COMPANY UPDATE

DR.REDDYS LABORATORIES

Complex generics – A compelling catalsyt

India Equity Research| Pharmaceuticals

Dr Reddy's Laboratories (DRRD) has been under dark clouds - delays in approvals, regulatory overhangs and intensifying competition, culminating in a sharp 46% dip in FY17 earnings. We believe these clouds should now be lifting, following: a) A big & rising Complex Generics' pipeline in the US (20% 2-year revenue CAGR): we detail here major and hitherto unanalysed opportunities; b) 3x jump in Biosimilars' revenues (USD150mn) over FY18-20E: we spent a day at the lab; and c) Resultant 53% EPS CAGR over FY18-20: with upside potential. We upgrade DRRD to 'BUY'. We also raise our TP to INR3,500 (20x FY20E EPS), 51% upside.

Concerns are waning

Chunky products like Valcyte, Vidaza and Dacogen have already seen massive declines with more players coming in, resulting in 17% drop in US revenue in FY17. On regulatory front, DRRD recently completed successful inspection of 2 out of 3 plants under warning letters. Although the regulatory issues persist, we believe these are already priced in and probability of further escalation is low (refer details on page 2).

Clear roadmap in US - 20% CAGR base case and 32% in best case

We believe a promising complex generics' pipeline equips DRRD to battle headwinds in the US market. Key drivers include: (1) **Nuvaring (FY19E):** TAD in Q4FY18, Teva the only other generic player, market size – USD580mn; (2) **Copaxone 20mg (FY19E):** TAD in Nov'17, market size - USD800mn; (3) **Suboxone (FY20E):** The only generic player with favourable litigation outcome, TAD for Jan'18, market size – USD1bn; (4) **Copaxone 40mg (FY20E):** Shared FTF with 2 others, market size – USD2.4bn. We assume 20% US revenue CAGR over FY18-20 with 60% probability for key products. In the best case scenario, we estimate 32% CAGR over the mentioned period.

Biosimilars' pipeline, proprietary products to drive future growth

Biosimilars' revenues are estimated to jump 3x to USD150mn over FY18-20E, riding emerging markets' (EMs) portfolio of 4 products and another 8 in the pipeline. Royalties from developed markets would also start contributing in FY21.

Outlook and valuations: Meaningful revival; upgrade to 'BUY'

A promising complex generics' pipeline, strong earnings revival with 53% CAGR over FY18-20E and compelling valuations at 13x FY20E EPS/US business valuation at 1x sales render DRRD a prime rerating candidate. Hence, we upgrade to **'BUY/SP'** from 'HOLD/SP' with revised TP of INR3,500 (INR2,520 earlier).

Financials (INR mn)

Year to March	FY17	FY18E	FY19E	FY20E
Net revenues (INR mn)	140,809	149,239	179,053	196,716
EBITDA (INR mn)	24,155	25,032	40,394	45,900
Adjusted diluted EPS (INR)	72.6	74.1	146.4	174.4
Diluted P/E (x)	31.9	31.2	15.8	13.3
EV/EBITDA (x)	17.2	16.5	10.1	8.7
ROAE (%)	9.5	9.6	17.3	18.3

EDELWEISS 4D RATINGS

Absolute Rating	**BUY**
Rating Relative to Sector	Performer
Risk Rating Relative to Sector	Medium
Sector Relative to Market	Equalweight

MARKET DATA *(R: REDY.BO, B: DRRD IN)*

CMP	: INR 2,315
Target Price	: INR 3,500
52-week range (INR)	: 3,400 / 1,901
Share in issue (mn)	: 165.8
M cap (INR bn/USD mn)	: 384 / 5,777
Avg. Daily Vol.BSE/NSE('000)	: 472.4

SHARE HOLDING PATTERN (%)

	Current	Q4FY17	Q3FY17
Promoters *	26.8	26.8	26.8
MF's, FI's & BK's	11.7	10.6	8.2
FII's	31.6	32.4	36.3
Others	29.8	30.3	28.7
** Promoters pledged shares (% of share in issue)*	:		*1.2*

PRICE PERFORMANCE (%)

	Stock	Nifty	EW Pharma Index
1 month	13.3	3.2	6.6
3 months	(16.3)	5.9	(2.5)
12 months	(28.7)	15.6	(16.3)

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Why we were negative earlier and why we have turned positive now?

Although we were always positive on DRRD's superior R&D capabilities, investments in high-entry barrier areas and potential of the complex generics' pipeline, we were sceptical due to the following concerns, which we believe have mostly played out and factored in current market price:

1. Overhang in quality and regulatory issues at 3 units: We were concerned about US FDA's warning letters on 3 of DRRD's facilities. Of these, the company has already successfully received an EIR for Miryalaguda. For the 2 units still under warning letters: (1) Srikakulam received 2 observations post recent re-inspection. However, we remain less concerned about these; and (2) Duvvada received 13 observations. Although remediation could take time, we believe risk of the warning letter escalating further is low given that 6 months have passed since re-inspection. Thus, although DRRD's regulatory issues persist, we believe these are already priced in and probability of further escalation is low.
2. Incremental competition in some products given headwinds in the US market: DRRD witnessed incremental pricing pressure in its US portfolio as 3 of its key products - gValcyte, gDacogen and gVidaza – which contributed 21% of US revenue in FY16 declined to 36% in FY17. Given that there are already 4 approved generic players for Valcyte and Dacogen, and 5 for Vidaza, going forward additional pricing pressure on entry of new generic players for these products is likely to be low.
3. Uncertainty regarding timelines of complex generics' pipeline: With the recent approval for gDoxil and gVytorin, positive litigation outcome for Suboxone and near term TADs for high-value key products including Suboxone, Nuvaring and Copaxone, we believe DRRD's complex generic pipeline is poised to start contributing from H2FY18.
4. Currency issues in Venezuela and other emerging markets: We were concerned about the currency issues at Venezuela and other emerging markets. In Venezuela, our concerns have already played out and DRRD has written off its entire receivables as also discontinuing drug supplies until improvement in conditions. Further, currency stabilisation in emerging markets also reduces risks.
5. High valuations: The stock has corrected by 50% from its peak in October 2015 and now trades at compelling valuations of 13x FY20E EPS, which we believe factors in the risks but not the potential of DRRD's complex generics' pipeline.

We believe DRRD hit its nadir in FY17 in terms of revenue and profitability and earnings is set to revive post H2FY18 as its complex generics' pipeline will help resuscitate US business. We expect DRRD's complex generics' pipeline with key products like Copaxone, Nuvaring and Suboxone to drive 20% revenue CAGR for US business over FY18E-20. Its biosimilars and proprietary businesses are also expected to start contributing meaningfully going ahead.

We have done a bottoms-up analysis to arrive at this conclusion and numbers – spent a full day at DRRD's labs, and were in conversation with their R&D heads of complex generics, biosimilars and others from the scientific pool. We believe the company's investments and efforts have been in gestation for long, and we are beginning to see light at the end of what has been a long investment tunnel for DRRD.

Chart 1: Earnings bottomed out

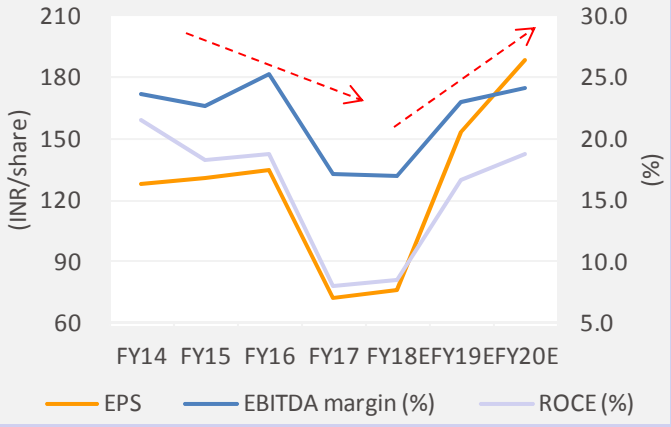
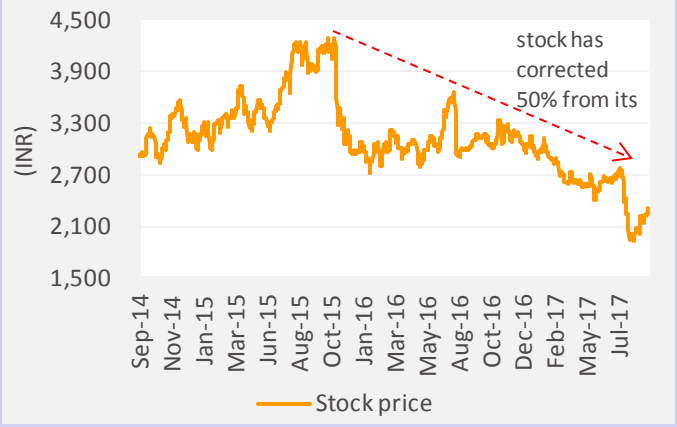


Chart 2: Stock corrected 50% from its peak in October'15



3 catalysts to drive turnaround amid challenging environment in US

(1) Potent complex generics pipeline to start contributing from H2FY18

We believe DRRD is well poised to tap complex generic opportunities in the US over long term with its pipeline of first-to-market, tough-to-make products and presence across different dosage forms, channels, and product mix that will drive near term growth. However, we expect H1FY18 to be muted for the US business with earnings recovering in H2FY18 following ramp up in recent launches like Doxil and Vytorin, which will offset incremental pricing pressure in base portfolio. Earlier than expected launch of Aloxi in Q4FY18 could be a positive surprise for Street. We expect growth to kick in FY19, with launch of high-value complex products like Nuvaring, Copaxone and Suboxone sublingual films. In most of these products, we believe DRRD will be in the first wave of generics and generate significant value. Assuming 60% probability for high-value launches, DRRD's complex generic pipeline has the potential to drive 20% revenue CAGR for the US business over FY18-20.

(2) Advanced biosimilars programme with end-to-end development

DRRD has a strong biosimilars portfolio focused on end-to-end development. With an investment of USD200mn over past 10 years, we expect this business to generate USD150mn by FY20. In emerging markets, DRRD has 4 products that are commercialised. It also has an industry-leading development pipeline of 8 products that are focused on oncology and auto-immune diseases for developed and emerging markets. For developed markets, DRRD has adopted a low-risk model and partnered with Fresenius Kabi (Merck earlier) for 2 out of its 3 products. Profits/royalties from developed markets are expected to kick in from FY21. The recent EUR656mn Merck-Fresenius Kabi deal for 3 biosimilars, 2 of which are partnered with DRRD, bolsters our confidence about DRRD's biosimilars programme for developed markets.

(3) Strategic investments in innovation to propel long term growth

Given the challenges in the US generic market, DRRD's proprietary business could be a significant growth driver over long term. The company harbours the ambitious target of beefing up its proprietary business to USD500mn by FY22 from USD35mn in FY17, through a low-risk innovation model with focus on dermatology and neurology. It recently launched Zembrace (migraine) and Sernivo (psoriasis) through Promius Pharma and has 16 ongoing active product development programs.

Potent complex generics pipeline to start contributing from H2FY18

Amid prevailing headwinds in the US generic market, we believe DRRD is well placed with its strong complex generic pipeline. We believe the company has managed to create a pipeline of first-to-market, tough-to-make products with presence across different dosage forms, channels, and product mix that will drive near term growth. Nonetheless, we believe US business will be muted in H1FY18 though earnings will rebound in H2FY18 following ramp up of recent launches in products like Doxil and Vytorin that will help offset incremental pricing pressure in the base portfolio. Also, earlier than expected launch of Aloxi in Q4FY18 could be a positive surprise for the Street.

We expect growth to kick in from FY19 with launch of high-value complex products like Nuvaring, Copaxone and Suboxone sublingual films. In most of these products, DRRD is

expected to be in the first wave of generics and generate significant value. The recent positive litigation outcome for Suboxone sublingual films gives us confidence that DRRD will enjoy an edge over peers. Assuming 60% probability for these 3 high-value products, we believe DRRD's complex generic pipeline could potentially drive 20% revenue CAGR for US business over FY18-20.

Chart 3: Complex generics pipeline to fuel growth

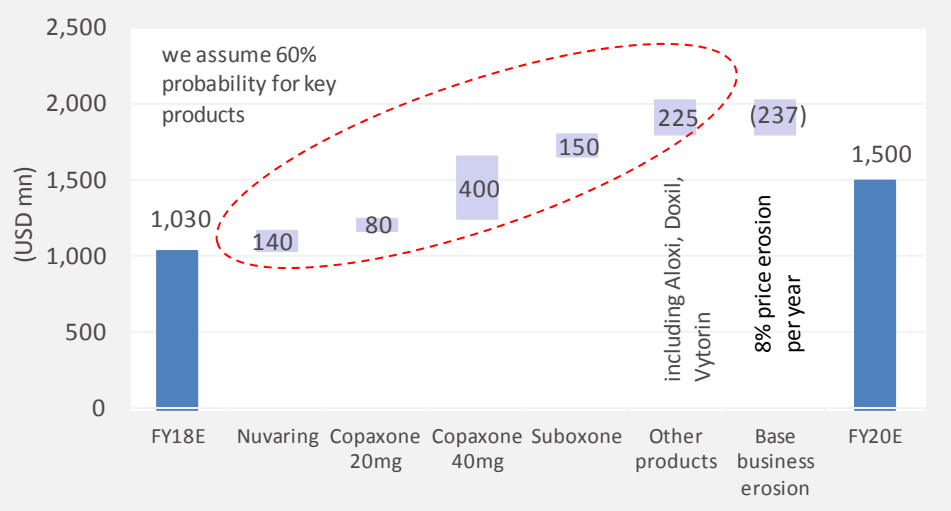
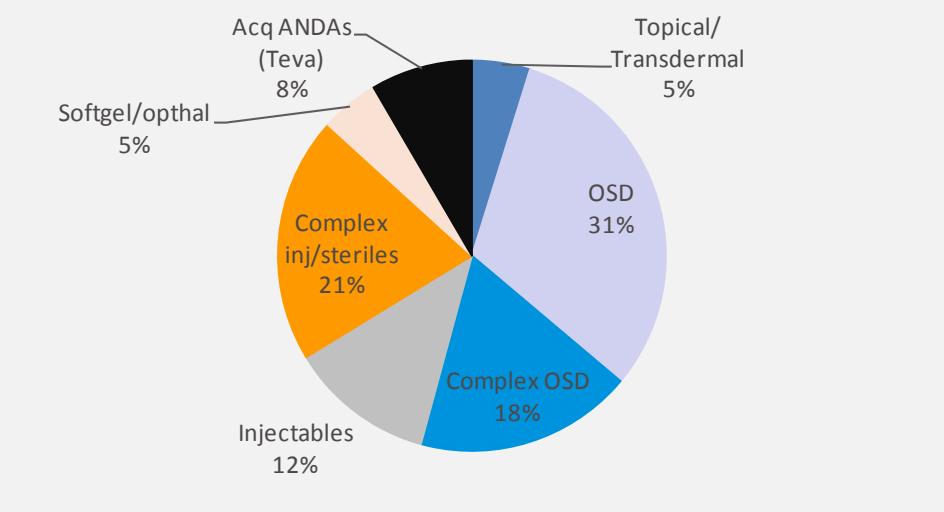


Chart 4: Healthy pipeline of high-entry barrier products across dosage forms



Source: Company, Edelweiss research

DRRD has 99 generic filings – 97 ANDAs (including 59 Para IVs) and 2 NDAs under 505(b)(2) that are currently awaiting USFDA approval. Of these, 26 are believed to have 'First to File' status. In FY17, the company in-licensed 20 ANDAs in the US, of which 13 are Para IV filings. As of March 31, 2017, cumulatively DRRD had in-licensed 30 ANDAs in the US, out of which 24 are pending USFDA approval.

Among the 8 ANDAs acquired from Teva, DRRD has launched 1 product. The ANDAs constitute multiple dosage forms including sublingual film, vaginal ring, inhalation respule and topical cream. Branded version of these products clock combined sales of ~USD3.5bn in the US and consideration paid by DRRD is ~USD350mn. Of these, Nuvaring and Suboxone, which have highest revenue generating potential are expected to be launched in FY19.

Table 1: Products acquired from Teva

Brand name	API	Form	Size (USD mn)	Launch
Vytorin	Ezetimibe/Simvastatin	Tablets	480	Launched
Tobi	Tobramycin	Inhalation solution	250	FY19
Nuvaring	Ethinyl estradiol/ Ethonogestrel	Vaginal ring	560	FY19
Suboxone	Buprenorphine HCl/ Naloxone HCl	Sublingual film	1,200	FY19
Zyclara	Imiquimod	Topical cream	10	FY19
Rozerem	Ramelteon	Tablets	100	FY20
Kombiglyze XR	Metformin HCl/ Saxagliptan ER	Tablets	500	Post FY20
Qsymia	Phentermine HCl/ Topiramate ER	Capsules	50	Post FY20

Table 2: DRRD's key launches

Market size	FY18	FY19	FY20	Beyond FY20
>USD 1bn			Copaxone 40mg	Revlimid
USD 500mn- 1bn		Suboxone Nuvaring		Sandostatin LAR
USD100-500mn	Aloxi (ANDA) Doxil Vytorin		Copaxone 20mg	Ciprodex Amitiza Vascepa Amitiza
<USD100mn			Lovenox Pentasa	Cyclophosphamide

Source: Company, Edelweiss research

Nuvaring (acquired from Teva): Nuvaring (Ethinyl Estradiol and Etonogestrel) is a birth control vaginal ring with annual sales of USD580mn. This product has one unexpired delivery system based patent (5989581) that will expire on April 8, 2018. DRRD had acquired this ANDA for USD170mn as part of the 8 ANDAs acquired from Teva. Teva (Actavis ANDA) is the only other player which has currently filed for this. Although Mylan and Glenmark have evinced interest in filing this product, their filings would be at early stages. On litigation front, innovator Merck & Co has lost the case against both Teva and DRRD in the district court and has appealed the decision. As per SEC filings, the innovator expects to see generic competition prior to end of Apr'18 patent. DRRD has a TAD in Q4FY18 and we believe it can get approval by end FY18. We have assumed an early FY19 launch. This product will have only 2 players, viz., Teva and DRRD and can contribute ~USD150mn revenue per annum

Copaxone franchise: Copaxone (Glatiramer Acetate), a multiple sclerosis (MS) treatment, stands tall garnering ~USD3.2bn sales and market share of ~25-30% in MS therapy despite launch of more preferred oral drugs. It also remains the preferred treatment among injectables and was hurt the least when oral drugs were launched. The Copaxone 20mg version (once daily) was launched in Feb 2002. Teva also launched a Copaxone 40mg version (thrice a week formulation) in Jan 2014 to extend its Copaxone franchise and thwart the impact of 20mg generics on its Copaxone franchise. It managed this extremely successfully and shifted ~75% of the prescriptions to 40mg version that reduced therapy cost and with the need to be administered only thrice a week, was more convenient versus the 20mg daily formulation.

- **Copaxone 20mg** has annual sales of USD800mn. There is currently no unexpired patent for this strength and Sandoz is the only approved generic player. DRRD has responded to the CRL and expects to hear from FDA on its response and a TAD by Nov'17. Among

competitors, Mylan/Natco have indicated having a TAD in Sept'17 and included the product in their guidance for CY18. Pfizer, Apotex, Biocon, Amneal and Synthon are the other filers. We expect 20mg strength to start contributing in FY19 and has the potential to contribute USD 70-100mn per annum depending on competition. However, more importantly it would increase probability of approval of the more lucrative 40mg product given that the key complexity for this product lies in its API.

- **Copaxone 40mg** has an annual USD2.4bn sales market. On the litigation landscape, the district court has ruled 4 of the 5 patents invalid and is currently under appeal by the innovator. The fifth patent is currently in Para-IV challenge. But, this will not trigger a 30-months stay. Meanwhile, at the US PTO, 3 patents have been ruled unpatentable and appealed by innovator, while litigation relating to the 4th patent was agreed to be dismissed among the parties. The innovator has filed several citizen petitions to delay generic entry. DRRD is expected to have FTF exclusivity along with Mylan/Natco and Sandoz/Momenta. Among its FTF partners, Mylan/Natco are awaiting approval on 20mg with a TAD in Sept'17 and could receive approval post approval of 20mg. While Sandoz/Momenta, the only approved generics for 20mg, have faced delays in approval due to a warning letter at its manufacturing partner's site. Pfizer, Apotex, Biocon, Amneal and Synthon are the other filers. This ANDA has been filed from its facility at Vizag. We believe 40mg has potential to contribute ~USD300-500mn during per annum.

Suboxone sublingual films (acquired from Teva)

Suboxone sublingual films (buprenorphine hydrochloride and naloxone hydrochloride), used in the treatment of opioid dependence, has annual sales of USD1bn. DRRD acquired this product from Teva (as part of the Teva-Actavis deal) for USD70mn. Excluding DRRD, there are 5 other Para-IV filers - Par, Actavis/Watson, Alvogen, Mylan and Sandoz. Teva might have exclusivity for Actavis ANDA.

This product currently has 4 outstanding patents – 8017150 (Feb'23), 8603514 (Apr'24), 9687454 (Aug'29) and 8475832 (Mar'30). Generic players have recently challenged the most recent '454 patent which was filed in June 2016 (expiring in 2029). Recently, DRRD received a favourable district court judgment in favour of its 3 patents. Innovator has indicated it would appeal the decision. In an earlier judgment for Par and Actavis/Watson, the court had considered the generic product infringing the '514 patent (expiring in 2024), but not infringing the '150 and '832 patents. Post the recent judgment, the district court has refused to reconsider its judgment for Par and Actavis/Watson. Mylan and Alvogen are the other players which have hearings for their case in September 2017. Currently, DRRD is the only generic player with a favourable litigation outcome.

DRRD responded to the CRL in June'17 and has a TAD in Jan'18. Although Teva might have exclusivity, it seems to have critical deficiencies in their application which might enable DRRD to enter the market earlier than Teva. We have assumed an early FY19 launch. This product could contribute ~USD100-200mn to revenues, depending on competition.

Status of other products

Aloxi

Aloxi (palonosetron hydrochloride), used to prevent nausea and vomiting caused by surgery or chemotherapy, has annual sales of USD450mn. This product has outstanding patents having validity till 2024.

DRRD is shared FTF with Sandoz and Teva. Sandoz and DRRD have final approvals and are settled for launch on September 30, 2018 or earlier. Teva, Sagent, Aurobindo, Akorn and Somerset have tentative approvals. Teva has won the appeal invalidating the patents in ANDA litigation. Currently, the order states that 4 patents have been invalidated. DRRD is awaiting final order for Teva's litigation by Oct-Nov'17 for clarity on the other 2 patents. If Teva wins the case, Sandoz and DRRD will also be able to launch.

DRRD had also filed an NDA under the 505 (b)(2) pathway, but lost the patent challenge, which is currently in appeal.

Vytorin

Vytorin (Ezetimibe and Simvastatin) tablets have market size of ~USD480mn. DRRD launched this product on April 27, 2017. Excluding the innovator and DRRD, Impax and Watson are the other approved generic players. Mylan has faced issues in this product due to the warning letter at its facility in Nagpur. DRRD was among the first wave of launch in this product and expects it to contribute ~USD40mn of revenue annually.

Doxil

Doxil (Doxorubicin Hydrochloride) Liposome Injection is a complex depot injectable having annual sales of ~USD200mn. It is a 3-player market with innovators, Sun Pharma and DRRD. DRRD has partnered with Natco Pharma, wherein the former will recognise the entire income and have profit share with Natco Pharma. DRRD launched this product on May 17, 2017. Management is confident of gaining good market share. Although the pickup has been slow this far, we expect the product to gain traction from Q3FY18.

OTC: Fast follow on potential OTC switches

DRRD aims to build scale in branded OTC space. The OCT business currently generates USD180mn of revenue (~18% of US sales). DRRD's current portfolio includes products from its Habitrol acquisition, Omeprazole OTC, Allegra brands, Ranitidine and few others. In FY17, it also acquired 6 well known OTC brands in cough, cold, pain and dermatological categories from Ducere Pharma. It is looking to increase market share in existing products as well as add new products like Nexium 24hr, Mucinex D, Omeprazole DR Tabs, etc. We believe DRRD has potential to grow by 10% CAGR over FY18-20.

Generic Pricing pressure to continue

We expect headwinds to continue for the US pharma market. The pricing pressure and increasing competitive intensity are likely to sustain given channel consolidation and FDA's focus on granting faster approvals. In FY17, DRRD witnessed higher than usual pricing pressure due to incremental competition in 3 of its key products - gValcyte, gDacogen and gVidaza (36% decline). Going forward the additional pricing pressure on entry of new generic players for these products is likely to be low and we assume 8% price erosion on DRRD's base business compared to 3-5% average for the last 5 years. However, we believe, the company's promising complex generics pipeline lends it an advantage over peers.

Advanced Biosimilar program with end-to-end development

DRRD has 4 products commercialised in EM's and an industry-leading development pipeline of 8 products focused on oncology and auto-immune diseases for developed and emerging markets. The company has invested USD200mn for development of biosimilars in past 10 years.

Fig 1: DRRD's Biosimilars target

FY20 Product Portfolio	6 existing products; >50 filings across 14 major countries 5 new products in clinical development 5 new products in early development
FY20 Business Profile	Emerging Markets Revenue: $150 mn - $200 mn Developed Markets Profits/Royalties expected to Kick-in EBITDA margin post R&D:> 25%
FY25 Business Profile	Emerging Markets Revenue: $300 mn - $400 mn Developed Markets Profits: ~ $150 - 200 mn EBITDA margin post R&D: >35%

Source: Company, Edelweiss research

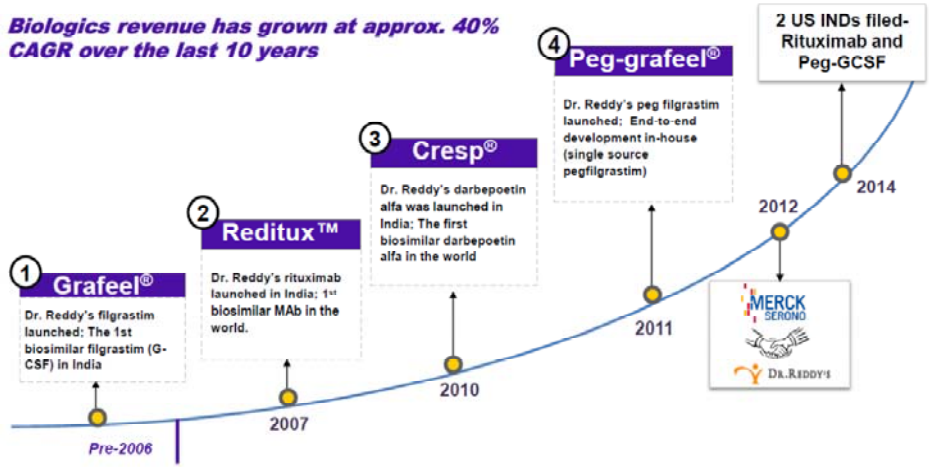
Biosimilars strategy

DRRD is following a 1 product 1 quality strategy across regulated and emerging markets. The company has integrated clinical development programs serving both emerging and developed markets. This involves choosing end-points for clinical development which are applicable to both markets. It is selectively entering partnerships in select markets for marketing and manufacturing locally where laws demand that. DRRD has consciously not over committed development for regulated markets as the market is at initial stages of opening up, regulatory laws are evolving and payers are gradually pushing for the increased use of biosimilars.

Emerging markets

One of the earliest entrants in EMs for biosimilars, DRRD has 4 products and USD50mn in revenue. Reditux is the key product out of the 4 products and has been launched in 16 countries. DRRD enjoys 50% market share in most of the countries it has launched. The company expects USD150mn in revenue from the same portfolio in EM's by FY20 led by Reditux. It has another 2 products, viz., Trastuzumab and Bevacuzumab, in Phase-III clinics and one more is set to join clinics soon. The company has total 8 molecules at early stage development. It shared the list of 10 molecules under evaluation and pre-development stage at its Investor Day in 2015. These molecules have USD37bn cumulative market.

Fig. 2: 4 Biologics commercialised in emerging markets



Source: Company, Edelweiss research

Table 3: Emerging markets pipeline

	Pre clinical development	Toxicology phase	Clinical development	Marketing authorization/ Launched
Grafeel (Filgrastim)				
Rituximab (Reditux)				
Darbepoetin alfa (Cresp)				
Peg filgrastim (Peg- grafeel)				
Trastuzumab				
Bevacizumab				
Product 1				
MAb 4				
MAb 5				
Product 2				
Product 3				
Product 4				

Source: Company, Edelweiss research

Developed markets

DRRD had adopted the low-risk model for the developed markets initially with a partnership with Merck in 2012 for the development of molecules. Merck's biosimilars business has been bought by Fresenius Kabi for Euro656mn on upfront cash payment of Euro170mn and Euro500mn tied to achieve development targets. Fresenius Kabi expects the portfolio to start clocking revenues from 2019 and reach triple digits from 2023. At least 2 of the 3 late stage molecules of Fresenius are partnered with DRRD. DRRD will be eligible for royalties on these. DRRD also has 8 molecules in early development. It is expected to start Phase III/approval enabling studies for Bevacizumab, and is currently in the process of filing the IND.

Table 4: Competitive landscape for pipeline for regulated markets

Molecule	Comments	Biosimilar Development pipeline					
		Phase 1	Phase 3	Regulatory submission		Approved/marketed	
				EMA	FDA	EMA	FDA
Pegfilgrastim	Collaborated with Merck (now Fresenius Kabi). Early stage development completed by DRRD. Partner to conduct clinical trials	Pfizer	Biocon, Apotex, Cinfa, Sandoz, Dr. Reddy's	Coherus	Biocon	None	None
Rituximab					Teva/Celltrion Sandoz	Novartis Celltrion	
Bevacizumab		Sandoz, Daiichi, Oncobiologics	BI, Pfizer, Samsung, Fuji-Kirin/ Astra Zeneca, Biocon, Dr.Reddy's	Amgen	Amgen (+ve ODAC)	None	None

Source: Biocon presentation, Edelweiss research

R&D and manufacturing

DRRD has cumulatively incurred USD200mn on biosimilar development this far. Annual budget for biosimilar development is USD60mn/annum which is ~20% of overall R&D budget. The company is doubling biologics capacity at Hyderabad using Flexfactory platform based on single use technologies. Single-use technologies facilitate multi-product manufacturing and improve productivity by increasing the number of lots manufactured, as the change over time between products can be reduced by 50% or more.

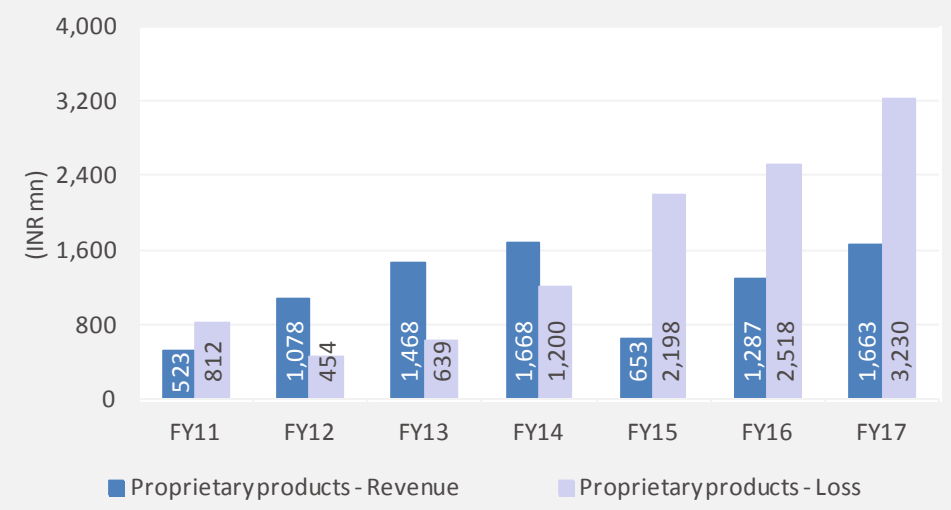
Strategic investments in innovation to drive long term growth

Given the challenges in the US generics market, DRRD's proprietary business could be a significant growth driver over long term. The company has an ambitious target to build a USD500mn proprietary business by FY22 from USD35mn in FY17, through lower risk innovation model. Currently, DRRD is in the midst realising its long term strategy that was kick-started in 2009 when it de-focused from NCE development. The efforts have finally started gaining critical mass now. While DRRD has filed a number of reformulated products with BE studies, and may continue to file some more through FY18, by FY19 it will only file more complex products with clinical trial (Ph-2/3) data. On an average, DRRD spends ~USD15-20mn/product on these clinical programmes, but for some of the in-licensed NCE/NBE products it may spend more (~USD50-60mn for pivotal Ph-3). DRRD launched 2 products, Zembrace SymTouch and Sernivo in 2016.

Aspires to build USD500mn business by FY22 through lower-risk innovation model

Focused on Dermatology and Neurology

Chart 5: Higher losses in proprietary products



Source: Company, Edelweiss research

Note: This only includes numbers for Promius Pharma

- **Zembrace SymTouch (launched in April 2016)**: This reformulation of Sumatriptan subcutaneous autoinjector for migraine has certain advantages viz., it is easier to use, the device has better safety profile due to lower strength (3 versus 6mg) and has rapid-acting profile through a 3-mg formulation that can be used up to 4 times a day. The product is indicated for patients with migraine and severe nausea. Market for Sumatriptan in US is USD250mn for oral and USD120mn for Injections. Post the launch, there was a gap of few weeks before the promotional team could start detailing the right prescribers and the product gained access to some reimbursement plans, but this has been accomplished now. DRRD achieved 500 prescriptions per week and 75% coverage with insurance by end FY17. This product was brought to the market fairly quickly, within <24 months since ideation, by proving bioequivalence to Sumatriptan autoinjector. The company may plan some clinical work to generate data of the product's superiority. DRRD expects to achieve peak sales for the product in ~3-4 years. The company has a field force of 45 personnel to reach out to ~7,000 neurologists in the US markets.
- **Sernivo spray (launched in May 2016)**: The product is indicated for treatment of mild to moderate plaque psoriasis in patients 18 years of age or older. DRRD received approval post presenting clinical data from two Ph-3 trials in which it proved betamethasone's novel formulation to be as efficacious as diprolene lotion for mild to moderate plaque Psoriasis while using a rather less potent steroid. The company had 850 prescriptions per week and 75% coverage with insurance by end FY17. There are upsides possible as DRRD's product has promising data on certain body parts like knees and elbow that are unmet needs.

Table 5: Key assets in proprietary pipeline

Compound	Therapy area	Status	Clinical work done
DFN-11 (Zembrace)	Neurology (Migraine)	NDA approved Feb 16, launched Apr 16	3 BE studies
DFD-01 (Sernivo)	Derma (Psoriasis)	NDA approved Jan 16, launched Jun 16	Ph-3 study
DFD-09 (Zenavod) - doxycycline	Dermatology (rosacea)	Tentative approval Feb 16, court case ongoing against Galderma	BE study
DFN-02	Neurology (Migraine)	Submission planned for 2018	Ph-3 completed. BE and patient safety studies completed; efficacy studies in progress.
DFD-10	Dermatology (Acne)	NDA approval received in May 17	2 BE studies completed
DFD-11 (Xeglyze)	Pediatrics (head lice)	NDA filed in Sep 15 by Hatchtech, DRRD bought in Dec 15. received a CRL in Aug 16. Expect to respond in July 2017.	N/A
XP 23829 (NCE inlicensed from	Derma (Psoriasis)	-	Ph-2 study completed in Sep 2015. Phase 2b/3 studies being planned.
E7777 (orphan product)	Haematology-Oncology (Skin Cancer)	BLA submission planned for 2019	Ph-3 study ongoing

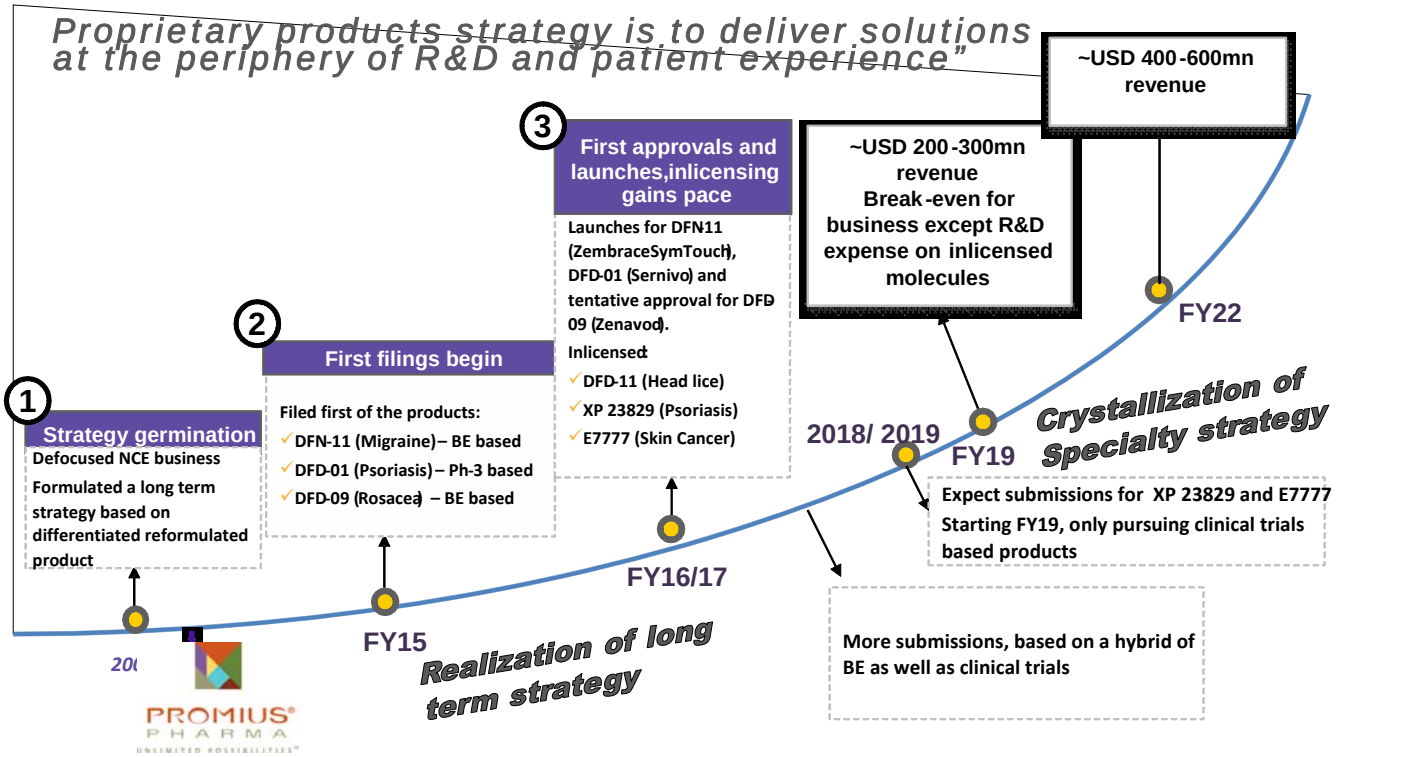
Source: Company, Edelweiss research

As of March 31, 2017, DRRD had 16 active product development programs in its pipeline. On R&D front, the focus has been on advancing the development of the two in-licensed assets - XP 23829 and E7777.

- **XP 23829**: This is a uniquely de-risked fumarate oral asset with a history of being used for Psoriasis in EU, but not clinically tested in US. This has a known clinical profile both due to use in EU, as well as utilisation of fumarate in US for MS. While this class of compounds have a known risk called PML, it is manageable to bypass it via correct diagnosis. Otezla, an oral Psoriasis product is currently clocking ~USD800mn/annum in the US. Ph-2 study was completed in Sep 2015 and Phase 2b/3 studies are being planned.
- **E7777**: This is a biologic asset which has been previously approved by FDA as Ontak brand in 1999 for subcutaneous T-cell lymphoma. A warning indicating vision loss was added to the label in 2006. DRRD has discussed a protocol to bring this product to the market to address as an orphan drug addressing ~10k patients. Ph-3 study is currently on-going. DRRD expects submission in 2019.
- **Xeglyze lotion**: DRRD in-licensed this product from Hatchtech. Earlier in September 2014, Hatchtech had announced positive results from 2 Ph-3 trials, evaluating Xeglyze lotion as a potential treatment for head lice infestation. The active drug substance was developed in collaboration with DRRD's custom pharmaceutical services (CPS) business unit. Xeglyze lotion has demonstrated both ovicidal and lousicidal activity and has the potential for a more effective treatment using only a single application, versus current products that have little ovicidal activity and require 2 treatments (~7 to 10 days apart). As part of the agreement, DRRD paid Hatchtech an upfront amount of USD10mn, up to USD50mn based on pre-commercialisation milestones and an undisclosed amount based on post commercialisation milestones, linked to achievement of annual net sales targets. DRRD had received CRL in Aug'16 and was expected to respond in July'17.
- **DFN-02**: While FDA was allowing a bioequivalence approach, DRRD decided to conduct clinical trial based on physician survey. This will be an intra-nasal product that will be used in lieu of injectables for acute migraine. Ph-3 study has been completed, BE and patient safety studies have also been completed, while the efficacy studies are in progress. DRRD expects submission in 2018.

Recently, DRRD had out-licensed 2 products which were not in its focus therapeutic areas. DFA-02 was outlicensed to CHD Bioscience for USD30mn. DFD-06 (plaque Psoriasis) was outlicensed to Encore in Aug'17 for USD32mn. DRRD is also in talks for partnership agreements for other assets, which are not in its focus areas.

Fig. 3: Indicative progress of proprietary products



Source: Company, Edelweiss research

R&D initiatives to sustain long term growth

We believe DRRD's superior R&D capabilities and high investments (14% of revenues) will provide it competitive edge over peers and help sustain growth in a challenging environment. Around 60% of its R&D spend is incurred towards its US generic business with investments in complex generics targeting long acting injectables including liposomals and microspheres, peptides and long acting opthalmics. DRRD is also investing towards building its biosimilars and proprietary products businesses.

We believe DRRD enjoys significant advantages over its Indian peers in terms of its superior R&D capabilities. With its high R&D investments at ~14% of revenue, 60% being allocated to the US generic business, DRRD is working on building a portfolio of products based on complex characterisation / analytical chemistry, novel regulatory pathway, large and complex clinical/bio-studies and high technology barriers in development and manufacturing. The company has managed to create a pipeline of first-to-market, tough-to-make products with presence across different dosage forms, channels and product mix. DRRD is specifically targeting complex long acting injectables and long acting opthalmics.

Table 6: R&D investment, as a % of sales, highest among peers

Companies	R&D (USD mn)				R&D as a % of sales (%)				CAGR (%)	Generic (% of total)			
	FY16	FY17	FY18E	FY19E	FY16	FY17	FY18E	FY19E	(FY17-FY19E)	me-too	complex	Branded	Speciality
Sun	342	318	365	456	7.8	6.8	8.5	9.0	19.7	20	40		40
Lupin	247	342	303	386	11.3	13.2	11.9	13.4	6.2	50	50		
Dr Reddy's	274	290	307	359	11.5	13.9	13.5	13.0	11.4	25	50	25	
Cipla	138	165	222	251	6.5	7.6	8.5	8.5	23.5	70	30		
Cadila	117	112	144	180	8.1	8.0	8.0	8.0	27.1	60	40		
Aurobindo	72	80	119	154	3.4	3.6	5.0	6.0	38.4	80	20		
Glenmark	112	158	175	198	9.5	11.6	12.0	12.0	11.9	30	30	40	
Torrent	38	64	78	90	3.7	7.4	8.0	8.0	18.8	80	20		
Natco	8	18	19	23	5.1	6.0	6.0	5.5	13.2		100		
IPCA	21	19	15	20	4.7	3.9	3.0	3.5	4.7	100			
Overall	**1,369**	**1,565**	**1,747**	**2,119**	**8.2**	**9.0**	**9.5**	**9.9**	**16.3**				

Source: Company, Edelweiss research

US generics strategy: "Looking to strengthen the combined expertise of API and formulations"

Given intensifying competition and low entry barriers in standard oral solid dosage forms, which is the largest and most popular dosage form, DRRD intends to maintain optimum allocation among various dosage forms. The company would focus on ***'integrated product development'*** i.e. complex API-based products where it can deliver API and oral solid in a concurrent manner. This would give it an advantage over smaller players who wouldn't have strength over both formulation as well as APIs. This strategy would be particularly beneficial in case of 'NCE-1' filings with complex APIs or where there is a process patent, specifically, in case of certain oncology-based 'NCE-1' filings, which are DCS class 4 type products, where absorption and dissolution are challenging. Also, in such a case, generic players are required to come up with an alternate polymer since it is patented by the innovator.

Fig. 4: DRRD's portfolio philosophy

	FROM...	... TO
Formulations / dosage forms	• Primarily simple oral solids based products	• Complex OSDs (extended release, multilayers), Injectables (liposomal, microspheres, RTUs) and Derma (Gels, topicals, patches).
API type	• Synthetic APIs or Simple chemistry	• Strong position in novel crystalline and amorphous forms • Semi-synthetic APIs, Chirals, Prostaglandins, Peptides, Carbohydrates and nano-particle based products.
Analytical characterization	• Requiring simple chemical equivalence and physical parameters affecting solubility and permeability	• Requiring advanced physico-chemical and biological characterization such as particle morphology, sequencing, secondary and tertiary structures
Bio-equivalence	• Comparable to innovator drugs using in-vitro bioequivalence or simple pharmacokinetic studies in healthy volunteers	• Complex pk / pd studies with ability to manage bio-variability • Added tools to build predictability from in-vitro to in-vivo
Process Engineering	• Established processes • Eg: Scale up of Oral Solids	• Advanced Particle engineering solutions and complex scale ups. • Eg: Microsphere and liposomal technologies
Marketability	• Primarily based on PIV / FTF type opportunities	• Complex products/dosage forms requiring differentiated 'go to market' approaches. • Multiple 505(b)(2) products

Source: Company, Edelweiss research

Long Acting Injectables: These are complex products to develop. Injectables require that the same excipient is used in the same quantity as the innovator (Q1 and Q2) and process have to be the same as that used by the innovator (Q3). The key challenge in these products is to scale up the product from a lab set up to manufacturing it on a larger scale as ensuring Q3 gets challenging. Optimisation of process is key in this case. In addition, these require clinical trials lasting for 6-9 months and merely proving bioequivalence does not suffice. DRRD is working on both microspheres as well as liposomals. DRRD has a focused portfolio with the acquired OctoPlus NV acting as a its center of excellence for all long acting injectables. The company has a R&D team comprising 180 personnel who are focused on long acting injectables, of these 30 personnel are specifically focused on developing microspheres.

- **Liposomals:** In 2015, DRRD had 2 liposomals in the pipeline with an addressable market size of USD1bn. The company has successfully launched its first product, Doxil. The other one, Amphotericin injection is ready to be filed next year which means scale up trials for exhibit batches and clinical trials must get completed this year. In addition, we believe it has also started working on a combination drug with liposomals (NDA products).
- **Microspheres:** Here DRRD has 2 liposomals in its pipeline with an addressable market size of USD2.5bn. Challenge for microspheres is to source the excipients and how the excipients work with the peptide. We believe that the company's advanced analytical expertise gives it an advantage over peers as testing the excipients sourced from vendors is critical. Like with all other injectables, getting the process right is important. For instance, microspheres have to be dried at the end whereas excipients have a tendency to stick, so it is critical to ensure that there are no lumps in the injectable and it is free slowing. This requires that time, and the temperature has to be optimised. Among microspheres, we believe the company is working on Sandostatin LAR and Lupron Depot.

- **Sandostatin LAR Depot** (octreotide acetate for injectable suspension), used for treatment of acromegaly and carcinoid syndrome, has annual revenue of ~USD850mn and the last patent expired in Jan'17. The key challenge in this product is to source the excipient which is a controlled release polymer. Innovators make their own excipient and the challenge lies in characterising it and making it similar to the innovator product. Additionally, it also requires >30 analytical tests to be conducted. The company expects to file this product late next year, which means the clinical trial will start soon. This product is expected to be a limited competition opportunity.
- **Lupron Depot** is the next target after Sandostatin LAR. DRRD has been working on this product since past 3 years and we believe the product has been developed in the R&D. But, for this product as well, scale up is the main challenge. The process is complicated and takes 15 days to manufacture a batch. The product may take another 12-18 months before the company reaches the clinical stage.

Peptides: DRRD is targeting large peptides (>30amino acids). These are insulin fragments that are also approved for diabetes. Although they do not qualify as biologics (less than 40 amino acids), they have to be manufactured and tested like biologics. For peptides, developing the API is easy. Key is to form the right aggregate stabilised in the right formulation. The peptides market has overall 10-12 products, including combination products. Having internal peptide manufacturing capabilities will provide an advantage for developing microspheres.

DRRD has collaborated with the internal biologics R&D team for large peptides since they have to be tested using biologic processes. The company has a separate 30-members fermentation R&D team, dedicated only for large peptides. Although it is currently working through a European CMO, it is considering building an in-house facility. DRRD intends to get initial quantities through CMO and build its own capabilities later. Among its Indian peers, we believe Sun Pharma has good peptide capabilities.

DRRD has one large peptide product in the pipeline where it is currently undergoing scale up with a European CMO. We believe this could be Victoza. The innovator product is currently getting approval for additional indications. DRRD would be required to conduct clinical trials. The company aims to file this product on the NCE-1 day which is expected to be post FY20. It is a global product. DRRD has submitted samples in EM's and started initial correspondence with the USFDA. Management believes it is ahead of competitors in this product. This could have potential to generate ~USD100mn revenue.

Particulates: DRRD is also focused on complex injectables with eye on getting into particulates. These are controlled release formulations where the drug is not encapsulated like liposome or polymer in microsphere, but the API particles are stabilised in such a way that it is slowly released. A lot of ophthalmic products are in this category. These are high complexity, low competition products. DRRD has already built its capabilities in this regard and filed 1 product with FDA for review, we believe this is Ciprodex.

Aggravation of US FDA regulatory issues unlikely

DRRD currently has 2 facilities under US FDA warning letter - API facility at Srikakulam and the onco injectable facility at Duvvada. Post the recent re-inspection of the Srikakulam facility in Mar-Apr 2017 it received 2 observations pertaining the high performance liquid chromatography ('HPLC') maintenance and management of soft copies of chromatograms. We remain less concerned about the Srikakulam facility and believe DRRD would be able to be out of the warning letter. The company received 13 observations for its Duvvada oncology formulation facility post re-inspection in Feb-March 2017. These include few repeat observations from the November 2015 FDA warning letter and March 2015 form 483. Given the nature of the observations, we believe remediation could take time. However, considering that the Duvvada facility is already under warning letter and 6 months have passed since the re-inspection, we believe risk of the warning letter escalating further is low.

In addition to these, DRRD has outstanding regulatory issues with the German regulator at its formulations facilities in Bachupally-2 and Duvvada. However, given that Bachupally caters only to 1/5th of Europe revenue i.e., 1% of total revenue and Duvvada facility is currently not exporting to Europe, we believe financial impact of these will be minimal.

Recent capex yet to bear fruits

In past 4 years (FY14-17), DRRD has invested INR43bn towards tangible asset addition. Of these, 30% was incurred towards maintenance and upgrading/automation of existing API facilities. The balance ~INR30bn was invested towards building 5 new facilities. Current revenue contribution from these facilities is very low. Of the 4 formulation facilities - Srikakulam SEZ (Unit 1) is being used as a risk mitigation strategy for its main Bachupally manufacturing unit, Duvvada (onco-injectable) is operating at 50% capacity utilisation, while the Srikakulam SEZ (Unit 2) and Duvvada (non-onco injectable) are not generating any revenues. Revenue contribution from the new API facility at Srikakulam SEZ is also low.

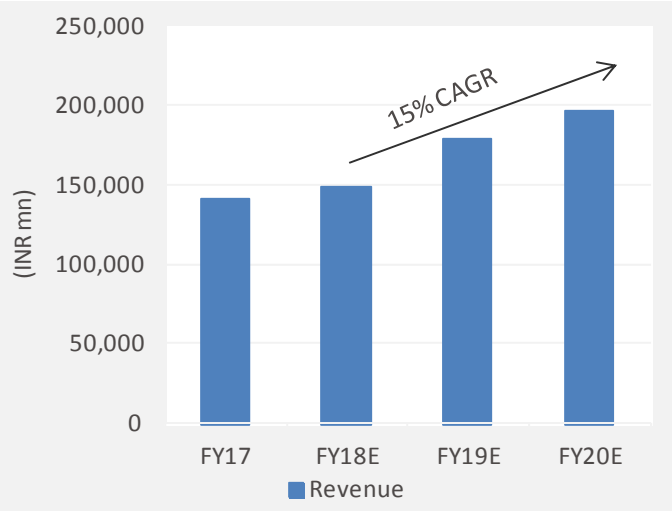
Table 7: DRRD's manufacturing facilities

Facility		Market	Dosage form	Compliance status	Comments
Formulations:					
Bachupally-1		RoW			
Bachupally-2		EU and RoW	oral solid dosage	**German regulator:** compliance certificate not renewed; products can be dispatched only post renewal of non-compliance certificate	
Bachupally-3		US (~65% of US sales)	oral solid dosage	**US FDA:** Received 11 observations post Apr'17 inspection which management believes are procedural in nature.	Most important facility
Srikakulam SEZ Unit-1	New		oral solid dosage	**US FDA:** Received 1 observations post Apr-May'17 inspection	Risk mitigation for Bachupally 3
Baddi 1		RoW/EM			
Baddi 2		Domestic			
Duvvada	New	US	onco-injectables	**US FDA:** Currently under Warning letter. Received 13 observations post the reaudit in March 2017. **German regulator:** issued 6 major observations; will be reviewed again in Nov'18	Current 50% capacity utilisation
Duvvada	New	US	Non onco injectables		DRRD has filed products from this facility. However, currently no revenue is being generated from this facility
Srikakulam SEZ Unit-2	New		Topical	**US FDA:** Last inspected in Apr-May'17 with no observations	Not yet commercialised
Tennessee (US) Shreveport LA/ Lousianna (US)		US (~15% of US sales)	Antibiotics oral solid dosage		
Biologics					
Bachupally					
Bachupally (Disposal factory under construction)					
API					
Bollaram- 3 plants					
Jeedimetla					
Miryalguda				**US FDA:** Received EIR	
Srikakulam				**US FDA:** Currently under warning letter. Received 2 observations post Apr'17 reaudit.	Most important API plant
Srikakulam SEZ	New			**US FDA:** Last inspected in Apr'17 with no observations	Created for new products
Mirfield (UK)				**US FDA:** Received 3 observations post Sept'17 inspection	

Source: Company, Edelweiss research

Financial Outlook

Chart 6: Revenue, PAT growth to remain robust



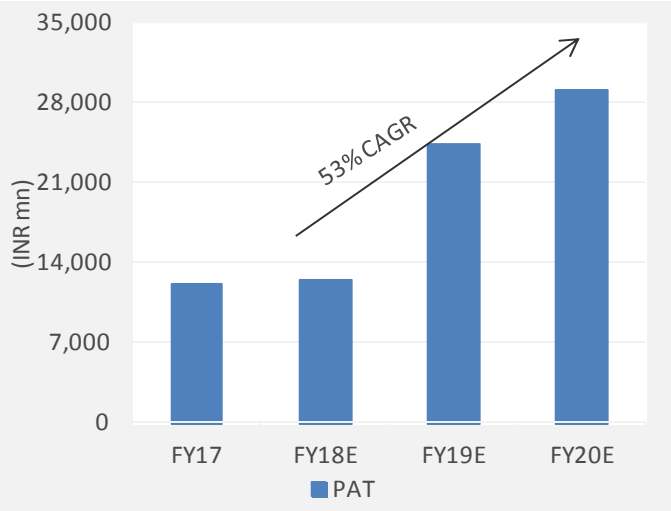
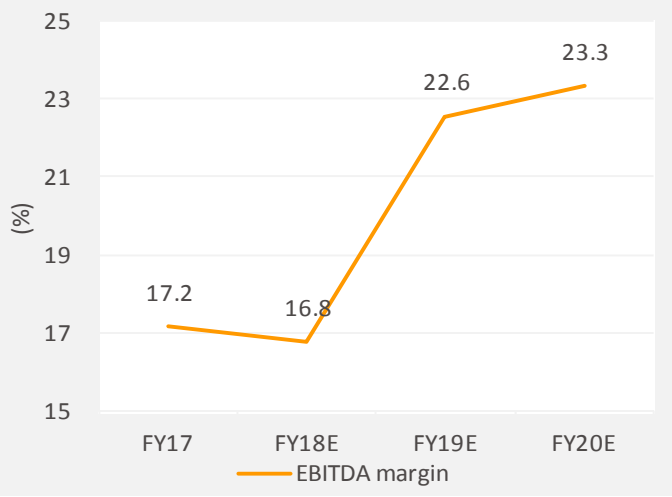


Chart 7: EBITDA margin to expand



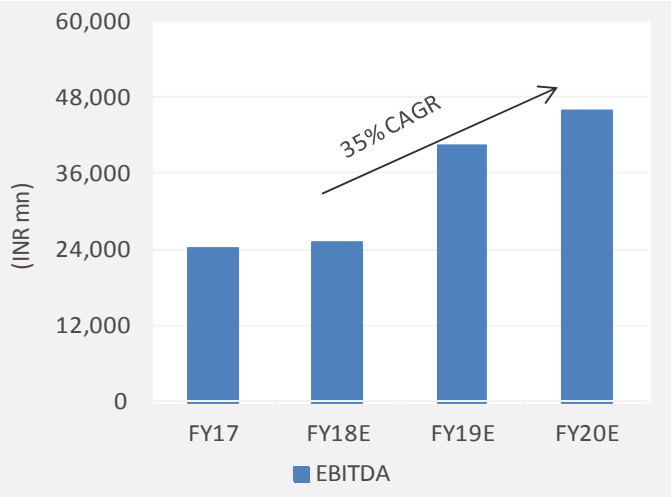
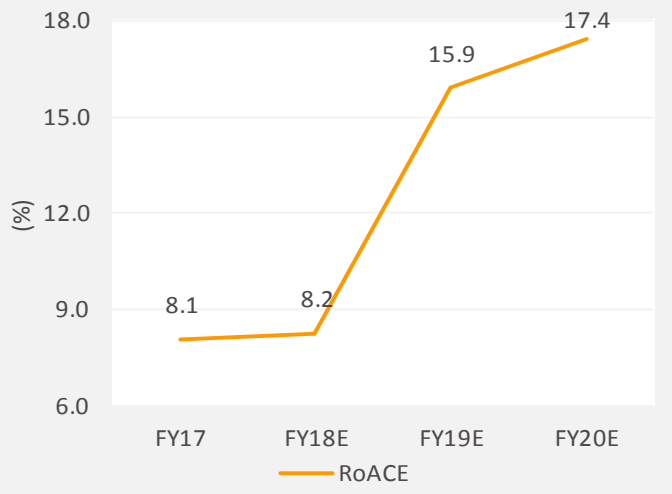
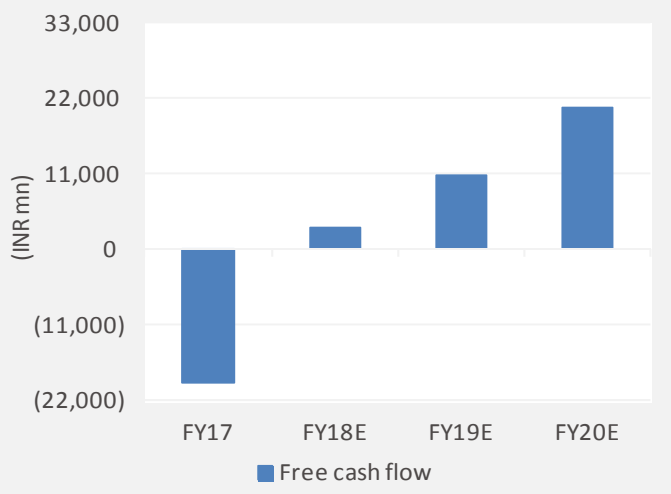


Chart 8: Return ratios to perk up, FCFF generation to increase as pipeline starts generating cashflows





Source: Company, Edelweiss research

Outlook & valuation: Price bottomed out, earnings to follow

We believe DRRD's earnings bottomed out in FY17 and we now expect earnings to revive post H2FY18 as the company's complex generics pipeline starts contributing. We expect key products like Copaxone, Nuvaring and Suboxone to drive 15%/35% revenue and EBITDA CAGR and 656bps improvement in EBITDA margin over FY18E-20E.

The stock has corrected 50% from its peak. At current valuations of 13x FY20E EPS/ US business valuation at 1x sales, the stock reflects risks from the warning letter and headwinds in the US generic industry, but does not factor in upsides from the DRRD's complex generic pipeline.

We have assigned 20x to core earnings and NPV of INR829 for Copaxone, Nuvaring and Suboxone. We upgrade to **'BUY/SP'** with TP of INR3,500 (20x FY20E EPS), implying 51% upside.

Chart 9: Earnings bottomed out

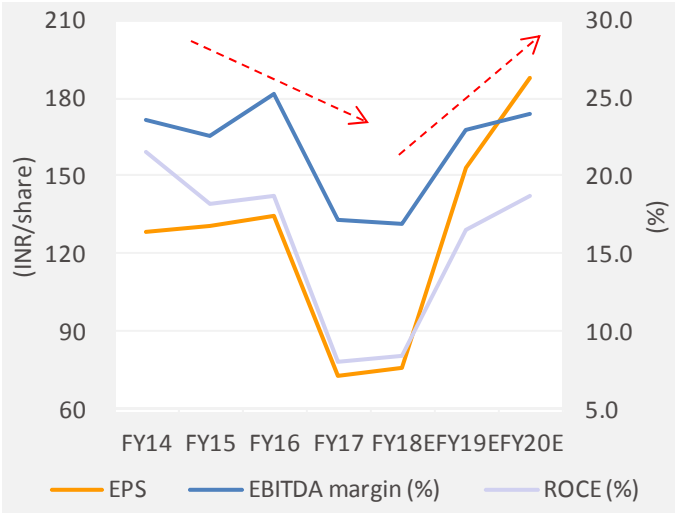
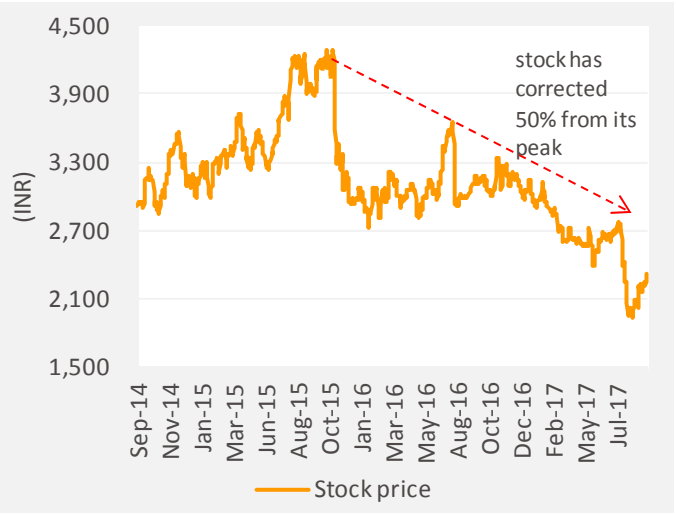


Chart 10: Stock corrected 50% from peak



Source: Company, Edelweiss research

Table 8: Street not factoring in upsides

	Consensus estimates	Edel estimates
FY18 EPS	78.6	74.1
FY19 EPS	128.0	146.3
FY20 EPS	156.3	174.4

Source: Bloomberg, Edelweiss research

Table 9: Valuation methodology assigning NPV value for key products

Valuation	Mar-19
Core earning	
Multiple	20x
EPS (FY19E)	134
Value per share	2,680
NPV for One-time opportunities (Copaxone, Nuvaring, Suboxone)	829
Target Price	**3,509**

Source: Edelweiss research

Table 10: SOTP based alternate valuation methodology on FY20 numbers

	US	India	Others	Overall
Methodology	**EV/sales**	**P/E**	**P/E**	
Worst case (current valuation)				
Multiple	1.0x	30x	10x	
value/share	597	1,614	156	**2,367**
Market case (based on Teva and Mylan's current valuations)				
Multiple	2.5x	30x	10x	
value/share	1,493	1,614	156	**3,263**
Best case (peak valuations for DRL in FY16)				
Multiple	5.0x	30x	10x	
value/share	3,584	1,614	156	**5,354**

Source: Edelweiss research

Company Description

DRRD is one of the largest Indian generic companies in the world with presence in more than 40 countries. USA is its largest market and contributes more than 40% of its revenues. It has one of the largest portfolios among Indian generic players and has enabled it to become a prominent generic player in the US. Russia and India are the two other key geographies, where it has significant presence. Apart from strengths in developing niche generic products, vertical integration into APIs has enabled it to become a global generic powerhouse. It operates 30 facilities (10 USFDA approved) and is actively supported by an extensive R&D programme. It also has one of the deepest pipelines of biosimilars amongst leading global generic companies, addressing global brand sales of USD30bn.

Investment Theme

DRRD stands out with its world class R&D skills in developing technically complex/niche products which attract limited competition and is well set to capture the less-explored world of higher complexity generic products in the US. It is also among the leading players globally with a strong pipeline in the high potential biosimilars space, which will be a long term growth driver. We believe that higher contribution from niche pipeline in the US, strong growth in Russia and bounce back in India should drive strong earnings growth.

Key Risks

Escalation of observations at Duvvada and Bachuppaly

Delay in approval for Copaxone, Nuvaring and Suboxone

Failure to get approvals for biosimilars and delays in ramp up of proprietary pipeline

Currency fluctuation.

Financial Statements

Key Assumptions

Year to March	FY17	FY18E	FY19E	FY20E
Macro				
GDP(Y-o-Y %)	6.6	6.8	7.4	7.4
Inflation (Avg)	4.5	4.0	4.5	4.5
Repo rate (exit rate)	6.3	5.8	5.8	5.8
USD/INR (Avg)	67.1	65.0	66.0	66.0
Sector				
IPM growth (Y-o-Y) %	12.0	12.0	13.0	13.0
Company				
India sales (INR mn)	23,131	24,288	27,202	30,466
% change	8.6	5.0	12.0	12.0
US generics (USD mn)	948	1,030	1,350	1,500
Growth (YoY)%	(16.8)	8.7	31.1	11.1
Russia/ CIS growth(YoY)%	11.8	7.0	11.0	10.0
PSAI growth (YoY) %	(7.2)	5.0	3.7	3.0
EBITDA margins (%)	17.2	16.8	22.6	23.3
R&D (% of sales)	13.9	13.5	13.0	13.0
USD/INR (Avg)	67.1	65.0	66.0	66.0
Net debt to equity (x)	0.2	0.2	0.2	0.1

Income statement (INR mn)

Year to March	FY17	FY18E	FY19E	FY20E
Net revenue	140,809	149,239	179,053	196,716
Income from operations	140,809	149,239	179,053	196,716
Materials costs	62,453	67,158	76,635	82,621
R&D Cost	19,551	20,147	23,277	25,573
Total SG&A expenses	34,650	36,902	38,747	42,622
EBITDA	24,155	25,032	40,394	45,900
Operating profit	24,155	25,032	40,394	45,900
EBIT	12,433	13,661	28,962	34,413
Add: Other income	1,065.00	942.95	1,145.64	1,683.11
Less: Interest Expense	(806)	(1,000)	(1,000)	(1,000)
Profit Before Tax	14,304	15,604	31,108	37,096
Less: Provision for Tax	2,614	3,669	7,247	8,636
Associate profit share	349	350	400	450
Reported Profit	12,039	12,284	24,261	28,911
Adjusted Profit	12,039	12,284	24,261	28,911
Shares o /s (mn)	166	166	166	166
Adjusted Basic EPS	72.6	74.1	146.4	174.4
Diluted shares o/s (mn)	166	166	166	166
Adjusted Diluted EPS	72.6	74.1	146.4	174.4
Adjusted Cash EPS	143.4	142.7	215.4	243.8
Dividend per share (DPS)	20.0	20.4	40.3	48.0
Dividend Payout Ratio(%)	27.5	27.5	27.5	27.5

Common size metrics

Year to March	FY17	FY18E	FY19E	FY20E
Operating expenses	82.8	83.2	77.4	76.7
Materials costs	44.4	45.0	42.8	42.0
S G & A expenses	24.6	24.7	21.6	21.7
R & D cost	13.9	13.5	13.0	13.0
Depreciation	8.3	7.6	6.4	5.8
Interest Expense	(0.6)	(0.7)	(0.6)	(0.5)
EBITDA margins	17.2	16.8	22.6	23.3
Net Profit margins	8.6	8.2	13.5	14.7

Growth ratios (%)

Year to March	FY17	FY18E	FY19E	FY20E
Revenues	(9.0)	6.0	20.0	9.9
EBITDA	(38.2)	3.6	61.4	13.6
PBT	(46.8)	9.1	99.4	19.3
Adjusted Profit	(47.8)	2.0	97.5	19.2
EPS	(46.2)	2.0	97.5	19.2

Balance sheet				(INR mn)
As on 31st March	FY17	FY18E	FY19E	FY20E
Share capital	828	828	828	828
Reserves & Surplus	123,216	131,445	147,697	167,064
Shareholders' funds	124,044	132,273	148,525	167,891
Short term borrowings	43,649	43,649	43,649	43,649
Long term borrowings	5,449	5,449	5,449	5,449
Total Borrowings	49,098	49,098	49,098	49,098
Long Term Liabilities	4,124	4,124	4,124	4,124
Def. Tax Liability (net)	(4,376)	(4,376)	(4,376)	(4,376)
Sources of funds	**172,890**	**181,119**	**197,371**	**216,737**
Depreciation	11,722	11,371	11,432	11,487
Net Block	57,160	57,789	58,357	58,870
Intangible Assets	48,677	48,677	48,677	48,677
Total Fixed Assets	105,837	106,466	107,034	107,547
Non current investments	6,840	3,500	3,500	3,500
Cash and Equivalents	18,136	20,954	23,867	35,065
Inventories	28,529	30,678	35,007	37,742
Sundry Debtors	38,065	40,344	48,403	53,178
Loans & Advances	15,645	16,582	19,894	21,857
Current Assets (ex cash)	82,239	87,604	103,305	112,777
Trade payable	13,417	14,428	16,464	17,750
Other Current Liab	27,934	24,477	25,372	25,901
Total Current Liab	41,351	38,905	41,835	43,651
Net Curr Assets-ex cash	40,888	48,699	61,470	69,126
Uses of funds	**172,890**	**181,119**	**197,371**	**216,737**
BVPS (INR)	748.5	798.1	896.2	1,013.1

Free cash flow				(INR mn)
Year to March	FY17	FY18E	FY19E	FY20E
Reported Profit	12,039	12,284	24,261	28,911
Add: Depreciation	11,722	11,371	11,432	11,487
Interest (Net of Tax)	(659)	(765)	(767)	(767)
Others	(182)	(11,193)	(22,356)	(13,112)
Less: Changes in WC	1,407	(3,417)	(10,353)	(6,223)
Operating cash flow	21,513	15,115	22,922	32,741
Less: Capex	40,957	12,000	12,000	12,000
Free Cash Flow	**(19,444)**	**3,115**	**10,922**	**20,741**

Cash flow metrics				
Year to March	FY17	FY18E	FY19E	FY20E
Operating cash flow	21,513	15,115	22,922	32,741
Investing cash flow	(18,471)	(8,660)	(12,000)	(12,000)
Financing cash flow	(3,692)	(4,366)	(8,009)	(9,544)
Net cash Flow	(650)	2,088	2,913	11,197
Capex	(40,957)	(12,000)	(12,000)	(12,000)
Dividend paid	(3,687)	(4,055)	(8,009)	(9,544)

Profitability and efficiency ratios				
Year to March	FY17	FY18E	FY19E	FY20E
ROAE (%)	9.5	9.6	17.3	18.3
ROACE (%)	8.1	8.2	15.9	17.4
Inventory Days	158	161	156	161
Debtors Days	103	96	90	94
Payable Days	75	76	74	76
Cash Conversion Cycle	186	181	173	179
Current Ratio	2.4	2.8	3.0	3.4
Gross Debt/EBITDA	2.0	2.0	1.2	1.1
Gross Debt/Equity	0.4	0.4	0.3	0.3
Adjusted Debt/Equity	0.4	0.4	0.3	0.3
Net Debt/Equity	0.2	0.2	0.2	0.1
Interest Coverage Ratio	(15.4)	(13.7)	(29.0)	(34.4)

Operating ratios				
Year to March	FY17	FY18E	FY19E	FY20E
Total Asset Turnover	0.8	0.8	0.9	1.0
Fixed Asset Turnover	1.5	1.4	1.7	1.8
Equity Turnover	1.1	1.2	1.3	1.2

Valuation parameters				
Year to March	FY17	FY18E	FY19E	FY20E
Adj. Diluted EPS (INR)	72.6	74.1	146.4	174.4
Y-o-Y growth (%)	*(46.2)*	*2.0*	*97.5*	*19.2*
Adjusted Cash EPS (INR)	143.4	142.7	215.4	243.8
Diluted P/E (x)	31.9	31.2	15.8	13.3
P/B (x)	3.1	2.9	2.6	2.3
EV / Sales (x)	3.0	2.8	2.3	2.0
EV / EBITDA (x)	17.2	16.4	10.1	8.7
Dividend Yield (%)	0.9	0.9	1.7	2.1

Peer comparison valuation

	Market cap	Diluted P/E (X)		EV / EBITDA (X)		ROAE (%)	
Name	(USD mn)	FY18E	FY19E	FY18E	FY19E	FY18E	FY19E
Dr.Reddys Laboratories	5,777	31.2	15.8	16.4	10.1	9.6	17.3
Aurobindo Pharma	6,822	20.4	18.8	13.4	11.9	20.6	18.7
Cadila Healthcare	7,722	23.3	16.8	17.3	12.8	27.0	30.3
Cipla	7,173	25.6	22.7	15.4	12.8	13.2	13.3
Lupin	7,060	25.0	19.8	13.6	11.4	12.7	14.4
Sun Pharmaceuticals Industries	19,239	33.0	21.3	19.1	13.0	9.9	13.4
Median	-	25.3	19.3	15.9	12.4	13.0	15.8
AVERAGE	-	26.4	19.2	15.9	12.0	15.5	17.9

Source: Edelweiss research

Additional Data

Directors Data

Satish Reddy	Chairman	G V Prasad	Co-Chairman & CEO
Dr. Omkar Goswami	Independent Director	Ravi Bhoothalingam	Independent Director
Anupam Puri	Independent Director	J. P. Moreau	Independent Director
Kalpana Morparia	Independent Director	Bruce LA Carter	Independent Director
Ashok Ganguly	Independent Director	Sridar Iyengar	Independent Director

Auditors - B S R & Co., Chartered Accountants, and KPMG India

*as per last annual report

Holding – Top10

	Perc. Holding		Perc. Holding
Commonwealth Bank of Australia	9.65	Reliance Capital Trustee	1.22
Massachusetts Mutual Life	3.26	Teluk Kamang Invest	1.22
Blackrock	2.18	Birla Sun Life Asset Management	1.2
Templeton Asset Management	1.96	Vanguard group	1.03
Franklin Resources	1.62	ICICI Prudential Life Insurance	0.82

*in last one year

Bulk Deals

Data	Acquired / Seller	B/S	Qty Traded	Price
No Data Available				

*in last one year

Insider Trades

Reporting Data	Acquired / Seller	B/S	Qty Traded
17 Jan 2017	K Satish Reddy	Sell	212000.00
17 Jan 2017	G V Prasad	Sell	212000.00
17 Jan 2017	Dr. Reddy's Holdings Limited	Buy	424000.00
10 Oct 2016	G V Prasad	Buy	20800.00
05 Oct 2016	G V Prasad	Buy	66000.00

*in last one year

Company	Absolute reco	Relative reco	Relative risk	Company	Absolute reco	Relative reco	Relative Risk
Aurobindo Pharma	HOLD	SP	H	Cadila Healthcare	BUY	SO	M
Cipla	HOLD	SP	L	Divi's Laboratories	REDUCE	SU	H
Dr.Reddys Laboratories	BUY	SP	M	Glenmark Pharmaceuticals	HOLD	SP	M
Ipca Laboratories	REDUCE	SU	M	Lupin	HOLD	SP	M
Natco Pharma	BUY	SO	M	Sun Pharmaceuticals Industries	BUY	SO	M
Torrent Pharmaceuticals	BUY	SO	H				

ABSOLUTE RATING

Ratings	Expected absolute returns over 12 months
Buy	More than 15%
Hold	Between 15% and - 5%
Reduce	Less than -5%

RELATIVE RETURNS RATING

Ratings	Criteria
Sector Outperformer (SO)	Stock return > 1.25 x Sector return
Sector Performer (SP)	Stock return > 0.75 x Sector return
	Stock return < 1.25 x Sector return
Sector Underperformer (SU)	Stock return < 0.75 x Sector return

Sector return is market cap weighted average return for the coverage universe within the sector

RELATIVE RISK RATING

Ratings	Criteria
Low (L)	Bottom 1/3rd percentile in the sector
Medium (M)	Middle 1/3rd percentile in the sector
High (H)	Top 1/3rd percentile in the sector

Risk ratings are based on Edelweiss risk model

SECTOR RATING

Ratings	Criteria
Overweight (OW)	Sector return > 1.25 x Nifty return
Equalweight (EW)	Sector return > 0.75 x Nifty return
	Sector return < 1.25 x Nifty return
Underweight (UW)	Sector return < 0.75 x Nifty return

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ADITYA NARAIN

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Date: 2017.09.21 08:33:58 +05'30'

Coverage group(s) of stocks by primary analyst(s): Pharmaceuticals

Aurobindo Pharma, Cadila Healthcare, Cipla, Divi's Laboratories, Dr.Reddys Laboratories, Glenmark Pharmaceuticals, Ipca Laboratories, Lupin, Natco Pharma, Sun Pharmaceuticals Industries, Torrent Pharmaceuticals

Recent Research

Date	Company	Title	Price (INR)	Recos
07-Sep-17	**Cadila Healthcare**	FY17 Annual Report Analysis; *Company Update*	494	Buy
05-Sep-17	**Divis Laboratories**	Challenges persist; *Visit Note*	724	Reduce
23-Aug-17	**Ajanta Pharma**	Near-term challenges; *Visit Note*	1,151	Not Rated

Distribution of Ratings / Market Cap

Edelweiss Research Coverage Universe

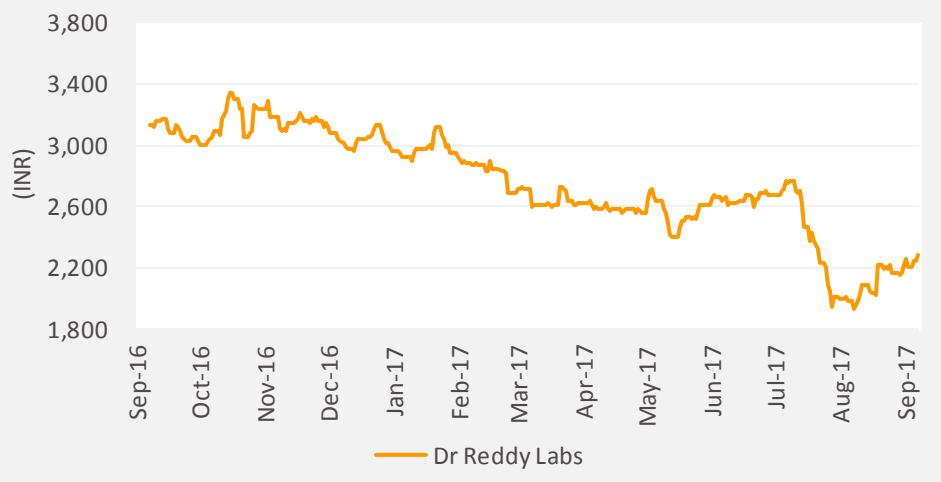
	Buy	Hold	Reduce	Total
Rating Distribution*	161	67	11	240
* 1stocks under review				

	> 50bn	Between 10bn and 50 bn	< 10bn
Market Cap (INR)	156	62	11

Rating Interpretation

Rating	Expected to
Buy	appreciate more than 15% over a 12-month period
Hold	appreciate up to 15% over a 12-month period
Reduce	depreciate more than 5% over a 12-month period

One year price chart



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