

July 04, 2017

INITIATING COVERAGE

Sector view: **Cautious**

Price (₹): **627**

Target price (₹): **610**

BSE-30: **31,210**

**New laurels.** We initiate coverage on Laurus with a REDUCE rating and target price of ₹610, 18X June 2019E EPS. Laurus' focus on process improvement-based API manufacturing has enabled it to emerge as the leader in ARV APIs, and a move into HCV has enabled it to scale up through a formulations profit share model, with the synthesis business likely to benefit from the Aspen deal. We expect its US formulations foray to start contributing from FY2019 and expect consolidated revenue and EPS CAGR of 17% and 33% over FY2017-20. Laurus is trading at 20X FY2019E EPS, expensive in our view.

#### Major API player with dominance in the ARV segment

Laurus has emerged as a dominant, independent API provider in the anti-retro viral (ARV) segment, which accounts for ~70% of its revenues and where it has a complete portfolio with a large 65% market share in efavirenz (EFV), which has grown to ~US\$120 mn product for the company. We expect the non-regulated market growth to slow down, largely due to base effect, but we are less concerned with dolutegravir (DTG) shift in the near term, and expect regulated markets to drive margin expansion. The oncology API business is struggling to gain scale, but we expect significant momentum in non-ARV, non-onco APIs. From FY2017-20, we forecast 12% CAGR for ARV APIs, 14% growth for oncology APIs, and 25% CAGR for other APIs.

#### Commercial saviness at play in Hepatitis-C

Laurus' foray in Hepatitis-C (HCV) and partnership with Natco for API and formulations has paid off with HCV accounting for 12% of revenues in FY2016 and 13% of revenues in FY2017. However, the franchise offers significantly higher EBITDA margins compared to the group average, thanks to its deal with Natco, under which, instead of a typical price/kg realization, Laurus receives 50% profit share on formulation sales. We expect the HCV franchise for Laurus/Natco to peak in FY2020, and decline thereafter, and see it as a cash cow for Laurus, which will help fund its formulations foray in the coming years.

#### Faster approval cycle to benefit US formulations foray

We believe the FDA's focus on shorter approval times bodes well for Laurus, which is in a sweet spot given it has just initiated its US filings (3 ANDAs filed in FY2017 with 12-13 more in FY2018), in time for several day-1 launches in the ARV segment. We also see a credible API-led formulations strategy at play for non-ARV products, and though we are not big fans of its partnership model, we expect the company to shift to its own front-end post the first wave of filings with DRRD and Citron. We see the US and EU formulations business scaling up to US\$28 to 30 mn by FY2020.

#### Expect 33% EPS CAGR over FY2017-20; initiate with REDUCE

We value Laurus at 18X June 2019E EPS, in line with front-line peers (sector average of 18X FY2019 P/E), and at a discount to Divi's five year average 1-year forward P/E multiple of 22X. Laurus presents a hybrid of US formulations, a steadily growing API business, with optionality from the synthesis business, and is in a growth stage with current profitability also impacted by investments in the US formulations business. Laurus is currently trading at 20X FY2019E EPS and we find valuations rich. We initiate with a REDUCE rating and a target price of ₹610/share.

#### Company data and valuation summary

Company data	Stock data	High	Low	Price performance	1M	3M	12M
Rating: REDUCE	52-week range	452	636	Absolute (%)	4.4	20.5	NM
	Priced at close of:	04-Jul-17		Rel. to BSE-30 (%)	4.6	15.5	NM
Current price (Rs)	Capitalisation	Forecasts/valuation		2017	2018E	2019E	
627	Market cap (Rs bn)	66.3		EPS (Rs)	18.0	19.9	30.9
	Net debt/(cash) (Rs bn)	8.0		P/E (X)	34.8	31.5	20.3
	Free float (%)	35.6		RoAE (%)	14.3	13.7	17.5
	Shares outstanding (mn)	106		EV/EBITDA (X)	18.1	16.2	12.0

Source: Company, Kotak Institutional Equities estimates

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The prices in this report are based on the market close of July 4, 2017.

## FINANCIAL SNAPSHOT

## Exhibit 1: Laurus Labs financial snapshot

March fiscal year ends, 2013-19E

	Net revenues (Rs mn)	EBITDA (Rs mn)	PAT (Rs mn)	EPS (Rs)	EBITDA margin (%)	P/E (X)	EV/EBITDA (X)	RoE (%)	RoCE (%)
2013	7,185	1,448	882	11	20.2	NM	47.7	34.0	22.2
2014	11,597	2,089	973	12	18.0	52.3	34.4	27.2	19.1
2015	13,266	2,002	684	8	15.1	81.3	36.9	9.5	9.3
2016	18,110	3,622	1,337	14	20.0	46.2	20.8	15.6	15.6
2017	19,315	4,076	1,903	18	21.1	34.8	18.1	14.3	14.4
2018E	23,045	4,651	2,107	20	20.2	31.5	16.2	13.7	14.1
2019E	26,977	6,201	3,270	31	23.0	20.3	12.0	17.5	17.8
2020E	30,971	7,849	4,509	43	25.3	14.7	9.3	19.4	21.2

Source: Company, Kotak Institutional Equities estimates

## Exhibit 2: We expect LAURUS' net profit to grow by 33% CAGR over FY2017-20E

Income statement, Balance sheet and Cash flow, March fiscal year-ends, 2013-20E (Rs mn, unless specified)

	2013	2014	2015	2016	2017	2018E	2019E	2020E
<b>Net revenues</b>	<b>7,185</b>	<b>11,597</b>	<b>13,266</b>	<b>18,110</b>	<b>19,315</b>	<b>23,045</b>	<b>26,977</b>	<b>30,971</b>
<b>Gross profit</b>	<b>3,062</b>	<b>4,338</b>	<b>4,982</b>	<b>8,028</b>	<b>9,348</b>	<b>10,617</b>	<b>12,965</b>	<b>15,321</b>
<b>Adjusted EBITDA</b>	<b>1,448</b>	<b>2,089</b>	<b>2,002</b>	<b>3,622</b>	<b>4,076</b>	<b>4,651</b>	<b>6,201</b>	<b>7,849</b>
Depreciation & amortisation	(226)	(329)	(615)	(864)	(1,060)	(1,215)	(1,398)	(1,563)
<b>EBIT</b>	<b>1,222</b>	<b>1,760</b>	<b>1,387</b>	<b>2,758</b>	<b>3,017</b>	<b>3,436</b>	<b>4,803</b>	<b>6,285</b>
Net interest	(361)	(551)	(721)	(1,067)	(665)	(735)	(610)	(430)
<b>Profit before tax</b>	<b>861</b>	<b>1,209</b>	<b>666</b>	<b>1,690</b>	<b>2,352</b>	<b>2,701</b>	<b>4,193</b>	<b>5,855</b>
Tax & deferred Tax	21	(236)	16	(349)	(439)	(594)	(922)	(1,347)
Minority interest	—	—	2	(4)	(11)	—	—	—
<b>Net income (reported)</b>	<b>882</b>	<b>973</b>	<b>684</b>	<b>1,337</b>	<b>1,903</b>	<b>2,107</b>	<b>3,270</b>	<b>4,509</b>
<b>EPS (FD) (reported) (Rs)</b>	<b>10.9</b>	<b>12.0</b>	<b>7.7</b>	<b>13.6</b>	<b>18.0</b>	<b>19.9</b>	<b>30.9</b>	<b>42.7</b>
<b>Balance sheet</b>								
Cash & equivalents	136	232	589	288	105	49	679	513
Debtors	1,567	1,949	2,851	4,449	5,676	6,772	7,927	9,101
Other current assets	1,599	3,317	4,871	5,291	5,617	6,145	6,669	7,387
<b>Current assets</b>	<b>3,302</b>	<b>5,498</b>	<b>8,311</b>	<b>10,027</b>	<b>11,398</b>	<b>12,966</b>	<b>15,275</b>	<b>17,001</b>
Fixed assets (incl. goodwill)	3,083	6,153	9,107	10,906	13,732	16,017	17,369	18,555
Other non-current assets	624	1,080	1,465	1,302	1,404	1,404	1,404	1,404
<b>Total assets</b>	<b>7,010</b>	<b>12,732</b>	<b>18,883</b>	<b>22,235</b>	<b>26,534</b>	<b>30,387</b>	<b>34,048</b>	<b>36,961</b>
Short-term loans	1,778	3,122	4,316	4,814	6,442	6,500	6,500	5,000
Creditors and other liabilities	1,468	3,116	2,851	4,023	4,820	5,253	5,644	6,048
<b>Current liabilities</b>	<b>3,247</b>	<b>6,238</b>	<b>7,167</b>	<b>8,837</b>	<b>11,262</b>	<b>11,753</b>	<b>12,144</b>	<b>11,048</b>
Long-term loans	1,142	2,753	3,895	4,597	1,246	2,500	2,500	2,000
Other liabilities (incl. deferred)	28	158	601	232	722	722	722	722
<b>Total liabilities</b>	<b>4,417</b>	<b>9,148</b>	<b>11,662</b>	<b>13,667</b>	<b>13,230</b>	<b>14,976</b>	<b>15,366</b>	<b>13,770</b>
<b>Equity (inc. minority interest)</b>	<b>2,593</b>	<b>3,584</b>	<b>7,221</b>	<b>8,568</b>	<b>13,304</b>	<b>15,411</b>	<b>18,682</b>	<b>23,190</b>
<b>Total equity and liabilities</b>	<b>7,010</b>	<b>12,732</b>	<b>18,883</b>	<b>22,235</b>	<b>26,534</b>	<b>30,387</b>	<b>34,048</b>	<b>36,961</b>
<b>Cash flow</b>								
<b>CF from operations pre WC</b>	<b>1,287</b>	<b>1,805</b>	<b>1,860</b>	<b>3,409</b>	<b>3,844</b>	<b>4,132</b>	<b>5,479</b>	<b>6,702</b>
Working capital	(405)	(593)	(2,507)	(1,476)	(525)	(1,190)	(1,289)	(1,488)
Capex	(1,187)	(3,091)	(3,831)	(3,370)	(2,775)	(3,500)	(2,750)	(2,750)
<b>FCF</b>	<b>(305)</b>	<b>(1,879)</b>	<b>(4,478)</b>	<b>(1,437)</b>	<b>545</b>	<b>(558)</b>	<b>1,440</b>	<b>2,464</b>
<b>Ratios</b>								
EBITDA margin (%)	20.2	18.0	15.1	20.0	21.1	20.2	23.0	25.3
RoE (%)	34.0	27.2	9.5	15.6	14.3	13.7	17.5	19.4
RoCE (%)	22.2	19.1	9.3	15.6	14.4	14.1	17.8	21.2
Net debt to equity (X)	1.1	1.6	1.1	1.1	0.6	0.6	0.4	0.3

Source: Company, Kotak Institutional Equities estimates

## VALUATION: INITIATE COVERAGE WITH A REDUCE RATING

We initiate coverage on Laurus with a REDUCE rating and target price of ₹610/share, based on 18X June 2019E EPS. Our P/E multiple is in line with front-line peers (sector average of 18X FY2019 P/E), and at a discount to Divi's five year average 1-year forward P/E multiple of 22X. Laurus presents a hybrid of US formulations, a steadily growing API business, with optionality from the synthesis business. It is in a growth stage with current profitability also impacted by investments in the US formulations business. We believe Laurus can continue to trade at 18 to 19X range over the medium term. This is backed by a much stronger growth of 33% EPS CAGR from FY2017-20E. Laurus is currently trading at 20X FY2019E EPS (21X FY2019E EPS excluding Hep-C and losses from formulations), which we find expensive.

### We initiate coverage with a REDUCE rating; target price of ₹610

We initiate coverage on Laurus with a REDUCE rating and a target price of ₹610/share, based on 18X June 2019E EPS, in line with front-line peers and at a 20% discount to Divi's five year 1-year average forward P/E multiple of 22X. Laurus presents a hybrid of US formulations, a steadily growing API business, with optionality from the synthesis business. It is in a growth stage with current profitability also impacted by investments in the US formulations business, which we believe is suppressing the PBT by ~₹1 bn, representing ~43% of FY2017 reported PBT. FY2019 will represent the first year of formulations revenues and while we expect formulations business losses to narrow, positive contribution is expected only from FY2020. Thus, we believe Laurus can continue to trade at 18- 19X range over the medium term. This is backed by a much stronger growth of 33% EPS CAGR over FY2017-20E.

### Finite HCV opportunity; growing API and formulations business

HCV presents a finite opportunity for Laurus given that the domestic market has largely reached the mature stage. The therapy represents a complete cure and incidence rate has declined, This HCV opportunity will likely shrink over time. To accurately capture the base business value, we present DCF of the HCV opportunity with negative terminal growth rate, which gives us a valuation of ₹9.5 bn or ₹90/share. Stripping out the HCV DCF, Laurus' core business is trading at ₹57 bn, or ₹540/share. FY2019 will represent the first year of formulations revenues, and while we expect the business to contribute positively from FY2020, FY2019 will still suffer losses of ~₹750 mn from formulations. Adjusting for losses of the formulations business along with finite HCV opportunity, the core business is trading at 22X FY2019 EPS which is relatively high versus peers.

#### Exhibit 3: Laurus' HCV business is worth ₹9.5 bn

DCF for Laurus' Hep-C business, March fiscal year-ends, 2016-40E (Rs mn)

	2016	2017	2018E	2019E	2020E	2021E	2022E	2039E
Laurus' profit share (Rs mn)	1,282	1,603	1,713	1,843	1,906	1,732	1,726	975
Laurus' sales of API to Natco (Rs mn)	387	484	517	556	576	523	650	487
Laurus' sales of API to third parties (Rs mn)	302	423	545	573	601	631	663	846
Laurus' total sales from Hep-C (Rs mn)	1,971	2,509	2,775	2,972	3,083	2,886	3,038	2,308
Laurus' gross profits from Hep-C (Rs mn)	1,327	1,666	1,794	1,929	1,997	1,827	1,825	1,101
Laurus' gross margin from Hep-C (%)	67.3	66.4	64.7	64.9	64.8	63.3	60.1	47.7
Tax rate (%)	25	25	25	25	25	25	25	25
Tax (Rs mn)	332	416	449	482	499	457	456	275
Free cash from Hep C (depr, WC and interest expense adjusted at company level)	995	1,249	1,346	1,446	1,497	1,370	1,369	826
WACC (%)	11							
Year			—	1	2	3	4	21
Discounted cash flow (Rs mn)			1,346	1,309	1,226	1,015	918	101
Sum of discounted cash flow (Rs mn)								9,502

Source: Company, Kotak Institutional Equities estimates

**Exhibit 4: Current market price implies 22X multiple to ex-Hep-C business**  
Implied multiple calculation for Laurus; residual business (Rs mn)

Current market cap.	66,274
Value of Hep-C portfolio	9,502
<b>Value of residual business</b>	<b>56,772</b>
Hep-C net profit (FY2019)	1,446
Losses from formulations (adjusted for tax)	750
<b>FY2019 net income exluding Hep-C and formulations</b>	<b>2,574</b>
<b>Implied multiple of residual business (X)</b>	<b>22.1</b>

Source: Company, Kotak Institutional Equities estimates

We present a comparison of one-year forward P/E multiples of Indian generics versus a basket of global generic companies. Indian generics have traded at a significant premium to global generics, again in part due to domestic contribution, as well as superior returns generation profile of Indian generics. But, increasing profit contribution from the US can lead to multiple contractions. However, Laurus presents a hybrid of US formulations, a steadily growing API business, with optionality from the synthesis business.

**Exhibit 5: Indian pharma trades at 21X 1-year forward EPS**  
1-year forward P/E based on consensus estimates (X)



Source: FactSet, Kotak Institutional Equities

**Exhibit 6: Laurus trades at a premium to Indian peers**

Valuation summary, KIE coverage universe, March fiscal year ends, 2017-19E

Company	Price (Rs)	Rating	Market cap.		EPS (Rs)			PER (X)			EV/EBITDA (X)			EV/Sales (X)		
			(Rs mn)	(US\$ mn)	2017	2018E	2019E	2017	2018E	2019E	2017	2018E	2019E	2017	2018E	2019E
Aurobindo Pharma	678	ADD	397,111	5,927	39.4	44.2	49.0	17.2	15.3	13.8	12.2	10.4	9.0	2.5	2.4	2.2
Biocon	334	SELL	200,190	2,988	10.2	8.0	9.7	32.7	41.8	34.5	22.3	21.0	16.9	5.0	4.1	3.2
Cipla	545	BUY	438,524	6,545	12.5	23.9	33.5	43.6	22.8	16.3	18.8	13.9	10.1	2.8	2.5	2.2
Dr. Reddy's	2,624	SELL	434,842	6,490	72.5	85.2	131.4	36.2	30.8	20.0	19.3	14.7	9.9	2.9	2.8	2.4
Lupin	1,044	ADD	471,555	7,038	56.8	61.4	70.0	18.4	17.0	14.9	11.4	10.4	8.7	2.5	2.3	2.1
Sun Pharma	552	REDUCE	1,325,464	19,783	28.9	24.5	29.6	19.1	22.5	18.7	11.8	12.5	9.6	4.6	5.0	4.6
Torrent	1,241	REDUCE	209,938	3,133	55.2	53.3	60.5	22.5	23.3	20.5	16.1	14.6	12.9	3.4	3.2	2.9
<b>Pharma</b>			<b>3,477,623</b>	<b>51,905</b>				<b>22.3</b>	<b>21.8</b>	<b>17.7</b>	<b>14.4</b>	<b>13.8</b>	<b>11.2</b>	<b>3.5</b>	<b>3.3</b>	<b>2.9</b>

Source: Company, Kotak Institutional Equities estimates

**COMPANY PROFILE: ARV AND HCV FOCUSED COMPANY MOVING TOWARDS US GENERICS**

Laurus currently operates in four segments—(1) generic APIs, (2) generic formulations, (3) synthesis and (4) ingredients. Laurus has emerged as a dominant company in the ARV therapeutic area, which accounts for ~70% of its revenues and where it has a complete portfolio with significant volume share across products. We forecast broad-based 17% CAGR from FY2017-20, though see continued margin expansion from ~21% currently towards ~25% by FY2020, driven by several levers.

- ▶ **ARV presents core business.** We expect ARV business to remain a steady driver and despite therapeutic shifts, we forecast 12% revenue CAGR over FY2017-20E.
- ▶ **HCV offers significant profitability, though it is likely to reach the peak by FY2020.** We expect the HCV franchise for Laurus/Natco to peak in FY2020 at ~₹3 bn and decline thereafter, though it is a critical cash cow for Laurus in the medium term, helping fund the US formulations business in the initial years.
- ▶ **Oncology business to recover, while other APIs to continue growth.** Laurus' oncology API business has largely stagnated at US\$20-25 mn. We expect recovery in oncology APIs led by strong order flows towards the end of FY2017, but increasing focus on non-oncology, high volume APIs along with contract manufacturing will drive growth.
- ▶ **US to offer next leg of growth.** We also see a credible API-led formulations strategy at play for both ARV and non-ARV products and expect the US and EU formulations business to scale up to ~US\$28-30 mn in FY2020, though given the accounting (only profit share accounted), it will significantly aid margin expansion.
- ▶ **Synthesis is margin accretive, while ingredients unlikely to reach scale.** While the synthesis business is still in its nascent stage, the Aspen deal provides a significant opportunity given higher margins and potential for a four-fold growth in revenues by FY2021E.

## Exhibit 7: ARVs continue to remain largest revenue contributor

Revenues by segment, March fiscal year-ends, 2014-20E

	2014	2015	2016	2017	2018E	2019E	2020E
<b>Revenues (Rs mn)</b>							
ARVs	9,302	10,776	12,619	12,212	14,114	15,361	16,988
Hep-C	—	231	1,971	2,509	2,774	2,971	3,082
Oncology	1,082	1,261	1,413	1,073	1,408	1,505	1,597
Other APIs	523	265	513	1,498	2,072	2,393	2,979
<b>APIs</b>	<b>10,907</b>	<b>12,534</b>	<b>16,517</b>	<b>17,292</b>	<b>20,368</b>	<b>22,230</b>	<b>24,646</b>
Synthesis	200	477	835	1,015	1,833	3,132	3,500
Ingredients	373	255	465	612	706	795	894
Formulations	—	—	—	—	137	820	1,931
<b>Total revenues</b>	<b>11,480</b>	<b>13,266</b>	<b>17,817</b>	<b>18,919</b>	<b>23,045</b>	<b>26,977</b>	<b>30,971</b>
<b>As % of revenues</b>							
ARVs	81.0	81.2	70.8	64.5	61.2	56.9	54.9
Hep-C	—	1.7	11.1	13.3	12.0	11.0	10.0
Oncology	9.4	9.5	7.9	5.7	6.1	5.6	5.2
Other APIs	4.6	2.0	2.9	7.9	9.0	8.9	9.6
<b>APIs</b>	<b>95.0</b>	<b>94.5</b>	<b>92.7</b>	<b>91.4</b>	<b>88.4</b>	<b>82.4</b>	<b>79.6</b>
Synthesis	1.7	3.6	4.7	5.4	8.0	11.6	11.3
Ingredients	3.2	1.9	2.6	3.2	3.1	2.9	2.9
Formulations	—	—	—	—	0.6	3.0	6.2
<b>Total revenues</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>yoy growth (%)</b>							
ARVs		15.8	17.1	(3.2)	15.6	8.8	10.6
Hep-C			NM	27.3	10.6	7.1	3.8
Oncology		16.6	12.0	(24.1)	31.2	6.9	6.1
Other APIs		(49.3)	93.6	191.8	38.3	15.5	24.5
<b>APIs</b>		<b>14.9</b>	<b>31.8</b>	<b>4.7</b>	<b>17.8</b>	<b>9.1</b>	<b>10.9</b>
Synthesis		138.7	75.0	21.5	80.6	70.9	11.8
Ingredients		(31.6)	82.3	31.6	15.4	12.5	12.5
Formulations						NM	135.4
<b>Total revenues</b>		<b>15.6</b>	<b>34.3</b>	<b>6.2</b>	<b>21.8</b>	<b>17.1</b>	<b>14.8</b>

Source: Company, Kotak Institutional Equities estimates

## LAURUS IS A MAJOR PLAYER IN THE API MARKET WITH DOMINANCE IN ARV SEGMENT

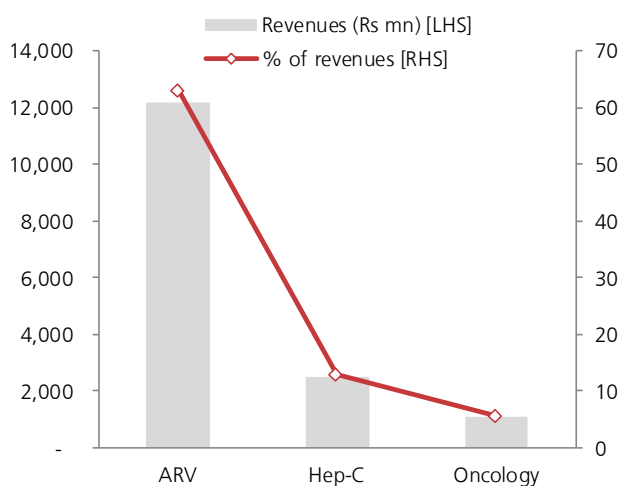
In the past few years, Laurus has emerged as a dominant, independent API provider in the ARV segment, which accounts for ~70% of its revenues, where it has a complete portfolio with majority 65% market share for EFV, which is now a ~US\$120 mn product for it. We expect non-regulated market growth to slow down, largely due to the base effect. However, we are less concerned with DTG shift in the near term and expect regulated markets to drive margin expansion. The oncology API business is struggling to gain scale, but we expect significant momentum in non-ARV, non-onco APIs. From FY2017 to 20, we forecast 12% CAGR for ARV APIs, 14% growth for oncology APIs, and 25% CAGR for other APIs over FY2017-20E

### Process improvement-led strategy for high tonnage APIs

Laurus' journey from its inception in CY2006 to a ₹22 bn revenue company started with developing oncology APIs for global markets. However, a key break-through came in CY2009 when the company developed a scalable and cost-efficient process for efavirenz, which was emerging as the back-bone of ARV treatment, though adoption was hindered by high cost and a highly pyrophoric manufacturing process. Focusing on novel chemistry, Laurus managed to replace diethyl zinc, a highly pyrophoric reagent with a combination of off-the-shelf chemicals, which are both non-pyrophoric and 90% cheaper. This brought down EFV pricing to a level where it became affordable for inclusion in global tenders. The focus on novel chemistry helped it to create a scalable process with large over 100 MT/month capacity, enabling it to have an enviable position of the lowest cost manufacturer with a dominant ~65% market share, with EFV crossing US\$100 mn sales in FY2014, and emerging as one of the largest products in the Indian API industry.

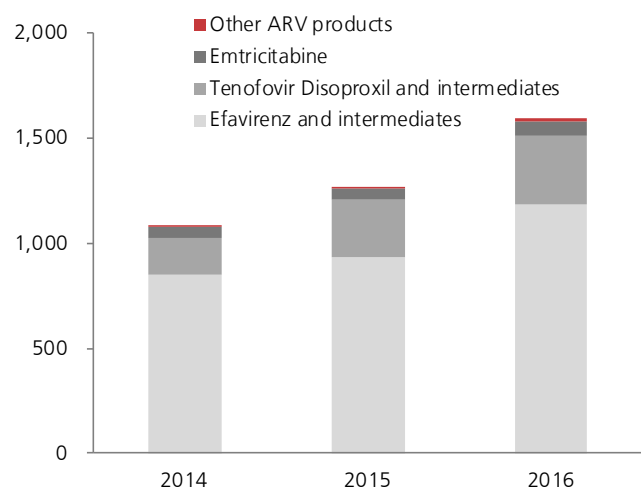
In many ways, Laurus' journey is similar to Divi's generic API strategy, which captured majority market share globally in naproxen through the use of organic chemistry, and replicated the strategy multiple times for products such as dextromethorphan and gabapentin, among others.

**Exhibit 8: ARV, HCV and oncology are key therapy areas**  
March fiscal year-ends, 2017 (Rs mn, %)



Source: Company, Kotak Institutional Equities

**Exhibit 9: EFV has been key driver of ARV revenues for Laurus**  
March fiscal year-ends, 2014-16 (MT)



Source: Company, Kotak Institutional Equities



### Focus on quality and economies of scale to help drive volumes

Laurus currently has three manufacturing facilities in Visakhapatnam and a kilo lab in Hyderabad, which have been certified by one or more organizations including WHO, US FDA, PMDA, NIP Hungary, KFDA and BfArM. Within these, there are three API manufacturing facilities, with 435 reactors for aggregate reactor volume of 1,834 KL, which increased to 2,095 KL by the end of FY2017. Since FY2014, Laurus' manufacturing capacities have doubled from 2,300 MTPA to 4,100 MTPA, bringing down its capacity utilization from 80% to 65%. The current capacities also include 2,500 MT dedicated block for metformin, which is currently largely unutilized, excluding this Laurus is largely operating at optimal capacity utilization for ARVs. The optimal capacity utilization, has also, been partly achieved due to its focus on large capacity of over 100 MTPA for EFV, which along with its technology focus, has helped drive economies of scale in ARV APIs. Laurus also has had an enviable quality track record with most of its US FDA inspections getting cleared without 483's. All its facilities are now equipped with a high degree of automation and electronic data capture and control, minimizing risk of any data integrity related risks in the future.

#### Exhibit 10: Existing and upcoming facilities for Laurus

Unit	Location	Description	Status
kilo lab	Plot no. DS1 and DS2, IKP Knowledge Park, Turkapally, Shameerpet, Ranga Reddy District, Hyderabad 500078, Telangana, India	43 reactors and a capacity of 4.3 KL	US FDA, KFDA and PMDA. The latest successful audit by US FDA was in June 2016
1	Plot No. 21, Jawaharlal Nehru Pharma City, Parawada, Visakhapatnam 531 021, Andhra Pradesh, India	API manufacturing facility and includes capacity for ingredients, synthesis and contract manufacturing. 314 reactors with a total capacity of 1,140 KL	US FDA, WHO-Geneva, NIP Hungary, KFDA and PMDA. The latest successful audit by US FDA and WHO-Geneva was in April 2015
2	Plot No. 19, 20, 21, APSEZ, Achutapuram, Visakhapatnam 531 011, Andhra Pradesh, India	FDf and API manufacturing facility. Plant with a capacity of 1 billion tablets/year. API block with 12 reactors and total capacity of 84 KL	BfArM - Germany. Successful completion of US FDA inspection in API facility in May 2017. EIR received from US FDA for the FDf facility in May 2017
3	Plot No. 18, Jawaharlal Nehru Pharma City, Parawada, Visakhapatnam 531 021, Andhra Pradesh, India	API manufacturing facility and includes capacity for ingredients, synthesis and contract. manufacturing. 80 reactors installed with a total capacity of 605 KL which is being expanded to 126 reactors with a total capacity of 780 KL and the expansion was completed in December 2016	US FDA, WHO-Geneva, and EU. The latest successful audit by US FDA and WHOGeneva was in April 2015
4	Plot No. 25, 25A to 25K, APSEZ – Denotified Area, Alalamkoduru Village, Rambilli (M), Visakhapatnam, Andhra Pradesh	Nutraceuticals, intermediates and APIs manufacturing facility	Construction commenced and will be operational in 2017-18
5	SEZ at Plot No. 102 and 103, Lemarathi Village, Parwada (M), Visakhapatnam 531 021, Andhra Pradesh	API manufacturing facility with planned capacity of 46 reactors with a total capacity of 126 KL dedicated to potent intermediates and APIs	Commenced operations in December 2016

Source: Company, Kotak Institutional Equities

### ARV is an attractive opportunity as HIV infected population continues to grow

In CY2015, 36.7 mn people were living with HIV, including 2.6 mn children, with the vast majority of these in low- and middle-income countries ('LMICs'), particularly in Sub-Saharan Africa. As per estimates, only 48% of the people living with HIV are diagnosed, only 41% receive ARV treatment and 32% are virally suppressed. Pediatric treatment lags even further, with only 32% of children living with HIV receiving ARV treatment. According to the latest UNAIDS data, the global coverage of anti-retroviral therapies (ARTs) reached approximately 46% by the end of 2015. It is further estimated that 21.5 mn people will be covered by ARTs by CY2018.

The September 2015 changes in the WHO guidelines are expected to contribute to ART market growth, particularly, the adoption of test and treat guidelines, which will make the entire HIV/AIDS population eligible for ART. In the US, the increase in CD4+ cell count thresholds for HAART initiation from 350 to 500 cells/mm<sup>3</sup> will drive a significant increase in the number of patients requiring early treatment initiation. According to the WHO, 60% of the 58 WHO HIV focus countries have adopted the CD4 threshold of 500 cells/mm<sup>3</sup> or less for initiating ART and 7% had already moved the CD4 threshold to above 500 cells/mm<sup>3</sup>, though the median CD4 count at the time of ARV initiation remains significantly lower than 350 cells/mm<sup>3</sup>.

**Exhibit 11: ~46% of HIV infected population covered by ARTs**  
Calendar year-end, 2015

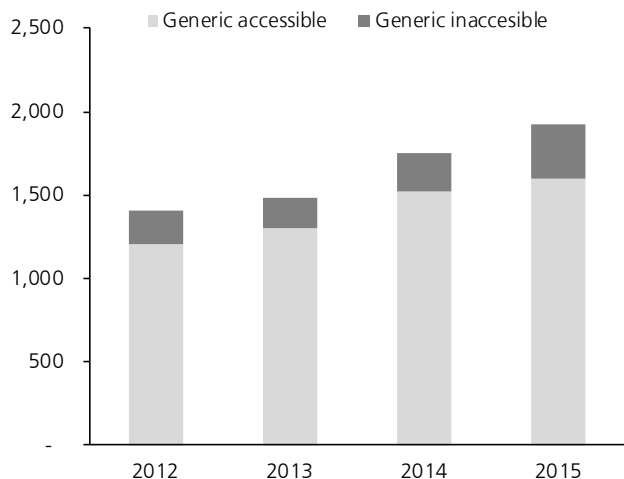
Region	Eligible population for ART (mn)	People receiving ARTs (mn)	ART coverage (%)
Global	~36.7	~17.0	46
Asia and Pacific	~5.1	~2.1	41
Eastern and Southern Africa	~19.1	~10.2	54
Eastern Europe and Central Asia	~1.5	~0.32	21
Latin America and the Caribbean	~2.0	~1.1	55
Middle East and North Africa	~0.23	~0.04	17
Western and Central Africa	~6.5	~1.8	28
Western & Central Europe and North America	~2.4	~1.4	59

Source: Company

### ARV market size in low- and middle-income countries

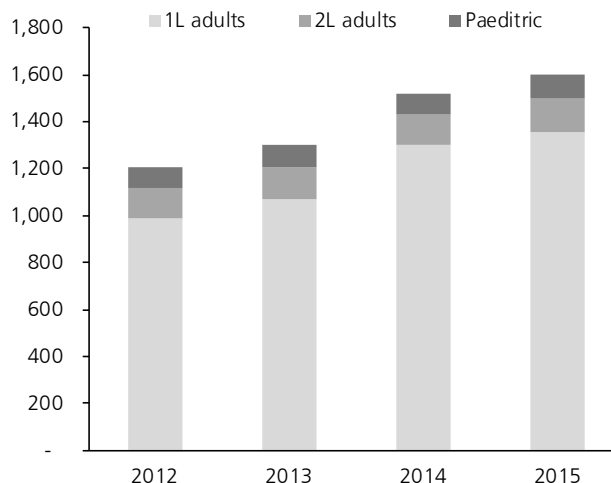
The generic accessible (GA) ARV market, represents 94% of patients in LMICs (low and middle income countries) and accounted for ~US\$1.52 bn in CY2014, with the generic inaccessible market accounting for ~ US\$230 mn in CY2014, with ~12.4 mn receiving ART in LMICs. The GA ARV market in LMICs is expected to grow to about US\$2 bn by CY2019. Market growth has been driven by increasing treatment coverage with 41% patients covered in CY2014.

**Exhibit 12: ARV market size in LMIC**  
Calendar year-ends, 2012-15 (US\$ mn)



Source: Company, Kotak Institutional Equities

**Exhibit 13: Generic accessible market size in LMIC**  
Calendar year-ends, 2012-15 (US\$ mn)

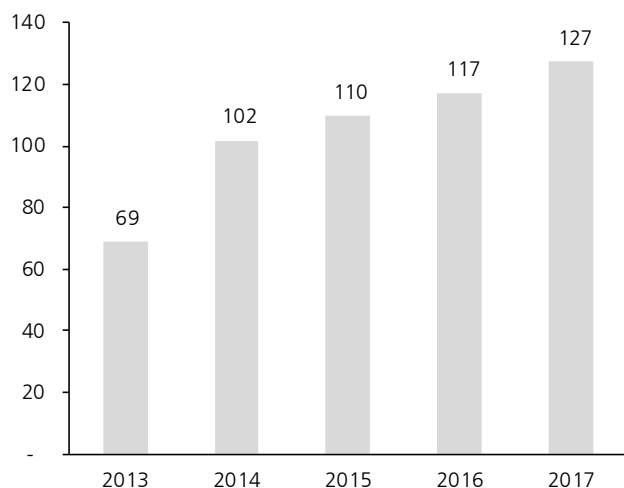


Source: Company, Kotak Institutional Equities

**EFV is the backbone of ARV therapy in LMICs, and Laurus' largest product**

Following the changes to the WHO guidelines in CY2013, NNRTIs (non-nucleoside reverse transcriptase inhibitors) remain the first line regimen in adults while EFV has become the preferred choice among the NNRTIs. This has resulted in constant increase in EFV use, which is expected to reach ~69% of all first line generic accessible adult patients by CY2018.

**Exhibit 14: Laurus' EFV sales crossed US\$100 mn in FY2016**  
March fiscal year-ends, 2012-17 (US\$ mn)



Source: Company, Kotak Institutional Equities

**Exhibit 15: Laurus' portfolio targets bulk of treatment protocols**

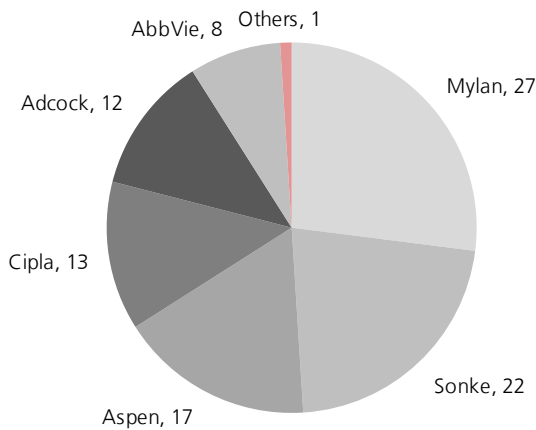
Population	WHO recommended preferred first-line regimen	WHO recommended alternative first line regimen
Adults	TDF + 3TC (or FTC) + EFV	AZT + 3TC + EFV (or NVP)
		TDF + 3TCV (or FTC) + DTG
		TDF + 3TCV (or FTC) + EFV400
Pregnant / breastfeeding women	TDF + 3TC (or FTC) + EFV	TDF + 3TCV (or FTC) + NVP
		AZT + 3TC + EFV (or NVP)
Adolescents	TDF + 3TC (or FTC) + EFV	TDF (or ABC) + 3TC (or FTC) + DTG
		TDF + 3TCV (or FTC) + EFV400
		TDF (or ABC) + 3TCV (or FTC) + NVP
Children (three years to less than 10 years old)	ABC + 3TC + EFV	ABC + 3TC + EFV
		AZT + 3TC + EFV (or NVP)
		TDF + 3TCV (or FTC) + EFV (or NVP)
Children (less than three years old)	ABC (or AZT) + 3TC + LPV/r	ABC (or AZT) + 3TC + NVP

Source: Company, Kotak Institutional Equities

**Laurus is the largest API supplier to the South African tender awardees**

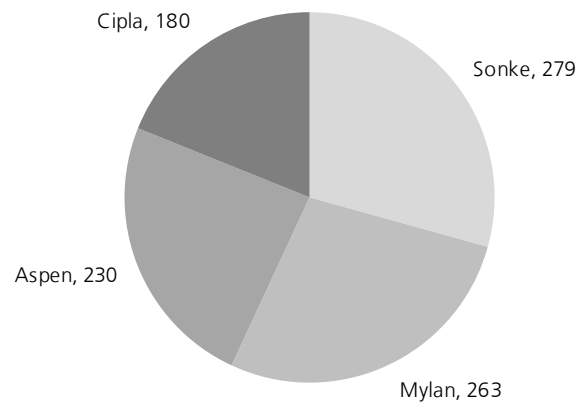
South Africa represents nearly a quarter of all patients on ART in GA LMICs and its tender awards could significantly benefit the generic manufacturers. In 2014, four pharmaceutical companies, Sonke (subsidiary of Sun Pharmaceuticals), Mylan Laboratories, Aspen Pharma and Cipla, won the three-year tender worth ~US\$703.7 mn to supply ARVs to patients in South Africa for the period from 2015 to 2017. Laurus' strengths in the ARV segment are demonstrated by the fact that four of the top five winners of the South Africa tender source APIs from Laurus. South Africa presents one of the largest tender markets for ARV drugs with the 2014 tender round (for supplies from 2QCY15 – 1QCY18) with top-four companies winning tenders of ~US\$704 mn.

**Exhibit 16: Volume share by packs of South African ARV tender 2QCY15 – 1QCY18 tender (%)**



Source: Company, Kotak Institutional Equities

**Exhibit 17: Bidder split by value for tenofovir 300 mg, emtricitabine 200 mg and efavirenz (600 mg) 2QCY15 - 1QCY18 tender, US\$ mn**



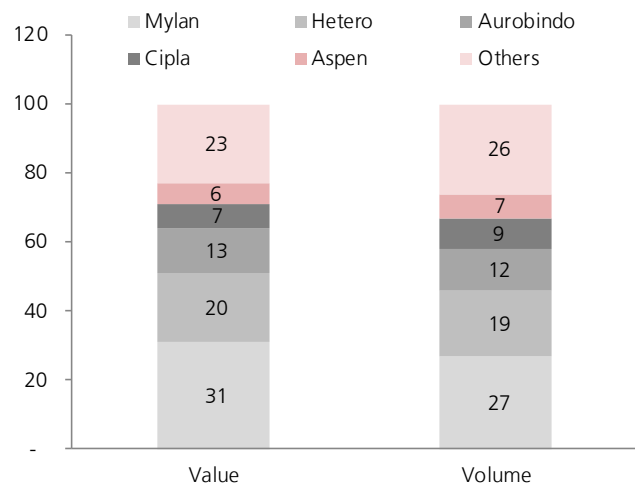
Source: Company, Kotak Institutional Equities

**Exhibit 18: Demand supply mismatch for EFV, CY2015**

API	Total capacities available		Demand	
	MT	MT	MT	MT
ABC	362	53	103	
Atazanavir	110	23	42	
DRV	44	—	—	
<b>EFV</b>	<b>2,836</b>	<b>1,787</b>	<b>2,908</b>	
FTC	760	183	384	
Lamivudine	2,500	1,227	1,571	
LPV	183	146	216	
NVP	1,018	731	817	
RTV	128	46	77	
Tenofovir	2,076	997	1,711	
ZDV / AZT	1,743	1,085	1,385	

Source: Company, Kotak Institutional Equities

**Exhibit 19: Five companies account for >70% of GA market in LMIC Calendar year-end, 2014, market share (%)**



Source: Company, Kotak Institutional Equities

### Dolutegravir threat is exaggerated

EFV-based regimens have ~62% share of first-line treatment, while NVP combinations account for 15 to 20% share. DTG and EFV at lower doses (400 mg/day) are now included as new alternatives for first-line regimens. As per WHO and CHAI forecasts, EFV and Nevirapine (NVP) could lose market share to DTG based combinations. Tenofovir alafenamide (TAF) is expected to reach five mn patients and DTG six mn patients by CY2024. We expect DTG to first take away market share from NVP rather than EFV, as is feared.

- ▶ **EFV 400mg not proven in Tb/HIV co-infected cases and during pregnancy.** The safety and efficacy of DTG and EFV 400 mg/day during pregnancy and among TB/HIV co-infected patients using rifampicin has not been established. Pharmacokinetic studies show that rifampicin-based treatment leads to short-term reductions in drug levels of EFV at the standard dose of 600 mg/day during the first two weeks of treatment, but increases in EFV drug levels have been consistently observed across several pharmacokinetic studies after longer-term treatment together with rifampicin-based combinations. However, it is not clear whether the same consistent efficacy will be seen for the lower 400-mg dose of EFV.
- ▶ **DTG efficacy in TB/HIV co-infected patients is not proven.** Similarly, rifampicin, which is the standard care for patients suffering from TB/HIV co-infection, is known to significantly lower plasma concentrations of DTG, and increasing the dose to a twice-daily schedule may be necessary, which can impact compliance, which is critical. A key success factor in ARV treatment has been improving compliance through once-daily FDCs.
- ▶ **DTG not proven to prevent mother-to-child transmission.** A recent review of six studies concluded that there was limited effect on the pharmacokinetics of EFV at the standard 600-mg once-daily dose during the third trimester of pregnancy, and rates of mother to child transmission were low. However, there is limited safety or efficacy data available on the outcomes of treatment with DTG during pregnancy and breastfeeding.
- ▶ **NVP set to lose market share to DTG in first phase.** There have been persistent concerns about the higher risk of severe adverse events with NVP compared with EFV and other ARV drugs, particularly in ART-naive patients with high baseline CD4 cell counts. NVP combinations account for 15 to 20% share and we expect DTG to first take away market share from NVP rather than EFV, as is feared.
- ▶ **DTG API price needs to come down by 50% to make it competitive.** A lot has been said about ARBP committing a reference price of US\$44 per patient per year for DTG, equating to ~US\$0.12/pill. This is significantly higher than EFV net price of ~US\$0.7/pill. We attribute the difference largely to the difference in API cost, given DTG's current price of US\$2,000/kg, which compares with US\$95/kg for EFV. For DTG to replace EFV without having any budgetary impact, we believe DTG API prices need to come down by 50% to ~US\$1,000/kg. We expect scale and process efficiencies to result in meaningful reduction in DTG API pricing over time, but in the near term, we believe it will be difficult for DTG to replace EFV given budgetary pressures and focus on covering additional lives.
- ▶ **Laurus already working on partnering with key customers for DTG.** Laurus filed a DMF for DTG in Sept'16, and has started partnering discussions with partners for DTG supplies for various tender markets. While Laurus' success in gaining market share will depend on its cost position, we believe its DMF incorporates an improvised, scalable process that could enable it to rapidly scale up manufacturing while targeting a potential lowest cost position in the market.

Exhibit 20: We expect ARV revenues from LMIC's to grow steadily  
March fiscal year-ends, 2013-20E

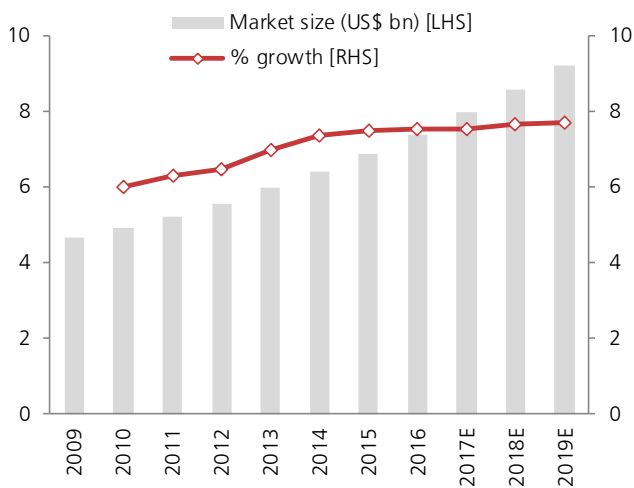
	2013	2014	2015	2016	2017	2018E	2019E	2020E
<b>ARV access markets size (MT)</b>								
Efavirenz	909	1,283	1,850	2,275	2,425	2,725	2,475	1,975
Tenofovir	526	738	915	1,169	1,271	1,475	1,610	1,627
Emtricitabine	145	174	200	205	226	245	240	280
Dolutegravir	—	—	—	—	—	18	61	107
<b>API price per kg for access markets (US\$)</b>								
Efavirenz	135	120	118	99	99	99	99	99
Tenofovir	210	180	180	180	185	185	185	185
Emtricitabine	250	230	225	210	200	200	200	200
Dolutegravir	—	—	—	—	—	—	1,800	1,800
Others	550	450	350	350	350	350	350	350
<b>ARV market size in LCIM markets (US\$ mn)</b>								
Efavirenz	123	154	218	225	240	270	245	196
Tenofovir	110	133	165	211	235	273	298	301
Emtricitabine	36	40	45	43	45	49	48	56
Dolutegravir	—	—	—	—	—	—	110	193
<b>Laurus market share in access market for API (%)</b>								
Efavirenz	56.2	66.1	50.4	52.0	53.0	51.0	51.0	52.0
Tenofovir	12.9	23.7	29.7	28.0	21.0	21.0	22.5	24.0
Emtricitabine	1.2	30.5	28.0	33.7	15.0	16.0	18.5	21.0
Dolutegravir	—	—	—	—	—	—	5.0	15.0
<b>ARV volumes manufactured access markets (MT)</b>								
Efavirenz	511	848	933	1,183	1,285	1,390	1,262	1,027
Tenofovir	68	175	272	328	267	310	362	391
Emtricitabine	2	53	56	69	34	39	44	59
Dolutegravir	—	—	—	—	—	—	3	16
Others	2.0	2.9	5.6	17	19	21	23	25
<b>ARV revenues from access markets (US\$ mn)</b>								
Efavirenz	69	102	110	117	127	138	125	102
Tenofovir	14	32	49	59	49	57	67	72
Emtricitabine	—	12	13	14	7	8	9	12
Dolutegravir	—	—	—	—	—	—	6	29
Others	1	1	2	6	7	7	8	9
<b>Total</b>	<b>85</b>	<b>147</b>	<b>173</b>	<b>197</b>	<b>190</b>	<b>210</b>	<b>214</b>	<b>223</b>

Source: Kotak Institutional Equities estimates

**Supplies to the US and EU will likely drive margin expansion**

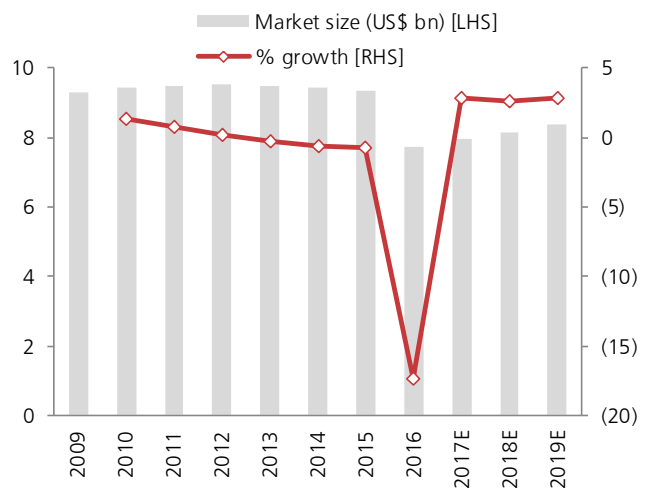
The ARV portfolio is expected to face patent expirations in the US and EU markets over the coming years, which will create significant growth opportunity for Laurus to expand its API volumes in the regulated markets, where traditionally, pricing is significantly better than in LIMS countries. The US alone had a market size of US\$9.3 bn in CY2012 for ARVs, with Atripla, Stribild and Complera accounting for ~70% of patients in the treatment naïve group. With Atripla expected to go generic in CY2018, the ARV market (both formulations and API) will open up for generic companies. Laurus is already targeting the formulations segment through its partnership with Dr. Reddy's, but it can also commercialize its APIs to other formulation companies. Laurus has exploited its ARV API basket through a strategic agreement with Dr Reddy's.

**Exhibit 21: EU ARV market to continue to grow at steady pace**  
EU ARV market size, calendar year-ends, 2009-19E (US\$ bn, %)



Source: Company, Kotak Institutional Equities

**Exhibit 22: US market for ARV to decline post patent expiries**  
US ARV market size, calendar year-ends, 2009-19E (US\$ bn, %)



Source: Company, Kotak Institutional Equities

### Oncology business to slow down, while other APIs to continue growth

Laurus' oncology API business has largely stagnated at US\$20-25 mn, and we do not expect significant growth in the division, due to lack of new high tonnage products in the category. However, we expect an increasing focus on non-oncology, high volume APIs along with contract manufacturing to drive growth.

- ▶ **Lack of tonnage products to hurt oncology.** Laurus' initial foray into API manufacturing started with oncology, though the company has struggled to build the business beyond US\$25 mn revenues, given that there are only a few high tonnage APIs in oncology. Within oncology, Laurus has global dominance in gemcitabine, which is its largest oncology API, followed by imatinib. The oncology business has been under pressure over the past quarter due to delays in additional procurement by Hospira post its acquisition by Pfizer, as a part of inventory rationalization. This should not impact FY2018 demand, but we remain cautious on oncology given the lack of significant new high tonnage opportunities.

**Exhibit 23: Revenue contribution from oncology has largely remained steady**  
Oncology volumes and revenues, March fiscal year-ends, 2015-20E

	2013	2014	2015	2016	2017	2018E	2019E	2020E
<b>Oncology API volumes (MT)</b>								
Imatinib	0.2	0.5	1.9	1.8	1.7	1.7	1.8	1.8
Gemcitabine	1.7	1.7	1.5	2.3	2.0	1.8	1.8	1.9
Others	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3
<b>API prices per kg (US\$)</b>								
Imatinib	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
Gemcitabine	6,000	6,000	6,000	6,000	6,000	6,000	5,880	5,762
Others	2,400	1,795	577	372	5,000	15,000	17,250	19,838
<b>Oncology revenues (Rs mn)</b>								
Imatinib	38	108	414	409	395	404	423	438
Gemcitabine	540	631	560	896	792	715	734	745
Others	1,200	897	289	112	94	289	348	414
<b>Total</b>	<b>1,777</b>	<b>1,637</b>	<b>1,262</b>	<b>1,416</b>	<b>1,281</b>	<b>1,408</b>	<b>1,505</b>	<b>1,597</b>

Source: Company, Kotak Institutional Equities estimates

- ▶ **Contract manufacturing is a significant opportunity for non-onco APIs.** The other generic API business is focused on manufacturing high tonnage APIs in the non-onco, non-anti-viral segment, focusing on areas such as statins, proton pump inhibitors (PPIs), montelukast, metformin, etc. Laurus has also set up a dedicated 2,500 MTPA capacity for metformin, which can be expanded to 7,500 MTPA over the coming years, though we expect the bulk of metformin will be used for captive consumption for US ANDAs. However, we see significant opportunity in contract manufacturing of APIs for other generic companies as well as several large generic companies are looking to rationalize API capacities and are willing to outsource to a credible player such as Laurus.
- ▶ **Laurus's profitability high in contract manufacturing.** Conventional wisdom would suggest that contract manufacturing for generic APIs would have lower margin as it is akin to toll manufacturing, Laurus also works on helping improve the process for the generic partners and has a high internal bar for profitability, below which, it does not accept contract manufacturing projects. We believe it has already lined up several such projects for contract manufacturing, which should help double the existing business over FY2017-20E.



## COMMERCIAL SAVVINESS AT PLAY IN HCV

Laurus' foray in HCV and partnership with Natco for API and formulations has paid off with HCV accounting for ~12% of revenues in FY2016 and ~13% of revenues in FY2017. However, the franchise offers significantly higher EBITDA margins compared to the group average, thanks to its deal with Natco, under which, instead of a typical price/kg realization, Laurus receives 50% profit share on formulation sales. We expect the HCV franchise for Laurus/Natco to peak in FY2020, and decline thereafter, and see it as a significant cash cow for Laurus, which will help fund its formulations foray in coming years.

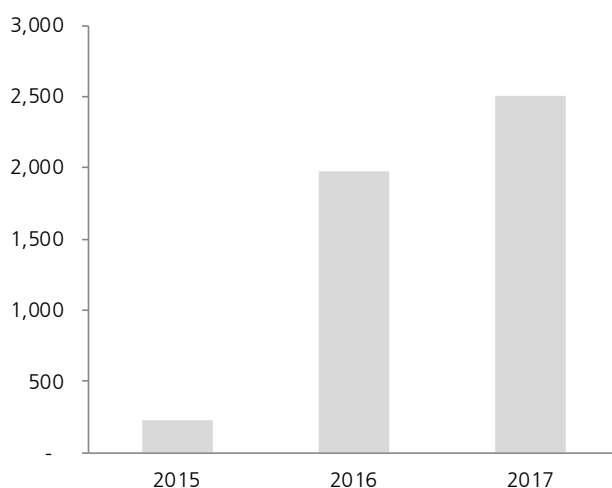
### HCV contribution increasing, driven by Natco's aggressive promotion

In India, it is estimated that approximately 12-18 mn people are infected with HCV. Recently introduced directly acting anti-viral drugs (DAA) such as Sofosbuvir, Daclatasvir and the Ledipasvir/Sofosbuvir combination have changed HCV treatment, offering complete cure within three months of treatment. Laurus foresaw the DAA opportunity far ahead of the competition and developed the API well before the innovator product was launched in the US. At the same time, Natco was contemplating a compulsory license for the product and had filed an opposition to the patent grant to Gilead's product with the Indian patent office.

Sensing the importance of first-mover advantage in a large under-served market, Laurus and Natco entered into a 10-year agreement (with automatic extension) to commercialize sofosbuvir and its combinations along with future life-cycle products in India and other emerging markets. The agreement showcased Laurus's commercial savviness as in exchange for providing its API, Laurus managed to convince Natco to give away 50% profit share on the formulation sales to Laurus (in-turn Natco also receives 50% profit share on API sales by Laurus to third parties), thereby moving up the value chain without any investments in domestic market front-end.

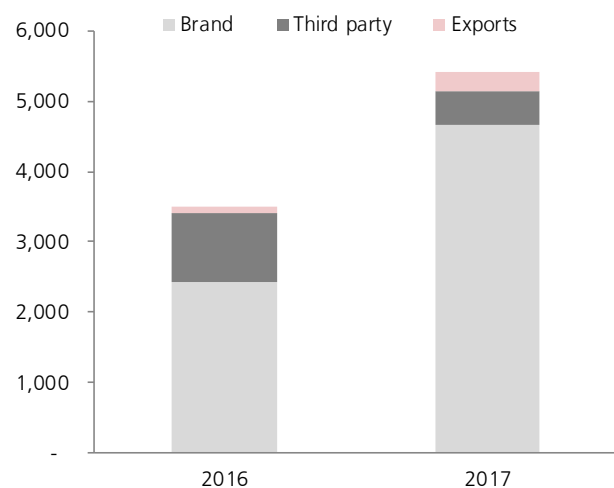
Eventually, Natco signed a collaborative licensing agreement with Gilead (and subsequently BMS), under which Natco (and subsequently 10 other generic companies) was granted voluntary license to sell in India and 100 other low and middle income countries. Under the agreement, a one-time regulatory waiver was given with respect to the registration process for the formulation of their HCV medicines in return for a 7% net royalty on sales. The Indian Patent Office eventually registered the patent claims of innovators in May'16, which also restricts additional competition apart from the 11 license holders.

**Exhibit 24: Laurus' HCV portfolio on track for strong growth**  
March fiscal year-ends, 2015-2017 (Rs mn)



Source: Company, Kotak Institutional Equities

**Exhibit 25: Domestic brand driving Natco's HCV sales**  
March fiscal year-ends, 2016-17 (Rs mn)



Source: Company, Natco, Kotak Institutional Equities

Laurus/Natco's early moves in targeting the new line of DAA products proved to be the clincher, as Natco ended up being the first filer for Sofosbuvir and subsequently for Ledipasvir and BMS' Daclatasvir as well. Natco was also the first to get the approval from DCGI, along with Hetero. While Hetero tried to navigate its lack of front-end presence by partnering with other larger companies such as Dr Reddys, Cipla, Abbott, and Biocon, Natco aggressively leveraged its early mover advantage by promoting its own brand through a combination of aggressive outreach to targeted doctors/ institutions and pricing, eventually capturing 40% of the overall market share.

#### Domestic sales to contribute major portion of HCV franchise

Within India, genotype-3 is the predominant genotype accounting for ~64% of HCVs. Genotype 1 contributes ~26% of HCVs in India. The total number of patients receiving DAAs in India in 2016 is estimated to be approximately 0.28 mn, with ~60% of patients being treated with Sofosbuvir, 27% of patients with Daclatasvir and a small proportion of approximately 12 to 13% with Harvoni. Going forward, it is expected that there will be an increasing trend in combination therapy, and sales of Daclatasvir are expected to benefit from this phenomenon. While Laurus and Natco are currently present in sofosbuvir and daclatasvir combinations, Natco has also launched a generic of Eplclusa (Sofosbuvir plus Velpatasvir) which was recently approved by USFDA to treat adult patients with chronic HCV, both with and without cirrhosis, and for patients on all genotypes.

Exhibit 26: WHO 2016 guidelines for the treatment of HCV

Genotype	Cirrhosis	Treatment
1 & 4	N	Sofosbuvir/Daclatasvir combination for three months
2	N	Sofosbuvir and Ribavirin for three months
3	N	Sofosbuvir and Daclatasvir for three months or with a Sofosbuvir and Ribavirin for six months.
1 & 4	Y	Sofosbuvir/Ledipasvir combination for six months or with a Daclatasvir/Sofosbuvir combination for six months or with a Daclatasvir/Sofosbuvir/Ribavirin combination for three months
3	Y	Daclatasvir/Sofosbuvir/Ribavirin combination for six months

Source: Company

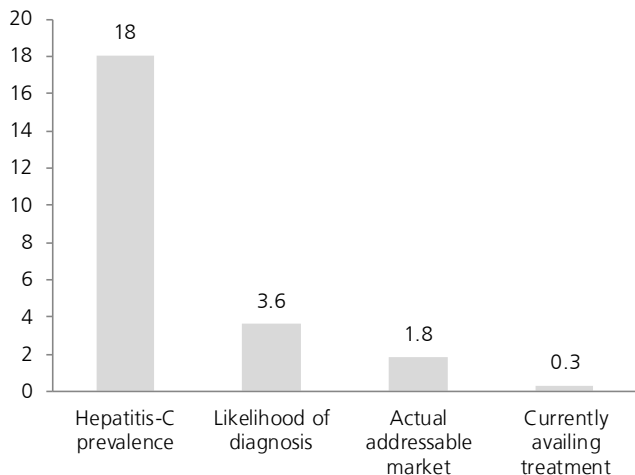
However, we also expect the competition to intensify resulting in pricing pressure forecast ~8% CAGR deflation from FY2017-21E. Given the increasing competition, we forecast Natco's market share to decline sharply from ~45% currently to ~34% by FY2021E, though this is largely offset by continued market growth, resulting in marginal 2% CAGR from domestic sales for Natco from FY2017-21. We also expect exports to grow to a steady state of ~₹2.2 bn by FY2021. Laurus receives 50% profit share from Natco's sales and given that Laurus only recognizes its share of profit share (and not the share of revenues), bulk of the profit share is expected to flow through to EBITDA, though EBITDA margin will be dragged down by a combination of (1) API sale to Natco at cost, and (2) low-margin third party API sales (post 50% profit share to Natco).

Exhibit 27: India HCV market to grow at a strong pace

	CY2016			CY2021			CY2016-21 CAGR		
	API volume (KGs)	API value (Rs mn)	Formulations (Rs mn)	API volume (KGs)	API value (Rs mn)	Formulations (Rs mn)	API volume (%)	API value (%)	Formulations (%)
Sofosbuvir	9,500	710	6,760	27,300	1,850	17,430	23.5	21.1	20.9
Ledipasvir	400	180	3,120	900	360	6,030	17.6	14.9	14.1
Daclatasvir	535	40	1,453	1,387	92	3,236	21.0	18.2	17.4

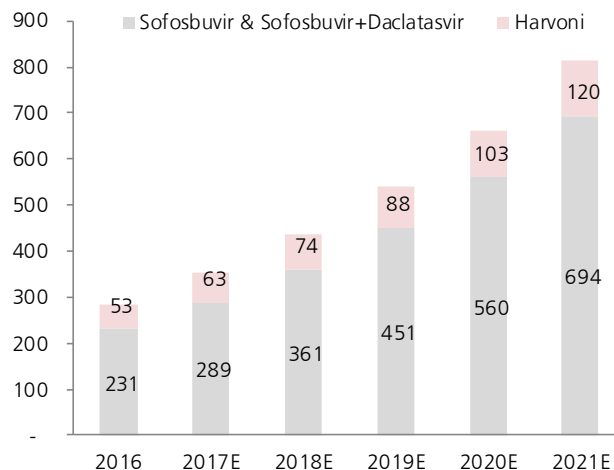
Source: Company, Kotak Institutional Equities

**Exhibit 28: HCV treatment is highly under-penetrated**  
Number of people, March fiscal year-ends, 2015 (mn)



Source: Kotak Institutional Equities estimates

**Exhibit 29: Number of patients in India who will receive DAAs are expected to increase to ~800K**  
# of patients ('000)

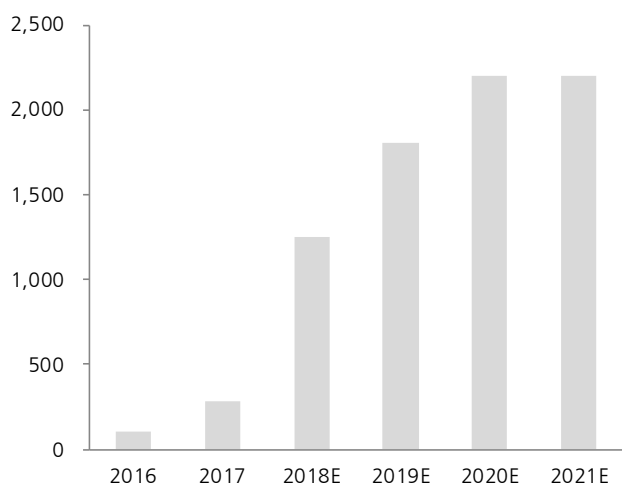


Source: Kotak Institutional Equities estimates

**Exports likely to have a slow ramp**

The prevalence of HCV is enormous in LMICs from South Asia, including India, East Asia, North Africa, the Middle East, and Southeast Asia, which account for over 80% of the global HCV burden, with Egypt itself accounting for ~16% of global HCV population. Despite the large headline numbers, we believe it will be difficult for Indian companies to quickly penetrate the export countries in a meaningful manner. For instance, Egypt has a reference pricing mechanism that favors the first two registrants, which in this case, are both government supported companies. That said, we do see a significant opportunity in South East Asian countries such as Vietnam, Philippines, as well as countries such as South Africa, where Natco has already filed its dossiers, and is awaiting approvals. Brazil could also present an interesting opportunity for API supplies.

**Exhibit 30: Natco's HCV exports revenues**  
March fiscal year-ends, 2016-21E (Rs mn)



Source: Kotak Institutional Equities estimates

**Exhibit 31: Key emerging markets targeted by Natco**

Country	Prevalance (mn)
Indonesia	2.1-2.6
Malaysia	0.9-1.5
Myanmar	0.5-1
Philippines	1.1-1.9
Vietnam	0.3-0.7

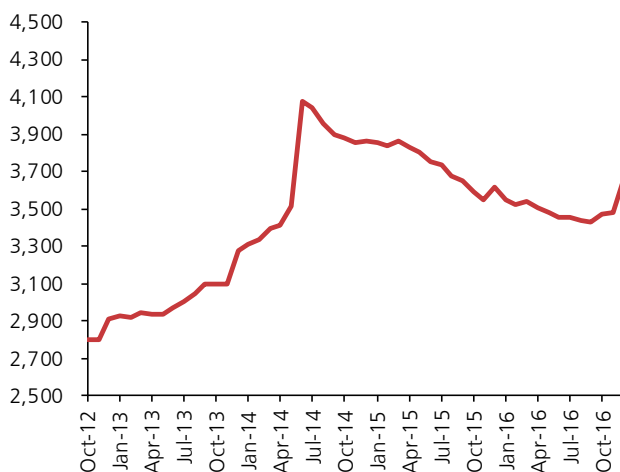
Source: Kotak Institutional Equities estimates

### FASTER APPROVAL CYCLE TO BENEFIT US FORMULATIONS FORAY

Over the past year, we have seen a substantial improvement in the FDA backlog, with the onus now on the generics industry to rapidly respond to queries and obtain approvals with minimal review cycles. We believe Laurus is in a sweet spot given it has just initiated its US filings (3 ANDAs filed in FY2017), in time for several day-1 launches in the ARV segment. We also see a credible API-led formulations strategy at play for non-ARV products, and though we are not big fans of its partnership model, we expect the company to shift to its own front-end post the first wave of filings with DRRD and Citron. We see the US and EU formulations business scaling up to ~US\$28-30 mn by FY2020.

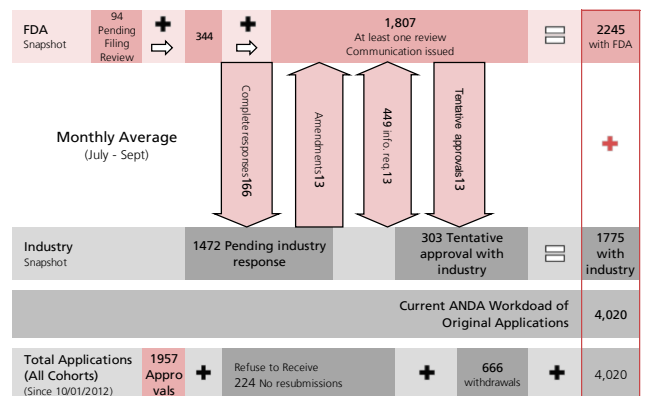
The environment for pricing is gradually deteriorating in the US, but we classify the pricing outlook in four buckets (1) base business, older commodity products, where we believe the worst is behind, (2) limited competition products such as topicals, several controlled substances, injectables, etc. where we believe a faster FDA approval process will work against existing players, (3) shorter time frame for price increase-led launches, with quicker approvals offsetting price increases, and (4) new launches, with pricing likely to be dependent on the number of players, though generally, we do not expect the pricing tailwind of past five years to continue going forward for this bucket. This scenario presents a significant headwind for larger generics, given high contribution from existing products, but we believe it will work to the advantage of smaller companies and newer entrants such as Laurus, which can scale up the business meaningfully, in a relatively shorter period of time.

Exhibit 32: FDA backlog steadily declining  
FDA ANDA backlog (#)



Source: Company, FDA, Kotak Institutional Equities

Exhibit 33: However, significant workload still with the industry



Source: Company, FDA, Kotak Institutional Equities

### Step-up approach to leverage manufacturing strengths

In FY2016, Laurus commissioned a 5 bn tablets oral solids formulations facility at Vizag to support its US formulations strategy. The facility will be commissioned in a phase-wise manner. First phase has been set up with 1 bn capacity and Laurus is in the process of expanding it to 5 bn. The idea behind the large facility was to leverage its high volume API manufacturing capabilities, and integrate into a high-volume, high-tonnage oral formulations manufacturer in the US. As a first step in the US foray, Laurus entered in two separate product basket tie-ups, one with DRRD for 11 ARV products, and other with Citron (now Aceto) for nine non-ARV products. Under both the agreements, Laurus will develop, file and manufacture the products, while the partners will distribute the ANDAs in the US with profits (or losses) to be split equally.

- ▶ **The DRRD partnership.** Laurus' partnership with DRRD covers ARV products such as Viread, and we believe includes combinations such as Truvada and Atripla. Viread ANDA was filed in Nov'16 with a target action date in 4QCY17, and we see high chances of a first-cycle approval, given the vertical integration and relatively simple nature of the filing. We expect Viread to be launched in June'18, following Teva's 180-day exclusivity, and also expect Sustiva in the US to contribute in FY2019, though the market size for Sustiva remains small. We do note that ARVs in the US are significantly high-priced with limited volumes, and hence, the price erosion on day-181 will likely exceed 90% in most cases, limiting the opportunity from this basket for Laurus. We expect Laurus' revenues from DRRD partnership to begin in FY2019 and reach US\$10 mn by FY2020, with key launches in FY2022.
- ▶ **The Citron partnership.** As a second step in the US strategy, Laurus also commissioned a 2,500 MTPA dedicated facility for metformin — ANDA was filed in CY2016 (partnered with Citron) — which we believe can cater to 30-40% of the US demand for metformin and metformin XR (monotherapies and excluding Fortamet and Glumetza, which are not areas of focus in first phase). Metformin is a commodity, but we believe there is still a scope to capture 20-30% share from existing players, as larger companies are choosing to exit lower-profitability products, particularly, high volume products such as metformin (5.7 bn tablets market in the US with average realization of US\$0.02-0.03/tablet). Similarly, we expect products such as atorvastatin (1.5 bn tablets) to be the focus areas for Laurus in this initial phase with Citron. We expect a quicker ramp-up of the Citron partnership, and expect launches to commence in FY2019 with the potential to cross US\$15 mn by FY2020.
- ▶ **Prezista could be a wild-card filing.** We believe Laurus is also developing an ANDA targeting Prezista (darunavir, US sales: US\$1 bn). Prezista has two patents covering polymorphic forms and a pseudopolymorphic solvate. While Mylan, Lupin, Cipla and Aurobindo have already filed P-IV ANDA's, Lupin, Mylan and Cipla seem to have settled for launch post 2024 given the patents. This can throw up interesting opportunities for Laurus, as we believe its intermediate and APIs are developed using non-infringing technology that can potentially enable an early market launch in advance of 2024 patents.

**Exhibit 34: Pipeline geared towards ARVs and high-volume, API led opportunities**

X-axis: Year of launch (March fiscal year-end, 2018-2021), Y-axis: brand sales (US\$ mn)

	FY2018	FY2019	FY2020	≥FY2021
>US\$1,000 mn			Prezista	Atripla Truvada
US\$500 - US\$1,000 mn				
US\$250 - US\$500 mn		Viread		
US\$100 - US\$250 mn		Metformin Metformin XR	Atorvastatin	
<US\$100 mn		Sustiva		Emtriva
High	> US\$25 mn partner revenues in first 12 months of launch			
Medium	US\$10 - 25 mn partner revenues in first 12 months of launch			
Low	< US\$10 mn partner revenues in first 12 months of launch			

Source: Kotak Institutional Equities estimates

### Gradual move towards own front-ending

Following the initial wave of filings through partners, Laurus is now quickly targeting its own front-end in the US, and to that extent, has commenced own filings, the first of which, we believe happened in 1QCY17. We see this as a natural evolution for Laurus, as we do not see merit in a partnering model for commodity products, where given the 50/50 profit split, Laurus and its partner can easily get crowded out by an aggressive price disruptor. However, the own front end will likely be effective post CY2020, and we do not build in any contribution from own launches in our model.

### LMIC tender business to initiate from FY2018

Laurus filed its first ARV product for qualification in the WHO tenders in CY2016, and is planning to participate in ARV tenders in Africa using its own formulation dossier. This can result in conflict with partners using Laurus API, but we note that currently, Laurus and Desano are the sole independent API providers for ARV, and hence, we do not see changes of a significant shift of customers away from Laurus for key APIs, particularly, in a scenario where most large generic companies are scaling back large investments in API manufacturing capacities.

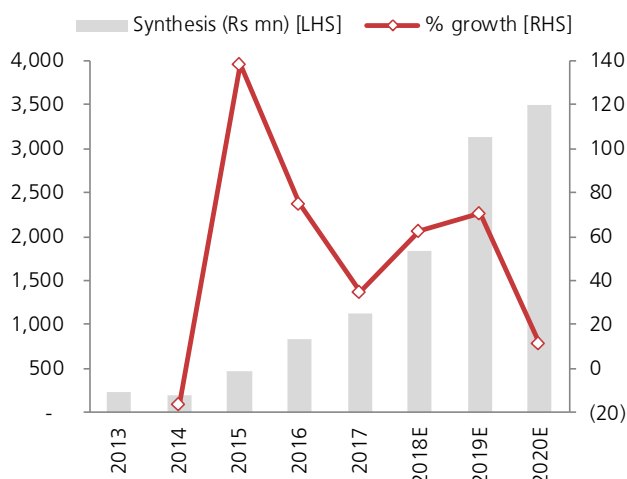
LMIC tenders could be an interesting opportunity for Laurus given the size of the market (US\$2.5 bn), as it can incrementally add the formulation conversion margins (incremental average 15-20% value) with minimal conversion costs, given that Laurus' facility is already commissioned. We have not built in significant revenues from LMIC tender wins for ARV, given only one dossier filing so far, and lack of clarity on its ability to get pre-qualification before the next tender cycles (Three year South Africa tender renewal due in Dec'17).

## SYNTHESIS BUSINESS TO HELP DRIVE MARGINS, WHILE INGREDIENTS TO REMAIN STEADY

Laurus is stepping up its efforts to gain more business from innovators, steadily building a pipeline of early stage projects (37 projects in pipeline), though none of the projects are in late-stage development. However, the Aspen deal provides a significant opportunity given higher margins and potential for a four-fold growth in revenues by FY2021E. We see the specialty ingredients business offering steady growth, though it is unlikely to reach a significant scale in the medium term.

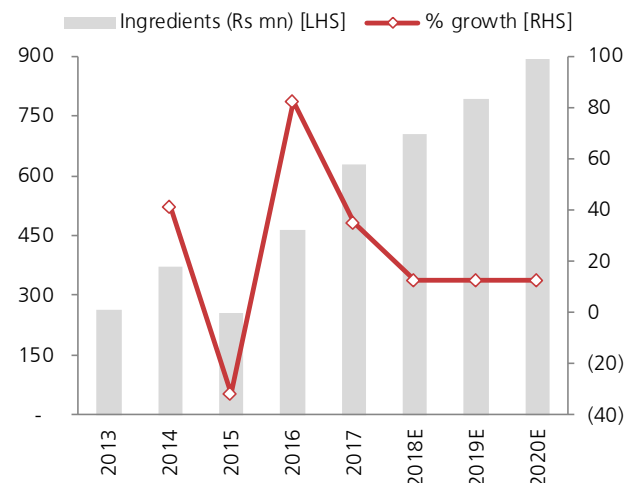
- ▶ **Synthesis business to be margin accretive.** Laurus' custom synthesis business offers various services to innovators ranging from custom synthesis and process scale-up/development to commercial scale manufacturing. Laurus has 37 projects as a part of its synthesis division, contributing ~₹1 bn revenues, though none of the projects are late stage. The company also established an R&D center in Greater Boston in 2015, starting with 12 scientists and has a dedicated sales team to originate custom synthesis contracts.
- ▶ **Leveraging its existing API supply agreements with Aspen for ARV products,** Laurus entered into a long-term agreement with Aspen for manufacturing key intermediates for hormonal products manufactured by Aspen at its Netherlands facility that it had acquired from Merck. As a part of the deal, Aspen funded a dedicated facility at Laurus' Vizag SEZ by committing upfront US\$21 mn, going up to US\$30 mn, which has now been commissioned by Laurus. Apart from receiving a fixed mark-up on cost, Laurus also gets to retain (20%) of the differential between its cost of manufacturing and Aspen's current procurement cost. Laurus currently manufactures intermediates for six products, and the deal contributed ~5% of Laurus' revenues, growing by over 3X over the past 3 years, and we expect continued scale-up in the Aspen contract to support the synthesis business. However, we expect FY18/FY19 to see strong growth in the business, led by the ramp-up of its contract with Aspen.

**Exhibit 35: Synthesis segment likely to grow 3X by FY2019**  
March fiscal year-ends, 2013-20E, (Rs mn)



Source: Company, Kotak Institutional Equities estimates

**Exhibit 36: Ingredients business to post steady growth**  
March fiscal year-ends, 2013-20E, (Rs mn)



Source: Company, Kotak Institutional Equities estimates

- ▶ **Ingredients business to grow steadily off a low base.** Laurus also manufactures specialty ingredients for use in nutraceuticals and cosmeceutical products. The ingredients business has been a recent foray and is still sub-scale with only ~US\$10 mn in revenues in FY2017E. However, it helps Laurus to leverage its process chemistry strengths, given the ongoing global move towards tightening quality standards in the nutraceutical and cosmeceutical industry, towards pharma standards.

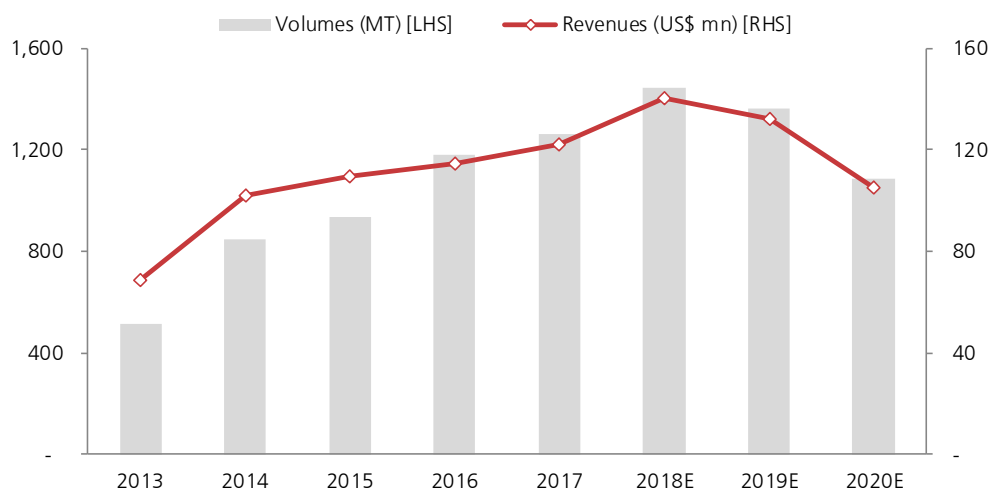
## KEY RISKS

High reliance on EFV sales and potential threat from DTG, competitive and pricing pressure in ARVs, high customer concentration, regulatory risks on manufacturing and inability to execute the formulations strategy, particularly in the US are some of the key risks for Laurus.

- ▶ **EFV concentration will drag earnings.** We have discussed the EFV opportunity and threats from EFV 400mg and DTG extensively in the ARV section, nevertheless at US\$120 mn revenues, EFV's contribution to overall sales and profitability cannot be underestimated. Faster conversion of EFV 600mg to EFV 400mg and/or DTG can adversely impact volumes for Laurus, and in turn drag revenue growth and profitability.

### Exhibit 37: High concentration from EFV is a key risk for Laurus

EFV revenues and tonnage, March fiscal year-ends, 2013-20E (MT, US\$ mn)



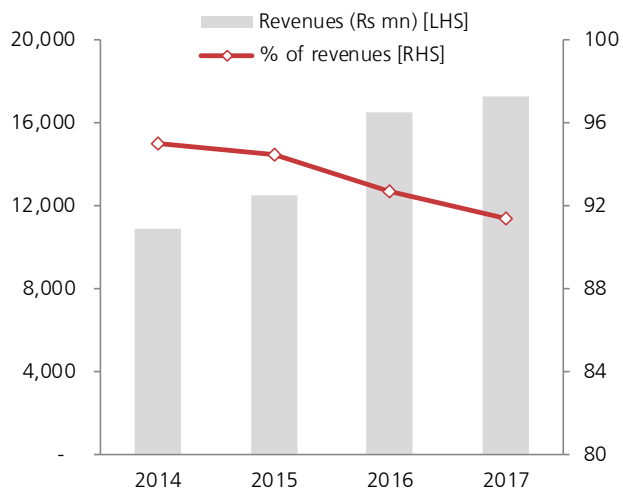
Source: Kotak Institutional Equities estimates

- ▶ **Any issues with the US FDA or other regulatory agencies could hurt growth.** Laurus currently operates four manufacturing facilities (and one kilo lab facility), and is in the process of setting up additional manufacturing facilities and an R&D center in India. In the past, the US FDA issued an FDA-483 letter for Unit 2 US formulations facility at Vishakhapatnam (EIR received). Unit-2 is the sole US formulations facility set up by Laurus, and any adverse action by the FDA can result in the US formulations scale-up getting delayed substantially.
- ▶ **Competitive pressures in ARV business.** Laurus is still predominantly an API company with ~91% of FY2017 revenues contributed by API sales. Further, ARV APIs contributed 64% of total revenues, and Efavirenz, Tenofovir Disoproxil Fumarate and Emtricitabine, constitute a majority of ARV sales. Any reduction in demand due to introduction of new molecules or a change in treatment guidelines, potential competitive and pricing pressures due to new entrants and/or disruptions in manufacturing of APIs in ARV segment could have an adverse effect on revenues and profitability.



**Exhibit 38: API business has consistently counted for >90% of Laurus' revenues**

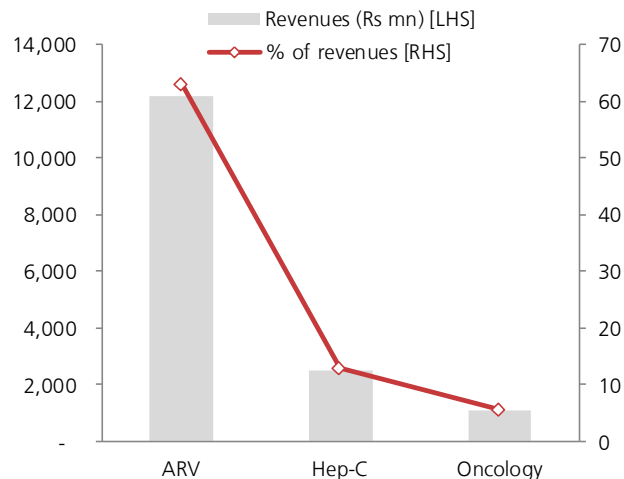
March fiscal year-ends, 2014-17, (Rs mn, %)



Source: Company, Kotak Institutional Equities

**Exhibit 39: ARV segment accounts for ~70% of Laurus' revenues**

March fiscal year-end, 2017, (Rs mn, %)

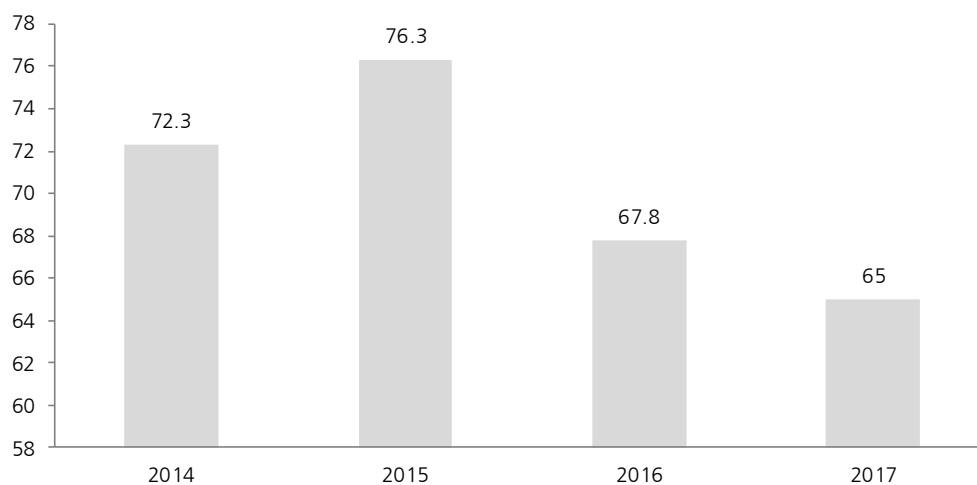


Source: Company, Kotak Institutional Equities

- ▶ **Customer concentration is a risk.** Top-five customers account for ~68% of Laurus' FY2016 revenues, and while this ratio has gone down from ~72% in FY2015, any issues with top customers can significantly impact revenues, given that the company does not have any long-term contractual arrangements with most customers with business typically carried out on the basis of purchase orders that are placed from time to time. In FY2016, Aspen, Aurobindo, Mylan and Strides Shasun combined accounted for 57.5% of total revenues, down from 72% in FY2014, with bulk of API used by the customers for tenders. Lower tender allocations for key customers as well as lower tender pool arising from lower government/donor funding is a key risk.

**Exhibit 40: Top-5 customers account for significant portion of Laurus' revenues**

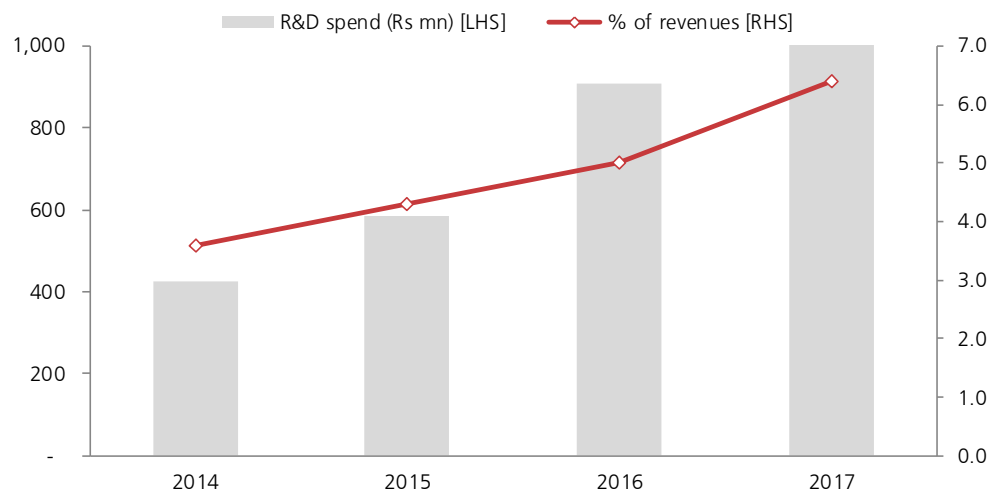
March fiscal year-ends, 2014-17 (%)



Source: Company, Kotak Institutional Equities

- ▶ **Inability to successfully execute on US strategy is a material risk to growth.** Laurus is currently in the process of forward integrating in the US and has started the process of filing its own ANDAs (Abbreviated New Drug Applications) in the US, and dossier filings in other market. As a part of the strategy, Laurus is also exploring Paragraph IV filing, wherein it is seeking to commercialize its generic before patent expiry by challenging the patent or through a non-infringing route. Para-IV and the ANDA strategy have risks of litigation and product approval and any delays on account of regulatory approvals and/or litigation loss can adversely impact the formulations strategy. To support the US strategy, Laurus spent ₹1241mn in FY2017 and ₹907 mn on R&D in FY2016, up from ~₹424 mn in FY2014. R&D spend is critical for success of the formulations strategy, particularly, for the US, and any delays or slowdown in R&D activity is a key risk to future growth.

**Exhibit 41: Laurus has been increasing its R&D spend to support new product development**  
R&D spend as % of sales, March fiscal year-ends, 2014-17 (Rs mn, %)



Source: Company, Kotak Institutional Equities

- ▶ **Adverse pricing regulations by the government a key risk.** In Apr 2016, the NPPA (National Pharma Pricing Authority) brought Sofosbuvir, one of our key products in the Hep-C basket, under price control, which can have a material impact on the revenue and profitability of the product.

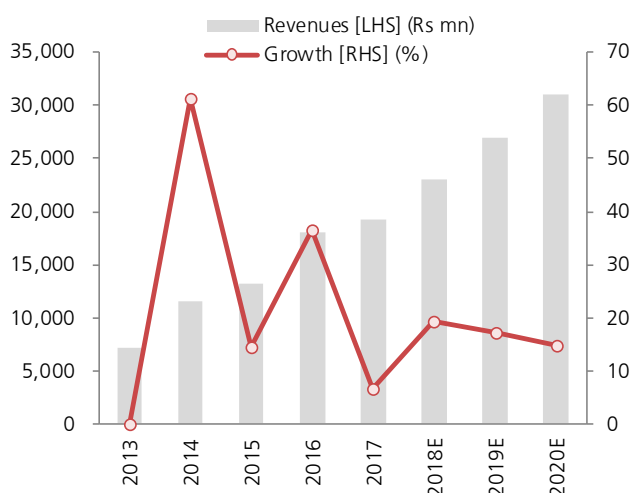
## FINANCIALS: 33% PROFIT CAGR OVER FY2017-20E; STRONG CASH FLOW GENERATION

We expect Laurus Labs to deliver 17% revenue CAGR over FY2017-20E driven by strong growth across all key segments (12% in APIs, 51% in synthesis and 14% in ingredients) and augmented by increasing contribution from formulations business. We forecast 24% EBITDA CAGR over FY2017-20E with sharp 420 bps improvement in EBITDA margins led by operating leverage benefits and increasing contribution from high margin synthesis and formulations business. We expect earnings CAGR of 33% during the same period with strong improvement in return ratios and net debt position.

### We expect 17% revenue CAGR over FY2017-20E driven by broad based growth

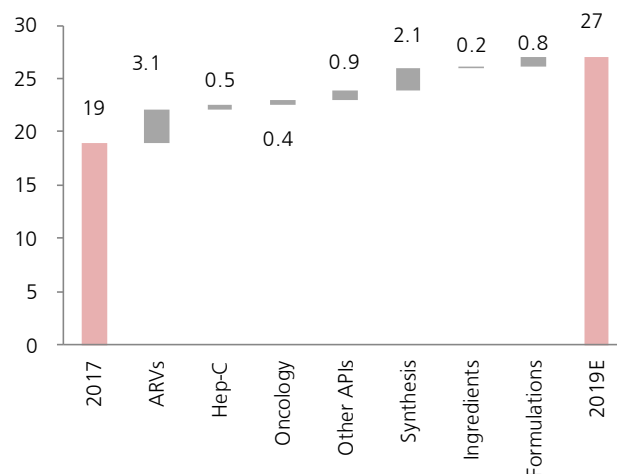
We expect Laurus Labs to grow by 17% CAGR over FY2017-20E led by growth across all key segments. We expect APIs to grow by 12% CAGR over FY2017-20E with synthesis and ingredients business growing at 51% and 14% CAGR over the same period. We expect contribution of formulations business to increase to 6% of revenues versus no contribution in FY2017.

**Exhibit 42: We expect revenue CAGR of 17% over FY2017-20E**  
Revenue growth, March fiscal year-ends, 2014-20E (Rs bn, %)



Source: Company, Kotak Institutional Equities estimates

**Exhibit 43: Diversified growth pattern**  
Revenue build-up, March fiscal year-ends, (Rs bn)



Source: Company, Kotak Institutional Equities estimates

- ▶ We expect API revenues to grow at 12% CAGR over FY2017-20E. Within APIs, we expect ARVs to continue to contribute the lion's share of revenues, growing at 11.5% CAGR during the same period. We expect Efavirenz volumes to modestly decline driven by shift to lower dosage and alternate molecules; we expect this decline to be offset by contribution from dolutegravir. Emtricitabine and tenofovir which are expected to grow at a steady pace of 20% CAGR over FY2017-20E.
- ▶ We expect Hepatitis C segment to grow at 7% CAGR over FY2017-20E as moderation of growth in domestic HCV business will be largely offset by ramp-up of formulations and APIs in export market.
- ▶ We expect oncology business to bounce back after a weak FY2017 driven by strong order flow towards the end of FY2017. FY2017 was impacted by change in gemcitabine customer's inventory policy
- ▶ Synthesis and ingredients: We expect synthesis business to grow at 51% CAGR led by strong scale-up of Aspen contract along with robust growth from other synthesis contracts. Ingredients business is expected to grow at a steady pace of 14% CAGR.

- Formulations: We see formulations business (US and EU combined) ramping up to US\$28-30 mn in sales by FY2020E versus nil in FY2017 driven by contributions from ARV formulations in US.

**Exhibit 44: Broad-based growth across categories to drive revenue growth**  
Revenue break-up, March fiscal year-ends, 2014-20E

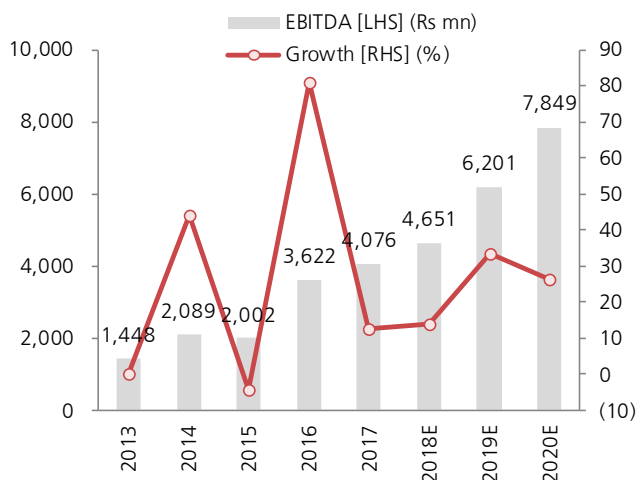
	2014	2015	2016	2017	2018E	2019E	2020E
<b>Revenues (Rs mn)</b>							
ARVs	9,302	10,776	12,619	12,212	14,114	15,361	16,988
Hep-C	—	231	1,971	2,509	2,774	2,971	3,082
Oncology	1,082	1,261	1,413	1,073	1,408	1,505	1,597
Other APIs	523	265	513	1,498	2,072	2,393	2,979
<b>APIs</b>	<b>10,907</b>	<b>12,534</b>	<b>16,517</b>	<b>17,292</b>	<b>20,368</b>	<b>22,230</b>	<b>24,646</b>
Synthesis	200	477	835	1,015	1,833	3,132	3,500
Ingredients	373	255	465	612	706	795	894
Formulations	—	—	—	—	137	820	1,931
<b>Total revenues</b>	<b>11,480</b>	<b>13,266</b>	<b>17,817</b>	<b>18,919</b>	<b>23,045</b>	<b>26,977</b>	<b>30,971</b>
<b>As % of revenues</b>							
ARVs	81.0	81.2	70.8	64.5	61.2	56.9	54.9
Hep-C	—	1.7	11.1	13.3	12.0	11.0	10.0
Oncology	9.4	9.5	7.9	5.7	6.1	5.6	5.2
Other APIs	4.6	2.0	2.9	7.9	9.0	8.9	9.6
<b>APIs</b>	<b>95.0</b>	<b>94.5</b>	<b>92.7</b>	<b>91.4</b>	<b>88.4</b>	<b>82.4</b>	<b>79.6</b>
Synthesis	1.7	3.6	4.7	5.4	8.0	11.6	11.3
Ingredients	3.2	1.9	2.6	3.2	3.1	2.9	2.9
Formulations	—	—	—	—	0.6	3.0	6.2
<b>Total revenues</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>yoy growth (%)</b>							
ARVs		15.8	17.1	(3.2)	15.6	8.8	10.6
Hep-C			NM	27.3	10.6	7.1	3.8
Oncology		16.6	12.0	(24.1)	31.2	6.9	6.1
Other APIs		(49.3)	93.6	191.8	38.3	15.5	24.5
<b>APIs</b>		<b>14.9</b>	<b>31.8</b>	<b>4.7</b>	<b>17.8</b>	<b>9.1</b>	<b>10.9</b>
Synthesis		138.7	75.0	21.5	80.6	70.9	11.8
Ingredients		(31.6)	82.3	31.6	15.4	12.5	12.5
Formulations						NM	135.4
<b>Total revenues</b>		<b>15.6</b>	<b>34.3</b>	<b>6.2</b>	<b>21.8</b>	<b>17.1</b>	<b>14.8</b>

Source: Company, Kotak Institutional Equities estimates

**EBITDA margins to expand despite increasing R&D expenses.**

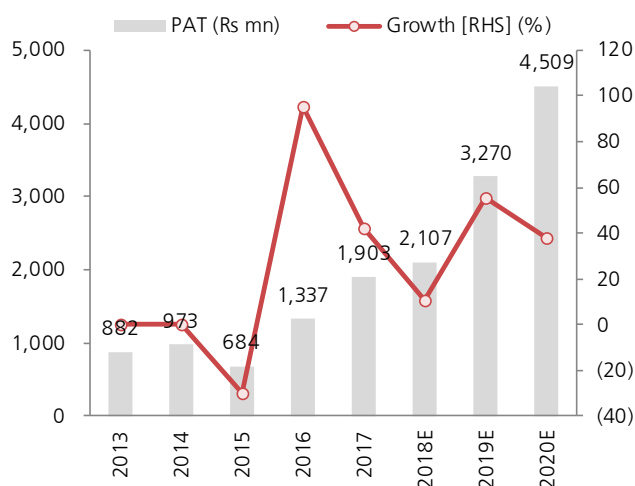
We expect Laurus' EBITDA to grow at 24% CAGR over FY2017-20E led by (1) 17% revenue CAGR over the same period and (2) 420 bps expansion of EBITDA margin. We expect EBITDA margin expansion to be driven by (1) strong operating leverage benefits (2) contribution of formulations business in EU and US and (3) increasing contribution from high-margin synthesis business.

**Exhibit 45: We expect EBITDA CAGR of 24% over FY2017-20E**  
EBITDA and growth, March fiscal year-ends, 2013-20E (Rs mn, %)



Source: Company, Kotak Institutional Equities estimates

**Exhibit 46: We expect PAT CAGR of 33% over FY2017-20E**  
PAT and growth, March fiscal year-ends, 2013-20E (Rs mn, %)

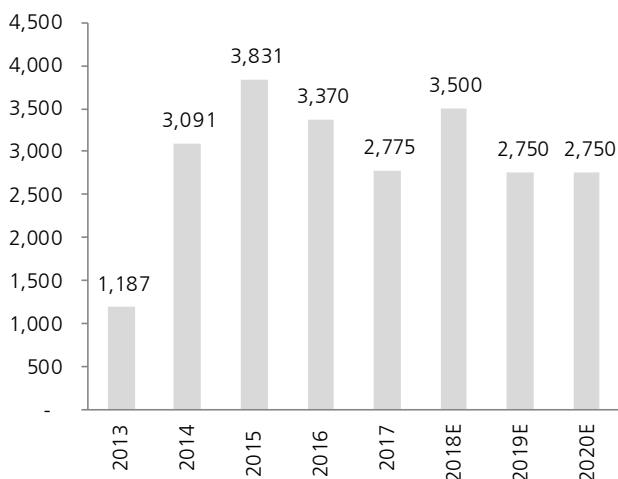


Source: Company, Kotak Institutional Equities estimates

**We expect net debt/equity to decline to 0.3X by FY2020E**

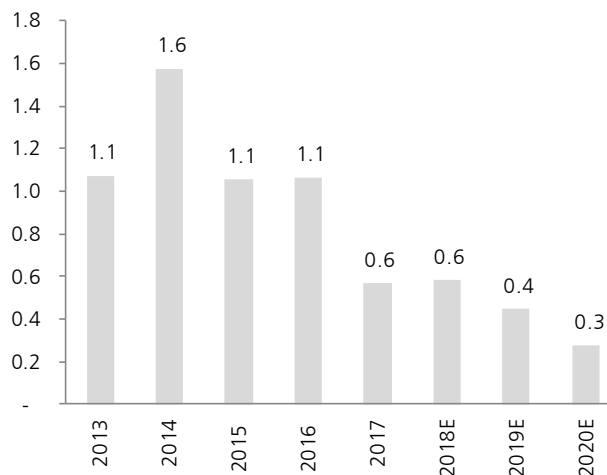
In the past three years, Laurus entered into a high capex cycle (₹14 bn of capex over FY2014-17) to expand its existing API capacities along with setting up of fixed dosage formulations facility which resulted in high levels of net debt. As of March 2017, net debt to equity stands at 0.58X. We expect slight moderation in capex over FY2018-20E along with strong free cash flow generation from FY2019E onwards, resulting in net debt/equity declining to levels of 0.3X by FY2020E.

**Exhibit 47: We expect capex to decline post FY2018E**  
Capex, March fiscal year-ends, 2012-19E (Rs bn)



Source: Company, Kotak Institutional Equities estimates

**Exhibit 48: LAURUS net debt to reduce significantly by FY2019**  
Leverage ratios, March fiscal year-ends, 2012-19E (X)

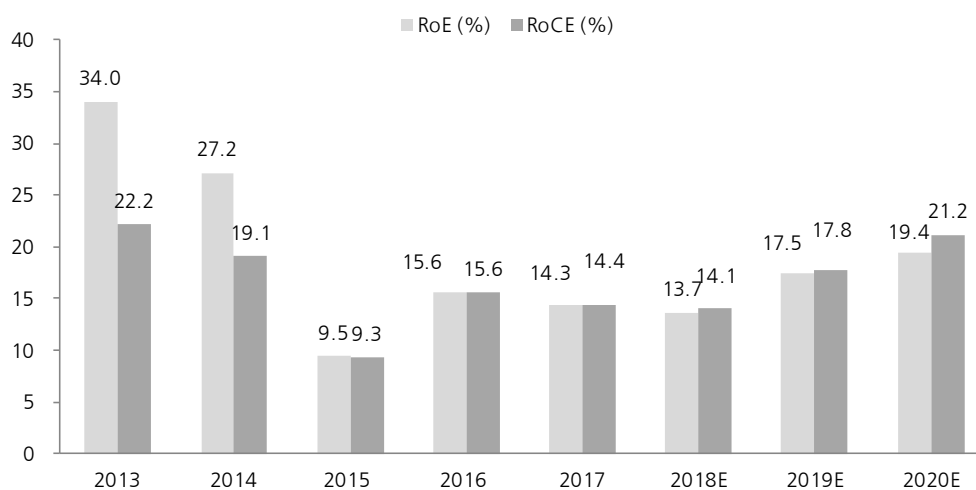


Source: Company, Kotak Institutional Equities estimates

### Sharp improvement in return ratios post scale-up of formulations

We expect Laurus to post net profit growth of 33% over FY2017-20E driven by 24% growth in EBITDA and financial leverage benefits with decline in debt levels. Return ratios for the company has remained subdued in the past three years due to high capex. Investments in formulations facility (₹3.5 bn of capex) along with ~₹1.5 bn spent in R&D are yet to contribute to the company's revenue which has resulted in compression of return ratios. We expect RoCE to improve to 21% by 2020E versus 14.4% in 2017.

**Exhibit 49: Return ratios to improve gradually as formulation business starts contributing**  
Return ratios, March fiscal year-ends, 2013-20E (%)



Source: Company, Kotak Institutional Equities estimates

### Working capital to remain stable

Laurus has historically had a longer cash conversion cycle due to high inventories (165 days), which is a function of its "make to stock" business model. This leads to lower FCF generation, but it is critical to hold inventories of ARV APIs as the ordering patterns by global agencies tends to be volatile, even though the delivery timelines in tender agreements are tight. Thus, any independent API provider will have to bear inventory holding costs. Laurus' strategy here is similar to DIVI's, which also operates on a "make to stock" model with inventory of key APIs available throughout the year for partners, thereby giving them flexibility to plan manufacturing batches, as typically, other API companies have a lead time of 45-60 days of delivery for API.

**Exhibit 50: Laurus' working capital cycle is longer its "make to stock" business model**  
Cash conversion cycles, March fiscal year-ends, 2013-19E (days)

	2013	2014	2015	2016	2017	2018E	2019E	2020E
<b>Working capital (days of sales)</b>								
Debtors	80	61	78	90	107	107	107	107
Inventory	79	103	131	98	96	89	83	81
Creditors	67	72	64	50	50	49	47	45
<b>Cash conversion cycle</b>	<b>92</b>	<b>93</b>	<b>146</b>	<b>138</b>	<b>154</b>	<b>148</b>	<b>144</b>	<b>143</b>

Source: Company, Kotak Institutional Equities estimates

**Exhibit 51: We expect 33% EPS CAGR over FY2017-20E**

Laurus Labs consolidated profit and loss statement; March fiscal year-ends, 2013-20E (Rs mn)

	2013	2014	2015	2016	2017	2018E	2019E	2020E
<b>Net revenues</b>	<b>7,185</b>	<b>11,597</b>	<b>13,266</b>	<b>18,110</b>	<b>19,315</b>	<b>23,045</b>	<b>26,977</b>	<b>30,971</b>
COGS	(4,123)	(7,259)	(8,284)	(10,082)	(9,968)	(12,428)	(14,011)	(15,650)
<b>Gross profit</b>	<b>3,062</b>	<b>4,338</b>	<b>4,982</b>	<b>8,028</b>	<b>9,348</b>	<b>10,617</b>	<b>12,965</b>	<b>15,321</b>
Staff costs	(764)	(1,041)	(1,328)	(1,885)	(2,462)	(2,758)	(3,089)	(3,398)
R&D expenses	(333)	(424)	(586)	(907)	(1,241)	(1,452)	(1,700)	(1,951)
SG&A expenses	(518)	(784)	(1,066)	(1,614)	(1,568)	(1,756)	(1,976)	(2,124)
<b>EBITDA</b>	<b>1,448</b>	<b>2,089</b>	<b>2,002</b>	<b>3,622</b>	<b>4,076</b>	<b>4,651</b>	<b>6,201</b>	<b>7,849</b>
Depreciation & amortisation	(226)	(329)	(615)	(864)	(1,060)	(1,215)	(1,398)	(1,563)
<b>EBIT</b>	<b>1,222</b>	<b>1,760</b>	<b>1,387</b>	<b>2,758</b>	<b>3,017</b>	<b>3,436</b>	<b>4,803</b>	<b>6,285</b>
Other income	51	88	341	44	334	75	200	200
Interest expense	(412)	(639)	(1,062)	(1,111)	(999)	(810)	(810)	(630)
Exceptional items	—	—	—	—	—	—	—	—
<b>Profit before tax</b>	<b>861</b>	<b>1,209</b>	<b>666</b>	<b>1,690</b>	<b>2,352</b>	<b>2,701</b>	<b>4,193</b>	<b>5,855</b>
Tax & deferred tax	21	(236)	16	(349)	(439)	(594)	(922)	(1,347)
Less: minority interest/associates	—	—	2	(4)	(11)	—	—	—
<b>Net income (reported)</b>	<b>882</b>	<b>973</b>	<b>684</b>	<b>1,337</b>	<b>1,903</b>	<b>2,107</b>	<b>3,270</b>	<b>4,509</b>
FD number of shares (mn)	81	81	89	99	106	106	106	106
<b>EPS (reported) (Rs)</b>	<b>10.9</b>	<b>12.0</b>	<b>7.7</b>	<b>13.6</b>	<b>18.0</b>	<b>19.9</b>	<b>30.9</b>	<b>42.7</b>
<b>Ratios (%)</b>								
Gross profit margin	42.6	37.4	37.6	44.3	48.4	46.1	48.1	49.5
R&D as a % of sales	4.6	3.7	4.4	5.0	6.4	6.3	6.3	6.3
Staff costs	10.6	9.0	10.0	10.4	12.7	12.0	11.4	11.0
Other expenses to sales	7.2	6.8	8.0	8.9	8.1	7.6	7.3	6.9
<b>EBITDA margin</b>	<b>20.2</b>	<b>18.0</b>	<b>15.1</b>	<b>20.0</b>	<b>21.1</b>	<b>20.2</b>	<b>23.0</b>	<b>25.3</b>
<b>Growth (%)</b>								
Revenues		61.4	14.4	36.5	6.7	19.3	17.1	14.8
EBITDA		44.2	(4.2)	80.9	12.5	14.1	33.3	26.6
PAT		10.3	(29.8)	95.6	42.3	10.7	55.2	37.9

Source: Company, Kotak Institutional Equities estimates

## Exhibit 52: Balance sheet quality set to improve steadily

Laurus Labs balance sheet, March fiscal year-ends, 2013-20E (Rs mn)

	2013	2014	2015	2016	2017	2018E	2019E	2020E
<b>Balance sheet</b>								
Gross block	3,268	6,167	9,771	12,860	15,870	20,252	23,302	26,052
Acc. depreciation	(925)	(1,224)	(1,822)	(2,714)	(3,746)	(4,961)	(6,360)	(7,923)
CWIP	728	1,160	1,097	696	1,433	550	250	250
<b>Tangible assets</b>	<b>3,070</b>	<b>6,103</b>	<b>9,046</b>	<b>10,842</b>	<b>13,556</b>	<b>15,841</b>	<b>17,193</b>	<b>18,380</b>
Intangibles	13	47	61	64	79	79	79	79
Goodwill	—	3	—	—	97	97	97	97
Investments	—	—	74	70	—	—	—	—
Other non-current assets	624	1,080	1,391	1,231	1,404	1,404	1,404	1,404
<b>Non-current assets</b>	<b>3,707</b>	<b>7,234</b>	<b>10,572</b>	<b>12,208</b>	<b>15,136</b>	<b>17,421</b>	<b>18,773</b>	<b>19,960</b>
Cash & equivalents (inc current investments)	136	232	589	288	105	49	679	513
Debtors	1,567	1,949	2,851	4,449	5,676	6,772	7,927	9,101
Inventories	1,562	3,281	4,755	4,871	5,090	5,618	6,142	6,860
Other current assets	37	36	116	420	527	527	527	527
<b>Current Assets</b>	<b>3,302</b>	<b>5,498</b>	<b>8,311</b>	<b>10,027</b>	<b>11,398</b>	<b>12,966</b>	<b>15,275</b>	<b>17,001</b>
<b>Total assets</b>	<b>7,010</b>	<b>12,732</b>	<b>18,883</b>	<b>22,235</b>	<b>26,534</b>	<b>30,387</b>	<b>34,048</b>	<b>36,961</b>
Short-term loans	1,778	3,122	4,316	4,814	6,442	6,500	6,500	5,000
Creditors	1,322	2,275	2,308	2,476	2,631	3,064	3,455	3,859
Other short term liabilities	146	841	542	1,547	2,189	2,189	2,189	2,189
<b>Current Liabilities</b>	<b>3,247</b>	<b>6,238</b>	<b>7,167</b>	<b>8,837</b>	<b>11,262</b>	<b>11,753</b>	<b>12,144</b>	<b>11,048</b>
Long-term loans	1,142	2,753	3,895	4,597	1,246	2,500	2,500	2,000
Other liabilities (incl. deferred)	28	158	601	232	722	722	722	722
<b>Long term Liabilities</b>	<b>1,170</b>	<b>2,910</b>	<b>4,495</b>	<b>4,830</b>	<b>1,968</b>	<b>3,222</b>	<b>3,222</b>	<b>2,722</b>
<b>Total liabilities</b>	<b>4,417</b>	<b>9,148</b>	<b>11,662</b>	<b>13,667</b>	<b>13,230</b>	<b>14,976</b>	<b>15,366</b>	<b>13,770</b>
Share capital	777	778	821	824	1,058	1,058	1,058	1,058
Reserves and surplus	1,816	2,806	6,400	7,744	12,247	14,354	17,624	22,133
<b>Equity</b>	<b>2,593</b>	<b>3,584</b>	<b>7,221</b>	<b>8,568</b>	<b>13,304</b>	<b>15,411</b>	<b>18,682</b>	<b>23,190</b>
<b>Total equity and liabilities</b>	<b>7,010</b>	<b>12,732</b>	<b>18,883</b>	<b>22,235</b>	<b>26,534</b>	<b>30,387</b>	<b>34,048</b>	<b>36,961</b>
<b>Ratios (%)</b>								
Net debt to equity (X)	1.1	1.6	1.1	1.1	0.6	0.6	0.4	0.3
RoE (%)	34.0	27.2	9.5	15.6	14.3	13.7	17.5	19.4
RoCE (%)	22.2	19.1	9.3	15.6	14.4	14.1	17.8	21.2

Source: Company, Kotak Institutional Equities estimates

## Exhibit 53: Capex to stabilize from FY2018 onwards

Cash flow statement, March fiscal year-ends, 2013-20E (Rs mn)

	2013	2014	2015	2016	2017	2018E	2019E	2020E
<b>Cash flow</b>								
<b>PBT</b>	<b>861</b>	<b>1,209</b>	<b>666</b>	<b>1,676</b>	<b>2,352</b>	<b>2,701</b>	<b>4,193</b>	<b>5,855</b>
Depreciation & amortisation	226	329	615	922	1,060	1,215	1,398	1,563
Working capital	(405)	(593)	(2,507)	(1,476)	(525)	(1,190)	(1,289)	(1,488)
Tax	(184)	(234)	(168)	(333)	(501)	(594)	(922)	(1,347)
Interest paid	341	515	862	1,038	931	810	810	630
Others	43	(13)	(115)	107	3	—	—	—
<b>CF from operations</b>	<b>882</b>	<b>1,212</b>	<b>(647)</b>	<b>1,933</b>	<b>3,320</b>	<b>2,942</b>	<b>4,190</b>	<b>5,214</b>
Capex	(1,187)	(3,091)	(3,831)	(3,370)	(2,775)	(3,500)	(2,750)	(2,750)
<b>FCF</b>	<b>(305)</b>	<b>(1,879)</b>	<b>(4,478)</b>	<b>(1,437)</b>	<b>545</b>	<b>(558)</b>	<b>1,440</b>	<b>2,464</b>
<b>CF from investing</b>	<b>(1,243)</b>	<b>(3,118)</b>	<b>(3,970)</b>	<b>(3,252)</b>	<b>(2,887)</b>	<b>(3,500)</b>	<b>(2,750)</b>	<b>(2,750)</b>
Interest paid	(325)	(512)	(842)	(1,033)	(950)	(810)	(810)	(630)
Issuance of equity	—	1	2,944	3	2,860	—	—	—
Change in net debt	669	2,503	2,745	2,052	(2,387)	1,313	—	(2,000)
Others	—	38	13	27	(59)	—	—	—
<b>CF from financing</b>	<b>344</b>	<b>2,030</b>	<b>4,861</b>	<b>1,050</b>	<b>(536)</b>	<b>503</b>	<b>(810)</b>	<b>(2,630)</b>
<b>Inc./ dec. in cash &amp; equivalents</b>	<b>(17)</b>	<b>124</b>	<b>244</b>	<b>(269)</b>	<b>(103)</b>	<b>(55)</b>	<b>630</b>	<b>(166)</b>

Source: Company, Kotak Institutional Equities estimates



## COMPANY PROFILE

Laurus Labs was incorporated in 2005 at Hyderabad, Andhra Pradesh and has a leadership position in generic Active Pharmaceutical Ingredients (APIs) for select, high-growth therapeutic areas of anti-retrovirals (ARVs) and Hep-C, selling APIs in over 32 countries. The company also has a portfolio of APIs in oncology and other therapeutic areas. Laurus operates four manufacturing facilities in Vishakhapatnam, Andhra Pradesh and is in the process of expanding its capacity. Additionally, as of March 2017, Laurus has commercialized 59 new API and ingredient products since inception.

Laurus Labs was founded in 2005 and has grown rapidly to become a leading API player in ARV and HCV class of therapeutic areas. Laurus CEO Dr. Satyanarayana Chava has been associated with the pharmaceutical industry for the past three decades, especially in areas of R&D, technical operations, business development and organization building. The company has maintained longstanding relationships with multi-national pharmaceutical companies with top six customers in aggregate contributing to approximately 70% of total revenues. Laurus also has a strong focus on R&D with 600+ scientists on payroll at its R&D centers, which constitutes 25% of total employee strength.

Exhibit 54: History and chronological events of the company

Year	Particulars
2006	Laid the foundation stone for the R&D centre of at IKP, Knowledge Park, Hyderabad
2006	Signed business agreement with a leading Indian pharmaceutical company for seven oncology APIs
2007	Investment by Aptuit Inc. of Rs1 bn
2007	Commenced operations at the R&D Centre, situated in Hyderabad and the manufacturing facility, situated in Visakhapatnam
2009	Commercialised four nutritional fine chemicals; launched first product in Europe
2010	Received US FDA certification, TGA and UK MHRA certification for the manufacturing facility, situated in Visakhapatnam
2011	Received USFDA certification for the R&D Centre, situated in Hyderabad; supplied first product to US
2012	Investment of Rs480 mn by FIL Capital Management and FIP to acquire Aptuit's majority stake in the company
2014	Investment of Rs3 bn by Bluewater and acquisition of significant stake from FIL Capital Management
2015	Incorporated Laurus Inc. at Delaware as a 100% subsidiary of the company
2015	Commenced commercial operations at Unit 3, Plot No.18, Parawada, Visakhapatnam
2015	Acquired 27% stake in Sriam Labs
2016	Filed first ANDA with the US FDA and first dossier with the WHO

Source: Company

## Exhibit 55: Key management personnel

Team	Position	Description
Dr. Satyanarayana Chava	Chief Executive Officer	He has been a Director of the company since January 21, 2006. He holds a Bachelors and Masters degree in Science and a Ph.D from Andhra University. He has received a honorary degree of Doctor of Science from the Gandhi Institute of Technology and Management. He also holds a post graduate diploma in quality management from the Worldwide Quality Certification and has completed the post graduate programme in management for senior executives from the Indian School of Business. He has been associated with the pharmaceutical industry for the past three decades, especially under the domains of research and development. He was also the Chief Operating Officer at Matrix Laboratories Limited, Hyderabad. He has over 100 patents in his name.
V V Ravikumar	Chief Financial Officer	He has been a Director of the company since November 30, 2006. He holds a bachelors and masters degree in Commerce from Andhra University. He is a member of the ICWAI. He has over 27 years of experience in the field of finance. Prior to joining the company, he was the Vice President – Finance of Matrix Laboratories Limited.
Dr. Raju Srihari Kalidindi	Executive Director	He holds a bachelor's and a masters degree in Science from Andhra University and the University of Roorkee respectively and a Ph.D from Andhra University. He has done his postdoctoral research at the University of Hawaii under professor P.J. Scheuer for two years. He has over 30 years of experience in research and pharmaceutical industry, including more than 10 years at Hospira Australia Pty Ltd in Australia. His areas of expertise include research and development, operations, sourcing and business development. He has several research publications in his name.

Source: Company

## APPENDIX A—HIV TREATMENT PROTOCOL

Following the changes to the WHO guidelines in CY2013, NNRTIs remain the first line regimen in adults while EFV has become the preferred choice among the NNRTIs. This has resulted in constant increase in EFV use, which is expected to reach ~69% of all first line generic accessible adult patients by CY2018. DTG and EFV at lower doses (400 mg/day) are also included as new alternatives for first-line regimens. Similarly, the Tenofovir Disoproxil Fumarate is expected to see a continued increase in usage with more than 70% coverage expected by CY2019, as it remains the main backbone in first line therapy for adults. AZT usage is expected to decline to less than 10% by CY2024, and Tenofovir Alafenamide and DTG are expected to see a significant increase with TAF expected to reach 5 mn patients and DTG expected to cover 6 mn patients by CY2024.

**Exhibit 56: Key categories of ARV drugs**

NNRTI	NRTI	PI's	FI's	CCR5 antagoists	Integrase strand transfer inhibitors
Efavirenz (EFV)	ZDV/AZT	Lopinavir (LPV)	Enfuvirtide	Maraviroc	Raltegravir (RAL)
Nevirapine (NVP)	Didanosine	Indinavir (IDV)			Elvitegravir (EVG)
Delavirdine	Abacavir (ABC)	Ritonavir (RTV)			Dolutegravir (DTG)
Etravirine (ETV)	Tenofovir	Nelfinavir			
		Amprenavir			

Source: Company

**Exhibit 57: Laurus' ARV portfolio targets bulk of treatment protocols**

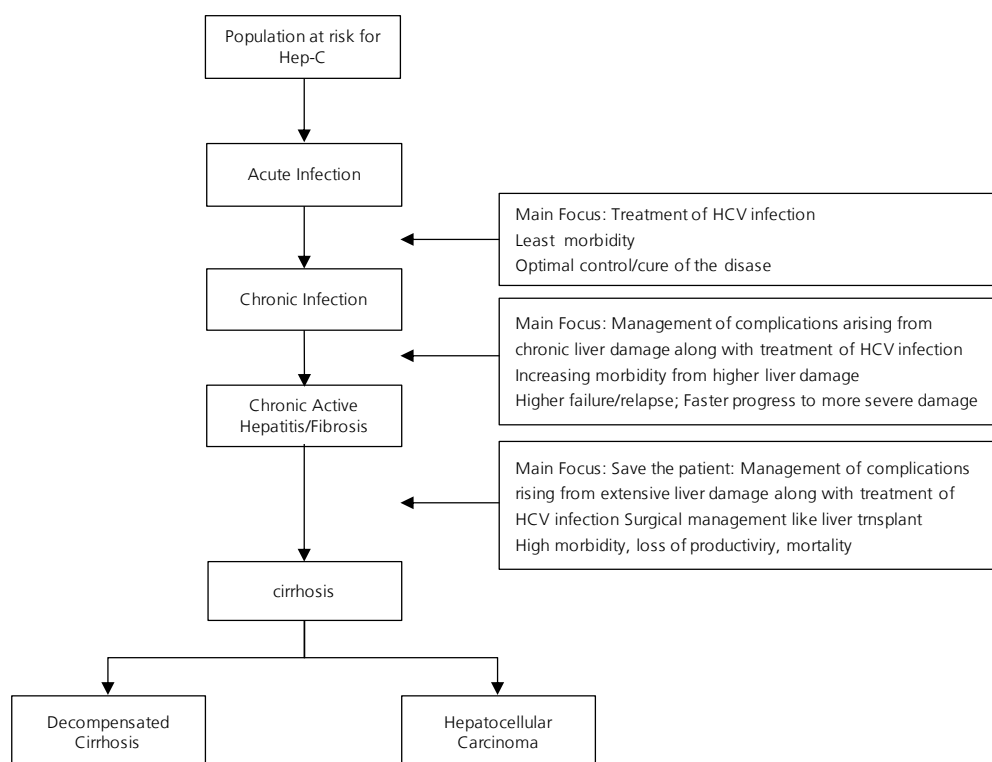
Population	WHO recommended preferred first-line regimen	WHO recommended alternative first line regimen
Adults	TDF + 3TC (or FTC) + EFV	AZT + 3TC + EFV (or NVP)
		TDF + 3TCV (or FTC) + DTG
		TDF + 3TCV (or FTC) + EFV400
		TDF + 3TCV (or FTC) + NVP
Pregnant / breastfeeding women	TDF + 3TC (or FTC) + EFV	AZT + 3TC + EFV (or NVP)
		TDF + 3TCV (or FTC) + NVP
Adolescents	TDF + 3TC (or FTC) + EFV	AZT + 3TC + EFV (or NVP)
		TDF (or ABC) + 3TC (or FTC) + DTG
		TDF + 3TCV (or FTC) + EFV400
Children (three years to less than 10 years old)	ABC + 3TC + EFV	TDF (or ABC) + 3TCV (or FTC) + NVP
		ABC + 3TC + EFV
		AZT + 3TC + EFV (or NVP)
Children (less than three years old)	ABC (or AZT) + 3TC + LPV/r	TDF + 3TCV (or FTC) + EFV (or NVP)
		ABC (or AZT) + 3TC + NVP

Source: Company

## APPENDIX B—HEPATITIS-C TREATMENT PROTOCOL

HCV is caused by HCV virus (HCV), which results in inflammation of liver. The disease spreads through contact with infected blood and bodily fluids. The WHO estimates there are 2 to 4 mn new cases of HCV every year and ~170 to 185 mn people chronically infected with the HCV. The prevalence of HCV is enormous in LMICs from South Asia, including India, East Asia, North Africa, the Middle East, and Southeast Asia, which account for over 80% of the global HCV burden. In India, it is estimated that approximately 12-18 mn people are infected with HCV. Within India, genotype-3 is the predominant genotype accounting for ~64% of HCVs in India. Genotype 1 contributes to ~26% of HCVs in India.

Exhibit 58: Infection pattern of the HCV



Source: Company

### Sovaldi is the current treatment backbone

Sofosbuvir is the market's preferred treatment regimen for HCV and is the backbone of other therapies such as Sofosbuvir + Daclatasvir, Sofosbuvir + Ledipasvir (available as Harvoni), and Daclatasvir (Deklinza) which is pan-genotypic in nature. The formulations market of Sofosbuvir, by volume, is estimated to grow from approximately 19 mn pills in 2016 to approximately 58 mn pills in India by CY2021, at a CAGR of 23-25%. By value, the formulations market of Sofosbuvir is estimated to grow from ₹6.7 bn in 2016 to ₹17.4 bn by 2021, at a CAGR of 21-22% led by the ability to treat all four genotypes and treat patients with HCV/HIV co-infection. The consumption of Sofosbuvir API is estimated to grow from approximately 9,500 KG in 2016 to approximately 27,300 KG by 2021, at a CAGR of ~22% driven by increasing generic formulation companies penetrating the market. By value, the API market of Sofosbuvir is estimated to grow from approximately ₹700 mn in 2016 to approximately ₹1,850 mn by 2021, at a CAGR of ~21%. However, the growing volumes have led to declining prices, having fallen from between US\$5,000 and US\$2,500 per KG, to between US\$1,250 to US\$1,000 per Kg in 2015. Further, the price movement from 2016 to 2021 is estimated to fall another 2 percent according to industry estimates.

### Hep-C treatment shifting to combinations

Harvoni is only used to treat genotype 1 of HCV, which comprises approximately 25% of the Hep-C population in India; however, the all-oral combination regimen contributes to the growth of the product. The formulation market of Ledipasvir, by volume, is estimated to grow from ~4.4 mn pills in 2016 to ~10 mn pills by 2021, while the market by value is estimated to grow from approximately ₹3 bn in 2016 to approximately ₹6 bn by 2021. The consumption of Ledipasvir API is estimated to grow from approximately 400 KG in 2016 to approximately 900 KG by CY2021, resulting in value growth from ₹180 mn in CY2016 to ~₹360 mn by CY2021.

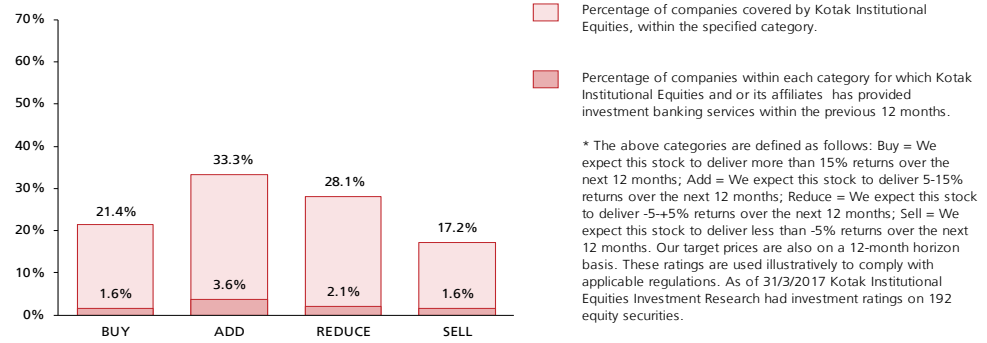
### Daclatasvir launch to add another growth driver in Hep-C

Daclatasvir was recently launched in India for use in combination with sofosbuvir, and the formulations market of Daclatasvir, by volume, is estimated to grow from ~8.9 mn pills in 2016 to ~23 mn pills by CY2021. The ability of the drug to treat genotype 3, which contributes to around 63% of HCV infections in India, contributes to the positive growth of the drug. By value, the formulations market of Daclatasvir is estimated to grow from ~ ₹1.45 bn in CY2016 to ~₹3.2 bn by CY2021. Similarly, the consumption of Daclatasvir API is estimated to grow from 535 KG in 2016 to ~1,387 KG by 2021, driven by use of Sofosbuvir/Daclatasvir combination.



**Kotak Institutional Equities Research coverage universe**

Distribution of ratings/investment banking relationships



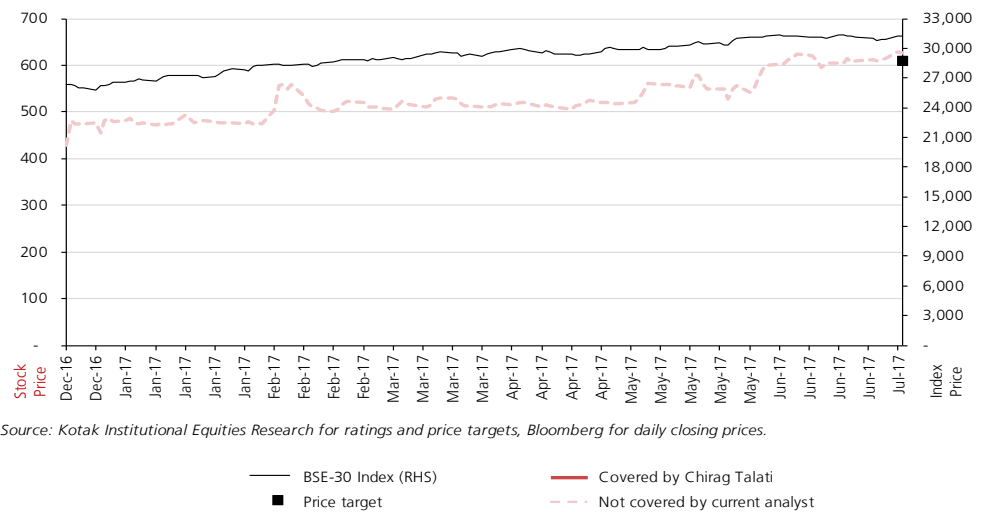
\* The above categories are defined as follows: Buy = We expect this stock to deliver more than 15% returns over the next 12 months; Add = We expect this stock to deliver 5-15% returns over the next 12 months; Reduce = We expect this stock to deliver -5 to +5% returns over the next 12 months; Sell = We expect this stock to deliver less than -5% returns over the next 12 months. Our target prices are also on a 12-month horizon basis. These ratings are used illustratively to comply with applicable regulations. As of 31/3/2017 Kotak Institutional Equities Investment Research had investment ratings on 192 equity securities.

Source: Kotak Institutional Equities

As of March 31, 2017

**Laurus Labs (LAURUS.IN)**

Kotak Institutional Equities rating and stock price target history



Source: Kotak Institutional Equities Research for ratings and price targets, Bloomberg for daily closing prices.

The price targets shown should be considered in the context of all prior published Kotak Institutional Equities research, which may or may not have included price targets, as well as developments relating to the company, its industry and financial markets

**Analyst coverage**

Companies that the analyst mentioned in this document follow

Covering Analyst: Chirag Talati	
Company name	Ticker
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Aurobindo Pharma	ARBN.BO
Biocon	BION.BO
Cipla	CIPL.BO
Dr Lal Pathlabs	DLPA.NS
Dr. Reddy's Laboratories	REDY.BO
Healthcare Global	HEAC.NS
Laurus Labs	LAUL.NS
Lupin	LUPN.BO
Sun Pharmaceuticals	SUN.BO
Torrent Pharmaceuticals	TORP.BO

Source: Kotak Institutional Equities research

## Ratings and other definitions/identifiers

### Definitions of ratings

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ADD. We expect this stock to deliver 5-15% returns over the next 12 months.

REDUCE. We expect this stock to deliver -5 to +5% returns over the next 12 months.

SELL. We expect this stock to deliver <-5% returns over the next 12 months.

Our target prices are also on a 12-month horizon basis.

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