

Laurus Labs



Angling for growth

Tushar Manudhane - Research analyst (Tushar.Manudhane@MotilalOswal.com); +91 22 6129 1536
Rajat Srivastava - Research analyst (Rajat.Srivastava@motilaloswal.com); +91 22 3010 2511

Investors are advised to refer through important disclosures made at the last page of the Research Report. Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

Contents | Laurus Labs: Angling for growth

Summary	3
Current business structure	5
Adding formulations to strong API business	6
Volume growth to drive ARV and Hep-C base business	8
Synthesis/Ingredient business - another growth trigger	12
Robust financial performance to continue	14
SWOT ANALYSIS	19
Manufacturing facilities and inspection details	20
Sensitivity analysis implies limited downside	21
Valuation and view	22
About the company	24
Annexure 1: Combinations of products used to treat HIV	25
Annexure 2: Commercial aspect of HIV medicines	28
Financials and Valuations	32

Laurus Labs

BSE Sensex S&P CNX 34,844 10,742

CMP: INR532 TP: INR651(+22%)

Buy



Stock Info

Bloomberg	LAURUS IN
Equity Shares (m)	106
52-Week Range (INR)	640 / 419
1, 6, 12 Rel. Per (%)	0/-19/-17
M.Cap. (INR b)	57.8
M.Cap. (USD b)	0.9
Avg Val, INRm	101
Free float (%)	69.4

Financial Snapshot (INR b)

Y/E Mar	FY18E	FY19E	FY20E
Net Sales	21.9	26.3	30.3
EBITDA	4.6	6.0	7.1
PAT	2.2	3.3	4.0
EPS (INR)	21.0	31.3	37.8
Gr. (%)	17.8	49.4	20.6
BV/Sh (INR)	146.3	177.0	214.0
RoE (%)	15.4	19.4	19.3
RoCE (%)	11.9	14.8	15.3
P/E (x)	25.4	17.0	14.1
P/BV (x)	3.6	3.0	2.5

Shareholding pattern (%)

As On	Sep-17	Jun-17
Promoter	30.6	30.6
DII	41.4	43.8
FII	10.7	9.3
Others	17.3	16.2

FII Includes depository receipts

Laurus Labs
Angling for growth



Tushar Manudhane +91 22 3010 2498

Tushar.Manudhane@MotilalOswal.com

Please click here for Video Link

Angling for growth

Cost efficient + Strong Chemistry skills + Forward integration

Laurus Lab (LAURUS) is a young, R&D led, pharma company. LAURUS is one of the leading API manufacturers for ARV (Antiretrovirals) and Hep-C (Hepatitis C). LAURUS has leveraged chemistry skills towards synthesis services and manufacture specialty ingredients. LAURUS is also forward integrating to formulations for regulated markets.

- We expect LAURUS to deliver 16.7% CAGR in sales to INR30b and 28% CAGR in PAT to INR4b by FY20, led by addition of formulations and healthy momentum in base API business.
- LAURUS is targeting 30 ANDA filings (six filed till date) over the next 2-3 years and accordingly expanding capacity from 1b units/year to 5b units/year. We expect its US sales to multiply from INR20m in FY17 to INR1.3b by FY20. It is also forward integrating in ARVs for further improvement in profitability.
- Consolidation of distributors in US has lowered scope of negotiation on product prices and regulatory hurdles have affected ongoing and/or future business of various pharma companies. We believe LAURUS is in a sweet spot to get the business in regulated market due to its cost efficiency and consistent compliance.
- LAURUS is on a strong footing in the API business, primarily led by cost efficiency.
 We expect 12% revenue CAGR in this base business to INR24b by FY20, led by new molecules and higher off-take by global procurement agencies.
- We value LAURUS at 18x (20% premium to midcap average multiple of 15x) 12M forward earnings to arrive at price target of INR651. We are positive on LAURUS' forward integration to formulation in regulated markets and superior margins in API business. Initiate with Buy.

Formulations business in take-off mode

LAURUS has developed and filed 42 DMFs and eight ANDAs till date with USFDA. It intends to file 8-10 ANDAs annually, taking its cumulative filings to 30 in the next three years. Specifically, it has tentative approval for g-Viread. Given that facility compliance is in place and all USFDA queries have been resolved, final approval would kick-start revenue from the US market. In addition, LAURUS would incur total capex of INR3b (INR2b spent till date) to facilitate manufacturing. Also, it is in the process of filing products to participate in global tenders for ARV formulations. We expect strong growth in LAURUS' formulations business over the next 2-3 years.

Steady API base business

LAURUS' API sales have grown at a CAGR of 17% over FY14-17, led by increased off-take of ARV and Hep C APIs, higher synthesis and oncology API business. The company is adding new molecules in ARV/Oncology/Other APIs and traction from the Aspen contract has increased. Post strong growth in Hep C business over the last two years, we expect growth to taper due to sharp price erosion on intensifying competition. Nevertheless, we expect LAURUS' API sales to grow from INR17.2b in FY17 to INR24.5b by FY20.

Good compliance track record augurs well for business in regulated markets

LAURUS' facilities have been inspected multiple times in the last 8 years. The company has cleared these inspections with minimal observations – Unit 1 and Unit 3 had two observations in Form 483 issued in August 2017. Recently, it received EIR for the inspection conducted at Unit 2 in May 2017. This implies minimal regulatory hurdles for LAURUS in the medium term.

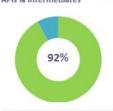
Valuation and view

LAURUS' earnings have grown at a CAGR of 21% over FY13-17. We expect 28% earnings CAGR over FY17-20, led by product launches in the US, additional business from tender awards in the ARV formulations/API space, new customer addition, as well as new product additions in the synthesis and oncology space. With increasing share of higher value products, we expect EBITDA margin to expand ~200bp over FY17-20.

We value LAURUS at 18x 12-month forward earnings to arrive at a price target of INR651, implying 22% upside. We value the stock at 20% premium to the midcap average multiple of 15x to factor in relatively higher EBITDA margins in the API business and forward integration to formulations in regulated markets. We initiate coverage with a **Buy** rating.

Current business structure

LAURUS Generics



- . Develop, manufacture & sale of APIs and advanced intermediates
- Therapeutic areas include ARV, Hep-C, Oncology, Cardiovascular, Anti-Diabetic, Anti-Asthmatic, gastro in large volumes & ophthalmic therapeutic areas in small volumes
- 59 commercialized products; 42 DMFs filed till date



LAURUS Synthesis

5.4%

- * CRAMS for global pharma companies
- A dedicated manufacturing facility (Unit 5) for Aspen
- Signed agreement for an Oncology NCE for clinical phase and commercial supplies





- Development and manufacture of oral solid formulations; Capitalizing on API strength to forward integrate into FDFs
- Filed for 4 ANDAs with USFDA, one dossier with WHO & completed validation of 4 products;
- . EIR received from USFDA with respect to inspection in May-17
- Capacity of 1 billion tablets/year which can be expanded up to 5 billion tablets/year

LAURUS Ingredients



- Manufacture s specialty ingredients used in nutraceuticals, dietary supplements and cosmeceuticals
- Current portfolio of products are used as anti-oxidants, skin brighteners and UV protection agents
- Developing capabilities for botanical extraction and purification, to capture the growing market of natural ingredients.

Exhibit 1: Milestones

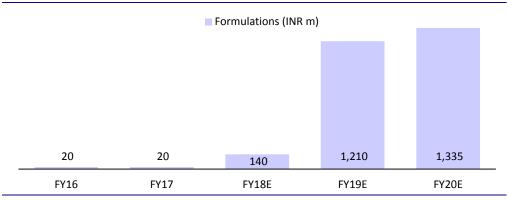
2006	Set up R&D facility in Hyderabad
	Started Onco APIs supply
2007	Inv. of INR1bn by Aptuit in LAURUS
2008	First DMF filed
	Operations started for CRAMS and ingredients at Unit 1
2009	Started supplies in ARV segment
2010	Supplied company's first product to USA
2012	Investment of INR490m by FIL capital and FIP in LAURUS
2013	Crossed INR10b reveneues
2014	~INR3bn inv. by Bluewater and acq. of significant stake of FIL by Bluewater
	Commenced construction of FDF and API facility at Unit-2
2015	Commercialization at Unit-3, for API, CRAMS and ingredients
2016	Filed first ANDA; Filed first dossier with the WHO
	Started operations at Unit 5

Source: Company, MOSL

Adding formulations to strong API business

- Revenue segment in form of US formulations would be pick-up FY18 onwards
- Forward integration in ARV would aid more business and profitability
- We expect LAURUS' formulations sales to multiply from just INR20m in FY17 to INR1.3b by FY20, led by new product approvals in the US market and forward integration in the ARV category.

Exhibit 2: Expect strong growth in formulations over the next three years



Source: Company, MOSL

R&D efforts of past 3-4 years to start delivering results now

LAURUS has incurred R&D expenditure of INR3b on its product pipeline over the last four years. Having filed its first DMF in 2008, LAURUS has 42 DMFs till date. It has eight ANDAs filed with USFDA and has guided 8-10 ANDAs annually, with a cumulative target of 30 ANDAs over the next 2-3 years. It is targeting ARVs, antidiabetic, cardiovascular and proton pump inhibitors as therapy categories for the formulations segment.

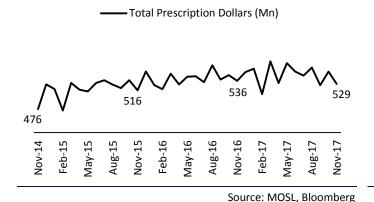
One of the ANDA approval expected for LAURUS is of Metformin. The target action date for the same was in November 2017. No approval for this product from USFDA implies additional queries to be responded by LAURUS. This might delay approval by 2-3 months. Despite this delay, it remains interesting product as it has been already genericized and delay for approval would not result in immediate increase in intensity of competition. It has built a dedicated block for Metformin, with a capacity of 2,500MT/annum.

Others

28%

Exhibit 3: Stable Metformin sales in US market

Exhibit 4: Market share concentrated among 5 companies



18% Heritage Pharma Zydus 16% Pharma 11% Aurobindo Legacy Pharm Pharma 15% 12%

Source: MOSL, Bloomberg

Amneal

Pharma

16 January 2018 6 Though multiple companies have received final approval for Metformin, market share is concentrated among five companies, as can be seen in Exhibit 4. With cost efficiency in place for LAURUS as indicated in other products and it being fully integrated company for this product, we expect LAURUS to gradually gain decent market share post approval. We expect LAURUS to garner USD5-8m from this opportunity on annualized basis post approval.

Moving towards formulations in ARV products

LAURUS has significant market share in the API segment in the ARV category, mainly due to its cost efficiency. It is leveraging its API skills and forward integrating to supply finished dosages, which would enable LAURUS to expand margins. With the formulations facility in place and one dossier filed with the WHO, LAURUS plans to supply to LMIC countries through the tender process. Also, LAURUS has entered into an agreement with Dr Reddy's Laboratories for developing and marketing of several ARV formulations on profit and cost sharing basis.

LAURUS intends to complete product filings with the WHO over the next 6-9 months. It would take 9-12 months post filing for acceptance of filing and participation in the tender process. We believe LAURUS would be able to grab considerable market share in the formulations segment as well, given that it is fully integrated and continues to strive towards reducing cost of manufacturing.

LAURUS has filed g-Viread ANDA for the US market, for which it has received tentative approval. All patents related to Viread would expire by 25 January 2018, providing LAURUS with the opportunity to supply the generic version, subject to final approval. The annual market size for Viread is about USD1.2b. We expect at least five generics post patent expiry. Assuming 10% market share and 90% price discount, we expect LAURUS to garner annual sales of USD6m-7m from this product.

Given the scenario of pricing pressure in base business due to consolidation of distributors and increased efficiency of USFDA for granting final approval, LAURUS is in sweet position to have the benefit from the same. It would have minimal impact of pricing pressure due to nil base business and reduced time for approval taken by USFDA would enable faster entry for LAURUS to US market.

Also, LAURUS intends to tap opportunities arising from the expiry of key ARV products in the US market over the next 2-3 years. The key products in this category going off-patent over the next 2-3 years are g-Atripla (annual sales: USD3.5b, CY16), g-Stribild (annual sales: USD1.2b, CY16) and g-Complera (annual sales: USD1.2b, CY16).

Integrated manufacturing capacity in place; to remain cost-efficient supplier

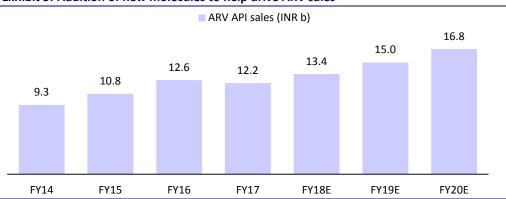
LAURUS has invested INR2b in building formulations facility at Vishakapatnam and expanded capacity from 1b tablets per year to 5b tablets per year. The additional capital investment for this project would be about INR1b over two years.

Volume growth to drive ARV and Hep-C base business

- Rising patient base remains key for ARV business
- LAURUS is well-prepared to supply existing as well as new combination medicines
- Pricing pressure continues; volume growth to drive Hep-C business.

LAURUS commenced commercial operations in the ARV API segment in 2009, and within a short span of 8 years, it has scaled the business to INR12.2b in FY17. ARV API constituted 64% of total sales in FY17. The share of ARV API in consolidated sales has been reducing due to addition of new business segments. ARV API sales grew at a CAGR of 16.7% over FY14-16 and ARV API volumes grew at 21% CAGR. In FY17, ARV API sales declined 3.3%, despite volume growth remaining intact implies lower realization for LAURUS. The lower realization is on the back of lower raw material prices. Around 40% of ARV sales are exports.

Exhibit 5: Addition of new molecules to help drive ARV sales



Source: Company, MOSL

The key molecules that LAURUS sells in this segment are Efavirenz, Tenofovir, Disoproxil, Fumarate, and Emitracitabine.

Efavirenz remains WHO's preferred drug in combination form

There has been significant pick-up in volumes of Efavirenz consumed by human immunodeficiency virus (HIV) patients. This is mainly due to preferred NNRTI (Non-nucleoside reverse-transcriptase inhibitors) status given to Efavirenz by the WHO in 2013. As a result, aggregate volume off-take of Efavirenz grew sharply from ~900MT in 2013 to 2200 in 2016.

Exhibit 6: Industry report implies EFV sales to taper down

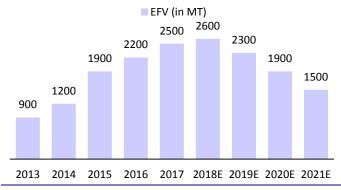
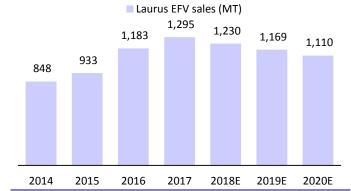


Exhibit 7: LAURUS continues to have major share of EFV sales in ARV API category



Source: Company, MOSL

Source: Industry

LAURUS has been enjoying almost 50% market share in supplying Efavirenz API since 2013. This is largely due to its lowest cost producing capability. Though most companies supplying formulations in the ARV market are integrated, LAURUS' significant market share in API implies that formulators outsource considerable API from LAURUS due to relatively lower cost.

Though market reports implies EFV volume to be on gradual downtrend based on superiority of other drugs...

The ARV market report estimates that Efavirenz volume would reduce due to continued momentum around accelerated development and market availability of EFV400 (reduced dose compared to current dose of EFV600). In addition, WHO guidelines have included EFV400 as a first-line option. Pharmacokinetic (PK) studies in pregnant women and TB co-infected patients for EFV400 are also underway. If the test results are favorable, the WHO would be able to suggest this option as the preferred treatment dose without restrictions in its next guidelines.

Also, DTG has been recommended as an alternate for first-line adult treatment in 2015 WHO guidelines. The superiority of DTG and better tolerability over EFV also implies that off-take of EFV would be lower, going forward. For further details please refer Annexure 1.

...Current higher cost of other drugs may lead to sustained off-take of EFV over medium term

40-50% of HIV patients are also infected by TB. For HIV/TB patients, the preferred course of treatment involves a single-tablet regimen of Dolutegravir and a triple combination of Dolutegravir, Lamivudine and Tenofovir. This is costlier than the Tenofovir, Lamivudine and Efavirenz combination.

Also, ongoing efforts by various agencies to ensure that additional patients get treated by first-line drugs would aid growth in combination drugs and provide a business opportunity for LAURUS.

Even if the cost reduces going forward, LAURUS is prepared to supply Dolutegravir and the triple combination API at the lowest cost to gain maximum share of business.

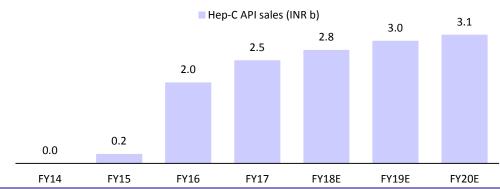
Growth in the ARV API segment is expected to be led by stable EFV sales, introduction of Lamivudine/Dolutegravir and other combinations.

Volume growth to drive Hep C API business

LAURUS' Hep C business largely involves manufacturing and selling Hepatitis C APIs comprising of Sofosbuvir, Ledipasvir, Daclatasvir and Velpatasvir to Natco Pharma. The deal with Natco Pharma gives LAURUS two revenue streams: (1) sale of API to Natco Pharma, and (2) share of profit from Natco Pharma on sale of formulations. Also, LAURUS has to share profits with Natco Pharma if it sells API to third parties.

This agreement is on the back of a long-term license agreement with Gilead Sciences for the manufacture and sale of Sofosbuvir, Ledipasvir, and Velpatasvir within specified jurisdictions. LAURUS also has a tripartite sublicense and technology transfer agreement with Bristol-Myer-Squibb and Medicines Patent Pool Foundation to manufacture and sell Daclatasvir for ultimate use in specified jurisdictions.

Exhibit 8: Pricing pressure to keep sales on a moderate growth trajectory of around 8%



Source: MOSL, Company

LAURUS started this business in FY15 with a turnover of INR231m; in FY17, sales from this segment were INR2.5b. Being early to market, sales were led by significant ramp-up in volume offtake. These sales are largely in India.

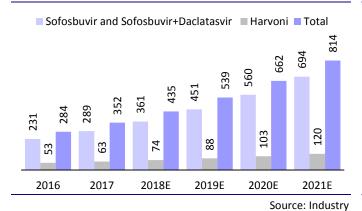
Key growth drivers for LAURUS' Hep C business have been:

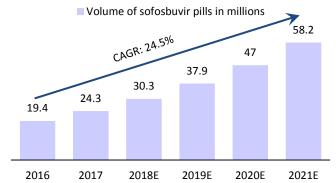
- Increased affordability
- Improved formulation
- Increased screening and novel ways for access to treatment, thereby reducing cost of diagnosis as well
- Early mover advantage along with sufficient capacity to cater to concerned market

Sofosbuvir is considered to be the most effective directly acting anti-viral (DAA) drug and promises higher cure rates. Patients on DAA are estimated to grow at a CAGR of 23.4% and patients on Sofosbuvir and its combinations are estimated to grow at a CAGR of 24.5% over 2016-21.

Exhibit 9: Patient base expected to increase over next three years

Exhibit 10: Industry Volumes to grow at a CAGR of 24.5%





Source: Industry

Though volume growth remains strong, the growth in LAURUS' revenue from this segment is likely to moderate, primarily due to declining prices. Prices have been declining due to increased competition.

New molecules to drive growth in Oncology API segment

The key API molecules sold by LAURUS in this segment are Imatinib Mesylate and Gemcitabine HCL. Currently, Imatinib Mesylate is largely sold in the domestic market, while Gemcitabine HCL is exported.

LAURUS' Oncology API revenue grew at a CAGR of 14% over FY14-16, largely led by pick-up in Gemcitabine volumes. Gemcitabine is a higher value product than Imatinib.

Oncology API sales (INR b)

1.7

1.4

1.1

1.1

1.1

FY14

FY15

FY16

FY17

FY18E

FY19E

FY20E

Exhibit 11: Oncology sales reviving; expect moderate growth over FY18-20

Source: Company, MOSL

However, sales declined in FY17 due to change in inventory policy by one customer and regulatory challenges for another customer. Both these factors have been resolved and this is reflected in 1QFY18 revenue from this segment, which grew 83% YoY to INR441m.

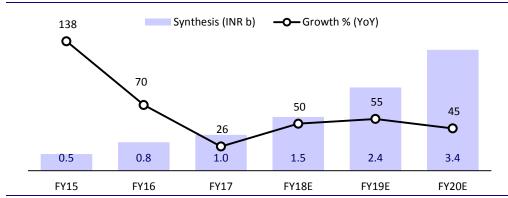
Going forward, growth would be led by launch of new molecules, capacity expansion and increased traction from existing molecules. LAURUS intends to launch a couple of products every year for the next 2-3 years.

Synthesis/Ingredient business - another growth trigger

- LAURUS has strong chemistry skills which would lead Synthesis/Ingredient business
- LAURUS has a robust pipeline of molecules to be supplied to innovators under contract manufacturing
- We expect LAURUS to deliver 50%/18% CAGR in Synthesis/Ingredient business

LAURUS leverages its strong chemistry skills to provide contract development and manufacturing services to pharmaceutical companies. It provides analytical and research services, clinical research supplies, and commercial-scale contract manufacturing services. Its focus has been to supply key starting materials and intermediates for NCEs. The quantum of revenue would increase, as the molecule moves to commercial manufacturing stage.

Exhibit 12: New products and increased traction in existing ones to drive strong 50% CAGR for FY17-20



Source: Company, MOSL

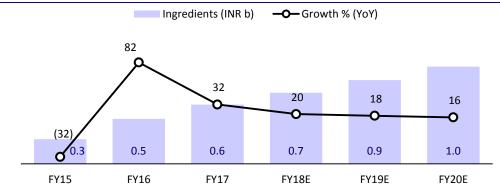
As at the end of 2QFY18, LAURUS has a good spread between phase-I, phase-II and phase-III molecules in the synthesis segment. Specifically, it has an Oncology NCE molecule in phase-II and would be supplying phase-III batch quantities in 4QFY18.

Pick-up in commercial operation from contract with Aspen to also support growth in synthetic business

LAURUS has entered into a toll manufacturing and supply agreement with an Aspen group entity, under which it would manufacture and supply certain hormonal intermediates to the entity. It has built unit-5 and a dedicated block in unit-1 for this task. The investment of about EUR26m in unit 5 was funded by Aspen. Unit-1 is already commercialized and unit-5 became operational from November 2016. The validation batches are progressing and commercialization would be in 1QFY19.

We expect LAURUS to maintain strong momentum in this segment on the back of NCE molecules moving to higher clinical phase and higher capacity utilization of unit-5.

Exhibit 13: Ingredients business expected to grow at a CAGR of 18% over FY17-20



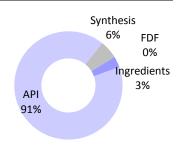
Source: Company, MOSL

Extending chemistry skills led LAURUS to initiate its ingredients business. We expect 18% CAGR in this business, led by new products and better market share in existing products.

Robust financial performance to continue

- LAURUS had delivered strong financial performance in the past
- We expect momentum to continue with addition of formulation, new molecule addition and increased traction in existing molecules in API segment

Segment-wise breakup for FY17



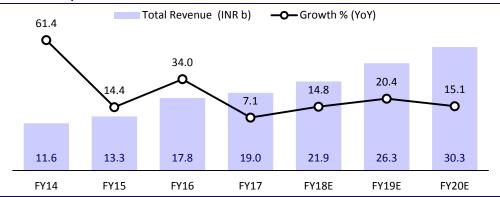
Source: Company, MOSL

Revenue growth on strong footing

Over FY14-17, LAURUS has delivered 18% CAGR in revenue to INR19b and 25% CAGR in PAT to INR1.9b. The strong growth has been on the back of new API launches/healthy growth in base API business and meaningful addition in ingredients and synthesis business over the past two years.

The strong offtake of ARV APIs, early mover advantage in Sofosbuvir and addition of Imatinib Mesylate in Oncology API led growth in **overall API** sales. Even the ingredients and synthesis business has seen good traction, led by new customers, new product additions, and better sales of existing products.

Exhibit 14: Expect 17% CAGR over FY17-20



Source: Company, MOSL

Though the CAGR over FY12-17 has been strong, there have been segment specific issues which led to moderate YoY growth in FY17 sales.

- The ARV-API sales reduced by 3.2% YoY in FY17. The key molecule in this segment for LAURUS is Efavirenz. The off-take of Efavirenz, at industry level, remained robust and grew by 15.6% YoY in CY16. With LAURUS having almost 50% market share in terms of Efavirenz API, it implies that LAURUS also had strong volume growth in FY17. However, YoY sales reduction implies lower realization for its products. We believe this is largely due to lower raw material prices. With raw material prices reaching trough, we expect future growth to be driven by volume growth. With commitment of funding by donar agencies in place for next three years to not only provide medicines to existing patients but also to increase number of patients for treatment, we expect volume led growth momentum to continue for LAURUS over FY17-20.
- There has been change in inventory policy and regulatory hurdles faced by customer that led to 24% YoY decline in **oncology API sales** of LAURUS. With issues resolved, we expect business to ramp up from existing products as well as launch of new products.

The synthesis business has become ~5x over FY14-17 to INR1b due to increase in supplies of molecules which advanced to higher phases of clinical trials and inclusion of newer molecules. The commercialization of products under Aspen contract would also aid growth in synthesis business. Overall, we expect 50% CAGR in synthesis business over FY17-20.

Even ingredient business is expected to show decent growth on back of new molecules and increased off-take from existing molecules.

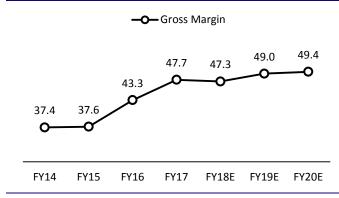
On overall basis, we expect LAURUS' revenue to grow at a CAGR of 17% over FY17-20, led by incremental sales from the formulations segment, better traction from the Aspen contract, and restoration of momentum in API segments.

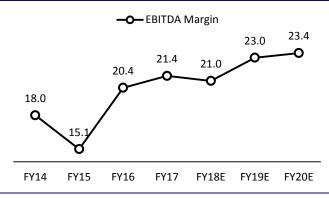
Margins to remain on uptrend

Gross margin has expanded 1000bp over FY14-17, led by increased share of higher margin synthesis and Hep-C businesses. Accordingly, EBITDA margin increased by 314bp over FY14-17. The EBITDA margin increased at lower rate than gross margin due to higher R&D spend towards product development and improving processes.

Exhibit 15: Superior product mix to drive gross margin

Exhibit 16: Operational efficiency to drive EBITDA margin





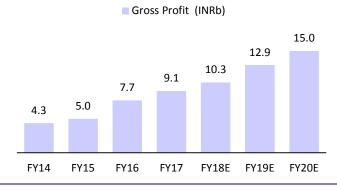
Source: Company, MOSL

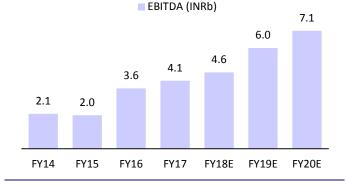
Source: Company, MOSL

We expect gross margin to expand 200bp over the next 2-3 years due to addition of formulations business and continued traction in synthesis business. While R&D spent on absolute basis is expected to continue at ~INR1.4-1.5b, higher sales growth would result in lower R&D spent as % of sales and aid improvement in EBITDA margin. We expect EBITDA margin to increase by 200bp over FY17-20.

Exhibit 17: We expect 18% CAGR in gross profit over FY17-20

Exhibit 18: We expect 20.2% CAGR in EBITDA over FY17-20





Source: Company, MOSL

Source: Company, MOSL

> EBITDA growth is led by 17% CAGR in sales coupled with about 200bp increase in EBITDA margin. The better-than-company growth in relatively high margin business of oncology API, Hep C API and synthesis business is expected to drive margin over next 2-3 years. The pick-up in formulation business is also expected to aid improvement in margins of the company going forward.

R&D spend expected to be stable on absolute basis

LAURUS remains on track to file 30 ANDAs on cumulative basis over next 2-3 years. Accordingly, LAURUS has increased its R&D spent from INRO.4b to INR1.2b in FY17. Annual R&D spent is expected to be about INR1.2-1.4b over next 2-3 years to support product development for regulated market, development of products in synthesis business and newer molecules in oncology segment.

R&D Spend (INR b) -O-as a % of sales 7.0% 6.2% 5.3% 5.1% 4.8% 4.4% 3.7% 0.4 0.6 0.9 1.4 1.5 1.2 1.4 FY14 FY15 FY16 FY17 FY18 FY19 FY20

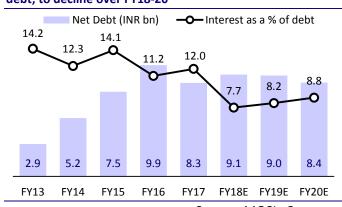
Exhibit 19: R&D as % of sales to reduce going forward

Source: MOSL, Company

Interest outgo to reduce going forward

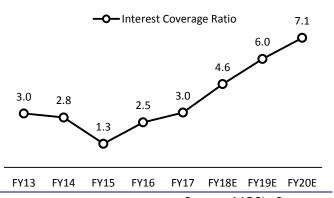
We expect not only improvement in operating performance, but also reduction in finance cost, thereby driving PBT of LAURUS over FY17-20. Finance cost has reduced in 1HFY18 due to ratings upgrade, which has resulted in lowering of cost of borrowing. We expect interest outgo to reduce from ~INR1b in FY17 to INR731m in FY18. In 1HFY18, interest outgo was INR386m implying benefit of rating upgrade already kicking-in for LAURUS. Accordingly, we expect interest coverage ratio to improve sharply from 3x in FY17 to 7.1x by FY20.

Exhibit 20: Higher capital expenditure led to increased debt; to decline over FY18-20



Source: MOSL, Company

Exhibit 21: Interest coverage ratio to improve owing to increased EBITDA



Source: MOSL, Company

16 January 2018 16

The effective tax rate is expected to increase from 18.4% in FY17 to 24% in FY18 due to reduction in R&D weighted deduction. However, we expect effective tax rate to reduce FY19 onwards as SEZ led benefit to accrue due to commercialization of Unit 3 and Unit 5.

On the basis of sales growth, improving margins, reduced financial leverage and lower tax rate, we expect PAT CAGR to be 28% to INR4b over FY17-20.

Capex to continue, at lower rate, to support growth

The capex over FY14-17 was largely towards building formulation and API facility (Unit 2) and Unit 5, which is dedicated facility for Aspen. Specifically for formulation facility, LAURUS has spent about INR3b till date. LAURUS spent about INR1.5b towards unit 5. LAURUS spent about 1.8b for unit III, which is for API and ingredients. Remaining amount was spent was largely for Unit IV, which is also for API and ingredients. LAURUS has guided for annual capex of about INR2.5-2.7b to be spent over next 3 years, primarily for further enhancing capacity for API business. We believe that internal accrual and marginal increase in debt would be sufficient to fund capex needs, thereby not impacting financial leverage meaningfully.

Capex (INRm) 3,635 3,025 2,927 2,750 2,500 2,500 1,198 704 FY14 FY13 FY15 FY16 FY17 FY18E FY19E FY20E

Exhibit 22: Capex intensity to remain steady over next few years

Source: Company, MOSL

Working capital would increase with rise in share of formulation business

Working capital days have increased from 95 in FY13 to 169 in FY17 due to increase in receivables in API segment. We expect further increase due to additional formulations business, where working capital requirement is higher.

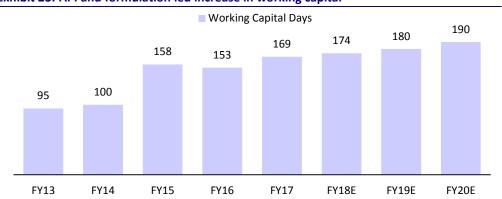


Exhibit 23: API and formulation led increase in working capital

Source: Company, MOSL

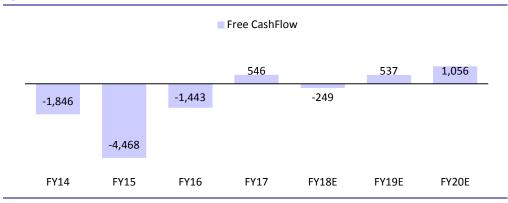
Free cash flow to turnaround from FY19

Free cash flow has been negative over FY12-16, primarily due to higher capital expenditure compared to operating cash flow. Even working capital was on rise due to higher receivable days for API business.

This led to higher debt and part of the gap between capital expenditure and operating cash flow was funded through equity raised in FY15.

Free cash flow was positive in FY17 at INR546m. However, we expect negative free cash flow in FY18, though FY19 and FY20 would see positive free cash flow, as EBITDA from formulations segment improves due to increase in its base. Even the share of higher margin synthesis business is expected to increase from 5.4% in FY17 to 11% by FY20, driving higher operating cash flow.

Exhibit 24: Increase in share of higher margin business and lower capex needs to improve FCF

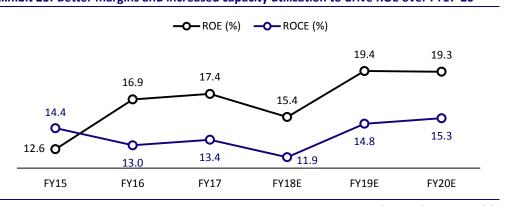


Source: Company, MOSL

Return ratios to improve on higher asset utilization

LAURUS had phenomenal revenue and PAT growth during FY11-14 due to significant traction in API business and partly on low base. With considerable capex cycle starting in FY14, the return ratios lowered during FY14-17 compared to FY11-14 period. As considerable capex now behind, we expect return ratios to improve FY19 onwards on the back of better capacity utilization as well as improvement in profitability.

Exhibit 25: Better margins and increased capacity utilization to drive ROE over FY17-20



Source: Company, MOSL

SWOT ANALYSIS



Strength

- Promoters' superior technical background has helped in early identification of business opportunities.
- Strong R&D skills have led LAURUS to become a low cost supplier of APIs. This skill would also enable it to gain considerable share in the formulations business in regulated markets.
- Consistent regulatory compliance in terms of product quality and good manufacturing practices considerably reduces the scope of adverse impact on existing business or new approvals due to regulatory hurdles.
- Superior margins despite API business accounting for most of LAURUS' revenue this implies that LAURUS is a cost-efficient producer of APIs.



Weaknesses

- Current ANDA pipeline is small compared to peers. LAURUS has guided about 30 filings within the next three years.
- LAURUS derives most of its revenue from the ARV API segment. It continues to reduce its exposure to ARV APIs by adding newer business segments.
- LAURUS does not have much pricing power in products in which it has significant market share.



Opportunities

- Starting at low base in US market would prevent adverse impact of pricing pressure, which is faced by peers having high base. Also, reduced timeline for ANDA approval by USFDA would drive US sales at higher pace.
- Forward integration into formulations for US sales would not only drive sales but also improve margins, going forward.
- Forward integration in ARV segment would also aid margin improvement.
- Increased traction in synthesis business on the back of R&D skills and availability of manufacturing capacity.



Threats

- **Delays in regulatory approvals** may increase competition and reduce LAURUS' profitability.
- Higher than expected price erosion in Hep C or oncology products, or delays in execution of contracts in synthesis business may adversely affect financial performance.
- Significant portion of revenue is derived from few customers without any long-term agreement. Loss of such customer/s or financial deterioration may adversely affect LAURUS' business.

Manufacturing facilities and inspection details

Exhibit 26: USFDA inspection history

Unit-2 (API & FDF)	
- FDF facility	❖ Inspected in Nov-Dec 2016; EIR received in May'17
- API facility	❖ Inspected in May'17; EIR received in Sep'17
	 Surveillance Inspection in Aug'17 & Issued Form-483 with 2 observations Received EIR in Nov'17
	 Surveillance Inspection in Apr'15 with no observations Issued EIR in Jul-15
Unit-1&3 (API)	 Surveillance Inspection in Nov'12 & Issued Form-483 with 10 observations Received EIR in May'13
	 Pre Approved Inspection in Oct'09 with no observations EIR Received in Feb'10
	 Surveillance Inspection in Jun-2016 with zero observations Received EIR in October-2016
Hyderabad site (R&D/Kilolab)	 Surveillance Inspection in April-2014 & issued form 483 with 4 observations Received EIR in November-2014
	 Pre-approval Inspection in February 2011 with no observations Received EIR in June-2011

Source: Company, MOSL

Exhibit 27: Facility-wise product details and compliance status

Facility	Туре	Approvals	Remarks	Audits
Unit-1	API, Ingredients, synthesis & Contract Manufacturing	US FDA, WHO, PmDA, KFDA, NIP Hungary	300 reactor with 1140 KL capacity Spread across 34 acres with 1000+ employees	latest successful audit by US FDA and WHO-Geneva was in April 2015
Unit-2	FDF & API	BfArM, US FDA inspection completed in Dec'16	FDF capacity of 1b tablets/year API block with 12 reactors and capacity of 84KL	EIR received in May-17
Unit-3	API, Ingredients, synthesis & Contract Manufacturing	US FDA and WHO	110 reactors with a total capacity of 729 Kilo Litres.	The latest successful audit by US FDA and WHO Geneva was in April 2015
Unit-4	Nutraceuticals, Intermediaries & API	Under construction		Construction commenced and will be operational in 2017-18
Unit-5	API (Dedicated to Aspen)		48 reactors of 138 Kilo Liters capacity in two manufacturing buildings.	Operations commenced in December 2016

Source: Company

Sensitivity analysis implies limited downside

In our base case, we factor in 16.7% CAGR in revenue to INR30.3b and 28% CAGR in PAT to INR3.9b over FY17-20, led by increased business in US formulations, synthetics and ARV API. We expect EBITDA margin to expand from 21.4% in FY17 to 23.4% by FY20.

Bear Case

☑ In our bear case, sales and PAT CAGR would reduce to 14.2% and 23%, respectively, led by delays in ANDA approval for US market and lower than expected business in ARV category. Accordingly, 12-month forward EPS would be INR30, and the price target would be INR535, implying limited downside.



Bull Case

☑ In our bull case, sales would grow at a CAGR of 19.8% to INR32.7b and PAT would grow at a CAGR of 35% to INR4.4b over FY17-20 on faster approval, followed by subsequent better traction in products in US market and higher market share in ARV tender business. Accordingly, 12-month forward EPS would be INR36, and the price target would be INR769, implying 44.5% upside.

Exhibit 28: Sensitivity Analysis

	Bear Case	Base Case	Bull Case
Revenue (INR m)	25,917	26,308	27,431
EBITDA (INR m)	5,746	6,043	6,576
EBITDA margin (%)	22.2	23.0	24.0
PBT (INR m)	4,035	4,234	4,891
Tax rate (%)	21.5	21.5	21.5
PAT (INR m)	3,156	3,312	3,828
EPS	30	31.3	36
Target Multiple	17	18	19
Target Price	535	651	769
% Return	0.0	22.0	44.5

Source: MOSL

Valuation and view

Despite multiple headwinds for pharma industry...

- Pharma industry has been facing multiple headwinds over past two years in US, which has been focus market for most of the Indian pharma companies.
 - > **Supply chain consolidation:** There has been considerable price erosion on products due to consolidation of distributors in US market.
 - Regulatory hurdles: The increasing compliance requirement by regulatory agencies and inconsistency shown by pharma companies have impacted either existing business or affected future approvals.
 - Faster approvals: There has been increase in efficiency of USFDA paving faster approvals which has led to rise in competition.
- Even emerging markets had country specific issues like temporary hurdles (demonetization and GST led disruption) in India, lower crude oil prices affecting economy of African countries and currency headwinds in Asia market.
- All these factors led to flat to deterioration in financial performance in FY18 till date.

...the structural growth story remains intact

- Pharma companies have increased R&D spent towards building portfolio of complex molecules. This would not only extend period of better sales but also enable companies to have better margins.
- Companies have upped their efforts to increase the bar of compliance. This is through automation as well as improving the culture to have consistency in compliance.
- This would not only extend period of better sales but also enable companies to have better margins. Thus US generics remains an interesting market for Indian pharma companies.
- With streamlining of government administrative systems post demonetization and implementation of GST, we expect pick-up in growth in India pharma market. Also, stable crude oil prices and currencies to enable growth in other emerging markets.

LAURUS - well placed for robust growth

- We like LAURUS as a midcap pharma story due to:
 - Its ability of superior operating margins in API segment. Unlike peers, LAURUS has been enjoying 18-20% EBITDA margin in its business, which is currently dominated by API segment. This is on the back of highly cost efficient processes implemented by LAURUS.
 - LAURUS is in process of transforming itself from pure API play to formulator by forward integration and building product pipeline for regulated as well as emerging markets.
- We expect 16.7% CAGR in revenue and 21% CAGR in EBITDA over FY17-20. Though growth in revenue moderated to 7% in FY17, we expect a pick-up in 2HFY18 and considerable improvement in FY19.
- We value LAURUS at 20% premium to the midcap average multiple of 15x due to superior margins in API business and forward integration to formulations. Our price target is INR651 on 12M forward earnings, implying upside of 22% from current levels.

- We expect upside to be much higher over 4-year horizon. We expect stock to double on current levels over next four years as significant benefit, from capex done till date, to accrue FY19 onwards. The increased share of higher margin business would drive profitability at higher rate than sales growth.
- Initiate with Buy.

Source: Company, MOSL

Exhibit 29: P/E

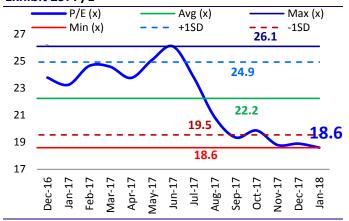
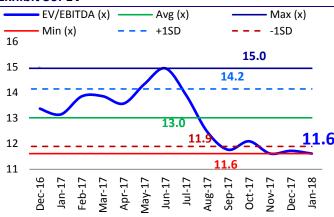


Exhibit 30: EV



Source: Company, MOSL

Exhibit 31: Peer Comparison

INR b	MCap		Sales			EBITDA			PAT			P/E (x)			ROE (%))
	INR b	FY17	FY18E	FY19E	FY17	FY18E	FY19E	FY17	FY18E	FY19E	FY17	FY18E	FY19E	FY17	FY18E	FY19E
Ajanta	132	20.0	20.9	24.8	6.9	6.2	7.6	5.1	4.7	5.7	26.3	28.6	23.5	36.7	26.4	25.7
Natco	191	20.7	21.6	27.4	6.9	7.5	10.2	4.9	5.1	7.1	35.3	34.8	27.5	33.0	27.6	28.2
Alembic	103	31.0	30.8	35.2	6.1	6.1	7.2	4.1	4.1	4.7	25.4	25.3	22.0	23.0	19.9	19.8
Jubilant	132	58.6	71.3	83.7	13.5	15.0	17.4	5.8	6.9	8.6	22.7	18.9	15.2	18.0	18.4	19.2
Shilpa Medicare	48	7.8	8.7	10.9	1.8	2.0	2.7	1.1	1.5	2.4	43.2	33.4	20.3	14.4	14.7	20.5
Strides	72	34.8	40.4	49.4	6.4	7.8	10.4	2.9	3.7	6.2	25.2	22.4	13.0	10.8	12.9	18.3
Granules	36	14.4	16.1	21.3	3.0	3.3	4.6	1.7	1.6	2.3	18.7	19.7	15.1	21.1	14.2	15.5
Laurus Labs	57	19.0	21.9	26.3	4.1	4.6	6.0	1.9	2.2	3.3	30.5	25.9	17.3	17.4	15.4	19.4

Source: Company, MOSL

Risks

- Delay in ANDA approvals may impact overall revenue growth and profitability.
- Higher than expected competition in ARV business may affect profitability.
- Regulatory hurdles may impact regulated market business.

About the company

LAURUS is an R&D-driven pharmaceutical company. It has grown consistently to become one of the leading manufacturers of APIs for anti-retroviral (ARV) and Hepatitis C. It has leveraged its strong process chemistry skills to provide synthesis services to global pharma companies and specialty ingredients for use in nutraceuticals, dietary supplements, and cosmetics. LAURUS is also forward integrating to sell formulations in regulated markets.

Key personnel



Dr Satyanarayana Chava, Founder & CEO

Dr Satyanarayana holds a Master's degree in Science from Andhra University. He was a research scholar at the College of Science and Technology, Andhra University from 1985 to 1992 and went on to obtain his PhD in 1992. He has overall experience of 23 years with companies like Ranbaxy, Vera labs, and Vorin Labs. He was also CEO of Matrix Laboratories. He has 103 patents filed across the world to his name.



Dr Raju S Kalidindi, ED & Head – Generics API & Ingredients

Dr Raju Srihari Kalidindi holds a Master's degree in Science from the University of Roorkee and a PhD from Andhra University. He has over 23 years of experience in Research and the Pharmaceutical industry, with more than 10 years at Hospira, Australia. His areas of expertise include R&D, operations, sourcing & business development. He has 11 patents filed across the world to his name. He has been a Director with LAURUS since April 2006.



Mr V V Ravi Kumar, ED & CFO

Mr V V Ravikumar is a member of the ICWAI. He also holds a Master's degree in Commerce from Andhra University. He has over 25 years of experience in the field of finance. Prior to joining LAURUS, he was the Vice President – Finance of Matrix Laboratories. He oversees the Finance and Human Resources functions at LAURUS. He has also handled Supply Chain Management for a significant time. He has been a Director with LAURUS since November 2006.



Mr Chandrakanth Chereddi, ED & Head – Generics FDF & Synthesis

Mr Chandrakanth Chereddi oversees Strategy and Operations. He holds a Master's degree in Science in Electrical and Computer Engineering from the University of Illinois. He has over eight years of experience in the field of project management. Prior to joining LAURUS, he was an associate with McKinsey & Company. He has been associated with LAURUS since February 2012 and a Director since August 2016.



Dr Lakshman Chunduru, Ex VP - Quality

Dr Lakshmana Rao C V has been associated with LAURUS since February 2007. He holds a Master's degree in Science and a PhD from the Andhra University. He has over 13 years of experience in product development. Before joining LAURUS, he was associated with Mayne Health Pty Ltd.

Annexure 1: Combinations of products used to treat HIV

Medically, two ways to stop spread of virus in human body

Both the NRTIs (Nucleoside reverse transcriptase inhibitor) and the NNRTIs (Non-nucleoside reverse transcriptase inhibitor) interact with the reverse transcriptase to stop its working. This stops the replication of HIV and the virus in the body. The difference between NNRTIs and NRTIs is how they stop reverse transcriptase from working.

NRTIs work in different ways, but one of the main ways is to compete with reverse transcriptase for their interaction site with HIV genetic material. This is like trying to zip up a jacket with more than one set of zips. So NRTIs are like another zip giving the zipper another track to follow.

NNRTIs work by sitting in a binding site in the virus structure and this is a bit like having an object that blocks the teeth of the zipper, so the zipper cannot get past the block.

The most preferred NNRTI treatment is EFV (Efavirenz) and EFV based combination, followed by NVP (Nevirapine) based combination. Both these treatments are expected to lose their market to DTG in the coming years. DTG is expected to have 59% market share by 2021.

TDF (Tenofovir Disproxil Fumarate) based combination is the most preferred NRTI treatment, accounting for almost 85% share in 2017. TDF is expected to remain the dominant drug, maintaining 80% of the first-line market. However, in subsequent years, TAF is expected to almost completely replace TDF due to its price and clinical advantages.

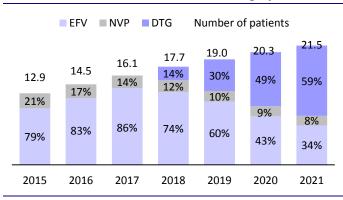
EFV volume at risk due to lower dosage requirement and better alternative

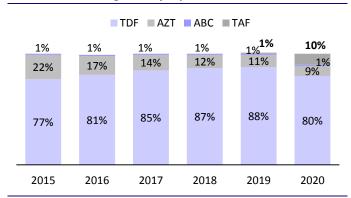
According to the ARV market report, it is estimated that Efavirenz (EFV) volume would reduce due to continued momentum around accelerated development and market availability of EFV400 (reduced dose) compared to current dose of EFV600. In addition, WHO guidelines have included EFV400 as alternative option in first line. Pharmacokinetic (PK) studies in pregnant women and TB co-infected patients for EFV400 are also underway. If the test results are favorable, then WHO would be able to suggest this option as the preferred treatment dose without restrictions in the next guidelines.

Also, DTG has been recommended as an alternate for first-line adult treatment in 2015 WHO guidelines. The superiority of DTG and better tolerability over EFV also implies that offtake of EFV would be lower, going forward.

Exhibit 32: DTG's share to rise in NNRTI category

Exhibit 33: TAF to gradually replace TDF





Source: CHAI Source: CHAI

Higher cost of other drugs may lead to sustained offtake of EFV over medium term

Tenofovir, Lamivudine and Efavirenz combination is the current preferred choice of treatment. There is enough scope for adding Dolutegravir to be used in combination replacing Efavirenz due to superior efficacy.

About 40-50% of HIV patients are infected by TB also. For HIV/TB patients, the preferred course of treatment involves a single-tablet regimen of Dolutegravir and triple combination of Dolutegravir, Lamivudine and Tenofovir. This is costlier compared to the existing Tenofovir, Lamivudine and Efavirenz combination.

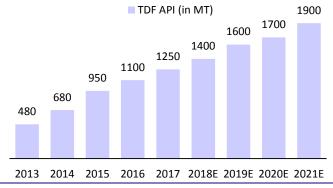
LAURUS positioned well for business opportunity from any of the products

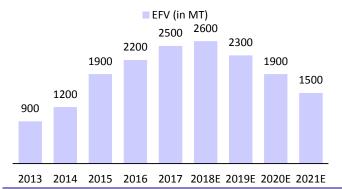
Also, ongoing efforts by various agencies to have additional patients treated by first-line drugs would aid growth in combination drugs, providing a business opportunity for LAURUS.

Even if the cost of Dolutegravir based combination reduces going forward, LAURUS is prepared to supply Dolutegravir and triple combination API at the lowest cost to gain maximum share of business.

Tenofovir-based regimens are projected to continue growing in market share. Tenofovir Alafenamide Fumarate (TAF) is an alternative pro-drug of Tenofovir, with the potential to reduce treatment costs.

Exhibit 34: TDF demand to remain robust over medium term Exhibit 35: EFV volume offtake to be on downtrend

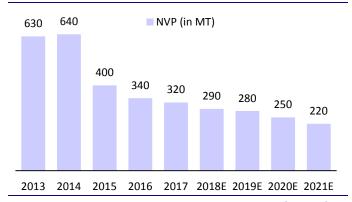


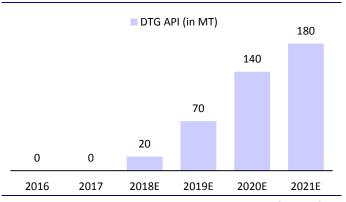


Source: CHAI Source: CHAI

Exhibit 36: NVP volume declining, as it is no more part of WHO regime

Exhibit 37: DTG volume to pick up from FY19



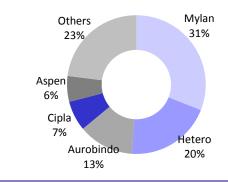


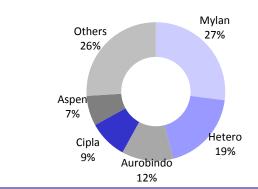
Source: CHAI Source: CHAI

Approximately 93% of the GA LMIC ARV market is captured by the generic formulation players and innovators have a small share of approximately 7%. The generic market participants (Mylan Laboratories Limited, Hetero Drugs Limited, Aurobindo Pharma Limited, and Cipla Limited) controlled approximately 70% of the market share both in terms of revenue and volume in 2014 and other generic Indian formulation manufacturers accounted for approximately 6% of the market share by volume and revenue. A smaller share of 17% is captured by the non-Indian generic manufacturers and distributors, of which approximately 40-41% by volume was captured by Aspen Pharma Limited.

Exhibit 38: Market share by revenue of formulators

Exhibit 39: Market share by volume of formulators





Source: Industry Source: Industry

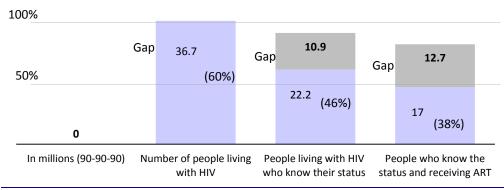
Annexure 2: Commercial aspect of HIV medicines

Government as well as private agencies targets to maximum patients on ART

With its new "treat all" recommendation, the WHO has removed all limitations on eligibility for antiretroviral therapy (ART) among people living with HIV. With this, the number of people eligible for ART has increased from 28m to all 37m.

The 90–90–90 targets include 90% of the people living with HIV that know their HIV status, 90% of the people who know their HIV status that are receiving ART, and 90% of the people receiving ART that have suppressed viral loads.

Exhibit 40: 54% HIV patients in 2015 were yet to receive ART in the 90-90-90 targets

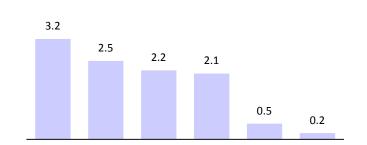


Source: WHO

Scale-up of ART is on a fast-track trajectory that has surpassed expectations. Global coverage of ART reached 46% at the end of 2015. Gains were greatest in the world's most affected regions – eastern and southern Africa.

The 90-90-90 targets aim at reducing number of people acquiring HIV to less than 0.5m by 2020 and less than 0.2m by 2030.

Exhibit 41: The number of people newly infected to go down **Exhibit 42: Treatment coverage doubling every five years**



2015

2020

2030

Source: WHO

2010

2000

2005

Annual number of people newly infected with HIV (in Millions)

33 30 23.5 21.5 19.4 14.2

2016

-O-Cumulative Number of People on ART (In Millions)

2017E Source: WHO

2018E 2020E 2030E

The global number of people receiving ART rose by nearly 2.5x from 2010, when 7.5m people were receiving ART to 18.2m in mid-2016. However, almost 20m people living with HIV were not receiving ART at the end of 2015, and many people

2014

2015

2013

28 16 January 2018

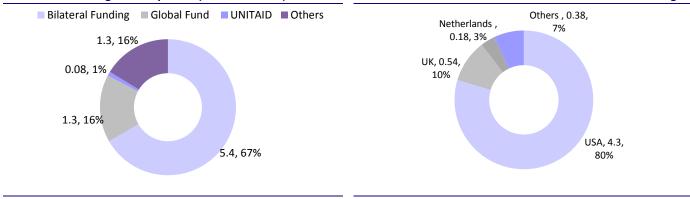
are not being retained on treatment and in care. At best, the world has only just passed the halfway mark towards ending the AIDS epidemic by the end of 2015. The fast-track targets call for reducing the number of people dying from HIV-related causes to less than 0.5m globally in 2020. This will require almost doubling the number of people receiving ART within five years from an estimated 18.2m in mid-2016 to about 30m in 2020.

Scarce funding compared to demand determines business opportunity for ARV drugs manufacturers

Despite significant progress in combatting HIV, driven in large part by increased investments, the epidemic remains a global emergency and several challenges threaten future progress. One such challenge is an ongoing resource gap; UNAIDS estimates that although USD19.1b from both international and domestic sources was available to address HIV in low-and-middle-income countries in 2016, USD26.2b will be needed annually by 2020 (to be gradually reduced by 9% by 2030) to meet global targets to end AIDS as a global public health threat by 2030. While funding from all sources is critical to achieving further progress, funding from donor governments represents a significant share of the total and is particularly important in the lowest income countries.

Exhibit 43: Funding break-up 2016 (total: USD8.1b)

Exhibit 44: US and UK account for 90% of bilateral funding

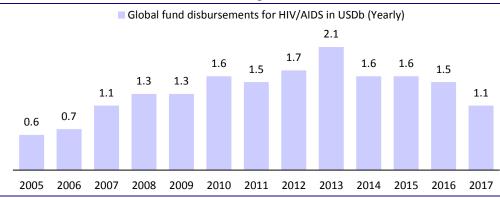


Source: UNAIDS Source: UNAIDS

Donor government funding for HIV in low-and-middle-income countries declined by USD511m in 2016, dropping from USD7.5b in 2015 to USD7b in 2016 (-7%). The 2016 decline is due to several factors: actual decreases in both bilateral and multilateral funding, accounting for an approximate net 50% of the decline; exchange rate fluctuations (20%); and the timing of US contributions to the Global Fund (30%) due to US law that limits its funding to one-third of total contributions to the Global Fund.

The Global Fund, the single largest financier for HIV, provides more than 20% of all international financing for HIV programs, and has disbursed more than USD18.1b for HIV programs in more than 100 countries over 2002-17 (this does not include TB/HIV programs).

Exhibit 45: Global fund disbursements declining



Source: Global Fund

Large portions of Global Fund spend go into buying of ARVs (78% of total contributions in 2015). Roughly 11m out of 18.2m people in 2016 were on ARV treatment through Global Fund supported programs.

Exhibit 46: Global Fund spend break-up in 2015

125, 12%

40, 4%

Diagnostics

Prevention

60, 6%

Medicines for opportunistic infections

Exhibit 47: More than 50% people on ARV are through GF

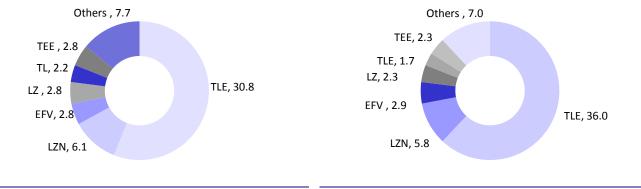
-O-People currently on ARV therapy through Global Fund Supported Programs (In Millions) 11.0 9.2 8.0 6.5 5.3 3.5 3.1 0 2010 2011 2012 2013 2014 2015 2016

Source: Global Fund Source: Global Fund

55m ARV packs were procured by the Global Fund in 2015 and roughly 58m in 2016. Within different combination of ARV packs, TLE combination had the maximum procurement of around 36m packs in 2016. This was for adults as well as children

Exhibit 48: ARV packs demand by GF in 2015 (in millions)



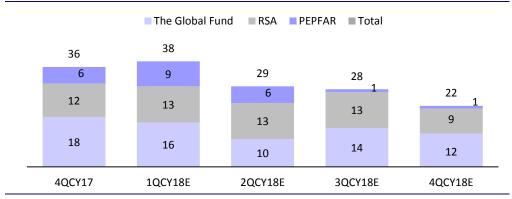


Source: Global Fund Source: Global Fund

Note: TDF – Tenofovir Disproxil Fumarate, 3TC - Lamivudine, EFV - Efavirenz, TLE – TDF+3TC+EFV, LZ - Lamivudine-Zidovudine, ZLN – Zidovudine-Emitricitabine-Nevirapine, FTC - Emitrcitabine, TEE – TDF+FTC+EFV

In terms of purchasers, The Global Fund, the RSA and PEPFAR are the biggest buyers of ARV products. It is expected that together they will purchase approximately 117m ARV packs in 2018.

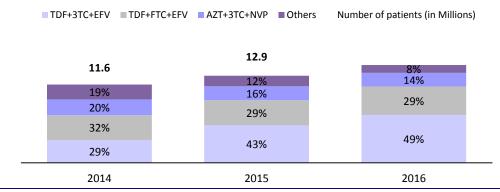
Exhibit 50: Overall demand forecast for ARV packs of three major buyers



Source: PEPFAR, RSA, Global Fund

Within the ARV packs procured, the three most preferred treatments are **TLE, ZLN** and **TEE** as highlighted in exhibit 39 and 41.

Exhibit 51: First-line adult regimens in GA LMIC; patient growth and share



Source: CHAI

Financials and Valuations

Y/E March	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Total Income from Operations	7,185	11,597	13,266	17,776	19,046	21,857	26,308	30,279
Change (%)	59.4	61.4	14.4	34.0	7.1	14.8	20.4	15.1
Raw Materials	4,123	7,259	8,284	10,082	9,968	11,519	13,417	15,321
Employees Cost	764	1,041	1,328	1,885	2,462	2,826	3,401	3,914
Other Expenses	851	1,208	1,652	2,187	2,540	2,929	3,446	3,967
Total Expenditure	5,737	9,509	11,264	14,154	14,970	17,273	20,264	23,202
% of Sales	79.8	82.0	84.9	79.6	78.6	79.0	77.0	76.6
EBITDA	1,448	2,089	2,002	3,622	4,076	4,584	6,043	7,077
Margin (%)	20.2	18.0	15.1	20.4	21.4	21.0	23.0	23.4
Depreciation	226	329	615	864	1,060	1,228	1,432	1,636
EBIT	1,222	1,760	1,387	2,758	3,016	3,356	4,611	5,441
Int. and Finance Charges	412	639	1,062	1,111	999	731	772	763
Other Income	51	88	341	44	334	306	395	424
PBT bef. EO Exp.	861	1,209	666	1,690	2,352	2,931	4,234	5,102
EO Items	0	0	0	0	0	0	0	0
PBT after EO Exp.	861	1,209	666	1,690	2,352	2,931	4,234	5,102
Total Tax	-21	236	-15	349	439	703	910	1,097
Tax Rate (%)	-2.5	19.6	-2.3	20.6	18.7	24.0	21.5	21.5
Minority Interest	0	0	-2	4	11	11	12	12
Reported PAT	882	972	683	1,337	1,903	2,216	3,312	3,993
Adjusted PAT	882	972	683	1,337	1,903	2,216	3,312	3,993
Change (%)	308.9	10.2	-29.7	95.7	42.3	16.5	49.4	20.6
Margin (%)	12.3	8.4	5.2	7.5	10.0	10.1	12.6	13.2
Consolidated - Balance Sheet							(IN	R Million
Y/E March	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Equity Share Capital	152	154	155	158	1,058	1,058	1,058	1,058
Preference Capital	625	625	666	666	0	0	0	0
Total Reserves	1,816	2,806	6,419	7,744	12,247	14,419	17,665	21,578
Net Worth	2,593	3,584	7,241	8,568	13,304	15,477	18,723	22,636
Minority Interest	0	0	0	0	0	0	0	0
Total Loans	2,921	5,428	8,211	10,277	8,417	9,417	9,417	9,417
Deferred Tax Liabilities	-118	118	113	-549	-699	-699	-699	-699
Capital Employed	5,396	9,131	15,565	18,296	21,023	24,195	27,441	31,355
Gross Block	3,303	6,230	9,865	11,063	14,088	16,609	19,189	21,705
Less: Accum. Deprn.	948	1,240	1,855	853	1,886	3,114	4,546	6,182
Net Fixed Assets	2,356	4,989	8,010	10,210	12,202	13,495	14,643	15,523
Goodwill on Consolidation	0	3	0	0	97	97	97	97
Capital WIP	728	1,161	1,097	696	1,433	1,662	1,582	1,566
Total Investments	0	0	74	70	34	34	34	34
Curr. Assets, Loans&Adv.	3,833	6,578	9,757	10,710	12,069	14,446	17,659	21,679
Inventory	1,562	3,281	4,755	4,871	5,090	5,874	6,891	7,890
Account Receivables	1,567	1,949	2,851	4,449	5,676	6,813	8,633	10,766
Cash and Bank Balance	27	232	589	288	41	311	392	1,018
Loans and Advances	678	1,117	1,562	1,103	1,262	1,448	1,743	2,006
Curr. Liability & Prov.	1,521	3,601	3,373	3,390	4,812	5,539	6,574	7,545
Account Payables	1,322	2,275	2,308	2,476	2,631	3,036	3,561	4,078
/ (CCOunt i dyubics								
Other Current Liabilities	114	1,218	922	770	1,988	2,282	2,746	3,161

Appl. of Funds
E: MOSL Estimates

Net Current Assets

Provisions

16 January 2018 32

85

2,312

5,396

109

2,977

9,131

143

6,383

15,565

144

7,320

18,296

193

7,257

21,023

221

8,907

24,195

266

11,085

27,441

307

14,134

31,355

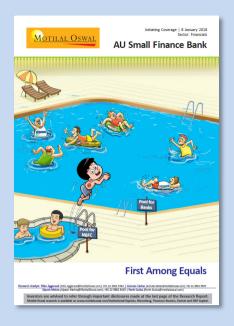
Financials and Valuations

Ratios								
Y/E March	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Basic (INR)	1113	1124	1113	1110	11127	11102	11132	11202
EPS	8.3	9.2	6.5	12.4	17.8	21.0	31.3	37.8
Cash EPS	10.5	12.3	12.3	20.6	27.8	32.6	44.9	53.2
BV/Share	24.5	33.9	68.5	81.0	125.8	146.3	177.0	214.0
DPS	0.0	0.0	0.0	0.3	0.3	0.3	0.5	0.6
Payout (%)	0.0	0.0	0.0	2.8	2.0	2.0	2.0	2.0
Valuation (x)			0.0					
P/E			82.3	42.8	29.9	25.4	17.0	14.1
Cash P/E			43.3	25.8	19.1	16.3	11.9	10.0
P/BV			7.8	6.6	4.2	3.6	3.0	2.5
EV/Sales			4.8	3.7	3.4	3.0	2.5	2.1
EV/EBITDA			31.9	18.3	15.9	14.3	10.8	9.1
Dividend Yield (%)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
FCF per share	-2.9	-17.5	-42.3	-13.6	5.2	-2.4	5.1	10.0
Return Ratios (%)								
RoE	41.2	31.5	12.6	16.9	17.4	15.4	19.4	19.3
RoCE	27.6	20.5	14.4	13.0	13.4	11.9	14.8	15.3
RoIC	36.7	25.4	14.0	14.6	13.5	12.2	15.2	15.8
Working Capital Ratios								
Fixed Asset Turnover (x)	2.2	1.9	1.3	1.6	1.4	1.3	1.4	1.4
Asset Turnover (x)	1.3	1.3	0.9	1.0	0.9	0.9	1.0	1.0
Inventory (Days)	79	103	131	100	98	98	96	95
Debtor (Days)	80	61	78	91	109	114	120	130
Creditor (Days)	67	72	64	51	50	51	49	49
Leverage Ratio (x)								
Current Ratio	2.5	1.8	2.9	3.2	2.5	2.6	2.7	2.9
Interest Cover Ratio	3.0	2.8	1.3	2.5	3.0	4.6	6.0	7.1
Net Debt/Equity	1.1	1.4	1.0	1.2	0.6	0.6	0.5	0.4
Consolidated - Cash Flow Statement							(INR	Million)
Y/E March	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
OP/(Loss) before Tax	861	1,209	666	1,690	2,352	2,931	4,234	5,102
Depreciation	226	329	615	864	1,060	1,228	1,432	1,636
Interest & Finance Charges	341	515	862	1,038	931	425	378	339
Direct Taxes Paid	-184	-234	-168	-333	-501	-703	-910	-1,097
(Inc)/Dec in WC	-405	-593	-2,507	-1,544	-525	-1,380	-2,096	-2,424
CF from Operations	839	1,225	-531	1,716	3,317	2,501	3,037	3,556
Others	43	-13	-116	103	3	0	0	0
CF from Operating incl EO	882	1,212	-647	1,820	3,320	2,501	3,037	3,556
(Inc)/Dec in FA	-1,186	-3,058	-3,821	-3,262	-2,774	-2,750	-2,500	-2,500
Free Cash Flow	-304	-1,846	-4,468	-1,443	546	-249	537	1,056
(Pur)/Sale of Investments	-57	-60	-148	140	-113	0	0	0
Others	59	-28	112	-34	-143	306	395	424
CF from Investments	-1,184	-3,146	-3,858	-3,156	-3,030	-2,444	-2,105	-2,076
Issue of Shares	0	1	2,944	3	2,860	0	0	0
Inc/(Dec) in Debt	669	2,503	2,745	2,063	-2,387	1,000	0	0
Interest Paid	-325	-474	-828	-1,033	-950	-731	-772	-763
Dividend Paid	0	0	0	0	-59	-44	-66	-80
Others	0	0	0	2	-1	-11	-12	-12
CF from Fin. Activity	344	2,030	4,861	1,035	-537	213	-850	-855
Inc/Dec of Cash	42	96	356	-301	-247	270	82	625
Opening Balance	93	136	232	588	287	40	311	392
Closing Balance	136	232	588	287	40	311	392	1,018

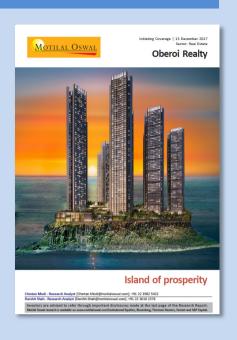
NOTES

REPORT GALLERY

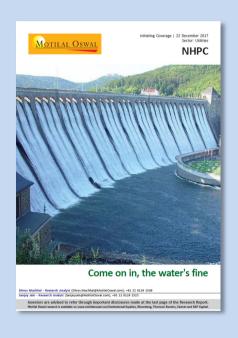
RECENT INITIATING COVERAGE REPORTS







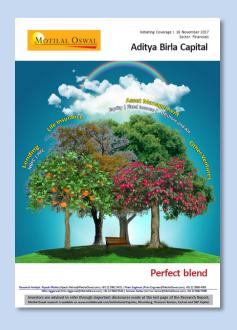












Disclosures:

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Securities Ltd. (MOSL) is a SEBI Registered Research Analyst having registration no. INH000000412, MOSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Investment Advisory Services, Depository participant services & distribution of various financial products. MOSL is a subsidiary company of Motilal Oswal Financial Service Ltd. (MOFSL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOSL is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Metropolitan Stock Exchange Of India Ltd. (MSE) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) & National Securities Depository Limited (NSDL) and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products. Details of associate entities of Motilal Oswal Securities Limited are available on the website at http://onlinereports.motilaloswal.com/Dormant/documents/Associate%20Details.pdf

Pending Regulatory Enquiries against Motilal Oswal Securities Limited by SEBI:

SEBI pursuant to a complaint from client Shri C.R. Mohanraj alleging unauthorized trading, issued a letter dated 29th April 2014 to MOSL notifying appointment of an Adjudicating Officer as per SEBI regulations to hold inquiry and adjudge violation of SEBI Regulations; MOSL requested SEBI to provide all documents, records, investigation report relied upon by SEBI which were referred in Show Cause Notice. The matter is currently pending.

MOSL, it's associates, Research Analyst or their relative may have any financial interest in the subject company. MOSL and/or its associates and/or Research Analyst may have beneficial ownership of 1% or more securities in the subject company at the end of the month immediately preceding the date of publication of the Research Report. MOSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report. Research Analyst may have served as director/officer, etc. in the subject company in the last 12 month period. MOSL and/or its associates may have received any compensation from the subject company in the past 12 months.

In the last 12 months period ending on the last day of the month immediately preceding the date of publication of this research report, MOSL or any of its associates may have:

- managed or co-managed public offering of securities from subject company of this research report, received compensation for investment banking or merchant banking or brokerage services from subject company of this research report,
- received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report.
- d) Subject Company may have been a client of MOSL or its associates during twelve months preceding the date of distribution of the research report.

MOSL and it's associates have not received any compensation or other benefits from the subject company or third party in connection with the research report. To enhance transparency, MOSL has incorporated a Disclosure of Interest Statement in this document. This should, however, not be treated as endorsement of the views expressed in the report. MOSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions.

Terms & Conditions:

b)

This report has been prepared by MOSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOSL will not treat recipients as customers by virtue of their receiving this report.

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Disclosure of Interest Statement

Laurus Labs Analyst ownership of the stock

No

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOSL research activity and therefore it can have an independent view with regards to subject company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Securities (SEBI Reg No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.

Motilal Oswal Securities Limited (MOSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under advisers and under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under advisers act of 1940 as a mended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under advisers act of 1940 as a mended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under advisers act of 1940 as a mended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under advisers act of 1940 as a mended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under advisers act of 1940 as a mended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under advisers act of 1940 as a mended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under advisers act of 1940 as a mended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under advisers act of 1940 as a mended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under advisers act of 1940 as a mended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under advisers act of 1940 as a mended (the "Advisers Act" and together with the 1934 Act, the "Acts" and together with the 1934 persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore

Motilal Oswal Capital Markets Singapore Pte Limited is acting as an exempt financial advisor under section 23(1)(f) of the Financial Advisers Act(FAA) read with regulation 17(1)(d) of the Financial Advisors Regulations and is a subsidiary of Motilal Oswal Securities Limited in India. This research is distributed in Singapore by Motilal Oswal Capital Markets Singapore Pte Limited and it is only directed in Singapore to accredited investors, as defined in the Financial Advisers Regulations and the Securities and Futures Act (Chapter 289), as amended from time to time. In respect of any matter arising from or in connection with the research you could contact the following representatives of Motilal Oswal Capital Markets Singapore Pte Limited:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022-3980 4263; www.motilaloswal.com. Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 3080 1000. Compliance Officer: Neeraj Agarwal, Email Id: na@motilaloswal.com, Contact No::022-30801085.

Registration details of group entities.: MOSL: SEBI Registration: INZ000158836 (BSE/NSE/MSE); CDSL: IN-DP-16-2015; NSDL: IN-DP-NSDL-152-2000; Research Analyst: INH000000412. AMFI: ARN 17397. Investment Adviser: INA000007100. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670) offers PMS and Mutual Funds products. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) offers wealth management solutions. *Motilal Oswal Securities Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance and IPO products. * Motilal Oswal Commodities Broker Pvt. Ltd. offers Commodities Products. * Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. offers Real Estate products. * Motilal Oswal Private Equity Investment Advisors Pvt. Ltd. offers Private **Equity products**