefits receivable[2]		2,363		2,842
Prepaid expenses		951		761
Others[3]		4,824		3,957
	Rs.	**12,536**	**Rs.**	**14,301**
Non-current				
Security deposits	Rs.	562	Rs.	664
Others		384		366
	Rs.	**946**	**Rs.**	**1,030**

(1) Balances and receivables from statutory authorities primarily consist of amounts receivable from the goods and service tax ("GST"), excise duty, value added tax and customs authorities of India and the unutilized GST input tax credits, excise duty, service tax and value added tax input credits (subsumed under GST input tax credits effective as of July 1, 2017) on purchases. These are regularly utilized to offset the GST liability (or, prior to July 1, 2017, liability for excise duty, value added tax, etc.) on goods produced by and services provided by the Company. Accordingly, these balances have been classified as current assets.

(2) Export benefits receivables primarily consist of amounts receivable from various government authorities of India towards incentives on export sales made by the Company.

(3) Others primarily includes advances given to vendors and employees, security deposits, interest accrued but not due on investments, and claims receivable.

14. Cash and cash equivalents

Cash and cash equivalents consist of the following:

	As of March 31,			
		2019		2018
Cash on hand	Rs.	2	Rs.	2
Balances with banks		2,102		1,454
Term deposits with banks (original maturities less than 3 months)		124		1,182
Cash and cash equivalents in the statement of financial position	**Rs.**	**2,228**	**Rs.**	**2,638**
Bank overdrafts used for cash management purposes		-		96
Cash and cash equivalents in the statement of cash flow	**Rs.**	**2,228**	**Rs.**	**2,542**
Restricted cash balances included above				
Balance in unclaimed dividend and debenture interest account	Rs.	112	Rs.	72
Other restricted cash balances		12		14

15. Share Capital

	For the Year Ended March 31, 2019			For the Year Ended March 31, 2018		
	Number		Amount	Number		Amount
Authorized share capital	240,000,000	Rs.	1,200	240,000,000	Rs.	1,200
Fully paid up share capital						
Opening number of equity shares/share capital	165,910,907	Rs.	830	165,741,713	Rs.	829
Add: Equity shares issued pursuant to employee stock option plan[1]	155,041		-*	169,194		1
Closing number of equity shares/share capital	**166,065,948**	**Rs.**	**830**	**165,910,907**	**Rs.**	**830**
Treasury shares[2]	217,976	Rs.	535	-		-

**Rounded to the nearest million.*

(1) During the years ended March 31, 2019 and 2018, equity shares were issued as a result of the exercise of vested options granted to employees pursuant to the Dr. Reddy's Employees Stock Option Scheme-2002 and the Dr. Reddy's Employees Stock Option Scheme-2007. All of the options exercised had an exercise price of Rs.5, being equal to the par value of the underlying shares. Upon the exercise of such options, the amount of compensation cost (computed using the grant date fair value) previously recognized in the "share based payment reserve"was transferred to"share premium" in the consolidated statements of changes in equity.

(2) Pursuant to the special resolution approved by the shareholders in the Annual General Meeting held on July 27, 2018, the Dr. Reddy's Employees ESOS Trust (the"ESOS Trust") was formed to support the Dr. Reddy's Employees Stock Option Scheme, 2018 by acquiring, including through secondary market acquisitions, equity shares which are used for issuance to eligible employees upon exercise of stock options thereunder. As at March 31, 2019, the ESOS Trust purchased 217,976 shares from secondary market for an aggregate consideration of Rs.535. Refer to Note 19 of these financial statements for further details on the Dr. Reddy's Employees Stock Option Scheme, 2018.

(in millions, except share and per share data)

15. Share Capital (continued)

The Company has only one class of equity shares having a par value of Rs.5 per share. For all matters submitted to vote in a shareholders meeting of the Company, every holder of an equity share, as reflected in the records of the Company as on the record date set for the shareholders meeting, shall have one vote in respect of each share held.

Should the Company declare and pay any dividends, such dividends will be paid in Indian rupees to each holder of equity shares in proportion to the number of shares held to the total equity shares outstanding as on that date. Indian law on foreign exchange governs the remittance of dividends outside India.

In the event of liquidation of the Company, all preferential amounts, if any, shall be discharged by the Company. The remaining assets of the Company shall be distributed to the holders of equity shares in proportion to the number of shares held to the total equity shares outstanding as on that date.

Final dividends on equity shares (including dividend tax on distribution of such dividends) are recorded as a liability on the date of their approval by the shareholders and interim dividends are recorded as a liability on the date of declaration by the Company's Board of Directors. The details of dividends paid by the Company are as follows:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Dividend per share (in absolute Rs.)	Rs. 20	Rs. 20	Rs. 20
Dividend distribution tax on the dividend paid	682	675	78
Dividend paid during the year	3,320	3,317	3,312

Buyback of equity shares

The Board of Directors of the Company, in their meeting held on February 17, 2016, approved a proposal to buy back equity shares of the Company, subject to approval by the Company's shareholders, for an aggregate amount not exceeding Rs.15,694 and at a price not exceeding Rs.3,500 per equity share. The plan involved the purchase of such shares from shareholders of the Company (including persons who become shareholders by cancelling American Depository Shares and receiving underlying equity shares, and excluding the promoters and promoter group of the Company) under the open market route in accordance with the provisions contained in the Securities and Exchange Board of India (Buy Back of Securities) Regulations, 1998 and the Companies Act, 2013 and rules made thereunder. The shares bought back under this plan were required to be extinguished in accordance with the provisions of the Securities and Exchange Board of India (Buy Back of Securities) Regulations, 1998 and the Companies Act, 2013 and rules made thereunder.

The Company's shareholders approved the buyback plan on April 1, 2016, and implementation of the buyback plan commenced on April 18, 2016 and ended on June 28, 2016.

Under this plan, the Company bought back and extinguished 5,077,504 equity shares for an aggregate purchase price of Rs.15,694. The aggregate face value of the equity shares bought back was Rs.25.

Proposed dividend

At the Company's Board of Directors' meeting held on May 17, 2019, the Board proposed a dividend of Rs.20 per share and aggregating to Rs. 3,321, which is subject to the approval of the Company's shareholders. Upon such approval, there will be an additional cash outflow of Rs. 683 for payment of dividend distribution tax thereon.

(in millions, except share and per share data)

16. Earnings per share

The calculation of basic and diluted earnings per share for the years ended March 31, 2019, 2018 and 2017 was based on the profit attributable to equity shareholders of the Company, Rs.18,795, Rs.9,806 and Rs.12,039, respectively.

The weighted average number of equity shares outstanding, used for calculating the basic earnings per share, are as follows:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Number of equity shares at the beginning of the year	165,910,907	165,741,713	170,607,653
Effect of treasury shares held	(100,672)	-	-
Effect of equity shares issued on exercise of stock options	103,801	103,695	126,277
Effect of buyback of equity shares	-	-	(4,084,987)
Weighted average number of equity shares – Basic	165,914,036	165,845,408	166,648,943
Earnings per share of par value Rs.5 – Basic	Rs. 113.28	Rs. 59.13	Rs. 72.24

The weighted average number of equity shares outstanding, used for calculating the diluted earnings per share, are as follows:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Weighted average number of equity shares - Basic	165,914,036	165,845,408	166,648,943
Dilutive effect of stock options outstanding[(1)]	278,718	340,144	348,733
Weighted average number of equity shares - Diluted	166,192,754	166,185,552	166,997,675
Earnings per share of par value Rs.5 – Diluted	Rs. 113.09	Rs. 59.00	Rs. 72.09

[(1)]As at March 31, 2019, 272,700 options were excluded from the diluted weighted average number of equity shares calculation because their effect would have been anti-dilutive. The average market value of the Company's shares for the purpose of calculating the dilutive effect of stock options was based on quoted market prices for the year during which the options were outstanding.

17. Loans and borrowings

Short-term borrowings

Short-term borrowings primarily consist of "pre-shipment credit" drawn by the parent company which are repayable within 6 to 12 months from the date of drawdown and other unsecured loans drawn by certain of its subsidiaries in Switzerland, the United States, Russia, Mexico, Ukraine and South Africa which are repayable in the next financial year.

Short term borrowings consist of the following:

	As at March 31,	
	2019	**2018**
Pre-shipment credit	Rs. 5,463	Rs. 21,008
Other foreign currency borrowings	6,662	4,458
	Rs. 12,125	**Rs. 25,466**

The interest rate profile of short-term borrowings from banks is given below:

	As at March 31,			
	2019		2018	
	Currency[(1)]	**Interest Rate[(2)]**	**Currency[(1)]**	**Interest Rate[(2)]**
Pre-shipment credit	USD	1 Month LIBOR + 25 to 40 bps	USD	1 Month LIBOR + (30) to 30 bps
	-	-	INR	6.00%
	-	-	RUB	6.75%
Other foreign currency borrowings	USD	1 Month LIBOR + 65 to 95 bps	USD	1 Month/3 Months LIBOR + 65 to 85 bps
	UAH	21.50%	UAH	18.00%
	MXN	TIIE+1.25%	-	-
	ZAR	1 Month JIBAR+120 Bps	-	-
	RUB	8.22%	RUB	8.20%

[(1)] "INR" means Indian rupees, "USD" means United States Dollars, "RUB" means Russian roubles, "MXN" means Mexican pesos, "UAH" means Ukrainian hryvnia and "ZAR" means South African rand.

[(2)] "LIBOR" means the London Inter-bank Offered Rate, "TIIE" means the Equilibrium Inter-banking Interest Rate (Tasa de Interés Interbancaria de Equilibrio) and "JIBAR" means the Johannesburg Interbank Average Rate.

(in millions, except share and per share data)

17. Loans and borrowings (continued)

Long-term borrowings

Long-term borrowings consist of the following:

	As at March 31, 2019		As at March 31, 2018	
	Non – Current	Current	Non – Current	Current
Foreign currency borrowing by the parent company	Rs. 3,454	Rs. 1,729	Rs. 4,880	Rs. -
Foreign currency borrowing by the Swiss subsidiary(1)	15,819	1,383	16,185	-
Foreign currency borrowing by the German subsidiary(2)	2,175	1,087	3,394	-
Obligations under finance leases	552	57	630	63
	Rs. 22,000	**Rs. 4,256**	**Rs. 25,089**	**Rs. 63**

(1)Swiss subsidiary refers to Dr. Reddy's Laboratories, SA

(2German subsidiary refers to Reddy Holding GmbH

All of the foregoing loan agreements impose various financial covenants on the Company. As of March 31, 2019, the Company was in compliance with all such financial covenants.

Uncommitted lines of credit from banks

The Company had uncommitted lines of credit of Rs. 47,134 and Rs. 24,046 as of March 31, 2019 and 2018, respectively, from its banks for working capital requirements. The Company has the right to draw upon these lines of credit based on its working capital requirements.

The interest rate profiles of long-term borrowings (other than obligations under finance leases) as at March 31, 2019 and 2018 were as follows:

	As at March 31,			
	2019		2018	
	Currency	Interest Rate	Currency	Interest Rate
Foreign currency borrowings	USD	1 Month LIBOR + 70 to 105 bps	USD	1 Month LIBOR + 45 to 82.7 bps
	EUR	0.81%	EUR	0.81%

The aggregate maturities of long-term loans and borrowings, based on contractual maturities, as of March 31, 2019 were as follows:

Maturing in the year ending March 31,(1)	Foreign currency loan	Obligations under finance leases	Total
2020	Rs. 4,199	Rs. 57	Rs. 4,256
2021	6,621	65	6,686
2022	1,087	66	1,153
2023	13,831	70	13,901
2024	-	63	63
Thereafter	-	288	288
	Rs. 25,738	**Rs. 609**	**Rs. 26,347**

(1)Long-term debt obligations disclosed in the above table do not reflect any netting of transaction costs amounting to Rs.91.

The aggregate maturities of long term loans and borrowings, based on contractual maturities, as of March 31, 2018 were as follows:

Maturing in the year ending March 31,(1)	Foreign currency loan	Obligations under finance leases	Total
2019	Rs. -	Rs. 63	Rs. 63
2020	4,064	59	4,123
2021	6,346	61	6,407
2022	1,131	66	1,197
2023	13,035	71	13,106
Thereafter	-	373	373
	Rs. 24,576	**Rs. 693**	**Rs. 25,269**

(1)Long-term debt obligations disclosed in the above table do not reflect any netting of transaction costs amounting to Rs.117.

(in millions, except share and per share data)

17. Loans and borrowings (continued)

Obligations under finance leases

The Company has leased buildings and vehicles under finance leases. Future minimum lease payments under finance leases as at March 31, 2019 were as follows:

Particulars	Present value of minimum lease payments	Interest	Future minimum lease payments
Not later than one year	Rs. 60	Rs. 49	Rs. 109
Between one and five years	264	127	391
More than five years	285	38	323
	Rs. 609	**Rs. 214**	**Rs. 823**

Future minimum lease payments under finance leases as at March 31, 2018 were as follows:

Particulars	Present value of minimum lease payments	Interest	Future minimum lease payments
Not later than one year	Rs. 63	Rs. 57	Rs. 120
Between one and five years	257	159	416
More than five years	373	66	439
	Rs. 693	**Rs. 282**	**Rs. 975**

Reconciliation of liabilities arising from financing activities during the year ended March 31, 2019:

Particulars	Long-term borrowings [1]	Short-term borrowings	Total
Opening balance	Rs. 25,152	Rs. 25,466	Rs. 50,618
Borrowings made during the year	-	42,907	42,907
Borrowings repaid during the year	(56)	(58,033)	(58,089)
Currency translation adjustments	1,128	1,785	2,913
Others	32	-	32
Closing balance	**Rs. 26,256**	**Rs. 12,125**	**Rs. 38,381**

Reconciliation of liabilities arising from financing activities during the year ended March 31, 2018:

Particulars	Long-term borrowings [1]	Short-term borrowings	Total
Opening balance	Rs. 5,559	Rs. 43,539	Rs. 49,098
Borrowings made during the year	19,065	47,564	66,629
Borrowings repaid during the year	(158)	(65,589)	(65,747)
Currency translation adjustments	747	(48)	699
Others	(61)	-	(61)
Closing balance	**Rs. 25,152**	**Rs. 25,466**	**Rs. 50,618**

(1) Including current portion.

18. Employee benefits

Total employee benefit expenses, including share-based payments, incurred during the years ended March 31, 2019, 2018 and 2017 amounted to Rs.33,562, Rs.32,149 and Rs.31,069, respectively.

Gratuity benefits provided by the parent company

In accordance with applicable Indian laws, the Company has a defined benefit plan which provides for gratuity payments (the "Gratuity Plan") and covers certain categories of employees in India. The Gratuity Plan provides a lump sum gratuity payment to eligible employees at retirement or termination of their employment. The amount of the payment is based on the respective employee's last drawn salary and the years of employment with the Company. Effective September 1, 1999, the Company established the Dr. Reddy's Laboratories Gratuity Fund (the "Gratuity Fund") to fund the Gratuity Plan. Liabilities in respect of the Gratuity Plan are determined by an actuarial valuation, based upon which the Company makes contributions to the Gratuity Fund. Trustees administer the contributions made to the Gratuity Fund. Amounts contributed to the Gratuity Fund are invested in bonds issued by the Government of India and in debt securities and equity securities of Indian companies.

(in millions, except share and per share data)

18. Employee benefits (continued)

The components of gratuity cost recognized in the income statement for the years ended March 31, 2019, 2018 and 2017 consist of the following:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Current service cost	Rs. 265	Rs. 252	Rs. 221
Interest on net defined benefit liability	(2)	6	14
Gratuity cost recognized in income statement	**Rs. 263**	**Rs. 258**	**Rs. 235**

Details of the employee benefits obligations and plan assets are provided below:

	As of March 31,	
	2019	**2018**
Present value of funded obligations	Rs. 2,200	Rs. 2,007
Fair value of plan assets	(2,174)	(1,958)
Net defined benefit liability recognized	**Rs. 26**	**Rs. 49**

Details of changes in the present value of defined benefit obligations are as follows:

	As of March 31,	
	2019	**2018**
Defined benefit obligations at the beginning of the year	Rs. 2,007	Rs. 1,840
Current service cost	265	252
Interest on defined obligations	145	125
Re-measurements due to:		
Actuarial loss/(gain) due to change in financial assumptions	28	(121)
Actuarial loss/(gain) due to demographic assumptions	-*	11
Actuarial loss/(gain) due to experience changes	-*	62
Benefits paid	(245)	(162)
Defined benefit obligations at the end of the year	**Rs. 2,200**	**Rs. 2,007**

**Rounded to the nearest million.*

Details of changes in the fair value of plan assets are as follows:

	As of March 31,	
	2019	**2018**
Fair value of plan assets at the beginning of the year	Rs. 1,958	Rs. 1,687
Employer contributions	294	313
Interest on plan assets	147	121
Re-measurements due to:		
Return on plan assets excluding interest on plan assets	20	(1)
Benefits paid	(245)	(162)
Plan assets at the end of the year	**Rs. 2,174**	**Rs. 1,958**

Sensitivity Analysis:

	As of March 31, 2019
Defined benefit obligation without effect of projected salary growth	Rs. 1,276
Add: Effect of salary growth	924
Defined benefit obligation with projected salary growth	2,200
Defined benefit obligation, using discount rate minus 50 basis points	2,282
Defined benefit obligation, using discount rate plus 50 basis points	2,123
Defined benefit obligation, using salary growth rate plus 50 basis points	2,280
Defined benefit obligation, using salary growth rate minus 50 basis points	2,123

Summary of the actuarial assumptions: The actuarial assumptions used in accounting for the Gratuity Plan are as follows:

The assumptions used to determine benefit obligations:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Discount rate	7.45%	7.75%	7.20%
Rate of compensation increase	8% per annum for the first year and 9% per annum thereafter	7% per annum for the first year and 9% per annum thereafter	7% per annum for the first year and 9% per annum thereafter

(in millions, except share and per share data)

18. Employee benefits (continued)

The assumptions used to determine gratuity cost:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Discount rate	7.75%	7.20%	7.80%
Rate of compensation increase	7% per annum for the first year and 9% per annum thereafter	7% per annum for the first year and 9% per annum thereafter	10% per annum for the first 2 years and 9% per annum thereafter

Contributions: The Company expects to contribute Rs.26 to the Gratuity Plan during the year ending March 31, 2020.

Disaggregation of plan assets: The Gratuity Plan's weighted-average asset allocation as of March 31, 2019 and 2018, by asset category, was as follows:

	As of March 31,	
	2019	**2018**
Funds managed by insurers	99%	99%
Others	1%	1%

The expected future cash flows in respect of gratuity as at March 31, 2019 were as follows:

Expected contribution	**Amount**
During the year ended March 31, 2020 (estimated)	Rs. 26
Expected future benefit payments	
March 31, 2020	306
March 31, 2021	218
March 31, 2022	220
March 31, 2023	225
March 31, 2024	220
Thereafter	3,111

Pension plan of the Company's subsidiary, Industrias Quimicas Falcon de Mexico

All employees of the Company's Mexican subsidiary, Industrias Quimicas Falcon de Mexico ("Falcon"), are entitled to a pension benefit in the form of a defined benefit pension plan. The Falcon pension plan provides for payment to vested employees at retirement or termination of employment. Liabilities in respect of the pension plan are determined by an actuarial valuation, based on which the Company makes contributions to the pension plan fund. This fund is administered by a third party, who is provided guidance by a technical committee formed by senior employees of Falcon.

The components of net pension cost recognized in the income statement for the years ended March 31, 2019, 2018 and 2017 consist of the following:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Current service cost	Rs. 13	Rs. 12	Rs. 13
Interest on net defined benefit liability	15	13	12
Total cost recognized in income statement	**Rs. 28**	**Rs. 25**	**Rs. 25**

Details of the employee benefits obligation and plan assets are provided below:

	As of March 31,	
	2019	**2018**
Present value of funded obligations	Rs. 223	Rs. 243
Fair value of plan assets	(70)	(66)
Net defined benefit liability recognized	**Rs. 153**	**Rs. 177**

(in millions, except share and per share data)

18. Employee benefits (continued)

Details of changes in the present value of defined benefit obligations are as follows:

	As of March 31,	
	2019	**2018**
Defined benefit obligations at the beginning of the year	Rs. 243	Rs. 218
Current service cost	13	12
Interest on defined obligations	22	19
Re-measurements due to:		
Actuarial loss/(gain) due to change in financial assumptions	(47)	(6)
Actuarial loss/(gain) due to experience changes	7	0
Benefits paid	(16)	(8)
Foreign exchange differences	1	8
Defined benefit obligations at the end of the year	**Rs. 223**	**Rs. 243**

Details of changes in the fair value of plan assets are as follows:

	As of March 31,	
	2019	**2018**
Fair value of plan assets at the beginning of the year	Rs. 66	Rs. 60
Employer contributions	16	8
Interest on plan assets	7	7
Re-measurements due to:		
Return on plan assets excluding interest on plan assets	(3)	(3)
Benefits paid	(16)	(8)
Foreign exchange differences	-*	2
Plan assets at the end of the year	**Rs. 70**	**Rs. 66**

**Rounded to the nearest million.*

Sensitivity Analysis:

	As of March 31, 2019
Defined benefit obligation without effect of projected salary growth	Rs. 154
Plus effect of salary growth	69
Defined benefit obligation with projected salary growth	223
Defined benefit obligation, using discount rate minus 50 basis points	232
Defined benefit obligation, using discount rate plus 50 basis points	214
Defined benefit obligation, using salary growth rate plus 50 basis points	232
Defined benefit obligation, using salary growth rate minus 50 basis points	213

Summary of the actuarial assumptions: The actuarial assumptions used in accounting for the Falcon defined benefit plans are as follows:

Assumptions used to determine defined benefit obligations:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Discount rate	11.25%	9.00%	8.75%
Rate of compensation increase	4.50%	4.50%	4.50%

Assumptions used to determine defined benefit cost:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Discount rate	9.00%	8.75%	7.75%
Rate of compensation increase	4.50%	4.50%	4.50%

Contributions: The Company expects to contribute Rs.36 to the Falcon defined benefit plans during the year ending March 31, 2020.

Disaggregation of plan assets: The Falcon pension plan's weighted-average asset allocation at March 31, 2019 and 2018, by asset category is as follows:

	As of March 31,	
	2019	**2018**
Corporate bonds	51%	51%
Others	49%	49%

(in millions, except share and per share data)

18. Employee benefits (continued)

The expected future cash flows in respect of post-employment benefit plans in Mexico as at March 31, 2019 were as follows:

Expected contribution	**Amount**
During the year ended March 31, 2020 (estimated)	Rs. 36

Expected future benefit payments	
March 31, 2020	5
March 31, 2021	7
March 31, 2022	10
March 31, 2023	12
March 31, 2024	19
Thereafter	627

Provident fund benefits

Certain categories of employees of the Company receive benefits from a provident fund, a defined contribution plan. Both the employee and employer each make monthly contributions to a government administered fund equal to 12% of the covered employee's qualifying salary. The Company has no further obligations under the plan beyond its monthly contributions. The Company contributed Rs.740, Rs.735 and Rs.682 to the provident fund plan during the years ended March 31, 2019, 2018 and 2017, respectively.

Superannuation benefits

Certain categories of employees of the Company participate in superannuation, a defined contribution plan administered by the Life Insurance Corporation of India. The Company makes monthly contributions based on a specified percentage of each covered employee's salary. The Company has no further obligations under the plan beyond its monthly contributions. The Company contributed Rs.84, Rs.88 and Rs.79 to the superannuation plan during the years ended March 31, 2019, 2018 and 2017, respectively.

Other contribution plans

In the United States, the Company sponsors a defined contribution 401(k) retirement savings plan for all eligible employees who meet minimum age and service requirements. The Company contributed Rs.213, Rs.212 and Rs.231 to the 401(k) retirement savings plan during the years ended March 31, 2019, 2018 and 2017, respectively. The Company has no further obligations under the plan beyond its monthly matching contributions.

In the United Kingdom, certain social security benefits (such as pension, unemployment and disability) are funded by employers and employees through mandatory National Insurance contributions. The contribution amounts are determined based upon the employee's salary. The Company has no further obligations under the plan beyond its monthly contributions. The Company contributed Rs.148, Rs.135 and Rs.134 to the National Insurance during the years ended March 31, 2019, 2018 and 2017, respectively.

Compensated absences

The Company provides for accumulation of compensated absences by certain categories of its employees. These employees can carry forward a portion of the unutilized compensated absences and utilize them in future periods or receive cash in lieu thereof as per the Company's policy. The Company records a liability for compensated absences in the period in which the employee renders the services that increases this entitlement. The total liability recorded by the Company towards this obligation was Rs.1,089 and Rs.1,093 as at March 31, 2019 and 2018, respectively.

19. Employee stock incentive plans

Dr. Reddy's Employees Stock Option Plan -2002 (the "DRL 2002 Plan"):

The Company instituted the DRL 2002 Plan for all eligible employees pursuant to the special resolution approved by the shareholders in the Annual General Meeting held on September 24, 2001. The DRL 2002 Plan covers all employees and directors (excluding promoter directors) of the parent company and its subsidiaries (collectively, "eligible employees"). The Nomination, Governance and Compensation Committee of the Board of the parent company (the "Committee") administers the DRL 2002 Plan and grants stock options to eligible employees. The Committee determines which eligible employees will receive options, the number of options to be granted, the exercise price, the vesting period and the exercise period. The vesting period is determined for all options issued on the date of grant. The options issued under the DRL 2002 Plan vest in periods ranging between one and four years and generally have a maximum contractual term of five years.

The DRL 2002 Plan, as amended at annual general meetings of shareholders held on July 28, 2004 and on July 27, 2005, provides for stock option grants in two categories:

Category A: 300,000 stock options out of the total of 2,295,478 options reserved for grant having an exercise price equal to the fair market value of the underlying equity shares on the date of grant; and

Category B: 1,995,478 stock options out of the total of 2,295,478 options reserved for grant having an exercise price equal to the par value of the underlying equity shares (i.e., Rs.5 per option).

(in millions, except share and per share data)

19. Employee stock incentive plans (continued)

Dr. Reddy's Employees Stock Option Plan, 2002 (the "DRL 2002 Plan") (continued)

Under the DRL 2002 Plan, the exercise price of the fair market value options granted under Category A above is determined based on the average closing price for 30 days prior to the grant in the stock exchange where there is highest trading volume during that period. Notwithstanding the foregoing, the Committee may, after obtaining the approval of the shareholders in the annual general meeting, grant options with a per share exercise price other than fair market value and par value of the equity shares.

After the stock split effected in the form of a stock dividend issued by the Company in August 2006, the DRL 2002 Plan provides for stock option grants in the above two categories as follows:

Particulars	Number of options reserved under category A	Number of options reserved under category B	Total
Options reserved under original Plan	300,000	1,995,478	2,295,478
Options exercised prior to stock dividend date (A)	94,061	147,793	241,854
Balance of shares that can be allotted on exercise of options (B)	205,939	1,847,685	2,053,624
Options arising from stock dividend (C)	205,939	1,847,685	2,053,624
Options reserved after stock dividend (A+B+C)	**505,939**	**3,843,163**	**4,349,102**

The term of the DRL 2002 plan was extended for a period of 10 years effective as of January 29, 2012 by the shareholders at the Company's Annual General Meeting held on July 20, 2012.

Stock option activity under the DRL 2002 Plan for the two categories of options during the years ended March 31, 2019 and 2018 is as follows:

Category A — Fair Market Value Options: There was no activity under this category during the years ended March 31, 2019 and 2018, and there were no stock options outstanding under this category as of March 31, 2019 and March 31, 2018.

Category B — Par Value Options: Stock options activity under this category during the years ended March 31, 2019 and 2018 was as set forth in the below table.

	For the Year Ended March 31, 2019			
Category B — Par Value Options	**Shares arising out of options**	**Range of exercise prices**	**Weighted average exercise price**	**Weighted average remaining useful life (months)**
Outstanding at the beginning of the year	320,544	Rs. 5.00	Rs. 5.00	70
Granted during the year	122,372	5.00	5.00	90
Expired/forfeited during the year	(50,651)	5.00	5.00	-
Exercised during the year	(122,124)	5.00	5.00	-
Outstanding at the end of the year	**270,141**	**Rs. 5.00**	**Rs. 5.00**	**73**
Exercisable at the end of the year	**32,836**	**Rs. 5.00**	**Rs. 5.00**	**42**

	For the Year Ended March 31, 2018			
Category B — Par Value Options	**Shares arising out of options**	**Range of exercise prices**	**Weighted average exercise price**	**Weighted average remaining useful life (months)**
Outstanding at the beginning of the year	330,142	Rs. 5.00	Rs. 5.00	69
Granted during the year	158,112	5.00	5.00	90
Expired/forfeited during the year	(23,318)	5.00	5.00	-
Exercised during the year	(144,392)	5.00	5.00	-
Outstanding at the end of the year	**320,544**	**Rs. 5.00**	**Rs. 5.00**	**70**
Exercisable at the end of the year	**47,383**	**Rs. 5.00**	**Rs. 5.00**	**49**

The weighted average grant date fair value of par value options granted under category B above of the DRL 2002 Plan during the years ended March 31, 2019 and 2018 was Rs.2,195 and Rs.2,546 per option, respectively. The weighted average share price on the date of exercise of options during the years ended March 31, 2019 and 2018 was Rs. 2,302 and Rs. 2,375 per share, respectively.

The aggregate intrinsic value of options exercised under the DRL 2002 Plan during the years ended March 31, 2019 and 2018 was Rs. 281 and Rs.342, respectively. As of March 31, 2019, options outstanding under the DRL 2002 Plan had an aggregate intrinsic value of Rs.750 and options exercisable under the DRL 2002 Plan had an aggregate intrinsic value of Rs.91.

(in millions, except share and per share data)

19. Employee stock incentive plans (continued)

Dr. Reddy's Employees ADR Stock Option Plan, 2007 (the "DRL 2007 Plan")

The Company instituted the DRL 2007 Plan for all eligible employees in pursuance of the special resolution approved by the shareholders in the Annual General Meeting held on July 27, 2005. The DRL 2007 Plan became effective upon its approval by the Board of Directors on January 22, 2007. The DRL 2007 Plan covers all employees and directors (excluding promoter directors) of DRL and its subsidiaries (collectively, "eligible employees"). The Committee administers the DRL 2007 Plan and grants stock options to eligible employees. The Committee determines which eligible employees will receive the options, the number of options to be granted, the exercise price, the vesting period and the exercise period. The vesting period is determined for all options issued on the date of grant. The options issued under the DRL 2007 Plan vest in periods ranging between one and four years and generally have a maximum contractual term of five years.

The DRL 2007 Plan provides for option grants in two categories:

Category A: 382,695 stock options out of the total of 1,530,779 stock options reserved for grant having an exercise price equal to the fair market value of the underlying equity shares on the date of grant; and

Category B: 1,148,084 stock options out of the total of 1,530,779 stock options reserved for grant having an exercise price equal to the par value of the underlying equity shares (i.e., Rs.5 per option).

Stock options activity under the DRL 2007 Plan for the above two categories of options during the years ended March 31, 2019 and 2018 was as follows:

	For the Year Ended March 31, 2019			
Category A — Fair Market Value Options	**Shares arising out of options**	**Range of exercise prices**	**Weighted average exercise price**	**Weighted average remaining useful life (months)**
Outstanding at the beginning of the year	-	-	-	-
Granted during the year	149,160	1,982.00/ 2,607.00	2,176.00	90
Expired/forfeited during the year	(3,100)	2,607.00	2,607.00	-
Exercised during the year	-	-	-	-
Outstanding at the end of the year	**146,060**	**1,982.00/ 2,607.00**	**2,166.00**	**81**
Exercisable at the end of the year	**-**	**-**	**-**	**-**

The weighted average grant date fair value of options granted during the year ended March 31, 2019 was Rs. 515 per option.

As of March 31, 2019, options outstanding had an aggregate intrinsic value of Rs. 90.

	For the Year Ended March 31, 2019			
Category B — Par Value Options	**Shares arising out of options**	**Range of exercise prices**	**Weighted average exercise price**	**Weighted average remaining useful life (months)**
Outstanding at the beginning of the year	107,308	Rs. 5.00	Rs. 5.00	73
Granted during the year	70,730	5.00	5.00	90
Expired/forfeited during the year	(29,966)	5.00	5.00	-
Exercised during the year	(32,917)	5.00	5.00	-
Outstanding at the end of the year	**115,155**	**Rs. 5.00**	**Rs. 5.00**	**73**
Exercisable at the end of the year	**9,229**	**Rs. 5.00**	**Rs. 5.00**	**43**

	For the Year Ended March 31, 2018			
Category B — Par Value Options	**Shares arising out of options**	**Range of exercise prices**	**Weighted average exercise price**	**Weighted average remaining useful life (months)**
Outstanding at the beginning of the year	88,141	Rs. 5.00	Rs. 5.00	74
Granted during the year	63,304	5.00	5.00	90
Expired/forfeited during the year	(19,335)	5.00	5.00	-
Exercised during the year	(24,802)	5.00	5.00	-
Outstanding at the end of the year	**107,308**	**Rs. 5.00**	**Rs. 5.00**	**73**
Exercisable at the end of the year	**11,034**	**Rs. 5.00**	**Rs. 5.00**	**47**

(in millions, except share and per share data)

19. Employee stock incentive plans (continued)

The weighted average grant date fair value of options granted under category B of the DRL 2007 Plan during the years ended March 31, 2019 and 2018 was Rs.2,056 and Rs.2,540, respectively. The weighted average share price on the date of exercise of options during the years ended March 31, 2019 and 2018 was Rs.2,445 and Rs.2,295, respectively.

The aggregate intrinsic value of options exercised under the DRL 2007 Plan during the years ended March 31, 2019 and 2018 was Rs.80 and Rs.57, respectively. As of March 31, 2019, options outstanding under the DRL 2007 Plan had an aggregate intrinsic value of Rs.320 and options exercisable under the DRL 2007 Plan had an aggregate intrinsic value of Rs.26.

Dr. Reddy's Employees Stock Option Scheme, 2018 (the "DRL 2018 Plan")

The Company instituted the DRL 2018 Plan for all eligible employees pursuant to the special resolution approved by the shareholders at the Annual General Meeting held on July 27, 2018. The DRL 2018 Plan covers all employees and directors (excluding independent and promoter directors) of the parent company and its subsidiaries (collectively, "eligible employees"). Upon the exercise of options granted under the DRL 2018 Plan, the applicable equity shares may be issued directly by the Company to the eligible employee or may be transferred from the Dr. Reddy's Employees ESOS Trust (the "ESOS Trust") to the eligible employee. The ESOS Trust may acquire such equity shares through primary issuances by the Company and/or by way of secondary market acquisitions funded through loans from the Company. The Nomination, Governance and Compensation Committee of the Board of the parent company (the "Compensation Committee") administers the DRL 2018 Plan and grants stock options to eligible employees, but may delegate functions and powers relating to the administration of the DRL 2018 Plan to the ESOS Trust. The Compensation Committee determines which eligible employees will receive the options, the number of options to be granted, the exercise price, the vesting period and the exercise period. The vesting period is determined for all options issued on the date of grant. The options issued under the DRL 2018 Plan vest in periods ranging between the end of one and five years, and generally have a maximum contractual term of five years.

The DRL 2018 Plan provides for option grants having an exercise price equal to the fair market value of the underlying equity shares on the date of grant as follows:

Particulars	Number of securities to be acquired from secondary market	Number of securities to be issued by the Company	Total
Options reserved against equity shares	2,500,000	1,500,000	4,000,000
Options reserved against ADRs	-	1,000,000	1,000,000
Total	**2,500,000**	**2,500,000**	**5,000,000**

As at March 31, 2019, the ESOS Trust purchased 217,976 shares from secondary market for an aggregate consideration of Rs.535.

Stock option activity under the DRL 2018 Plan during the year ended March 31, 2019 is as follows:

	For the Year Ended March 31, 2019			
Fair Market Value Options	Shares arising out of options	Range of exercise prices	Weighted average exercise price	Weighted average remaining useful life (months)
Outstanding at the beginning of the year	-	-	-	-
Granted during the year	235,700	2,607.00	2,607.00	90
Expired/forfeited during the year	(6,100)	2,607.00	2,607.00	-
Exercised during the year	-	-	-	-
Outstanding at the end of the year	**229,600**	**2,607.00**	**2,607.00**	**84**
Exercisable at the end of the year	**-**	**-**	**-**	**-**

The weighted average grant date fair value of options granted during the year ended March 31, 2019 was Rs.667 per option.

As of March 31, 2019, options outstanding had an aggregate intrinsic value of Rs.40.

(in millions, except share and per share data)

19. Employee stock incentive plans (continued)

Valuation of stock options:

The fair value of services received in return for stock options granted to employees is measured by reference to the fair value of stock options granted. The fair value of stock options granted under the DRL 2002 Plan, DRL 2007 Plan and the DRL 2018 Plan has been measured using the Black–Scholes-Merton model at the date of the grant.

The Black-Scholes-Merton model includes assumptions regarding dividend yields, expected volatility, expected terms and risk free interest rates. In respect of par value options granted, the expected term of an option (or "option life") is estimated based on the vesting term and contractual term, as well as the expected exercise behavior of the employees receiving the option. In respect of fair market value options granted, the option life is estimated based on the simplified method. Expected volatility of the option is based on historical volatility, during a period equivalent to the option life, of the observed market prices of the Company's publicly traded equity shares. Dividend yield of the options is based on recent dividend activity. Risk-free interest rates are based on the government securities yield in effect at the time of the grant. These assumptions reflect management's best estimates, but these assumptions involve inherent market uncertainties based on market conditions generally outside of the Company's control. As a result, if other assumptions had been used in the current period, stock-based compensation expense could have been materially impacted. Further, if management uses different assumptions in future periods, stock based compensation expense could be materially impacted in future years.

The estimated fair value of stock options is recognized in the consolidated income statement on a straight-line basis over the requisite service period for each separately vesting portion of the award as if the award was, in substance, multiple awards.

The weighted average inputs used in computing the fair value of options granted were as follows:

	Grants made on					
	January 31, 2019	**September 21, 2018**	**July 26, 2018**	**May 21, 2018**	**July 10, 2017**	**May 11, 2017**
Expected volatility	32.92%	33.98%	34.89%	32.97%	30.86%	30.08%
Exercise price	Rs. 5.00	Rs.5.00 / Rs.2,607.00	Rs. 5.00	Rs.5.00 / Rs.1,982.00	Rs. 5.00	Rs. 5.00
Option life	2.5 Years	2.5 Years	2.5 Years	2.5 Years	2.5 Years	2.5 Years
Risk-free interest rate	7.00%	7.90%	7.47%	7.46%	6.48%	6.69%
Expected dividends	0.74%	0.78%	0.94%	1.06%	0.77%	0.77%
Grant date share price	Rs. 2,720.80	Rs. 2,556.25	Rs. 2,132.75	Rs. 1,893.05	Rs. 2,726.20	Rs. 2,594.00

Share-based payment expense

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Equity settled share-based payment expense[(1)]	Rs. 389	Rs. 454	Rs. 350
Cash settled share-based payment expense[(2)]	85	28	48
	Rs. 474	**Rs. 482**	**Rs. 398**

(1) As of March 31, 2019, there was Rs.519 of total unrecognized compensation cost related to unvested stock options. This cost is expected to be recognized over a weighted-average period of 2.09 years.

(2) Certain of the Company's employees are eligible for share-based payment awards that are settled in cash. These awards entitle the employees to a cash payment, on the exercise date, subject to vesting upon satisfaction of certain service conditions which range from 1 to 4 years. The amount of cash payment is determined based on the price of the Company's ADSs at the time of vesting. As of March 31, 2019, there was Rs.101 of total unrecognized compensation cost related to unvested awards. This cost is expected to be recognized over a weighted-average period of 1.95 years. This scheme does not involve dealing in or subscribing to or purchasing securities of the Company, directly or indirectly.

(in millions, except share and per share data)

20. Provisions

The details of changes in provisions during the year ended March 31, 2019 are as follows:

Particulars	Refund Liability[1]	Environmental liability[2]	Legal and others[3]	Total
Balance as at beginning of the year	**Rs. 3,210**	**Rs. 53**	**Rs. 522**	**Rs. 3,785**
Provision made during the year, net of reversals	3,592	-	63	3,655
Provision used during the year	(3,324)	-	-	(3,324)
Effect of changes in foreign exchange rates	103	(1)	-	102
Balance as at end of the year	**Rs. 3,581**	**Rs. 52**	**Rs. 585**	**Rs. 4,218**
Current	Rs. 3,581	Rs. -	Rs. 585	Rs. 4,166
Non-current	-	52	-	52
	Rs. 3,581	**Rs. 52**	**Rs. 585**	**Rs. 4,218**

(1) Refund liability is accounted for by recording a provision based on the Company's estimate of expected sales returns. See Note 3(l) of these consolidated financial statements for the Company's accounting policy on refund liability.

(2) As a result of the acquisition of a unit of The Dow Chemical Company in April 2008, the Company assumed a liability for contamination of the Mirfield site acquired of Rs.39 (carrying value Rs.52). The seller is required to indemnify the Company for this liability. Accordingly, a corresponding asset has also been recorded in the consolidated statements of financial position.

(3) Primarily consists of provision recorded towards the potential liability arising out of a litigation relating to cardiovascular and anti-diabetic formulations. Refer to Note 35 (Contingencies) of these consolidated financial statements under "Product and patent related matters - Matters relating to National Pharmaceutical Pricing Authority - Litigation relating to Cardiovascular and Anti-diabetic formulations" for further details.

21. Trade and other payables

Trade and other payables consist of the following:

	As at March 31, 2019	As at March 31, 2018
Trade payables	Rs. 10,296	Rs. 9,208
Due to creditors for expenses	3,375	4,121
Due to capital creditors	882	2,723
	Rs. 14,553	**Rs. 16,052**

For details regarding the Company's exposure to currency and liquidity risks, see Note no. 30 of these consolidated financial statements under "Liquidity risk".

22. Other liabilities

Other liabilities consist of the following:

	As at March 31, 2019	As at March 31, 2018
Current		
Accrued expenses	Rs. 15,178	Rs. 14,861
Employee benefits payable	4,542	3,927
Statutory dues payable	722	915
Deferred revenue	590	622
Advance from customers	761	360
Others	2,558	1,983
	Rs. 24,351	**Rs. 22,668**
Non-current		
Deferred revenue	2,002	2,697
Others	866	883
	Rs. 2,868	**Rs. 3,580**

(in millions, except share and per share data)

23. Revenue from contracts with customers and trade receivables

Revenue from contracts with customers:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Sales[1]	Rs. 148,706	Rs. 138,022	Rs. 138,663
Service income	2,129	1,534	1,536
License fees[2]	3,016	2,472	610
	Rs. 153,851	**Rs. 142,028**	**Rs. 140,809**
Excise duty included in revenues[1]	Rs. -	Rs. 173	Rs. 939

(1) Effective July 1, 2017, Goods and Services Tax ("GST") was introduced in India replacing the excise duty and various other taxes. Following the principles of IFRS 15, "*Revenue from Contracts with Customers*", revenues are disclosed net of GST. For periods prior to July 1, 2017, the excise duty amount was recorded as part of revenues with a corresponding amount recorded in the cost of revenues. Accordingly, revenues and cost of revenues for the year ended March 31, 2019 are not comparable with those of the previous years presented.

(2) License fees for the year ended March 31, 2019 and March 31,2018 , primarily includes out-licensing revenue from Encore Dermatology Inc. Refer to Note 37 of these consolidated financial statements for further details.

Analysis of revenues by segments:

	For the Year Ended March 31,		
Segment	**2019**	**2018**	**2017**
Global Generics	Rs. 122,903	Rs. 114,014	Rs. 115,409
PSAI	24,140	21,992	21,277
Proprietary products	4,750	4,245	2,363
Others	2,058	1,777	1,760
	Rs. 153,851	**Rs. 142,028**	**Rs. 140,809**

Analysis of revenues within the Global Generics segment:

An analysis of revenues by therapeutic areas in the Company's Global Generics segment is given below:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Gastrointestinal	Rs. 19,250	Rs. 19,153	Rs. 21,190
Oncology	18,357	16,999	17,054
Cardiovascular	15,106	16,501	15,553
Pain Management	13,806	12,898	14,323
Central Nervous System	15,909	12,509	12,749
Anti-Infective	7,073	6,557	7,189
Others	33,402	29,397	27,351
Total	**Rs. 122,903**	**Rs. 114,014**	**Rs. 115,409**

Analysis of revenues within the PSAI segment:

An analysis of revenues by therapeutic areas in the Company's PSAI segment is given below:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Cardiovascular	Rs. 7,019	Rs. 6,191	Rs. 5,078
Pain Management	3,364	3,228	3,290
Central Nervous System	2,741	2,331	2,758
Anti-Infective	1,247	1,968	1,859
Dermatology	1,622	1,606	1,606
Oncology	2,212	1,650	1,534
Others	5,935	5,018	5,152
Total	**Rs. 24,140**	**Rs. 21,992**	**Rs. 21,277**

(in millions, except share and per share data)

23. Revenue from contracts with customers and trade receivables (continued)

Analysis of revenues by geography:

The following table shows the distribution of the Company's revenues by country, based on the location of the customers:

	For the Year Ended March 31,		
Country	**2019**	**2018**	**2017**
India	Rs. 28,804	Rs. 25,209	Rs. 24,927
United States	69,299	68,124	69,816
Russia	15,299	12,610	11,547
Others	40,449	36,085	34,519
	Rs. 153,851	**Rs. 142,028**	**Rs. 140,809**

Information about major customers

Revenues from two customers of the Company's Global Generics segment were Rs.10,639 and Rs.10,024, representing approximately 7% each of the Company's total revenues for the year ended March 31, 2019.

Revenues from two customers of the Company's Global Generics segment were Rs.13,486 and Rs.10,755, representing approximately 9% and 8%, respectively, of the Company's total revenues for the year ended March 31, 2018.

Details of significant gross to net adjustments relating to Company's North America operations (amounts in U.S. $ millions)

A roll-forward for each major accrual for the Company's North America operations for the financial years ended March 31, 2017, 2018 and 2019 is as follows:

Particulars	**Chargebacks**	**Rebates**	**Medicaid**	**Refund Liability**
		(All values in U.S.$ millions)		
Beginning Balance: April 1, 2016	209	257	14	45
Current provisions relating to sales during the year[(1)]	1,963	700	22	28
Provisions and adjustments relating to sales in prior years	*	-	-	-
Credits and payments**	(1,981)	(771)	(23)	(37)
Ending Balance: March 31, 2017	**191**	**186**	**13**	**36**
Beginning Balance: April 1, 2017	191	186	13	36
Current provisions relating to sales during the year [(2)]	1,750	630	18	22
Provisions and adjustments relating to sales in prior years	*	-	-	-
Credits and payments**	(1,771)	(655)	(19)	(30)
Ending Balance: March 31, 2018	**170**	**161**	**12**	**28**
Beginning Balance: April 1, 2018	170	161	12	28
Current provisions relating to sales during the year [(3)]	1,415	461	18	29
Provisions and adjustments relating to sales in prior years	*	-	-	-
Credits and payments**	(1,457)	(530)	(19)	(27)
Ending Balance: March 31, 2019	**128**	**92**	**11**	**30**

* Currently, the Company does not separately track provisions and adjustments, in each case to the extent relating to prior years for chargebacks. However, the adjustments are expected to be non-material. The volumes used to calculate the closing balance of chargebacks represent approximately 1.1 months equivalent of sales, which corresponds to the pending chargeback claims yet to be processed.

** Currently, the Company does not separately track the credits and payments, in each case to the extent relating to prior years for chargebacks, rebates, medicaid payments or refund liability.

(1) Chargebacks and rebates provisions for the year ended March 31, 2017 and payments for the year ended March 31, 2017 were each lower as compared to the year ended March 31, 2016, primarily as a result of lower sales, product mix changes and relatively low value of new products.

(2) Chargebacks and rebates provisions for the year ended March 31, 2018 and payments for the year ended March 31, 2018 were each lower as compared to the year ended March 31, 2017, primarily as a result of lower pricing rates per unit for chargebacks, due to a reduction in the invoice price to wholesalers for certain of the Company's products, and due to certain product mix changes.

(3) Chargebacks and rebates provisions for the year ended March 31, 2019 and payments for the year ended March 31, 2019 were each lower as compared to the year ended March 31, 2018, primarily as a result of lower pricing rates per unit for chargebacks, and due to a reduction in the invoice price to wholesalers for certain of the Company's products.

The estimates of "gross-to-net" adjustments for the Company's operations in India and other countries outside of the United States relate mainly to refund liability in all such operations, and certain rebates to healthcare insurance providers are specific to the Company's German operations. The pattern of such refund liability is generally consistent with the Company's gross sales. In Germany, the rebates to healthcare insurance providers mentioned above are contractually fixed in nature and do not involve significant estimations by the Company.

(in millions, except share and per share data)

23. Revenue from contracts with customers and trade receivables (continued)

The Company's overall refund liability as at March 31, 2019 relating to its North America operations was U.S.$ 30 , as compared to a liability of U.S.$ 28 as at March 31, 2018. This increase in the Company's liability was primarily attributable to a higher refund liability created for the year ended March 31, 2019 as compared to the year ended March 31, 2018, which allowance change was primarily based on certain product mix changes and recent trends in actual sales returns, together with the Company's historical experience, in the markets in which it operates.

Details of refund liabilities:

Particulars		For the year ended March 31, 2019		For the year ended March 31, 2018
Balance at the beginning of the year	**Rs.**	**3,210**	**Rs.**	**3,784**
Provision made during the year, net of reversals		3,592		2,702
Provision used during the year		(3,324)		(3,303)
Effect of changes in foreign exchange rates		103		27
Balance at the closing of the year	**Rs.**	**3,581**	**Rs.**	**3,210**
Current	Rs.	3,581	Rs.	3,210
Non-current		-		-

Details of contract asset:

As mentioned in the accounting policies for refund liability set forth in Note 3.l. of these consolidated financial statements, the Company recognizes an asset, (i.e., right to the returned goods) which is included in inventories for the products expected to be returned. The Company initially measures this asset at the former carrying amount of the inventory, less any expected costs to recover the goods, including any potential decreases in the value of the returned goods. Along with re-measuring the refund liability at the end of each reporting period, the Company updates the measurement of the asset recorded for any revisions to its expected level of returns, as well as any additional decreases in the value of the returned products.

As on March 31, 2019 and 2018, the Company had Rs. 16 and Rs. 17, respectively, as contract assets representing the right to returned goods.

Details of deferred revenue:

Tabulated below is the reconciliation of deferred revenue for the years ended March 31, 2019 and 2018.

Particulars		For the year ended March 31, 2019		For the year ended March 31, 2018
Balance as at April 1	**Rs.**	**3,319**	**Rs.**	**3,675**
Revenue recognized during the year		(815)		(507)
Milestone payment received during the year		88		151
Balance as at March 31	**Rs.**	**2,592**	**Rs.**	**3,319**
Current		590		622
Non-current		2,002		2,697
	Rs.	**2,592**	**Rs.**	**3,319**

Details of contract liabilities

Particulars		As at March 31, 2019		As at March 31, 2018
Advance from customers	Rs.	761	Rs.	360
	Rs.	**761**	**Rs.**	**360**

Out-licensing agreement with CHD Biosciences Inc.,

In July 2017, the Company entered into an agreement with CHD Biosciences Inc for out-licensing the Phase III clinical trial candidate, DFA-02. As part of the agreement, the Company is entitled to receive equity shares in CHD valued at U.S.$30 upon an initial public offering of CHD or, if no initial public offering occurs within 18 months of execution of the agreement, a cash payment of U.S.$30. The Company will also receive additional milestone payments of U.S.$40 upon U.S. FDA approval. In addition, the Company is entitled to royalties on sales and certain other commercial milestone payments with respect to the product. At the time of execution, as the arrangement did not meet all of the revenue recognition criteria, no revenue has been recognized for the transaction during the year ended March 31, 2018.

During the year ended March 31, 2019, the Company terminated the agreement with Armis Biopharma, Inc. (formerly known as CHD Bioscience, Inc.) and regained the world-wide rights to DFA-02.

(in millions, except share and per share data)

24. Other (income)/expense, net

Other (income)/expense, net consists of the following:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
(Gain)/loss on sale/disposal of property, plant and equipment and other intangible assets, net[1]	Rs. (1,264)	Rs. 55	Rs. 80
Sale of spent chemicals	(356)	(297)	(206)
Scrap sales	(179)	(169)	(216)
Miscellaneous income, net [2]	(156)	(377)	(723)
	Rs. (1,955)	**Rs. (788)**	**Rs. (1,065)**

(1) a) During the three months ended June 30, 2018, the Company entered into an agreement with Neopharma Inc. for the sale of its formulations manufacturing facility and related assets in Bristol, Tennessee in the form of membership transfer and during the three months ended September 30, 2018, all the sale formalities were completed and the Company sold all of the issued and outstanding membership interests in Dr. Reddy's Laboratories Tennessee, LLC and certain related assets. (Refer Note no.6 of these Consolidated financial statements for further details).

b) During the three months ended December 31, 2018, the Company sold one of its API manufacturing business units located in Jeedimetla, Hyderabad to Therapiva Private Limited. This sale was done by way of slump sale (as defined under section 2(42C) of Indian Income Tax Act,1961) including all related property, plant and equipment, current assets, current liabilities, and transfer of employees. Gain on disposal of assets includes an amount of Rs. 423 representing the profit on sale of such business unit. (Refer Note no. 6 of these Consolidated financial statements for further details).

c) Gain on disposal of assets for the year ended March 31, 2019 includes an amount of Rs.423 representing the profit on sale of an intangible asset forming part of the Company's Proprietary Products segment. (Refer Note no. 8 of these Consolidated financial statements for further details).

d) Rs.159 representing the profit on sale of intangible assets as other income, after adjusting the associated costs, forming part of the Company's Proprietary Products segment. (Refer Note no. 8 of these Consolidated financial statements for further details).

(2) During the three months ended March 31, 2017, the Company entered into an agreement with Galderma Laboratories, LP to settle the ongoing litigation relating to the Company's launch of a generic product in the United States. Pursuant to the settlement, the Company recorded an amount of Rs.417, representing the relevant consideration attributable to settlement of such litigation.

25. Finance (expense)/income, net

Finance (expense)/income, net consists of the following:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Interest income	Rs. 770	Rs. 540	Rs. 558
Profit on sale of units of mutual funds, net[1]	466	2,270	956
Fair value gain on financial instruments measured at fair value through profit or loss[1]	307	-	-
Foreign exchange gain	737	87	73
Finance income (A)	**Rs. 2,280**	**Rs. 2,897**	**Rs. 1,587**
Interest expense	Rs. (889)	Rs. (788)	Rs. (634)
Foreign exchange loss	(274)	(29)	(147)
Finance expense (B)	**Rs. (1,163)**	**Rs. (817)**	**Rs. (781)**
Finance (expense)/income, net [(A)+(B)]	**Rs. 1,117**	**Rs. 2,080**	**Rs. 806**

(1) For the years ended March 31, 2018 and 2017, profit on sale of units of mutual funds, net primarily represents amounts reclassified from other comprehensive income to the consolidated income statement on redemption of the Company's "available for sale" financial instruments.

(in millions, except share and per share data)

26. Income taxes

a. Income tax (expense)/benefit recognized in the consolidated income statement

Income tax (expense)/benefit recognized in the consolidated income statement consists of the following:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Current taxes			
Domestic	Rs. (3,003)	Rs. (1,412)	Rs. (1,936)
Foreign	(1,707)	(363)	(1,158)
	Rs. (4,710)	**Rs. (1,775)**	**Rs. (3,094)**
Deferred taxes			
Domestic	Rs. (244)	Rs. (379)	Rs. 223
Foreign	1,306	(2,381)	257
	Rs. 1,062	**Rs. (2,760)**	**Rs. 480**
Total income tax expense recognized in the consolidated income statement	**Rs. (3,648)**	**Rs. (4,535)**	**Rs. (2,614)**

b. Income tax (expense)/benefit recognized directly in equity

Income tax (expense)/benefit recognized directly in equity consists of the following:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Tax effect on changes in fair value of other investments	Rs. (411)	Rs. 1,370	Rs. (499)
Tax effect on foreign currency translation differences	14	(17)	148
Tax effect on effective portion of change in fair value of cash flow hedges	(69)	41	(60)
Tax effect on actuarial gains/losses on defined benefit obligations	(3)	(12)	14
	Rs. (469)	**Rs. 1,382**	**Rs. (397)**

c. *Reconciliation of effective tax rate*

The following is a reconciliation of the Company's effective tax rates for the years ended March 31, 2019, 2018 and 2017:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Profit before income taxes	**Rs. 22,443**	**Rs. 14,341**	**Rs. 14,653**
Enacted tax rate in India	34.94%	34.61%	34.61%
Computed expected tax benefit/(expense)	**Rs. (7,842)**	**Rs. (4,963)**	**Rs. (5,071)**
Effect of:			
Differences between Indian and foreign tax rates	Rs. 734	Rs. 712	Rs. 98
(Unrecognized deferred tax assets)/recognition of previously unrecognized deferred tax assets, net	(482)	(1,673)	(2,849)
Expenses not deductible for tax purposes	(340)	(261)	(378)
Reversal of earlier years' tax provisions	282	135	1,370
Income exempt from income taxes	1,282	746	280
Foreign exchange differences	470	41	439
Incremental deduction allowed for research and development costs[1]	1,134	1,324	3,111
Tax expense on distributed/undistributed earnings of subsidiary outside India	-	-	(3)
Write off of accounts receivables	1,294	-	-
Effect of change in tax rate	(3)	(1,329)	104
Investment allowance deduction	-	-	363
Others	(177)	733	(79)
Income tax benefit/(expense)	**Rs. (3,648)**	**Rs. (4,535)**	**Rs. (2,614)**
Effective tax rate	**16%**	**32%**	**18%**

(1) India's Finance Act, 2016 incorporated an amendment that reduces the weighted deduction on eligible research and development expenditure in a phased manner from 200% to 150% commencing from April 1, 2017 and from 150% to 100% effective April 1, 2020.

The decrease in the Company's effective tax rate for the year ended March 31, 2019 as compared to the year ended March 31, 2018 was primarily on account of re-measurement of deferred tax assets and liabilities of the Company's subsidiaries in the United States due to the enactment of The Tax Cuts and Jobs Act of 2017 in the United States on December 22, 2017. Due to this enactment, the Company re-measured its U.S. deferred tax assets and liabilities based on the new tax law. This resulted in a charge of Rs.1,304 for the year ended March 31, 2018, primarily to reflect the impact on the Company's U.S. deferred tax assets of the reduction in the corporate federal income tax rate from 35% to 21% under the new tax law, and the tax deduction in the year ended March 31, 2019, of an item which was previously disallowed for tax purposes.

(in millions, except share and per share data)

26. Income taxes (continued)

d. Unrecognized deferred tax assets and liabilities

The details of unrecognized deferred tax assets and liabilities are summarized below:

	As at March 31,			
		2019		**2018**
Deductible temporary differences, net	Rs.	5,469	Rs.	4,961
Operating tax loss carry-forward		3,567		4,020
	Rs.	**9,036**	**Rs.**	**8,981**

During the year ended March 31, 2019, the Company, based on probable future taxable profit, has recognized previously unrecognized deferred tax assets pertaining to carry forward tax losses in Dr. Reddy's Farmaceutica Do Brasil Ltda.

During the year ended March 31, 2019, the Company did not recognize deferred tax assets of Rs.508 on certain deductible temporary differences, as the Company believes that it is not probable that there will be available taxable profits against which such temporary differences can be utilized.

Deferred income taxes are not provided on undistributed earnings of Rs.34,400 as at March 31, 2019, of subsidiaries outside India, where it is expected that earnings of the subsidiaries will not be distributed in the foreseeable future. Generally, the Company indefinitely reinvests all of the accumulated undistributed earnings of foreign subsidiaries, and accordingly, has not recorded any deferred taxes in relation to such undistributed earnings of its foreign subsidiaries. It is impracticable to determine the taxes payable when these earnings are remitted.

e. Deferred tax assets and liabilities

The tax effects of significant temporary differences that resulted in deferred tax assets and liabilities and a description of the items that created these differences is given below:

	As at March 31,			
		2019		**2018**
Deferred tax assets/(liabilities):				
Inventory	Rs.	3,285	Rs.	1,790
Minimum Alternate Tax*		1,630		1,630
Trade and other receivables		316		278
Operating tax loss and interest loss carry-forward		297		112
Other current assets and other current liabilities, net		1,315		1,291
Property, plant and equipment		(2,665)		(2,263)
Other intangible assets		(662)		(569)
Others		42		629
Net deferred tax assets	**Rs.**	**3,558**	**Rs.**	**2,898**

* As per Indian tax laws, companies are liable for a Minimum Alternate Tax ("MAT" tax) when current tax, as computed under the provisions of the Income Tax Act, 1961 ("Tax Act"), is determined to be below the MAT tax computed under section 115JB of the Tax Act. The excess of MAT tax over current tax is eligible to be carried forward and set-off in the future against the current tax liabilities over a period of 15 years.

In assessing whether the deferred income tax assets will be realized, management considers whether some portion or all of the deferred income tax assets will not be realized. The ultimate realization of the deferred income tax assets and tax loss carry-forwards is dependent upon the generation of future taxable income during the periods in which the temporary differences become deductible. Management considers the scheduled reversals of deferred tax liabilities, projected future taxable income and tax planning strategy in making this assessment. Based on the level of historical taxable income and projections of future taxable income over the periods in which the deferred tax assets are deductible, management believes that the Company will realize the benefits of those recognized deductible differences and tax loss carry-forwards. Recoverability of deferred tax assets is based on estimates of future taxable income. Any changes in such future taxable income would impact the recoverability of deferred tax assets.

Operating loss carry-forward consists of business losses, unabsorbed depreciation and unabsorbed interest carry-forwards. A portion of this total loss can be carried indefinitely and the remaining amounts expire at various dates ranging from 2020 through 2029.

(in millions, except share and per share data)

26. Income taxes (continued)

f. Movement in deferred tax assets and liabilities during the years ended March 31, 2019 and 2018.

The details of movement in deferred tax assets and liabilities are summarized below:

	As at March 31, 2018	Recognized in income statement	Recognized in equity	As at March 31, 2019
Deferred tax assets/(liabilities)				
Inventory	Rs. 1,790	Rs. 1,495	Rs. -	Rs. 3,285
Minimum Alternate Tax	1,630	-		1,630
Trade and other receivables	278	38		316
Operating tax loss and interest loss carry-forward	112	185		297
Other current assets and other current liabilities, net	1,291	24		1,315
Property, plant and equipment	(2,263)	(402)		(2,665)
Other intangible assets	(569)	(93)		(662)
Others	629	(115)	(472)	42
Net deferred tax assets/(liabilities)	**Rs. 2,898**	**Rs. 1,132**	**Rs. (472)**	**Rs. 3,558**

	As at March 31, 2017	Recognized in income statement	Recognized in equity	As at March 31, 2018
Deferred tax assets/(liabilities)				
Inventory	Rs. 2,385	Rs. (595)	Rs. -	Rs. 1,790
Minimum Alternate Tax	1,614	16	-	1,630
Trade and other receivables	424	(146)	-	278
Operating tax loss and interest loss carry-forward	1,329	(1,217)	-	112
Other current assets and other current liabilities, net	1,715	(901)	477	1,291
Property, plant and equipment	(2,142)	(121)	-	(2,263)
Other intangible assets	(370)	(199)	-	(569)
Others	(579)	298	910	629
Net deferred tax assets/(liabilities)	**Rs. 4,376**	**Rs. (2,865)**	**Rs. 1,387**	**Rs. 2,898**

The amounts recognized in the income statement for the years ended March 31, 2019 and 2018 include Rs.70 and Rs.105, respectively, which represent exchange differences arising due to foreign currency translations.

27. Operating leases

The Company has leased offices and vehicles under various operating lease agreements that are renewable on a periodic basis at the option of both the lessor and the lessee. Rental expense under these leases was Rs.905, Rs.787 and Rs.751 for the years ended March 31, 2019, 2018 and 2017, respectively.

The schedule of future minimum rental payments in respect of non-cancellable operating leases is set out below:

	As of March 31,		
	2019	2018	2017
Less than one year	Rs. 405	Rs. 496	Rs. 383
Between one and five years	797	1,144	961
More than five years	89	289	366
	Rs. 1,291	**Rs. 1,929**	**Rs. 1,710**

(in millions, except share and per share data)

28. Related parties

The Company has entered into transactions with the following related parties:

- Green Park Hotel and Resorts Limited for hotel services;
- Green Park Hospitality Services Private Limited ("Green Park Hospitality") for catering services;
- Dr. Reddy's Foundation towards contributions for social development;
- Kunshan Rotam Reddy Pharmaceuticals Co. Limited ("Reddy Kunshan") for sale of goods and for research and development services;
- Pudami Educational Society towards contributions for social development;
- Indus Projects Private Limited for engineering services relating to civil works;
- CERG Advisory Private Limited for professional consulting services;
- Dr. Reddy's Institute of Life Sciences for research and development services**;**
- DRES Energy Private Limited for purchase of services**;** and
- Stamlo Hotels Limited for hotel services.

These are enterprises over which key management personnel have control or significant influence. "Key management personnel" consists of the Company's Directors and members of the Company's Management Council.

The Company has also entered into cancellable operating lease transactions with key management personnel and close members of their families.

Further, the Company contributes to the Dr. Reddy's Laboratories Gratuity Fund, which maintains the plan assets of the Company's Gratuity Plan for the benefit of its employees. See Note 18 of these consolidated financial statements for information on transactions between the Company and the Gratuity Fund.

The following is a summary of significant related party transactions:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Research and development services received	Rs. 97	Rs. 98	Rs. 114
Research and development services provided	103	100	-
Contributions towards social development	220	238	318
Catering services	270	178	-
Hotel expenses	26	49	44
Lease rentals paid under cancellable operating leases	35	35	39
Civil works	106	-	-
Sale of goods	23	-	-
Salaries to relatives of Key Management Personnel	5	1	-
Others	1	-	-

The Company had the following amounts due from related parties:

	As at March 31,	
	2019	**2018**
Key management personnel and close members of their families	Rs. 8	Rs. 8
Other related parties	106	148

The Company had the following amounts due to related parties:

	As at March 31,	
	2019	**2018**
Due to related parties	Rs. 80	Rs. 14

The following table describes the components of compensation paid or payable to key management personnel for the services rendered during the applicable year ended:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Salaries and other benefits	Rs. 668	Rs. 458	Rs. 380
Contributions to defined contribution plans	35	38	28
Commission to directors	243	153	180
Share-based payments expense	99	114	75
Total	**Rs. 1,045**	**Rs. 763**	**Rs. 663**

Some of the key management personnel of the Company are also covered under the Company's Gratuity Plan along with the other employees of the Company. Proportionate amounts of gratuity accrued under the Company's Gratuity Plan have not been separately computed or included in the above disclosure.

(in millions, except share and per share data)

29. Financial instruments

Financial instruments by category

The carrying value and fair value of financial instruments as at March 31, 2019 and March 31, 2018 were as follows:

	As of March 31, 2019		As of March 31, 2018	
	Total carrying value	Total fair value	Total carrying value	Total fair value
Assets:				
Cash and cash equivalents	Rs. 2,228	Rs. 2,228	Rs. 2,638	Rs. 2,638
Other investments[1]	23,343	23,343	20,879	20,879
Trade and other receivables	39,982	39,982	40,786	40,786
Derivative financial instruments	360	360	103	103
Other assets[2]	2,843	2,843	2,273	2,273
Total	**Rs. 68,756**	**Rs. 68,756**	**Rs. 66,679**	**Rs. 66,679**
Liabilities:				
Trade and other payables	Rs. 14,553	Rs. 14,553	Rs. 16,052	Rs. 16,052
Derivative financial instruments	68	68	85	85
Long-term borrowings	26,256	26,256	25,152	25,152
Short-term borrowings	12,125	12,125	25,466	25,466
Bank overdraft	-	-	96	96
Other liabilities and provisions[3]	21,902	21,902	20,712	20,712
Total	**Rs. 74,904**	**Rs. 74,904**	**Rs. 87,563**	**Rs. 87,563**

(1) Interest accrued but not due on investments is included in other assets.

(2) Other assets that are not financial assets (such as receivables from statutory authorities, export benefit receivables, prepaid expenses, advances paid and certain other receivables) of Rs.10,639 and Rs.13,058 as of March 31, 2019 and 2018, respectively, are not included.

(3) Other liabilities and provisions that are not financial liabilities (such as statutory dues payable, deferred revenue, advances from customers and certain other accruals) of Rs.8,898 and Rs.9,321 as of March 31, 2019 and 2018, respectively, are not included.

Fair value hierarchy

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices).

Level 3 - Inputs for the assets or liabilities that are not based on observable market data (unobservable inputs).

The following table presents the fair value hierarchy of assets and liabilities measured at fair value on a recurring basis as of March 31, 2019:

Particulars	Level 1	Level 2	Level 3	Total
FVTPL - Financial asset - Investments in units of mutual funds	Rs. 16,240	Rs. -	Rs. -	Rs. 16,240
FVTOCI - Financial asset - Investment in equity securities	791	-	-	791
Derivative financial instruments – net gain/(loss) on outstanding foreign exchange forward, option and swap contracts and interest rate swap contracts[1]	-	292	-	292

The following table presents the fair value hierarchy of assets and liabilities measured at fair value on a recurring basis as of March 31, 2018:

Particulars	Level 1	Level 2	Level 3	Total
Available for sale - Financial asset - Investments in units of mutual funds	Rs. 14,778	Rs. -	Rs. -	Rs. 14,778
Available for sale - Financial asset - Investment in equity securities	1,195	-	-	1,195
Derivative financial instruments – net gain/(loss) on outstanding foreign exchange forward, option and swap contracts and interest rate swap contracts[1]	-	18	-	18

(1) The Company enters into derivative financial instruments with various counterparties, principally financial institutions and banks. Derivatives valued using valuation techniques with market observable inputs are mainly interest rate swaps, foreign exchange forward option and swap contracts. The most frequently applied valuation techniques include forward pricing, swap models and Black-Scholes-Merton models (for option valuation), using present value calculations. The models incorporate various inputs, including foreign exchange forward rates, interest rate curves and forward rate curves.

As at March 31, 2019 and 2018, the changes in counterparty credit risk had no material effect on the hedge effectiveness assessment for derivatives designated in hedge relationships and other financial instruments recognized at fair value.

(in millions, except share and per share data)

29. Financial instruments (continued)

Derivative financial instruments

The Company had a derivative financial asset and derivative financial liability of Rs. 360 and Rs. 68, respectively, as of March 31, 2019, as compared to derivative financial asset and derivative financial liability of Rs.103 and Rs.85, respectively, as of March 31, 2018, towards these derivative financial instruments.

Details of gain/(loss) recognized in respect of derivative contracts

The following table presents details in respect of the gain/(loss) recognized in respect of derivative contracts during the applicable year ended:

	For the Year Ended March 31,		
	2019	**2018**	**2017**
Net gain/(loss) recognized in finance costs in respect of foreign exchange derivative contracts	Rs. (257)	Rs. 168	Rs. 699
Net gain/(loss) recognized in equity in respect of hedges of highly probable forecast transactions	180	(82)	968
Net gain/(loss) recognized as component of revenue	(524)	651	(683)

The net carrying amount of the Company's "hedging reserve" as a component of equity before adjusting for tax impact was a gain of Rs.229 as at March 31, 2019, as compared to a gain of Rs.49 as at March 31, 2018.

Outstanding foreign exchange derivative contracts

The following table gives details in respect of the notional amount of outstanding foreign exchange derivative contracts as of March 31, 2019.

Category	Instrument	Currency[1]	Cross Currency[1]	Amounts	Buy/Sell
Hedges of recognized assets and liabilities	Forward contract	U.S.$	INR	U.S.$261	Sell
	Forward contract	RUB	INR	RUB 2,710	Sell
	Forward contract	GBP	INR	GBP 18	Sell
	Forward contract	U.S.$	RUB	U.S.$ 30	Buy
	Forward contract	GBP	USD	GBP 23	Buy
Hedges of highly probable forecast transactions	Forward contract	RUB	INR	RUB 1,350	Sell
	Option contract	U.S.$	INR	U.S.$ 300	Sell

The following table gives details in respect of the notional amount of outstanding foreign exchange derivative contracts as of March 31, 2018.

Category	Instrument	Currency[1]	Cross Currency[1]	Amounts	Buy/Sell
Hedges of recognized assets and liabilities	Forward contract	U.S.$	INR	U.S.$72	Sell
	Forward contract	GBP	USD	GBP 31	Buy
	Forward contract	U.S.$	RUB	U.S.$38	Buy
	Option contract	U.S.$	INR	U.S.$65	Sell
Hedges of highly probable forecast transactions	Forward contract	RUB	INR	RUB 1,080	Sell
	Option contract	U.S.$	INR	U.S.$240	Sell

(1) "INR" means Indian rupees, "USD" means United States Dollars, "GBP" means Pounds Sterling, "RON" means Romanian new leus, and "RUB" means Russian roubles.

The table below summarizes the periods when the cash flows associated with highly probable forecast transactions that are classified as cash flow hedges are expected to occur:

	As of March 31,	
	2019	**2018**
Cash flows in U.S. Dollars		
Not later than one month	Rs. 2,420	Rs. 1,955
Later than one month and not later than three months	4,841	3,911
Later than three months and not later than six months	7,261	5,866
Later than six months and not later than one year	6,225	3,910
	Rs. 20,747	**Rs. 15,642**
Cash flows in Roubles		
Not later than one month	Rs. 161	Rs. 102
Later than one month and not later than three months	320	204
Later than three months and not later than six months	480	306
Later than six months and not later than one year	480	611
	Rs. 1,441	**Rs. 1,223**

(in millions, except share and per share data)

29. Financial instruments (continued)

Hedges of changes in the interest rates:

Consistent with its risk management policy, the Company uses interest rate swaps (including cross currency interest rate swaps) to mitigate the risk of changes in interest rates. The Company does not use them for trading or speculative purposes.

A net loss of Rs.28, representing the changes in the fair value of interest rate swaps used as hedging instrument in a cash flow hedge is recognized in the statement of other comprehensive income. For balance interest rate swaps, the changes in fair value (including cross currency interest rate swaps) are recognized as part of the finance costs. Accordingly the Company has recorded, as part of finance cost, a net loss of Rs.0 and a net gain of Rs.9 for the year ended March 31, 2019 and 2018 respectively.

The Company had outstanding interest swap arrangements that hedged a portion of interest rate risk arising from floating rate, dollar denominated foreign currency borrowing of U.S.$ 50 and U.S.$ 50 as at March 31, 2019 and 2018, respectively.

30. Financial risk management

The Company's activities expose it to a variety of financial risks, including market risk, credit risk and liquidity risk. The Company's primary risk management focus is to minimize potential adverse effects of market risk on its financial performance. The Company's risk management assessment and policies and processes are established to identify and analyze the risks faced by the Company, to set appropriate risk limits and controls, and to monitor such risks and compliance with the same. Risk assessment and management policies and processes are reviewed regularly to reflect changes in market conditions and the Company's activities. The Board of Directors and the Audit Committee is responsible for overseeing the Company's risk assessment and management policies and processes.

a. Market risk

Market risk is the risk of loss of future earnings, fair values or future cash flows that may result from adverse changes in market rates and prices (such as interest rates, foreign currency exchange rates and commodity prices) or in the price of market risk-sensitive instruments as a result of such adverse changes in market rates and prices. Market risk is attributable to all market risk-sensitive financial instruments, all foreign currency receivables and payables and all short term and long-term debt. The Company is exposed to market risk primarily related to foreign exchange rate risk, interest rate risk and the market value of its investments. Thus, the Company's exposure to market risk is a function of investing and borrowing activities and revenue generating and operating activities in foreign currencies.

Foreign exchange risk

The Company's foreign exchange risk arises from its foreign operations, foreign currency revenues and expenses, (primarily in U.S. dollars, Russian roubles, U.K. pounds sterling and Euros) and foreign currency borrowings (in U.S. dollars, Russian roubles, Ukrainian hryvnias, South African rands, Mexican pesos and Euros). A significant portion of the Company's revenues are in these foreign currencies, while a significant portion of its costs are in Indian rupees. As a result, if the value of the Indian rupee appreciates relative to these foreign currencies, the Company's revenues measured in Indian rupees may decrease. The exchange rate between the Indian rupee and these foreign currencies has changed substantially in recent periods and may continue to fluctuate substantially in the future. Consequently, the Company uses both derivative and non-derivative financial instruments, such as foreign exchange forward contracts, option contracts, currency swap contracts and foreign currency financial liabilities, to mitigate the risk of changes in foreign currency exchange rates in respect of its highly probable forecast transactions and recognized assets and liabilities.

The details in respect of the outstanding foreign exchange forward and option contracts are given in Note 29 to these consolidated financial statements.

In respect of the Company's forward and option contracts, a 10% decrease/increase in the respective exchange rates of each of the currencies underlying such contracts would have resulted in:

- a Rs.1,872/(1,349) increase/(decrease) in the Company's hedging reserve and a Rs.1,789/(1,873) increase/(decrease) in the Company's profit from such contracts, as at March 31, 2019;
- a Rs.1,277/(1,338) increase/(decrease) in the Company's hedging reserve and a Rs.403/(308) increase/(decrease) in the Company's profit from such contracts, as at March 31, 2018; and
- a Rs.1,154/(710) increase/(decrease) in the Company's hedging reserve and a Rs.2,143/(2,287) increase/(decrease) in the Company's profit from such contracts, as at March 31, 2017.

The following table analyzes foreign currency risk from non-derivative financial instruments as at March 31, 2019:

	U.S. dollars	Euro	Russian roubles	Others[1]	Total
Assets:					
Cash and cash equivalents	Rs. 339	Rs. 30	Rs. 58	Rs. 418	Rs. 845
Other investments	20	-	-	-	20
Trade and other receivables	20,524	437	7,290	2,969	31,220
Other assets	298	18	68	138	522
Total	**Rs. 21,181**	**Rs. 485**	**Rs. 7,416**	**Rs. 3,525**	**Rs. 32,607**
Liabilities:					
Trade and other payables	Rs. 2,426	Rs. 1,044	Rs. -	Rs. 267	Rs. 3,737
Long-term borrowings	5,186	-	-	-	5,186
Short-term borrowings	7,538	-	1,387	307	9,232
Other liabilities and provisions	6,542	58	1,517	855	8,972
Total	**Rs. 21,692**	**Rs. 1,102**	**Rs. 2,904**	**Rs. 1,429**	**Rs. 27,127**

(in millions, except share and per share data)

30. Financial risk management (continued)

a. Market risk (continued)

The following table analyzes foreign currency risk from non-derivative financial instruments as at March 31, 2018:

		U.S. dollars		Euro		Russian roubles		Others[1]		Total
Assets:										
Cash and cash equivalents	Rs.	392	Rs.	62	Rs.	56	Rs.	512	Rs.	1,022
Other investments		-		-		-		20		20
Trade and other receivables		25,427		437		6,691		2,592		35,147
Other assets		125		85		260		196		666
Total	**Rs.**	**25,944**	**Rs.**	**584**	**Rs.**	**7,007**	**Rs.**	**3,320**	**Rs.**	**36,855**
Liabilities:										
Trade and other payables	Rs.	3,526	Rs.	1,658	Rs.	2	Rs.	1,118	Rs.	6,304
Long-term borrowings		4,888		-		-		-		4,888
Short-term borrowings		19,552		-		2,378		178		22,108
Other liabilities and provisions		5,147		104		1,896		770		7,917
Total	**Rs.**	**33,113**	**Rs.**	**1,762**	**Rs.**	**4,276**	**Rs.**	**2,066**	**Rs.**	**41,217**

(1) Others primarily consists of U.K. pounds sterling, Swiss francs, Romanian new leus and Ukrainian hryvnia.

For the years ended March 31, 2019 and 2018, every 10% depreciation/appreciation in the exchange rate between the Indian rupee and the respective currencies for the above mentioned financial assets/liabilities would affect the Company's net profit by Rs.548 and Rs.434, respectively.

Interest rate risk

As of March 31, 2019, the Company had Rs. 31,154 of loans carrying a floating interest rate ranging from 1 Month LIBOR plus 25 bps to 1 Month LIBOR plus 105 bps; Rs. 72 of loans carrying a floating interest rate of 1 Month JIBAR plus 120 bps; and Rs. 1,749 of loans carrying a floating interest rate of TIIE+1.25%. As of March 31, 2018, the Company had Rs. 42,592 of loans carrying a floating interest rate ranging from 1 Month LIBOR minus 30 bps to 1 Month/3 Months LIBOR plus 85 bps. These loans expose the Company to risk of changes in interest rates. The Company's treasury department monitors the interest rate movement and manages the interest rate risk based on its policies, which include entering into interest rate swaps as considered necessary.

For details of the Company's short-term and long term loans and borrowings, including interest rate profiles, Refer to Note 17 of these consolidated financial statements.

For the years ended March 31, 2019, 2018 and 2017, every 10% increase or decrease in the floating interest rate component (i.e., LIBOR,JIBAR and TIIE) applicable to its loans and borrowings would affect the Company's net profit by Rs.93, Rs.77 and Rs.46, respectively.

The carrying value of the Company's borrowings, interest component of which designated in a cash flow hedge, was Rs.3,458 as of March 31, 2019. In respect of these borrowings, a 10% decrease/increase in the interest rates of such borrowings would have resulted in Rs.14/(12) increase/decrease in the Company's hedging reserve as at March 31, 2019.

The Company's investments in term deposits (i.e., certificates of deposit) with banks and short-term liquid mutual funds are for short durations, and therefore do not expose the Company to significant interest rates risk.

Commodity rate risk

Exposure to market risk with respect to commodity prices primarily arises from the Company's purchases and sales of active pharmaceutical ingredients, including the raw material components for such active pharmaceutical ingredients. These are commodity products, whose prices may fluctuate significantly over short periods of time. The prices of the Company's raw materials generally fluctuate in line with commodity cycles, although the prices of raw materials used in the Company's active pharmaceutical ingredients business are generally more volatile. Cost of raw materials forms the largest portion of the Company's cost of revenues. Commodity price risk exposure is evaluated and managed through operating procedures and sourcing policies. As of March 31, 2019, the Company had not entered into any material derivative contracts to hedge exposure to fluctuations in commodity prices.

(in millions, except share and per share data)

30. Financial risk management (continued)

b. Credit risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's receivables from customers and investment securities. Credit risk is managed through credit approvals, establishing credit limits and continuously monitoring the creditworthiness of customers to which the Company grants credit terms in the normal course of business. The Company establishes an allowance for doubtful debts and impairment that represents its estimate of incurred losses in respect of trade and other receivables and investments.

Trade and other receivables

The Company's exposure to credit risk is influenced mainly by the individual characteristics of each customer. The demographics of the customer, including the default risk of the industry and country in which the customer operates, also has an influence on credit risk assessment. Credit risk is managed through credit approvals, establishing credit limits and continuously monitoring the creditworthiness of customers to which the Company grants credit terms in the normal course of business.

Investments

The Company limits its exposure to credit risk by generally investing in liquid securities and only with counterparties that have a good credit rating. The Company does not expect any losses from non-performance by these counter-parties, and does not have any significant concentration of exposures to specific industry sectors or specific country risks.

Details of financial assets – not due, past due and impaired

None of the Company's cash equivalents, including term deposits (i.e., certificates of deposit) with banks, were past due or impaired as at March 31, 2019. The Company's credit period for trade and other receivables payable by its customers generally ranges from 20 - 180 days.

The aging of trade and other receivables is given below:

	As of March 31,	
Particulars	**2019**	**2018**
Neither past due nor impaired	Rs. 33,874	Rs. 35,747
Past due but not impaired		
Less than 365 days	Rs. 6,262	Rs. 5,039
More than 365 days	1,018	952
	Rs. 41,154	**Rs. 41,738**
Allowance for credit losses on trade and other receivables	(1,172)	(952)
Total	**Rs. 39,982**	**Rs. 40,786**

See Note 12 of these consolidated financial statements for the activity in the allowance for credit losses on trade and other receivables.

Other than trade receivables, the Company has no significant class of financial assets that is past due but not impaired.

c. Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they become due. The Company manages its liquidity risk by ensuring, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risk to the Company's reputation.

As of March 31, 2019 and 2018, the Company had uncommitted lines of credit from banks of Rs.47,134 and Rs. 24,046, respectively.

As of March 31, 2019, the Company had working capital of Rs.54,801, including cash and cash equivalents of Rs.2,228, investments in term deposits with banks (i.e., deposits having original maturities of more than 3 months), bonds and commercial paper of Rs.6,289 and investments measured at fair value through profit and loss ("FVTPL") of Rs.16,240. As of March 31, 2018, the Company had working capital of Rs.39,953, including cash and cash equivalents of Rs.2,638, investments in term deposits with banks (i.e., bank certificates of deposit having original maturities of more than 3 months), bonds and commercial paper of Rs.3,552 and investments in available-for-sale financial assets of Rs.14,778.

The table below provides details regarding the contractual maturities of significant financial liabilities (other than long term loans, borrowings and obligations under finance leases, which have been disclosed in Note 17 to these consolidated financial statements) as at March 31, 2019:

Particulars	**2020**	**2021**	**2022**	**2023**	**Thereafter**	**Total**
Trade and other payables	Rs. 14,553	Rs. -	Rs. -	Rs. -	Rs. -	Rs. 14,553
Bank overdraft, short-term loans and borrowings	12,125					12,125
Other liabilities and provisions	21,113	17	17	17	738	21,902
Derivative financial instruments - liabilities	68					68

(in millions, except share and per share data)

30. Financial risk management (continued)

c. Liquidity risk (continued)

The table below provides details regarding the contractual maturities of significant financial liabilities (other than long term loans, borrowings and obligations under finance leases, which have been disclosed in Note 17 to these consolidated financial statements) as at March 31, 2018:

Particulars	2019	2020	2021	2022	Thereafter	Total
Trade and other payables	Rs. 16,052	Rs. -	Rs. -	Rs. -	Rs. -	Rs. 16,052
Bank overdraft, short-term loans and borrowings	25,562	-	-	-	-	25,562
Other liabilities and provisions	19,885	92	16	16	703	20,712
Derivative financial instruments - liabilities	85	-	-	-	-	85

31. Collaboration agreement with Curis, Inc.

On January 18, 2015, Aurigene Discovery Technologies Limited ("Aurigene"), a wholly-owned subsidiary of the parent company, entered into a Collaboration, License and Option Agreement (the "Collaboration Agreement") with Curis, Inc. ("Curis") to discover, develop and commercialize small molecule antagonists for immuno-oncology and precision oncology targets.

Under the Collaboration Agreement, Aurigene has the responsibility for conducting all discovery and preclinical activities, including Investigational New Drug ("IND") enabling studies and providing Phase 1 clinical trial supply, and Curis is responsible for all clinical development, regulatory and commercialization efforts worldwide, excluding India and Russia. The Collaboration Agreement provides that the parties will collaborate exclusively in immuno-oncology for an initial period of approximately two years, with the option for Curis to extend the broad immuno-oncology exclusivity.

As partial consideration for the collaboration, pursuant to a Stock Purchase Agreement dated January 18, 2015, Curis issued to Aurigene 17.1 million shares of its common stock, representing 19.9% of its outstanding common stock immediately prior to the transaction (approximately 16.6% of its outstanding common stock immediately after the transaction). Such shares were initially subject to a lock-up agreement. However, as of March 31, 2017, lock-up restrictions were released on all of the aforementioned 17.1 million shares. In connection with the issuance of such shares, Curis and Aurigene entered into a Registration Rights Agreement dated January 18, 2015 which provides for certain registration rights with respect to resale of the shares. The common stock of Curis is listed for quotation on the NASDAQ Global Market.

The fair value of the shares of Curis common stock on the date of the Stock Purchase Agreement was Rs.1,452 (U.S.$23.5).

Revenues under the Collaboration Agreement consist of upfront consideration (including the shares of Curis common stock) and the development and commercial milestone payments described below, which are deferred and recognized as revenue over the period for which Aurigene has continuing performance obligations.

Under the Collaboration Agreement, Aurigene is entitled to development and commercial milestone payments as follows:

- for the first two programs: up to U.S.$52.5 per program, including U.S.$42.5 for approval and commercial milestones, plus pre-specified approval milestone payments for additional indications, if any;
- for the third and fourth programs: up to U.S.$50 per program, including U.S.$42.5 for approval and commercial milestones, plus pre-specified approval milestone payments for additional indications, if any; and
- for any program thereafter: up to U.S.$140.5 per program, including U.S.$87.5 for approval and commercial milestones, plus pre-specified approval milestone payments for additional indications, if any.

In addition, Curis has agreed to pay Aurigene royalties, ranging between high single digits to 10%, on its net sales in territories where it commercializes products. Furthermore, Aurigene is entitled to receive a share of Curis' revenues from sublicenses, which share varies based upon specified factors such as the sublicensed territory, whether the sublicense revenue is royalty based or non-royalty based and, in some cases, the stage of the applicable molecule and product at the time the sublicense is granted.

On September 7, 2016, the Collaboration Agreement was amended to provide for the issuance to Aurigene of approximately 10.2 million additional shares of Curis common stock in lieu of receiving up to U.S.$24.5 of milestone and other payments from Curis that could have become due under the Collaboration Agreement. These shares of Curis common stock are recorded at U.S.$1.84 per share, which is equal to the market price of such shares of common stock on the date of issuance, amounting to an aggregate market value of Rs.1,247 (U.S.$18.8).

These additional shares are also subject to a lock-up agreement, which is similar to the lock-up for the original Curis shares the Company received. However, this lock-up remains effective until September 7, 2018, with shares being released from such lock-up in 25% increments on each of March 7, 2017, September 7, 2017, March 7, 2018 and September 7, 2018, subject to acceleration of release of all the shares in connection with a change of control of Curis. As of March 31, 2019, lock-up restrictions were released on an aggregate of 10.2 million of such additional shares of Curis common stock, representing 100% of the shares which Aurigene received from Curis in 2016.

The Company has evaluated the transaction under IAS 28, "Investments in associates and Joint Ventures," and believes that the Company does not have any significant influence with respect to Curis. Accordingly, all of the shares of Curis common stock are classified as instruments at fair value through other comprehensive income ("FVTOCI"). Accordingly, loss of Rs.1,946 arising from changes in the fair value of such shares of common stock was recognized in other comprehensive income as of March 31, 2019.

In May 2018, Curis completed a 1-for-5 reverse stock split of its common stock. After giving effect to such stock split, the total number of Curis equity shares held by the Company is 5.47 million.

(in millions, except share and per share data)

32. Asset purchase agreement with Teva Pharmaceutical Industries Limited

On June 10, 2016, the Company entered into a definitive purchase agreement with Teva Pharmaceutical Industries Limited ("Teva") and an affiliate of Allergan plc to acquire eight ANDAs in the United States for U.S.$350 in cash at closing. The acquired products were divested by Teva as a precondition to the closing of its acquisition of Allergan's generics business. The acquisition of these ANDAs was also contingent on the closing of the Teva/Allergan generics purchase transaction and approval by the U.S. Federal Trade Commission.

The acquisition was consummated on August 3, 2016 upon the completion of all closing conditions, and the Company paid U.S.$350 as the consideration for the acquired ANDAs.

Tabulated below are the details of products acquired and the respective purchase prices in U.S.$, along with the corresponding amount in Rs. as of the payment date:

Particulars of the ANDA	Purchase Price (U.S.$)		Purchase Price (Rs.)	
Ethinyl estradiol/Ethonogestrel Vaginal Ring (a generic equivalent to NuvaRing®)	U.S.$	185	Rs.	12,351
Buprenorphine HCl/Naloxone HCl Sublingual Film (a generic equivalent to Suboxone® sublingual film)		70		4,673
Ramelteon Tablets (a generic equivalent to Rozerem®)		34		2,270
Others		61		4,072
Grand Total	**U.S.$**	**350**	**Rs.**	**23,366**

The Company recorded such acquisition of these ANDAs as "product related intangibles". Such acquisition forms a part of the Company's Global Generics segment. During the year ended March 31, 2018 and March 31, 2019, the products ezitimibe and simvastatin tablets, buprenorphine and naloxone sublingual film and tobramycin were available for use and are subject to amortization. The carrying cost of the ANDAs for these three products as at March 31, 2019 was Rs.6,098 and the useful life was eight years. The carrying cost of the other ANDAs as at March 31, 2019 was Rs.18,391. As these other ANDAs are not available for use yet, they are not subject to amortization.

33. Receipt of warning letter from the U.S. FDA

The Company received a warning letter dated November 5, 2015 from the U.S. FDA relating to current Good Manufacturing Practices ("cGMPs") deviations at its active pharmaceutical ingredient ("API") manufacturing facilities at Srikakulam, Andhra Pradesh and Miryalaguda, Telangana, as well as violations at its oncology formulation manufacturing facility at Duvvada, Visakhapatnam, Andhra Pradesh. The contents of the warning letter emanated from Form 483 observations that followed inspections of these sites by the U.S. FDA in November 2014, January 2015 and February-March 2015.

Tabulated below are the further updates with respect to the aforementioned sites:

Month and year	Update
February, March and April 2017	The U.S. FDA completed the re-inspection of the aforementioned manufacturing facilities. During the re-inspections, the U.S. FDA issued three observations with respect to the API manufacturing facility at Miryalaguda, two observations with respect to the API manufacturing facility at Srikakulam and thirteen observations with respect to the Company's oncology formulation manufacturing facility at Duvvada.
June 2017	The U.S. FDA issued an Establishment Inspection Report ("EIR") which indicated that the inspection of the Company's API manufacturing facility at Miryalaguda was successfully closed.
November 2017	The Company received EIRs from the U.S.FDA for the oncology manufacturing facility at Duvvada which indicated that the inspection status of this facility remained unchanged.
February 2018	The Company received EIRs from the U.S.FDA for API manufacturing facility at Srikakulam which indicated that the inspection status of this facility remained unchanged.
June 2018	The Company requested the U.S. FDA to schedule a re-inspection of the oncology formulation manufacturing facility at Duvvada.
October 2018	The re-inspection was completed for the oncology formulation manufacturing facility at Duvvada and the U.S.FDA issued a Form 483 with eight observations.
November 2018	The Company responded to the observations identified by the U.S.FDA for the oncology formulation manufacturing facility at Duvvada in October 2018.
February 2019	The U.S. FDA issued an EIR indicating successful closure of the audit of the oncology formulation manufacturing facility at Duvvada.

With respect to the API manufacturing facility at Srikakulam, subsequent to the receipt of EIR in February 2018, the Company was asked, in October 2018, to carry out certain detailed investigations and analyses and the Company submitted the results of the investigations and analyses. As part of the review of the response by the U.S. FDA, certain additional follow on queries have been received by the Company. The Company responded to all queries in January 2019 to the U.S.FDA. In February 2019, the Company received certain follow on questions from the U.S.FDA and the Company responded in March 2019. Based on the discussion with U.S.FDA, a meeting would be conducted prior to re-inspection of the site.

(in millions, except share and per share data)

33. Receipt of warning letter from the U.S. FDA (continued)

Inspection of other facilities:

Tabulated below are the details of the U.S. FDA inspections carried out during the financial year ended March 31, 2019:

Located in India

Month and year	Unit	Details of observations
June 2018	API Srikakulam Plant (SEZ)	No observations were noted. An EIR indicating the closure of audit for this facility was issued by the U.S. FDA in August 2018.
November 2018	Srikakulam Plant (SEZ) Unit II	No observations were noted. An EIR indicating the closure of audit for this facility was issued by the U.S. FDA in February 2019.
January-April 2019	Srikakulam Plant (SEZ) Unit I	Four observations were noted. The Company responded to the observations and an EIR indicating the closure of audit for this facility was issued by the U.S. FDA in April 2019.
January 2019	API manufacturing Plant at Miryalaguda, Nalgonda	One observation was noted. The Company responded to the observation. In May 2019, an EIR was issued by the U.S. FDA indicating the closure of audit and the inspection classification of the facility is determined as Voluntary Action Initiated ("VAI").
January-April 2019	Formulations manufacturing facility at Bachupally, Hyderabad	Eleven observations were noted. The Company responded to the observations in January 2019. In April 2019, based on the Company's responses and follow up actions, the U.S.FDA has determined the inspection classification of this facility as Voluntary Action Initiated ("VAI").
March 2019	Aurigene Discovery Technologies Limited, Hyderabad	No observations were noted. The Company is awaiting an EIR from the U.S. FDA.

34. Inspection by the regulatory authority of Bavaria, Germany

In August 2017, the Company's German subsidiary betapharm Arzneimittel GmbH received a letter from a regulatory authority of Bavaria, Germany (the Regierung von Oberbayern, which is the Central Authority for Supervision of Medicinal Products in Bavaria of the Upper Bavarian government) (the "Regulator"), that the GMP compliance certificate for the Company's formulations manufacturing facility at Bachupally, Hyderabad was not renewed as the result of GMP compliance deviations identified in an inspection. Consequently, this manufacturing facility was not permitted to export products to the European Union (the "EU") until satisfactory resolution of the issues identified in the inspection and renewal of the facility's GMP compliance certificate. The manufacturing facility was re-inspected in January 2018 and the status of non-compliance was withdrawn. The facility is now permitted to dispatch approved products to the EU.

Furthermore, in September 2017, the Regulator concluded an inspection of the Company's formulations manufacturing facility at Duvvada, Visakhapatnam, with zero critical and six major observations. Products manufactured at the facility are not currently exported to the EU. The Company submitted a Corrective and Preventive Action Plan ("CAPA") to the Regulator. The Regulator accepted it and permitted the Company to start production from this facility for the EU market.

In November 2018, the Regulator concluded the follow-on inspection of the manufacturing facility at Duvvada, which is now considered compliant and its EU-GMP certification continues to remain active with one specific exclusion of a new product. The Company submitted a Corrective and Preventive Action Plan ("CAPA") to the Regulator to address the remaining issues affecting this excluded product.

In March 2019, the facility was re-inspected by the Regulator and considered to be fully compliant.

35. Contingencies

The Company is involved in disputes, lawsuits, claims, governmental and/or regulatory inspections, inquiries, investigations and proceedings, including patent and commercial matters that arise from time to time in the ordinary course of business. The more significant matters are discussed below. Most of the claims involve complex issues. Often, these issues are subject to uncertainties and therefore the probability of a loss, if any, being sustained and an estimate of the amount of any loss is difficult to ascertain. Consequently, for a majority of these claims, it is not possible to make a reasonable estimate of the expected financial effect, if any, that will result from ultimate resolution of the proceedings. This is due to a number of factors, including: the stage of the proceedings (in many cases trial dates have not been set) and the overall length and extent of pre-trial discovery; the entitlement of the parties to an action to appeal a decision; clarity as to theories of liability; damages and governing law; uncertainties in timing of litigation; and the possible need for further legal proceedings to establish the appropriate amount of damages, if any. In these cases, the Company discloses information with respect to the nature and facts of the case. The Company also believes that disclosure of the amount sought by plaintiffs, if that is known, would not be meaningful with respect to those legal proceedings.

Although there can be no assurance regarding the outcome of any of the legal proceedings or investigations referred to in this Note, the Company does not expect them to have a materially adverse effect on its financial position, as it believes that the likelihood of loss in excess of amounts accrued (if any) is not probable. However, if one or more of such proceedings were to result in judgments against the Company, such judgments could be material to its results of operations in a given period.

35. Contingencies (continued)

Product and patent related matters

Launch of product

On June 14, 2018, the U.S.FDA granted the Company final approval for Buprenorphine and Naloxone Sublingual Film, 2 mg/0.5 mg, 4 mg/1 mg, 8 mg/2 mg, and 12 mg/3 mg dosages, a therapeutic equivalent generic version of Suboxone® sublingual film.The U.S. FDA approval came after the conclusion of litigation in the U.S. District Court for the District of Delaware (the "Delaware District Court"), where the Delaware District Court held that patents covering Suboxone® sublingual film would not be infringed by the Company's commercial launch of its generic sublingual film product. In light of the favorable decision from the Delaware District Court, the Company launched its generic sublingual film product in the U.S. immediately following the U.S. FDA approval on June 14, 2018. Indivior has appealed the Delaware District Court's decision to the U.S. Court of Appeals for the Federal Circuit ("Court of Appeals"). Oral argument on Indivior's appeal occurred on April 2, 2018. The parties are awaiting a ruling from the Court of Appeals.

After the Delaware Court's decision, Indivior filed a second lawsuit against the Company alleging infringement of three additional patents in the U.S. District Court for the District of New Jersey, styled Indivior Inc. et al. v. Dr. Reddy's Laboratories S.A., Civil Action No. 2:17-cv-07111 (D.N.J.) (the "New Jersey District Court"). Following the launch, on June 15, 2018, Indivior PLC ("Indivior") filed an emergency application for a temporary restraining order and preliminary injunction against the Company in the New Jersey District Court. Indivior's motion alleged that the Company's generic sublingual film product infringed one of three patents at issue in the New Jersey District Court. Pending a hearing and decision on the injunction application, the New Jersey District Court initially issued a temporary restraining order against the Company with respect to further sales, offer for sales, and imports of its generic sublingual film product in the United States. Subsequently, on July 14, 2018, the New Jersey District Court granted a preliminary injunction in favor of Indivior. Under the Order, Indivior was required to and did post a bond of $72 to pay the costs and damages sustained by the Company if it was found to be wrongfully enjoined. The Company immediately appealed the decision and Court of Appeals agreed to expedite the appeal.

The Court of Appeals heard oral argument on the Company's appeal on October 4, 2018. On November 20, 2018, the Court of Appeals issued a decision vacating the preliminary injunction. On December 20, 2018, Indivior filed a petition seeking rehearing of the appeal and the Court of Appeals asked the Company to respond to Indivior's petition on January 16, 2019. The Company filed its response to Indivior's petition, for rehearing on January 17, 2019. On February 4, 2019, the Federal Circuit Court denied Indivior's petition for rehearing. Indivior subsequently filed two emergency motions in the Federal Circuit Court to stay issuance of the mandate to vacate the preliminary injunction, which the Federal Circuit Court denied. Indivior then petitioned the U.S. Supreme Court to stay issuance of the mandate. Indivior's petition was denied by the Chief Justice of the U.S.Supreme Court on February 19, 2019 and the mandate was issued on the same day. The Company resumed its launch of its generic Suboxone product after the mandate was issued. Litigation has resumed in the New Jersey District Court. No trial date has been set by the New Jersey District Court.

The Company intends to vigorously defend its positions and pursue a claim for damages caused by the preliminary injunction. Any liability that may arise on account of this litigation is unascertainable. Accordingly, no provision was made in the consolidated financial statements of the Company.

Matters relating to National Pharmaceutical Pricing Authority

Norfloxacin, India litigation

The Company manufactures and distributes Norfloxacin, a formulations product, and in limited quantities, the active pharmaceutical ingredient norfloxacin. Under the Drugs (Prices Control) Order (the "DPCO"), the National Pharmaceutical Pricing Authority (the "NPPA") established by the Government of India had the authority to designate a pharmaceutical product as a "specified product" and fix the maximum selling price for such product. In 1995, the NPPA issued a notification and designated Norfloxacin as a "specified product" and fixed the maximum selling price. In 1996, the Company filed a statutory Form III before the NPPA for the upward revision of the maximum selling price and a writ petition in the Andhra Pradesh High Court (the "High Court") challenging the validity of the designation on the grounds that the applicable rules of the DPCO were not complied with while fixing the maximum selling price. The High Court had previously granted an interim order in favor of the Company; however it subsequently dismissed the case in April 2004.

The Company filed a review petition in the High Court in April 2004 which was also dismissed by the High Court in October 2004. Subsequently, the Company appealed to the Supreme Court of India, New Delhi (the "Supreme Court") by filing a Special Leave Petition.

During the year ended March 31, 2006, the Company received a notice from the NPPA demanding the recovery of the price charged by the Company for sales of Norfloxacin in excess of the maximum selling price fixed by the NPPA, which was Rs.285 including interest.

The Company filed a writ petition in the High Court challenging this demand order. The High Court admitted the writ petition and granted an interim order, directing the Company to deposit 50% of the principal amount claimed by the NPPA, which was Rs.77. The Company deposited this amount with the NPPA in November 2005. In February 2008, the High Court directed the Company to deposit an additional amount of Rs.30, which was deposited by the Company in March 2008. In November 2010, the High Court allowed the Company's application to include additional legal grounds that the Company believed strengthened its defense against the demand. For example, the Company added as grounds that trade margins should not be included in the computation of amounts overcharged, and that it was necessary for the NPPA to set the active pharmaceutical ingredient price before the process of determining the ceiling on the formulation price. In October 2013, the Company filed an additional writ petition before the Supreme Court challenging the inclusion of Norfloxacin as a "specified product" under the DPCO. In January 2015, the NPPA filed a counter affidavit stating that the inclusion of Norfloxacin was based upon the recommendation of a committee consisting of experts in the field. On July 20, 2016, the Supreme Court remanded the matters concerning the inclusion of Norfloxacin as a "specified product" under the DPCO back to the High Court for further proceedings. During the three months ended September 30, 2016, the Supreme Court dismissed the Special Leave Petition pertaining to the fixing of prices for Norfloxacin formulations.

35. Contingencies (continued)

Product and patent related matters (continued)

During the three months ended December 31, 2016, a writ petition pertaining to Norfloxacin was filed by the Company with the Delhi High Court. The matter is adjourned to September 11, 2019 for hearing.

Based on its best estimate, the Company has recorded a provision for potential liability for sale proceeds in excess of the notified selling prices, including the interest thereon, and believes that the likelihood of any further liability that may arise on account of penalties pursuant to this litigation is not probable.

Litigation relating to Cardiovascular and Anti-diabetic formulations

In July 2014, the NPPA, pursuant to the guidelines issued in May 2014 and the powers granted by the Government of India under the Drugs (Price Control) Order, 2013, issued certain notifications regulating the prices for 108 formulations in the cardiovascular and antidiabetic therapeutic areas. The Indian Pharmaceutical Alliance ("IPA"), in which the Company is a member, filed a writ petition in the Bombay High Court challenging the notifications issued by the NPPA on the grounds that they were ultra vires, ex facie and ab initio void. The Bombay High Court issued an order to stay the writ in July 2014. On September 26, 2016, the Bombay High Court dismissed the writ petition filed by the IPA and upheld the validity of the notifications/orders passed by the NPPA in July 2014. Further, on October 25, 2016, the IPA filed a Special Leave Petition with the Supreme Court, which was dismissed by the Supreme Court.

During the three months ended December 31, 2016, the NPPA issued show-cause notices relating to allegations that the Company exceeded the notified maximum prices for 11 of its products. The Company has responded to these notices.

On March 20, 2017, the IPA filed an application before the Bombay High Court for the recall of the judgment of the Bombay High Court dated September 26, 2016. This recall application filed by the IPA was dismissed by the Bombay High Court on October 4, 2017. Further, on December 13, 2017, the IPA filed a Special Leave Petition with the Supreme Court for the recall of the judgment of the Bombay High Court dated October 4, 2017, which was dismissed by Supreme Court on January 10, 2018.

During the three months ended March 31, 2017, the NPPA issued notices to the Company demanding payments relating to the foregoing products for the allegedly overcharged amounts, along with interest. On July 13, 2017, in response to a writ petition which the Company had filed, the Delhi High Court set aside all the demand notices of the NPPA and directed the NPPA to provide a personal hearing to the Company and pass a speaking order. A personal hearing in this regard was held on July 21, 2017. On July 27, 2017, the NPPA passed a speaking order along with the demand notice directing the Company to pay an amount of Rs.776. On August 3, 2017, the Company filed a writ petition challenging the speaking order and the demand notice. Upon hearing the matter on August 8, 2017, the Delhi High Court stayed the operation of the demand order and directed the Company to deposit Rs.100 and furnish a bank guarantee for Rs.676. Pursuant to the order, the Company deposited Rs.100 on September 13, 2017 and submitted a bank guarantee of Rs.676 dated September 15, 2017 to the Registrar General, Delhi High Court. On November 22, 2017, the Delhi High Court directed the Union of India to file a final counter affidavit within six weeks, subsequent to which the Company could file a rejoinder. On May 10, 2018, the counter affidavit was filed by the Union of India. The Company subsequently filed a rejoinder and both were taken on record by the Delhi High Court. The matter has been adjourned to July 22, 2019 for hearing.

Based on its best estimate, the Company has recorded a provision of Rs.342 under "Selling, general and administrative expenses" as a potential liability for sale proceeds in excess of the notified selling prices, including the interest thereon, and believes that the likelihood of any further liability that may arise on account of penalties pursuant to this litigation is not probable.

However, if the Company is unsuccessful in such litigation, it will be required to remit the sale proceeds in excess of the notified selling prices to the Government of India with interest and could potentially include penalties, which amounts are not readily ascertainable.

Other product and patent related matters

Child resistant packaging matter complaint under the False Claims Act ("FCA")

In May 2012, the Consumer Product Safety Commission (the "CPSC") requested that Dr. Reddy's Laboratories Inc., a wholly-owned subsidiary of the Company in the United States, provide certain information with respect to compliance with requirements of special packaging for child resistant blister packs for 6 products sold by the Company in the United States during the period commencing in 2002 through 2011. The Company provided the requested information. The CPSC subsequently alleged in a letter dated April 30, 2014 that the Company had violated the Consumer Product Safety Act (the "CPSA") and the Poison Prevention Packaging Act (the "PPPA") and that the CPSC intended to seek civil penalties. Specifically, the CPSC asserted, among other things, that from or about August 14, 2008 through June 1, 2012, the Company sold prescription drugs having unit dose packaging that failed to comply with the CPSC's special child resistant packaging regulations under the PPPA and failed to issue general certificates of conformance. In addition, the CPSC asserted that the Company violated the CPSA by failing to immediately advise the CPSC of the alleged violations. The Company disagrees with the CPSC's allegations.

Simultaneously, the U.S. Department of Justice (the "DOJ") began to investigate a sealed complaint which was filed in the United States District Court for the Eastern District of Pennsylvania under the Federal False Claims Act ("FCA") related to these same issues (the "FCA Complaint"). The Company cooperated with the DOJ in its investigation. The DOJ and all States involved in the investigation declined to intervene in the FCA Complaint. On November 10, 2015, the FCA Complaint was unsealed and the plaintiff whistleblowers, who are two former employees of the Company, proceeded without the DOJ's and applicable States' involvement. The unsealed FCA Complaint relates to the 6 blister pack products originally subject to the investigation and also 38 of the Company's generic prescription products sold in the U.S. in various bottle and cap packaging.

35. Contingencies (continued)

Product and patent related matters (continued)

The Company filed its response to the FCA Complaint on February 23, 2016 in the form of a motion to dismiss for failure to state a claim upon which relief can be granted. On March 26, 2017, the Court granted the Company's motion to dismiss, dismissing the FCA Complaint and allowing the plaintiffs one more chance to refile this complaint in an attempt to plead sustainable allegations. On March 29, 2017, the plaintiffs filed their final amended FCA Complaint, which the Company opposed and during the three months ended March 31, 2018, the Company obtained dismissal of the FCA Complaint with prejudice. The plaintiffs filed a petition with the Court requesting that the Court reconsider its decision to dismiss the FCA Complaint with prejudice, and that request was denied.

The parallel investigation by the CPSC under the CPSA and the PPPA was referred by the CPSC to the DOJ's office in Washington, D.C. in April 2016, with the recommendation that the DOJ initiate a civil penalty action against the Company. The CPSC matter referred to the DOJ relates to five of the blister pack products.

On January 18, 2018, the Company and the DOJ entered into a settlement of the action and agreed to a consent decree providing for a civil penalty of U.S.$5 (Rs.319), and injunctive relief. The settlement was without adjudication of any issue of fact or law, and the Company has not admitted any violations of law pursuant to this settlement.

During the three months ended March 31, 2018, the Company obtained dismissal of the FCA Complaint with prejudice. The plaintiffs subsequently filed a petition with the Court requesting that the Court reconsider its decision to dismiss the FCA Complaint with prejudice, and that request was denied.

In June 2018, the plaintiffs filed their Notice of Appeal to the Third Circuit Court of Appeals. During the three months ended September 2018, the plaintiffs and the DOJ settled and thus this appeal was dismissed. The plaintiffs then filed an application for recovery of attorneys' fees from the Company under the "alternative remedy doctrine." The Company made opposing filings to this and in response the plaintiffs withdrew their application.

The Company believes that the likelihood of any liability that may arise on account of the FCA Complaint is not probable. Accordingly, no provision has been made in these consolidated financial statements.

Namenda Litigation

In August 2015, Sergeants Benevolent Assoc. Health & Welfare Fund ("Sergeants") filed suit against the Company in the United States District Court for the Southern District of New York. Sergeants alleged that certain parties, including the Company, violated federal antitrust laws as a consequence of having settled patent litigation related to the Alzheimer's drug Namenda® (memantine) tablets during a period from about 2009 until 2010. Sergeants seeks to represent a class of "end-payor" purchasers of Namenda® tablets (i.e., insurers, other third-party payors and consumers).

Sergeants seeks damages based upon an allegation made in the complaint that the defendants entered into patent settlements regarding Namenda® tablets for the purpose of delaying generic competition and facilitating the brand innovator's attempt to shift sales from the original immediate release product to the more recently introduced extended release product. The Company believes that the complaint lacks merit and that the Company's conduct complied with all applicable laws and regulations.

35. Contingencies (continued)

Product and patent related matters (continued)

Defendants' motions to dismiss were denied. A stay on discovery has been lifted and some discovery has been taken but there is currently no schedule in place. Four other class action complaints, each containing similar allegations to the Sergeants complaint, have also been filed in the U.S. District Court for the Southern District of New York. However, two of those complaints were voluntarily dismissed, and the other two do not name the Company as a defendant.

In addition, the State of New York filed an antitrust case in the U.S. District Court for the Southern District of New York. The case brought by the State of New York contained some (but not all) of the allegations set forth in the class action complaints, but the Company was not named as a party. The case brought by the State of New York was dismissed by stipulation on November 30, 2015.

The Company believes that the likelihood of any liability that may arise on account of alleged violation of federal antitrust laws is not probable. Accordingly, no provision has been made in these consolidated financial statements.

Class Action and Other Civil Litigation on Pricing/Reimbursement Matters

On December 30, 2015 and on February 4, 2016, respectively, a class action complaint (the "First Pricing Complaint") and another complaint (not a class action) (the "Second Pricing Complaint") were filed against the Company and eighteen other pharmaceutical defendants in State Court in the Commonwealth of Pennsylvania. In these actions, the class action plaintiffs allege that the Company and other defendants, individually or in some cases in concert with one another, have engaged in pricing and price reporting practices in violation of various Pennsylvania state laws. More specifically, the plaintiffs allege that: (1) the Company provided false and misleading pricing information to third party drug compendia companies for the Company's generic drugs, and such information was relied upon by private third party payers that reimbursed for drugs sold by the Company in the United States, and (2) the Company acted in concert with certain other defendants to unfairly raise the prices of generic divalproex sodium ER (bottle of 80, 500 mg tablets ER 24H) and generic pravastatin sodium (bottle of 500, 10 mg tablets).

The First Pricing Complaint was removed to the U.S. District Court for the Eastern District of Pennsylvania (the "E.D.P.A. Federal Court") and, pending the outcome of the First Pricing Complaint, the Second Pricing Complaint was stayed. On September 25, 2017, the E.D.P.A. Federal Court dismissed all the claims of the plaintiffs in the First Pricing Complaint and denied leave to amend such complaint as futile. Subsequent to this decision, the plaintiffs right to appeal the dismissal of the First Pricing Complaint expired.

Further, on November 17, 2016, certain class action complaints were filed against the Company and a number of other pharmaceutical companies as defendants in the E.D.P.A. Federal Court. Subsequently, these complaints were consolidated into one amended complaint as part of a multi-district, multi-product litigation pending with the E.D.P.A. Federal Court. These complaints allege that the Company and the other named defendants have engaged in a conspiracy to fix prices and to allocate bids and customers in the sale of pravastatin sodium tablets and divalproex sodium extended-release tablets in the United States.

In March 2017, plaintiffs agreed by stipulation to dismiss Dr. Reddy's Laboratories Inc. and Dr. Reddy's Laboratories Limited from the actions related to pravastatin sodium tablets without prejudice. The Company denies any wrongdoing and intends to vigorously defend against these allegations.

In response to the consolidated new complaint, the Company filed a motion to dismiss in October 2017. The plaintiffs filed opposition to the motion to dismiss in December 2017 and a reply was filed by the Company in January 2018. In October 2018, the Court denied the motion to dismiss on the grounds that the allegations pled leave open the possibility of conspiracy. Therefore, discovery will proceed to look into this possibility.

The Company believes that the asserted claims are without merit and intends to vigorously defend itself against the allegations. Also any liability that may arise on account of these claims is unascertainable. Accordingly, no provision was made in the consolidated financial statements of the Company.

United States Antitrust Multi-District Litigation:

The following cases against the Company's U.S. subsidiary, Dr. Reddy's Laboratories, Inc., have been filed and are pending and consolidated in *In re Generic Pharmaceutical Pricing Antitrust Litigation, MDL 2724, 14-MD-2724 (Eastern District of Pennsylvania)*, Multi District Litigation ("MDL") in the Eastern District of Pennsylvania ("MDL-2724"):

a) U.S. States Attorneys General Antitrust Complaints

On October 30, 2017, the Attorneys General of forty-nine U.S. States, the Commonwealth of Puerto Rico and the District of Columbia, filed an Amended Complaint in the United States District Court for the Eastern District of Pennsylvania, against eighteen generic pharmaceutical companies (including the Company's U.S. subsidiary) with respect to fifteen generic drugs, alleging that the Company's U.S. subsidiary and the other named defendants engaged in a conspiracy to fix prices and to allocate bids and customers in the United States in the sale of the fifteen named drugs. The Company's U.S. subsidiary is specifically named as a defendant with respect to two generic drugs (meprobamate and zoledronic acid), and is named as an alleged co-conspirator on an alleged "overarching conspiracy" with respect to the other thirteen generic drugs named. The Amended Complaint alleges violations of Section 1 of the Sherman Act, 15 U.S.C. §1, and the consumer protection and antitrust laws of each of the jurisdictions that are plaintiffs. The Amended Complaint seeks injunctive relief, statutory penalties, punitive damages, and recovery of treble damages, plus attorney's fees and costs, against all named defendants on a joint and several basis, on behalf of the plaintiff jurisdictions and their citizens and inhabitants. The Company denies the claims asserted and intends to vigorously defend against the claims asserted.

On May 10, 2019, the Attorneys General of forty-nine U.S. States, the Commonwealth of Puerto Rico and the District of Columbia, filed a Complaint in the United States District Court for the District of Connecticut against twenty-one generic pharmaceutical companies (including the Company's U.S. subsidiary) and fifteen individual defendants, with respect to 116 generic drugs, alleging that the Company's U.S. subsidiary and the other named defendants engaged in a conspiracy to fix prices and to allocate bids and customers in the United States in the sale of the 116 named drugs. Under the MDL rules, this action will be designated a related "tag along" action and will be transferred to and become a part of the MDL-2724. The Company's U.S. subsidiary is specifically named as a defendant with respect to five generic drugs (Ciprofloxacin HCL tablets, Glimepiride tablets, Oxaprozin tablets, Paricalcitol and Tizanidine), and is named as an alleged co-conspirator on an alleged "overarching conspiracy" with respect to the other thirteen generic drugs named. The Complaint alleges violations of Section 1 of the Sherman Act, 15 U.S.C. §1, and the consumer protection and antitrust laws of each of the jurisdictions that are plaintiffs. The Complaint seeks injunctive relief, statutory penalties, punitive damages, and recovery of treble damages, plus attorney's fees and costs, against all named defendants on a joint and several basis, on behalf of the plaintiff jurisdictions and their citizens and inhabitants. The Company denies the claims asserted and intends to vigorously defend against the claims asserted.

b) Divalproex Antitrust Class Action Cases Filed by Direct Payor Plaintiffs ("DPP"), End Payor Plaintiffs ("EPP") and Indirect Reseller Plaintiffs ("IRP") Classes:

Since November 17, 2016, certain class action complaints on behalf of Direct Purchaser Plaintiffs ("DPP"), Indirect Purchaser Plaintiffs ("IRP") and End Payor Plaintiffs ("EPP") were filed against the Company's U.S. subsidiary, , Dr. Reddy's Laboratories, Inc., and a number of other pharmaceutical defendants in the United States District Court for the District of Pennsylvania, alleging that the Company's U.S. subsidiary and the other named defendants have engaged in a conspiracy to fix prices and to allocate bids and customers in the sale of divalproex ER tablets in the United States. The actions allege violations of Section 1 of the Sherman Act, 15 U.S.C. §1, and of state consumer protection and antitrust laws and asserts claims of unjust enrichment under a total of thirty-one states and the District of Columbia. The actions seek injunctive relief and recovery of treble damages, punitive damages, plus attorney's fees and costs, on a joint and several basis, on behalf of the plaintiff classes. The Company denies the claims and intends to vigorously defend against these class action complaints.

35. Contingencies (continued)

Product and patent related matters (continued)

c) Pravastatin Antitrust Class Action Cases Filed by Direct Payor Plaintiffs ("DPP"), End Payor Plaintiffs ("EPP") and Indirect Reseller Plaintiffs ("IRP") Classes:

Since November 17, 2016, certain class action complaints on behalf of Direct Purchaser Plaintiffs ("DPP"), Indirect Purchaser Plaintiffs ("IRP") and End Payor Plaintiffs ("EPP") were filed against the Company and a number of other pharmaceutical defendants in the United States District Court for the District of Pennsylvania, alleging that the Company's U.S. subsidiary and the other named defendants engaged in a conspiracy to fix prices and to allocate bids and customers in the sale of pravastatin sodium tablets in the United States. The Company's U.S. subsidiary has been dismissed from these actions, without prejudice, in exchange for a tolling agreement with the plaintiffs suspending the statute of limitations as to the claims asserted. The Company denies any wrongdoing and intends to vigorously defend against these claims.

d) Antitrust "Overarching Conspiracy" Cases Filed by Direct Payor Plaintiffs ("DPP"), End Payor Plaintiffs ("EPP") and Indirect Reseller Plaintiffs ("IRP") Classes:

In June 2018, three class action complaints were filed in the MDL-2724 by the Direct Purchaser Plaintiffs ("DPP"), Indirect Purchaser Plaintiffs ("IRP") and End Payor Plaintiffs ("EPP") classes. All three complaints allege conspiracies in restraint of trade in violation of Sections 1 of the Sherman Act, and violations of thirty-one State antitrust statutes, Consumer Protection statutes and claims of unjust enrichment seeking injunctive relief, recovery of treble damages, punitive damages, attorney's fees and costs. They allege an "overarching conspiracy" among the named defendants involving fifteen drugs and, with slight variations, name approximately twenty-five generic pharmaceutical manufacturers including the Company's U.S. subsidiary, Dr. Reddy's Laboratories, Inc. The drug-specific allegations against the Company's U.S. subsidiary involve two of the fifteen drugs, meprobamate and zoledronic acid. Plaintiffs also allege that the Company's U.S. subsidiary (as well as all other manufacturers named) were part of a larger "overarching conspiracy" as to all of the drugs named in the complaints. The Complaint alleges violations of Section 1 of the Sherman Act, 15 U.S.C. §1, and violations of thirty-one State antitrust statutes, Consumer Protection statutes and claims of unjust enrichment. The complaint seeks injunctive relief, recovery of treble damages, punitive damages, attorney's fees and costs against all named defendants on a joint and several basis. The Company denies any wrongdoing and intends to vigorously defend against these claims.

e) Antitrust Case Filed by The Kroger Co., Albertsons Companies, LLC, and H.E. Butt Grocery Company, L.P.:

On January 22, 2018, each of the Kroger Co., Albertsons Companies, LLC, and H.E. Butt Grocery Company, L.P., filed a Complaint against the Company's U.S. subsidiary and thirty-one other companies alleging that they had engaged in a conspiracy to fix prices and to allocate bids and customers in the United States in the sale of the thirty named generic drugs. The Company's U.S. subsidiary is specifically named as a defendant with respect to three generic drugs (divalproex ER, meprobamate and zoledronic acid), and is named as an alleged co-conspirator on an alleged "overarching conspiracy" claim with respect to the other generic drugs named. This action alleges violations of Section 1 of the Sherman Act, 15 U.S.C. §1, and seeks injunctive relief and recovery of treble damages, punitive damages, plus attorney's fees and costs, on a joint and several basis. The Company denies the claims and intends to vigorously defend against these class action complaints.

35. Contingencies (continued)

Product and patent related matters (continued)

f) Antitrust Case Filed by Humana Inc.:

On August 3, 2018, Humana, Inc., filed a Complaint against the Company's U.S. subsidiary and thirty-nine other companies alleging that they had engaged in a conspiracy to fix prices and to allocate bids and customers in the United States in the sale of twenty-nine named generic drugs. The Company's U.S. subsidiary is specifically named as a defendant with respect to one generic drugs (divalproex ER), and is named as an alleged co-conspirator on an alleged "overarching conspiracy" claim with respect to the other generic drugs named. The Complaint alleges violations of Section 1 of the Sherman Act, 15 U.S.C. §1, and violations of thirty-one state antitrust statutes, consumer protection statutes and asserts claims of unjust enrichment. The complaint seeks injunctive relief, recovery of treble damages, punitive damages, attorney's fees and costs against all named defendants on a joint and several basis. The Company denies any wrongdoing and intends to vigorously defend against these claims.

g) Antitrust Case Filed by Marion Diagnostic Center, LLC, and Marion Healthcare, LLC:

On September 25, 2018, Marion Diagnostic Center, LLC, and Marion Healthcare, LLC, filed a complaint in the MDL-2724, on behalf of itself and a class of all direct purchasers from distributors, against the Company's U.S. subsidiary and twenty-two other defendants, including a major distributor of pharmaceutical products, involving a total of sixteen generic drugs, alleging an "overarching conspiracy" to fix prices and to rig bids and allocate customers with respect to sixteen generic drugs. The Company's U.S. subsidiary is specifically named with respect to two drugs: meprobamate and zoledronic acid. Plaintiffs also allege that the Company's U.S. subsidiary (as well as all other manufacturers named) were part of a larger "overarching conspiracy" as to all of the drugs named in the complaints. The Complaint alleges violations of Section 1 of the Sherman Act, 15 U.S.C. §1, and violations of twenty-four State antitrust statutes, consumer protection statutes and asserts claims of unjust enrichment. The complaint seeks injunctive relief, recovery of treble damages, punitive damages, attorney's fees and costs against all named defendants on a joint and several basis. The Company denies any wrongdoing and intends to vigorously defend against these claims.

h) Antitrust Case Filed by United Healthcare Services, Inc.:

On January 16, 2019, United Healthcare Services, Inc., filed a complaint against the Company's U.S. subsidiary and forty-two other defendants, involving a total of thirty generic drugs, alleging an "overarching conspiracy" to fix prices and to rig bids and allocate customers with respect to the thirty drugs. The Company's U.S. subsidiary is specifically named with respect to four drugs: divalproex ER, meprobamate, pravastatin and zoledronic acid. Plaintiffs also allege that the Company's U.S. subsidiary (as well as all other manufacturers named) were part of a larger "overarching conspiracy" as to all of the drugs named in the complaints. The Complaint alleges violations of Section 1 of the Sherman Act, 15 U.S.C. §1, and violations of the thirty State's antitrust laws, consumer protection statutes, and asserts claims of unjust enrichment. The complaint seeks injunctive relief, recovery of treble damages, punitive damages, and attorney's fees and cost against all defendants on a joint and several basis.

The Company believes that the aforesaid asserted claims are without merit and intends to vigorously defend itself against the allegations. Also, any liability that may arise on account of these claims is unascertainable. Accordingly, no provision was made in the consolidated financial statements of the Company.

Civil litigation with Mezzion

On January 13, 2017, Mezzion Pharma Co. Ltd. and Mezzion International LLC (collectively, "Mezzion") filed a complaint in the New Jersey Superior Court against the Company and its wholly owned subsidiary in the United States. The complaint pertains to the production and supply of the active pharmaceutical ingredient ("API") for udenafil (a patented compound) and an udenafil finished dosage product during a period from calendar years 2007 to 2015. Mezzion alleges that the Company failed to comply with the U.S. FDA's current Good Manufacturing Practices ("cGMP") at the time of manufacture of the API and finished dosage forms of udenafil and, consequently, that this resulted in a delay in the filing of a NDA for the product by Mezzion. In this regard, the Company filed a motion to dismiss Mezzion's complaint on the technical grounds that the Court lacks jurisdiction over the Company. In January 2018, the Court denied the Company's motion to dismiss the complaint on the jurisdictional matter. The Company's interlocutory appeal of the said denial, was also denied.

The Commercial Court, Hyderabad has accepted the request of the Company to withdraw the suit, in view of the Court granting the Company's motion of Dr. Reddy's to file a Counterclaim in U.S. Action.

The Company denies any wrongdoing or liability in this regard, and intends to vigorously defend against the claims asserted in Mezzion's complaint. Any liability that may arise on account of this claim is unascertainable. Accordingly, no provision was made in the consolidated financial statements of the Company.

35. Contingencies (continued)

Securities Class Action Litigation

On August 25, 2017, a securities class action lawsuit was filed against the Company, its Chief Executive Officer and its Chief Financial Officer in the United States District Court for the District of New Jersey. The Company's Co-Chairman, its Chief Operating Officer, and Dr. Reddy's Laboratories, Inc., were also subsequently named as defendants in the case. The operative complaint alleges that the Company made false or misleading statements or omissions in its public filings, in violation of U.S. federal securities laws, and that the Company's share price dropped and its investors were affected. On May 9, 2018, the Company and other defendants filed a motion to dismiss the complaint in the United States District Court for the District of New Jersey.

On June 25, 2018, the plaintiffs filed an opposition to the motion to dismiss and, on July 25, 2018, a further reply in support of the motion to dismiss was filed by the Company. In August 2018, oral argument on the motion to dismiss was heard by the Court.

On March 21, 2019, the District Court issued its decision granting in part and denying in part the motion to dismiss. Pursuant to that decision, the Court dismissed the plaintiffs claims with respect to seventeen out of the twenty two alleged misstatements and omissions.

The Company believes that the asserted claims are without merit and intends to vigorously defend itself against the allegations. Any liability that may arise on account of this claim is unascertainable. Accordingly, no provision was made in the consolidated financial statements of the Company.

Glenmark Litigation

In November 2017, the Company received a letter from Glenmark Farmaceutica Ltda and Glenmark Pharmaceuticals Limited (collectively "Glenmark"), for invocation of arbitration under a distribution agreement and a deed of assignment relating to a product between the Company and Glenmark. Glenmark alleged that the non-supply of the product by the Company severely affected the value of the intellectual property and goodwill and asserted claims to recover the loss along with interest and penalties from the Company.

In March 2018, an arbitrator was appointed by the Supreme Court of India at Glenmark's request. In July 2018, Glenmark filed a claim statement against the Company and in September 2018, the Company filed a reply against the claim along with a counter claim.

Glenmark filed a reply to the counter claim of the Company in November 2018 and the issues were finalized. Inspection of documents along with the filing of the statement of Admissions and Denials was completed in December 2018.The company was asked to submit the list of witnesses by March 5, 2019.

Affidavits in chief examination were filed by witnesses of the Company and Glenmark. The cross examination of the witnesses of Glenmark commenced and is anticipated to continue until July, 2019.

The Company believes that the asserted claims are without merit and intends to vigorously defend itself against the allegations. Any liability that may arise on account of these claims is unascertainable. No provision was made in the consolidated financial statements of the Company.

Other matters

Civil Investigative Demand from the Office of the Attorney General, State of Texas

On or about November 10, 2014, Dr. Reddy's Laboratories, Inc., one of the Company's subsidiaries in the United States, received a Civil Investigative Demand ("CID") from the Office of the Attorney General, State of Texas (the "Texas AG") requesting certain information, documents and data regarding sales and price reporting in the U.S. marketplace of certain products for the period of time between January 1, 1995 and the date of the CID. The Company responded to all of the Texas AG's requests to date, and it understands that the investigation is continuing.

Subpeona duces tecum from the Office of the Attorney General, California

On November 3, 2014, Dr. Reddy's Laboratories, Inc. received a subpoena duces tecum to appear before the Office of the Attorney General, California (the "California AG") and produce records and documents relating to the pricing of certain products. A set of five interrogatories related to pricing practices was served as well. On July 18, 2016, the California AG sent a letter to inform Dr. Reddy's Laboratories, Inc. that, in light of the information which had been provided, no further information would be requested at such time in response to this subpoena.

Subpoenas from the U.S. Department of Justice ("DOJ") and the office of the Attorney General for the State of Connecticut

On July 6, 2016 and August 7, 2016, Dr. Reddy's Laboratories, Inc. received subpoenas from the DOJ (Anti-trust Division) and the office of the Attorney General for the State of Connecticut, respectively, seeking information relating to the marketing, pricing and sale of certain of our generic products and any communications with competitors about such products. On May 15, 2018, another subpoena was served on Dr. Reddy's Laboratories, Inc. by the DOJ (False Claims Division) seeking similar information. The Company has been cooperating, and intends to continue to fully cooperate, with these inquiries.

35. Contingencies (continued)

Environmental matters

Land pollution

The Indian Council for Environmental Legal Action filed a writ in 1989 under Article 32 of the Constitution of India against the Union of India and others in the Supreme Court of India for the safety of people living in the Patancheru and Bollarum areas of Medak district of the then existing undivided state of Andhra Pradesh. The Company has been named in the list of polluting industries. In 1996, the Andhra Pradesh District Judge proposed that the polluting industries compensate farmers in the Patancheru, Bollarum and Jeedimetla areas for discharging effluents which damaged the farmers' agricultural land. The compensation was fixed at Rs.0.0013 per acre for dry land and Rs.0.0017 per acre for wet land. Accordingly, the Company has paid a total compensation of Rs.3. The Andhra Pradesh High Court disposed of the writ petition on February 12, 2013 and transferred the case to the National Green Tribunal ("NGT"), Chennai, India. The interim orders passed in the writ petitions will continue until the matter is decided by the NGT. The NGT has, through its order dated October 30, 2015, constituted a Fact Finding Committee. The NGT has also permitted the alleged polluting industries to appoint a person on their behalf in the Fact Finding Committee. However, the Company, along with the alleged polluting industries, has challenged the constitution and composition of the Fact Finding Committee. The NGT has directed that until all the applications challenging the constitution and composition of the Fact Finding Committee are disposed of, the Fact Finding Committee shall not commence its operation.

The NGT, Chennai in a judgment dated October 24, 2017, disposed of the matter. The Bulk Drug Manufacturers Association of India ("BDMAI"), in which the Company is a member, subsequently filed a review petition against the judgment on various aspects.

The NGT, Delhi, in a judgment dated November 16, 2017 in another case in which the Company is not a party, stated that the moratorium imposed in the Patancheru and Bollaram areas shall continue until the Ministry of Environment, Forest and Climate Change passes an order keeping in view the needs of the environment and public health. The Company filed an appeal challenging this judgment.

The High Court of Hyderabad heard the Company's appeal challenging this judgment in July 2018 and directed the respondents to file their response within a period of four weeks. During the three months ended September 30, 2018, the respondents filed counter affidavits and the matter has now been adjourned for final hearing.

The appeal came up for hearing before the High Court of Hyderabad on October 25, 2018 and has been adjourned for further hearing.

On April 24, 2019, based upon the judgement of the NGT, Chennai dated October 24, 2017, the Government of Telangana has issued GO.Ms. No 24 of 2019 that allows for expansion of production of all kinds of existing industrial units located within the stretch of Patancheru – Bollaram upon depositing an amount equivalent to 1% of the annual turnover of the respective unit for the concluded financial year i.e., March 31, 2019. Accordingly, the Company made a provision of Rs. 29.4, representing the probable cost of expansion, during the year ended March 31, 2019.

The Company believes that any additional liability that might arise in this regard is not probable. Accordingly, no provision relating to these claims has been made in the financial statements.

Water pollution and air pollution

During the year ended March 31, 2012, the Company, along with 14 other companies, received a notice from the Andhra Pradesh Pollution Control Board (the "APP Control Board") to show cause as to why action should not be initiated against them for violations under the Indian Water Pollution Act and the Indian Air Pollution Act. Furthermore, the APP Control Board issued orders to the Company to (i) stop production of all new products at the Company's manufacturing facilities in Hyderabad, India without obtaining a "Consent for Establishment", (ii) cease manufacturing products at such facilities in excess of certain quantities specified by the APP Control Board and (iii) furnish a bank guarantee to assure compliance with the APP Control Board's orders.

The Company appealed the APP Control Board orders to the Andhra Pradesh Pollution Appellate Board (the "APP Appellate Board"). The APP Appellate Board, on the basis of a report of a fact-finding advisory committee, recommended to the Andhra Pradesh Government to allow expansion of units fully equipped with Zero-Liquid Discharge ("ZLD") facilities and otherwise found no fault with the Company (on certain conditions).

The APP Appellate Board's decision was challenged by one of the petitioners in the National Green Tribunal and the matter is currently pending before it.

The challenge to the APP Appellate Board's decision is transferred to the NGT, Delhi for a final hearing, the date for which has not yet been notified. No provision relating to these claims has been made in the consolidated financial statements.

Separately, the Andhra Pradesh Government, following recommendations of the APP Appellate Board, published a notification in July 2013 that allowed expansion of production of all types of existing bulk drug and bulk drug intermediate manufacturing units subject to the installation of ZLD facilities and the outcome of cases pending in the National Green Tribunal. Importantly, the notification directed pollution load of industrial units to be assessed at the point of discharge (if any) as opposed to point of generation.

In September 2013, the Ministry of Environment and Forests, based on the revised Comprehensive Environment Pollution Index, issued a notification that re-imposed a moratorium on expansion of industries in certain areas where some of the Company's manufacturing facilities are located. This notification overrides the Andhra Pradesh Government's notification that conditionally permitted expansion**.**

(in millions, except share and per share data)

35. Contingencies (continued)

Indirect taxes related matters

Distribution of input service tax credits

The Central Excise Authorities have issued various demand notices to the Company objecting to the Company's methodology of distributing input service tax credits claimed for one of the Company's facilities. The below table shows the details of each such demand notice, the amount demanded and the current status of the Company's responsive actions.

Period covered under the notice	Amount demanded	Status
March 2008 to September 2009	Rs.102 plus penalties of Rs.102 and interest	The Company has filed an appeal before the CESTAT
October 2009 to March 2011	Rs.125 plus penalties of Rs.100 and interest	The Company has filed an appeal before the CESTAT
April 2011 to March 2012	Rs.51 plus penalties of Rs. 5 and interest	The Company has filed an appeal before the CESTAT
April 2012 to March 2013	Rs.54 plus penalties of Rs. 5 and interest	The Company has filed an appeal before the CESTAT
April 2013 to March 2014	Rs.69 plus penalties of Rs.6 and interest	The Company has filed an appeal before the CESTAT
April 2014 to March 2015	Rs.108 plus penalties of Rs.11 and interest	The Company has filed an appeal before the CESTAT
April 2015 to March 2016	Rs.157 plus interest and penalties	The Company has submitted reply hearing awaited
April 2016 to June,2017	Rs.307 plus interest and penalties	The Company is in the process of responding to the notice

The Company believes that the likelihood of any liability that may arise on account of the allegedly inappropriate distribution of input service tax credits is not probable. Accordingly, no provision relating to these claims has been made in these consolidated financial statements as of March 31, 2019.

Value Added Tax ("VAT") matter

The Company has received various demand notices from the Government of Telangana's Commercial Taxes Department objecting to the Company's methodology of calculation of VAT input credit. The below table shows the details of each of such demand notice, the amount demanded and the current status of the Company's responsive actions.

Period covered under the notice	Amount demanded	Status
April 2006 to March 2009	Rs.66 plus 10% penalty	The State VAT Appellate Tribunal has remanded the matter to the assessing authority to re-compute the eligibility and penalty orders are set-aside
April 2009 to March 2011	Rs.59 plus 10% penalty	The Company has filed an appeal before the Sales Tax Appellate Tribunal - The matter was remanded to the original adjudicating authority with a direction to re-calculate the eligibility for the year ended March 31,2010.
April 2011 to March 2013	Rs.16 plus 10% penalty	The Appellate Deputy Commissioner issued an order partially in favor of the Company

The Company has recorded a provision of Rs.51 as of March 31, 2019 and believes that the likelihood of any further liability that may arise on account of the allegedly inappropriate claims to VAT credits is not probable.

Others

Additionally, the Company is in receipt of various demand notices from the Indian Sales and Service Tax authorities. The disputed amount is Rs.297. The Company has responded to such demand notices and believes that the chances of any liability arising from such notices are less than probable. Accordingly, no provision is made in these consolidated financial statements as of March 31, 2019.

Fuel Surcharge Adjustments

The Andhra Pradesh Electricity Regulatory Commission (the "APERC") passed various orders approving the levy of Fuel Surcharge Adjustment ("FSA") charges for the period from April 1, 2008 to March 31, 2013 by power distribution companies from all the consumers of electricity in the then existing undivided state of Andhra Pradesh, India where the Company's headquarters and principal manufacturing facilities are located. Separate writ petitions filed by the Company for various periods, challenging and questioning the validity and legality of this levy of FSA charges by the APERC, are pending before the High Court of Andhra Pradesh and the Supreme Court of India.

The total amount approved by APERC for collection by the power distribution companies from the Company in respect of FSA charges for the period from April 1, 2008 to March 31, 2013 is Rs.482. After taking into account all of the available information and legal provisions, the Company has recorded Rs.219 as the potential liability towards FSA charges. However, the Company has paid, under protest, an amount of Rs.354 as demanded by the power distribution companies as part of monthly electricity bills. The Company remains exposed to additional financial liability should the orders passed by the APERC be upheld by the Courts.

During the three months ended June 30, 2016, the Supreme Court of India dismissed the Special Leave Petition filed by the Company in this regard for the period from April 1, 2012 to March 31, 2013. As a result, for the quarter ended June 30, 2016, the Company recognized an expenditure of Rs.55 (by de-recognizing the payments under protest) representing the FSA charges for the period from April 1, 2012 to March 31, 2013.

(in millions, except share and per share data)

35. Contingencies (continued)

Direct taxes related matters

The Company is contesting various disallowances by the Indian Income Tax authorities. The associated tax impact is Rs.2,008. The Company believes that the chances of an unfavorable outcome in each of such disallowances are less than probable and, accordingly, no provision is made in these financial statements as of March 31, 2019.

During the years ended March 31, 2014, 2015 and 2016, Industrias Quimicas Falcon de Mexico, S.A. de CV, a wholly-owned subsidiary of the Company in Mexico, received a notice from Mexico's Tax Administration Service, *Servicio de Administracion Tributaria* ("SAT"), with respect to disallowance on account of transfer pricing adjustments pertaining to the calendar years ended December 31, 2006, December 31, 2007 and December 31, 2008. The associated tax impact is Rs.739 (MXN 207) and profit share impact is Rs.89 (MXN 25). The Company filed administrative appeals with the SAT by challenging these disallowances and, during February and March 2017, the Company received orders of the SAT confirming these disallowances by dismissing its administrative appeals. The Company disagrees with the SAT's disallowances and filed an appeal with the Tribunal Federal de Justicia Administrativa (Federal Tax and Administrative Court of Mexico) in March and April 2017.

The Company believes that possibility of any liability that may arise on account of this litigation is not probable. Accordingly, no provision has been made in these consolidated financial statements as of March 31, 2019.

Others

On February 28, 2019, the Supreme Court of India issued a judgment which provided further guidance for companies in determining which components of their employees' compensation are subject to statutory withholding obligations, and matching employer contribution obligations, for Provident Fund contributions under Indian law. There are numerous interpretative issues relating to this judgment. However, the Company has made a provision on a prospective basis from the date of the Supreme Court's judgment. The Company will evaluate the same and update its provision, if any on receiving further clarity on the subject.

Additionally, the Company is involved in other disputes, lawsuits, claims, governmental and/or regulatory inspections, inquiries, investigations and proceedings, including patent and commercial matters that arise from time to time in the ordinary course of business. Except as discussed above, the Company does not believe that there are any such contingent liabilities that are expected to have any material adverse effect on its consolidated financial statements.

36. Nature of Expense

The following table shows supplemental information related to certain "nature of expense" items for the years ended March 31, 2019, 2018 and 2017:

	For the Year Ended March 31,		
Employee benefits	**2019**	**2018**	**2017**
Cost of revenues	Rs. 10,644	Rs. 10,434	Rs. 10,515
Selling, general and administrative expenses	18,291	17,004	15,838
Research and development expenses	4,627	4,711	4,716
	Rs. 33,562	**Rs. 32,149**	**Rs. 31,069**

	For the Year Ended March 31,		
Depreciation :	**2019**	**2018**	**2017**
Cost of revenues	Rs. 6,484	Rs. 6,331	Rs. 5,817
Selling, general and administrative expenses	801	854	737
Research and development expenses	1,077	1,100	1,042
	Rs. 8,362	**Rs. 8,285**	**Rs. 7,596**

	For the Year Ended March 31,		
Amortization :	**2019**	**2018**	**2017**
Selling, general and administrative expenses	Rs. 3,421	Rs. 3,029	Rs. 3,198
Cost of revenues	284	264	300
Research and development expenses	123	132	183
	Rs. 3,828	**Rs. 3,425**	**Rs. 3,681**

In addition, for details relating to costs of material consumed Refer to Note 11 of these consolidated financial statements.

(in millions, except share and per share data)

37. Agreements with Encore Dermatology, Inc.

During the year ended March 31, 2019

The Company entered into agreement with Encore Dermatology, Inc. ("Encore") for sale and assignment of US rights relating to three of its dermatology brands viz., Sernivo® (betamethasone dipropionate) Spray 0.05%, Promiseb® Topical Cream and Trainex® 0.05% (Triamcinolone Acetonide Ointment, USP).

All the performance obligations are satisfied by March 31, 2019, and accordingly the Company recognized Rs.1,807 as revenue and Rs. 159 representing the profit on sale of intangible assets as other income, after adjusting the associated costs. The aforesaid transaction pertains to Company's Proprietary Products Segment.

During the year ended March 31, 2018

During the year ended March 31, 2018, the Company entered into an agreement with Encore for out-licensing one of its products, DFD-06. The consideration for this arrangement consists of up to Rs. 1,301 (U.S.$20) in upfront payments and amounts contingent upon satisfaction of certain approval milestones, plus up to U.S.$12.5 contingent upon satisfaction of certain patent and commercial milestones. In addition, the Company is entitled to royalties on net sales. During the three months ended December 31, 2017, all of the performance obligations relating to the approval milestones were met, and consequently, revenue of Rs. 1,301 (U.S.$20) was recognized.

38. Subsequent events

Agreement with Teva Pharmaceutical Industries Limited

In April 2019, the Company entered into an asset purchase agreement with Teva Pharmaceutical Industries Limited to acquire a portfolio of 42 approved, non-marketed Abbreviated New Drug Applications (ANDAs) in the United States. The total purchase consideration involved is U.S.$4. The portfolio includes more than 30 generic injectable products and helps augment the Company's injectables product portfolio both in the United States market and globally. This acquisition pertains to the Company's Global Generics Segment.

Agreement with Celgene

The Company entered into a settlement agreement with Celgene, pursuant to which the Company received a one-time payment of U.S.$ 50 in settlement of any claim the Company or its affiliates may have had for damages under section 8 of the Canadian Patented Medicines (Notice of Compliance) Regulations in regard to the Company's ANDS for a generic version of REVLIMID brand capsules, (Lenalidomide) pending before Health Canada

39. Organizational structure

Dr. Reddy's Laboratories Limited is the parent company. Tabulated below is the list of subsidiaries and joint ventures as of March 31, 2019:

Name of the subsidiary/joint venture	Country of Incorporation	Percentage of Direct/Indirect Ownership Interest
Aurigene Discovery Technologies (Malaysia) Sdn. Bhd.	Malaysia	100%[3]
Aurigene Discovery Technologies Inc.	U.S.A.	100%[3]
Aurigene Discovery Technologies Limited	India	100%
beta Institut gemeinnützige GmbH	Germany	100%[8]
betapharm Arzneimittel GmbH	Germany	100%[8]
Cheminor Investments Limited	India	100%
Cheminor Employees Welfare Trust	India	Refer to footnote 16
Chirotech Technology Limited	United Kingdom	100%[5]
Dr. Reddy's Research Foundation	India	Refer to footnote 16
Dr. Reddy's Employees ESOS Trust (from July 27, 2018)	India	Refer to footnote 16
Dr. Reddy's Farmaceutica Do Brasil Ltda.	Brazil	100%
Dr. Reddy's Laboratories (EU) Limited	United Kingdom	100%[10]
Dr. Reddy's Laboratories (Proprietary) Limited	South Africa	100%[10]
Dr. Reddy's Laboratories (UK) Limited	United Kingdom	100%[5]
Dr. Reddy's Laboratories Canada, Inc.	Canada	100%[10]
Dr. Reddy's Laboratories Chile SPA.	Chile	100%[10]
Dr. Reddy's Laboratories Inc.	U.S.A.	100%[10]
Dr. Reddy's Laboratories International SA	Switzerland	100%[10]
Dr. Reddy's Laboratories Japan KK	Japan	100%[10]
Dr. Reddy's Laboratories Kazakhstan LLP	Kazakhstan	100%[10]
Dr. Reddy's Laboratories Louisiana LLC	U.S.A.	100%[6]
Dr. Reddy's Laboratories Malaysia Sdn. Bhd.	Malaysia	100%[10]
Dr. Reddy's Laboratories New York, Inc.	U.S.A.	100%[10]

(in millions, except share and per share data)

39. Organizational structure (continued)

Dr. Reddy's Laboratories Philippines Inc. (from May 9, 2018)	Philippines	100%[10]
Dr. Reddy's Laboratories Romania S.R.L.	Romania	100%[10]
Dr. Reddy's Laboratories SA	Switzerland	100%
Dr. Reddy's Laboratories Taiwan Limited	Taiwan	100%[10]
Dr. Reddy's Laboratories Tennessee, LLC (until October 1, 2018)	U.S.A.	100%[6]
Dr. Reddy's Laboratories (Thailand) Limited (from June 13, 2018)	Thailand	100%[10]
Dr. Reddy's Laboratories, LLC	Ukraine	100%[10]
Dr. Reddy's New Zealand Limited.	New Zealand	100%[10]
Dr. Reddy's Singapore PTE Limited	Singapore	100%[10][2]
Dr. Reddy's Srl	Italy	100%[11]
Dr. Reddy's Bio-Sciences Limited	India	100%
Dr. Reddy's Laboratories (Australia) Pty. Limited	Australia	100%[10]
Dr. Reddy's Laboratories SAS	Colombia	100%[10]
Dr. Reddy's Research and Development B.V. (formerly Octoplus B.V.)	Netherlands	100%[12]
Dr. Reddy's Venezuela, C.A.	Venezuela	100%[10]
Dr. Reddy's (WUXI) Pharmaceutical Company Limited	China	100%[10]
DRANU LLC	U.S.A.	50%[13]
DRES Energy Private Limited	India	26%[14]
DRL Impex Limited	India	100%[15]
Eurobridge Consulting B.V.	Netherlands	100%[1]
Idea2Enterprises (India) Pvt. Limited	India	100%
Imperial Credit Private Limited	India	100%
Industrias Quimicas Falcon de Mexico, S.A. de CV	Mexico	100%
Kunshan Rotam Reddy Pharmaceutical Co. Limited	China	51.33%[4]
Lacock Holdings Limited	Cyprus	100%[10]
OOO Dr. Reddy's Laboratories Limited	Russia	100%[10]
OOO DRS LLC	Russia	100%[9]
Promius Pharma LLC	U.S.A.	100%[6]
Reddy Antilles N.V.	Netherlands	100%
Reddy Holding GmbH	Germany	100%[10]
Reddy Netherlands B.V.	Netherlands	100%[10]
Reddy Pharma Iberia SA	Spain	100%[10]
Reddy Pharma Italia S.R.L.	Italy	100%[7]
Reddy Pharma SAS	France	100%[10]
Regkinetics Services Limited (formerly Dr. Reddy's Pharma SEZ Limited)	India	100%

(1) Indirectly owned through Dr. Reddy's Research and Development B.V.

(2) Entities under liquidation.

(3) Indirectly owned through Aurigene Discovery Technologies Limited.

(4) Kunshan Rotam Reddy Pharmaceutical Co. Limited is a subsidiary as per Indian Companies Act, 2013, as the Company holds a 51.33% stake. However, the Company accounts for this investment by the equity method and does not consolidate it in the Company's financial statements.

(5) Indirectly owned through Dr. Reddy's Laboratories (EU) Limited.

(6) Indirectly owned through Dr. Reddy's Laboratories Inc.

(7) Indirectly owned through Lacock Holdings Limited.

(8) Indirectly owned through Reddy Holding GmbH.

(9) Indirectly owned through OOO Dr. Reddy's Laboratories Limited (from January, 2019), formerly subsidiary of Eurobridge consulting B.V.

(10) Indirectly owned through Dr. Reddy's Laboratories SA.

(11) Indirectly owned through Reddy Pharma Italia S.R.L.

(12) Indirectly owned through Reddy Netherlands B.V.

(13) DRANU LLC is consolidated in accordance with guidance available in IFRS 10.

(14) Accounted in accordance with IFRS 11 'Joint Arrangements'.

(15) Indirectly owned through Idea2Enterprises (India) Pvt. Limited.

(16) The Company does not have any equity interests in this entity, but has significant influence or control over it.

ITEM 19. EXHIBITS

Exhibit Number	Description of Exhibits	Footnotes
1.1.	Memorandum and Articles of Association of the Registrant dated February 4, 1984.	(1)(3)(5)
1.2.	Certificate of Incorporation of the Registrant dated February 24, 1984.	(1)(3)
1.3.	Amended Certificate of Incorporation of the Registrant dated December 6, 1985.	(1)(3)
1.4.	Amendment to Memorandum and Articles of Association of the Registrant dated June 12, 2009 (regarding an increase in our authorized share capital pursuant to the amalgamation of Perlecan Pharma Private Limited into Dr. Reddy's Laboratories Limited, its parent company).	(6)
1.5.	Amendment to Memorandum and Articles of Association of the Registrant dated July 19, 2010 Order of the Hon'bl High Court of Andhra Pradesh, India dated July 19, 2010 (regarding Amendment to Memorandum and Articles of Association of the Registrant and capitalization or utilization of undistributed profit or retained earnings or security premium account or any other reserve or fund in connection with our bonus debentures).	(8)
1.6.	Amended and Restated Articles of Association of the Registrant dated September 17, 2015.	(9)
2.1.	Form of Deposit Agreement, including the form of American Depositary Receipt, among Registrant, Morgan Guaranty Trust Company as Depositary, and holders from time to time of American Depositary Receipts Issued there under, including the form of American Depositary.	(1)
2.2.	Order of the Hon'bl High Court of Andhra Pradesh, India dated July 19, 2010 (regarding capitalization or utilization of undistributed profit or retained earnings or security premium account or any other reserve or fund in connection with our bonus debentures).	(8)
2.3.	Scheme of Arrangement between the Registrant and its members for issue of bonus debentures, including Notice of Meeting of Members to approve same dated April 29, 2010 and Explanatory Statement dated April 29, 2010.	(8)
2.4.	Debenture Trust Deed dated March 16, 2011 between the Registrant and IDBI Trusteeship Services Limited (regarding trustee services for our bonus debentures).	(8)
2.5.	Liquidity Facility Services Agreement dated April 2, 2011 between the Registrant and DSP Merrill Lynch Capital Limited (regarding liquidity facility for our bonus debentures).	(8)
2.6	Asset Purchase Agreement between Teva Pharmaceutical Industries Ltd. and Dr. Reddy's Laboratories S.A. dated as of June 10, 2016. Confidential portions of this exhibit have been omitted pursuant to a request for confidential treatment and filed separately with the SEC.	(10)
2.7	Asset Purchase Agreement between Watson Laboratories, Inc. and Dr. Reddy's Laboratories S.A. dated as of June 10, 2016. Confidential portions of this exhibit have been omitted pursuant to a request for confidential treatment and filed separately with the SEC.	(10)
4.1.	Agreement by and between Dr. Reddy's Laboratories Limited and Dr. Reddy's Research Foundation regarding the undertaking of research dated February 27, 1997.	(1)
4.2.	Dr. Reddy's Laboratories Limited Employee Stock Option Scheme, 2002.	(2)
4.3.	Sale and Purchase Agreement Regarding the Entire Share Capital of Beta Holding GmbH dated February 15th/16th 2006.	(4)
4.4.	Dr. Reddy's Employees ADR Stock Option Scheme, 2007.	(7)
4.5.	Dr. Reddy's Employees Stock Option Scheme, 2018.	(11)
8.	List of subsidiaries, associates and joint ventures of the Registrant.	
15.1	Consent of Independent Registered Public Accounting Firm (KPMG)	
15.2	Consent of Independent Registered Public Accounting Firm (Ernst & Young Associates LLP).	
12.1	Certification of Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	
12.2	Certification of Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	
13.1	Certification of Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	
13.2	Certification of Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	

(1) Previously filed on March 26, 2001 with the SEC along with Form F-1.
(2) Previously filed on October 31, 2002 with the SEC along with Form S-8.
(3) Previously filed with the Company's Form 20-F for the fiscal year ended March 31, 2003.
(4) Previously filed with the Company's Form 20-F/A for the fiscal year ended March 31, 2006 pursuant to a request for confidential treatment.
(5) Previously filed with the Company's Form 20-F for the fiscal year ended March 31, 2006.
(6) Previously filed with the Company's Form 20-F for the fiscal year ended March 31, 2010.
(7) Previously filed on March 5, 2007 with the SEC along with Form S-8.
(8) Previously filed with the Company's Form 20-F for the fiscal year ended March 31, 2011.
(9) Incorporated by reference to Exhibit 99.1 to the Company's Form 6-K dated September 25, 2015.
(10) Previously filed with the Company's Form 20-F for the fiscal year ended March 31, 2017
(11) Previously filed on September 5, 2018 with the SEC along with Form S-8
(12) Previously filed with the Company's Form 20-F for the fiscal year ended March 31, 2018.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20–F and that it has duly caused and authorized the undersigned to sign this Annual Report on its behalf.

DR. REDDY'S LABORATORIES LIMITED

By: /s/G.V. Prasad
G.V. Prasad
Co-Chairman and Chief Executive Officer

By: /s/Saumen Chakraborty
Saumen Chakraborty
President and Chief Financial Officer

Hyderabad, India

June 3, 2019

EXHIBIT 8

Dr. Reddy's Laboratories Limited

Dr. Reddy's Laboratories Limited is the parent company. Tabulated below is the list of subsidiaries, associates and joint ventures as of March 31, 2019:

Name of the subsidiary/joint venture	Country of Incorporation	Percentage of Direct/Indirect Ownership Interest
Aurigene Discovery Technologies (Malaysia) Sdn. Bhd.	Malaysia	100%(3)
Aurigene Discovery Technologies Inc.	U.S.A.	100%(3)
Aurigene Discovery Technologies Limited	India	100%
beta Institut gemeinnützige GmbH	Germany	100%(8)
betapharm Arzneimittel GmbH	Germany	100%(8)
Cheminor Investments Limited	India	100%
Cheminor Employees Welfare Trust	India	Refer to footnote 16
Chirotech Technology Limited	United Kingdom	100%(5)
Dr. Reddy's Research Foundation	India	Refer to footnote 16
Dr. Reddy's Employees ESOS Trust (from July 27, 2018)	India	Refer to footnote 16
Dr. Reddy's Farmaceutica Do Brasil Ltda.	Brazil	100%
Dr. Reddy's Laboratories (EU) Limited	United Kingdom	100%(10)
Dr. Reddy's Laboratories (Proprietary) Limited	South Africa	100%(10)
Dr. Reddy's Laboratories (UK) Limited	United Kingdom	100%(5)
Dr. Reddy's Laboratories Canada, Inc.	Canada	100%(10)
Dr. Reddy's Laboratories Chile SPA.	Chile	100%(10)
Dr. Reddy's Laboratories Inc.	U.S.A.	100%(10)
Dr. Reddy's Laboratories International SA	Switzerland	100%(10)
Dr. Reddy's Laboratories Japan KK	Japan	100%(10)
Dr. Reddy's Laboratories Kazakhstan LLP	Kazakhstan	100%(10)
Dr. Reddy's Laboratories Louisiana LLC	U.S.A.	100%(6)
Dr. Reddy's Laboratories Malaysia Sdn. Bhd.	Malaysia	100%(10)
Dr. Reddy's Laboratories New York, Inc.	U.S.A.	100%(10)
Dr. Reddy's Laboratories Philippines Inc. (from May 9, 2018)	Philippines	100%(10)
Dr. Reddy's Laboratories Romania S.R.L.	Romania	100%(10)
Dr. Reddy's Laboratories SA	Switzerland	100%
Dr. Reddy's Laboratories Taiwan Limited	Taiwan	100%(10)
Dr. Reddy's Laboratories Tennessee, LLC (till October 1, 2018)	U.S.A.	100%(6)
Dr. Reddy's Laboratories (Thailand) Limited (from June 13, 2018)	Thailand	100%(10)
Dr. Reddy's Laboratories, LLC	Ukraine	100%(10)
Dr. Reddy's New Zealand Limited.	New Zealand	100%(10)
Dr. Reddy's Singapore PTE Limited	Singapore	100%(10)(2)
Dr. Reddy's Srl	Italy	100%(11)
Dr. Reddy's Bio-Sciences Limited	India	100%
Dr. Reddy's Laboratories (Australia) Pty. Limited	Australia	100%(10)
Dr. Reddy's Laboratories SAS	Colombia	100%(10)
Dr. Reddy's Research and Development B.V. (formerly Octoplus B.V.)	Netherlands	100%(12)
Dr. Reddy's Venezuela, C.A.	Venezuela	100%(10)
Dr. Reddy's (WUXI) Pharmaceutical Company Limited	China	100%(10)
DRANU LLC	U.S.A.	50%(13)
DRES Energy Private Limited	India	26%(14)
DRL Impex Limited	India	100%(15)
Eurobridge Consulting B.V.	Netherlands	100%(1)
Idea2Enterprises (India) Pvt. Limited	India	100%
Imperial Credit Private Limited	India	100%
Industrias Quimicas Falcon de Mexico, S.A. de CV	Mexico	100%
Kunshan Rotam Reddy Pharmaceutical Co. Limited	China	51.33%(4)
Lacock Holdings Limited	Cyprus	100%(10)
OOO Dr. Reddy's Laboratories Limited	Russia	100%(10)
OOO DRS LLC	Russia	100%(9)
Promius Pharma LLC	U.S.A.	100%(6)
Reddy Antilles N.V.	Netherlands	100%
Reddy Holding GmbH	Germany	100%(10)
Reddy Netherlands B.V.	Netherlands	100%(10)
Reddy Pharma Iberia SA	Spain	100%(10)
Reddy Pharma Italia S.R.L.	Italy	100%(7)
Reddy Pharma SAS	France	100%(10)
Regkinetics Services Limited (formerly Dr. Reddy's Pharma SEZ Limited)	India	100%

(1) Indirectly owned through Dr. Reddy's Research and Development B.V. (from March 29, 2018), formerly a subsidiary of Reddy Antilles N.V.

(2) Entities liquidated during the year.

(3) Indirectly owned through Aurigene Discovery Technologies Limited.

(4) Kunshan Rotam Reddy Pharmaceutical Co. Limited is a subsidiary as per Indian Companies Act, 2013, as the Company holds a 51.33% stake. However, the Company accounts for this investment by the equity method and does not consolidate it in the Company's financial statements.

(5) Indirectly owned through Dr. Reddy’s Laboratories (EU) Limited.

(6) Indirectly owned through Dr. Reddy’s Laboratories Inc.

(7) Indirectly owned through Lacock Holdings Limited.

(8) Indirectly owned through Reddy Holding GmbH.

(9) Indirectly owned through Eurobridge Consulting B.V.

(10) Indirectly owned through Dr. Reddy’s Laboratories SA.

(11) Indirectly owned through Reddy Pharma Italia S.R.L.

(12) Indirectly owned through Reddy Netherlands B.V.

(13) DRANU LLC is consolidated in accordance with guidance available in IFRS 10.

(14) Accounted in accordance with IFRS 11 ‘Joint Arrangements’.

(15) Indirectly owned through Idea2Enterprises (India) Pvt. Limited.

(16) The Company does not have any equity interests in this entity, but has significant influence or control over it.

EXHIBIT 12.1

Certification Pursuant to Section 302 of
the Sarbanes-Oxley Act of 2002

I, G.V. Prasad, certify that:

1. I have reviewed this annual report on Form 20-F of Dr. Reddy's Laboratories Limited (the "Company").

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report.

4. The Company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal controls over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected or is reasonably likely to materially affect the Company's internal control over financial reporting; and

5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Hyderabad, India

Date: June 3, 2019

/s/ G. V. Prasad
G. V. Prasad
Co-Chairman and Chief Executive Officer

EXHIBIT 12.2

Certification Pursuant to Section 302 of
the Sarbanes-Oxley Act of 2002

I, Saumen Chakraborty, certify that:

1. I have reviewed this annual report on Form 20-F of Dr. Reddy's Laboratories Limited (the "Company").

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report.

4. The Company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal controls over financial reporting, or caused such internal controls over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected or is reasonably likely to materially affect the Company's internal control over financial reporting; and

5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Hyderabad, India

Date: June 3, 2019

/s/ Saumen Chakraborty
Saumen Chakraborty
President and Chief Financial Officer

EXHIBIT 13.1

CERTIFICATION PURSUANT TO
18 U.S.C. Section 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Dr. Reddy's Laboratories Limited (the "Company") on Form 20-F for the year ended March 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, G.V. Prasad, Co-Chairman and Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Hyderabad, India

Date: June 3, 2019

/s/ G.V. Prasad
G.V. Prasad
Co-Chairman and Chief Executive Officer

EXHIBIT 13.2

CERTIFICATION PURSUANT TO
18 U.S.C. Section 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Dr. Reddy's Laboratories Limited (the "Company") on Form 20-F for the year ended March 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Saumen Chakraborty, President and Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Hyderabad, India

Date: June 3, 2019

/s/ Saumen Chakraborty
Saumen Chakraborty
President and Chief Financial Officer

EXHIBIT 15.1

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Dr. Reddy's Laboratories Limited

We consent to the incorporation by reference in the registration statement (No. 333-101013 and No. 141072) on Form S-8 and (No.333-138608) of Dr. Reddy's Laboratories Limited("the Company") of our report dated June 15, 2018, with respect to the consolidated statement of financial position of the Company as of March 31, 2018 and the related consolidated income statements, consolidated statements of comprehensive income, changes in equity and cash flows for each of the two years ended March 31, 2018, and which report appears in the March 31, 2019 annual report on Form 20-F of the Company.

KPMG

Hyderabad
June 3, 2019

EXHIBIT 15.2

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Dr. Reddy's Laboratories Limited

We consent to the incorporation by reference in the following Registration Statements:

1. Registration Statement (Form S-8 No. 333-101013) pertaining to Dr. Reddy's Employees Stock Option Scheme, 2002, of Dr. Reddy's Laboratories Limited,
2. Registration Statement (Form S-8 No. 333-141072) pertaining to Dr. Reddy's Employees ADR Stock Option Scheme, 2007, of Dr. Reddy's Laboratories Limited and
3. Registration Statement (Form S-8 No. 333-227193) pertaining to Dr. Reddy's Employees Stock Option Scheme, 2018, of Dr. Reddy's Laboratories Limited;

of our reports dated June 3, 2019, with respect to the consolidated financial statements and the effectiveness of internal control over financial reporting of Dr. Reddy's Laboratories Limited included in this Annual Report (Form 20-F) for the year ended March 31, 2019.

/s/ Ernst & Young Associates LLP

Hyderabad, India
June 3, 2019