

Healthcare

Pharmeasy: HealthTech Player with Supply Chain Presence

10 December 2021

Key Takeaway

API Holdings is India's largest digital healthcare platform with FY21 GMV of USD1.05bn. B2C operations added 21% to FY21 GMV while 72% was B2B. API serves as a wholesaler of pharma and OTC products using Retailio 1P (30% of GMV), as distributor using Retailio 3P (35%) and as medical supplier to hospitals/clinics using Aknamed (8%). Other major services for the company are diagnostics (Thyrocare), ERP systems (Redbook & Marg ERP), EMR & Teleconsult (Docon).

API Holdings Limited is India's largest digital healthcare firm based on FY21 GMV of USD1.05bn. The company provides services like teleconsultation, diagnostics, B2B and B2C sale of pharma products, EMR systems. API is the parent entity of various healthcare platforms like Retailio, Redbook, Aknamed and Thyrocare.

API is the brand owner of Pharmeasy, marketplace run by Axelia: API holding's wholly owned subsidiary Threpsi Solutions is the owner of the Pharmeasy brand. Threpsi Solutions has licensed the brand Pharmeasy to Axelia that operates the Pharmeasy marketplace. Axelia is 100% owned by Aarman Solutions and API holding has 19.99% stake in Aarman Solutions. The marketplace is the largest epharmacy platform in India by GMV and had a registered userbase of 25m as of Jun-21. In FY21/1QFY22, 8.8m/4.4m orders were transacted on the platform by 2.4m/2.1m unique customers resulting in GMV of INR10.6bn/5.2bn. As of Jun-21, 58% customers on the platform were from Tier II, III cities.

API Holding's B2B ops account for more than 2/3rd of total GMV: In FY21, 35% of API's GMV came from Retailio 3P (third party), a digital platform used by pharmacies to order medicines. Retailio 1P (first party) accounted for 30% of GMV where API serves like a wholesaler; procures a wide range of pharma & OTC products directly from manufacturers and delivers them to retailers. As of Jun-21, 3,261 wholesalers (~5% of all domestic pharma wholesalers) used Retailio to transact with 87,194 pharmacies (11% of all pharmacies in India). On the digital platform, Retailio 1P is listed as one of the wholesalers. API also acts as a medical supplier to hospitals, doctors, clinics and medical centres. The business was scaled-up by the acquisition of Aknamed in Sep-21 which serviced 926 hospitals in 1QFY22. Currently, Retailio 3P earns revenue through advertisements on the platform.

Other major areas of operation: API acquired Thyrocare in Sep-21 and has now become the largest diagnostic test provider by volume in the country. Thyrocare had a comprehensive portfolio of 283 diagnostics tests and 17 labs in India. API provides Electronic Medical Record (EMR), practice management software and teleconsult tools to doctors through its proprietary and AI driven predictive software called Docon (teleconsultation also available on mobile app Docon). During Jun-21, 4,617 prescribing doctors used Docon software and the teleconsultation tool.

India's HealthTech play is now getting integrated and most players are trying to provide various healthcare services under one roof. Though discounts remain important for attracting customers, equally important is the customer convenience, quality of service due to the innate nature of healthcare industry.

Abhishek Sharma *
Equity Analyst
+91 98196 86016
asharma9@jefferies.com

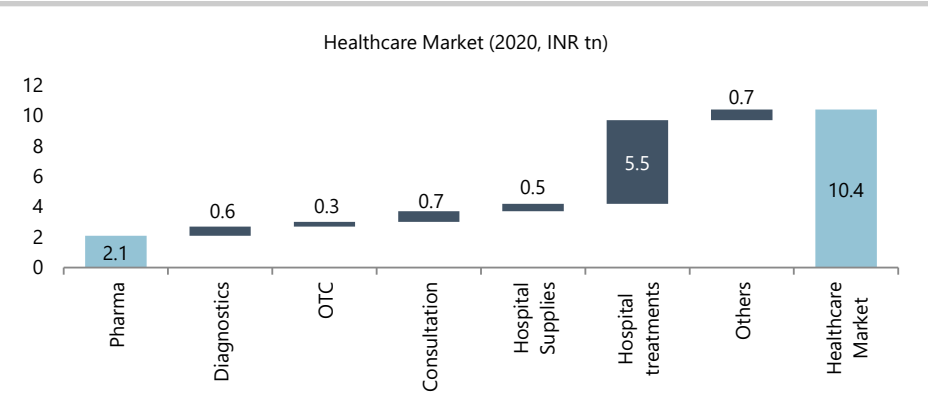
Dhawal Khut *
Equity Associate
+91 9619388649
dkhut@jefferies.com

^Prior trading day closing price unless otherwise noted.

Please see analyst certifications, important disclosure information, and information regarding the status of non-US analysts on pages 7 to 11 of this report.

* Jefferies India Private Limited

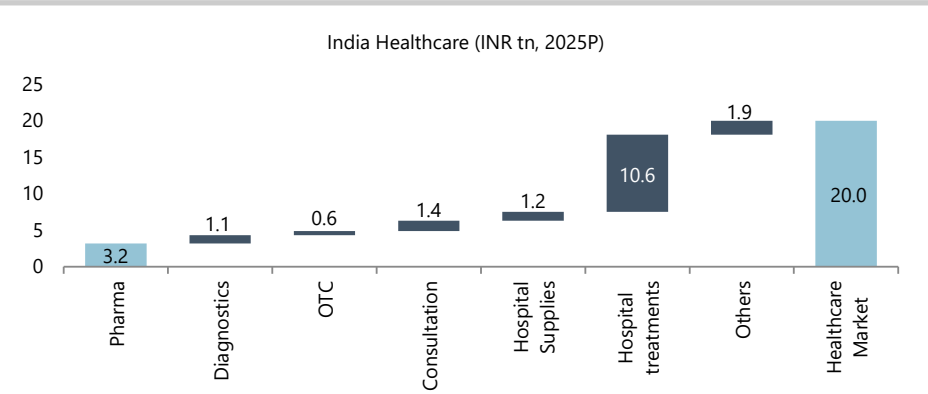
Exhibit 1 - As per RedSeer, India's current healthcare market size is estimated at ~USD149bn



Source: RedSeer, Jefferies

- 1. Pharma includes the pharma IPD portion of the hospital supplies mark
- 2. Hospital supplies only includes consumables, medical devices and equipment; pharma IPD has been included in pharma
- 3. Others includes medical insurance and alternative medicine

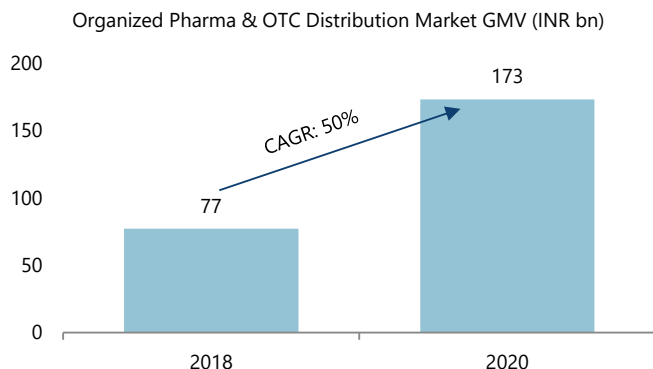
Exhibit 2 - By 2025, India's healthcare market is expected (by RedSeer) to reach USD267bn growing at 14% CAGR



Source: RedSeer, Jefferies

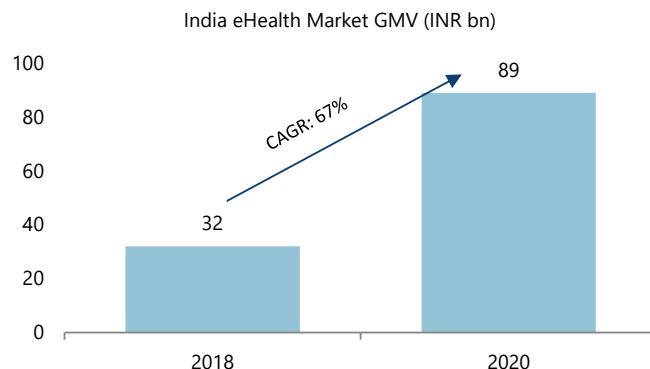
- 1. Pharma includes the pharma IPD portion of the hospital supplies market
- 2. Hospital supplies only includes consumables, medical devices and equipment; pharma IPD has been included in pharma
- 3. Others includes medical insurance and alternative medicine

Exhibit 3 - Organized pharma & OTC distribution has clocked 50% CAGR during 2018-20



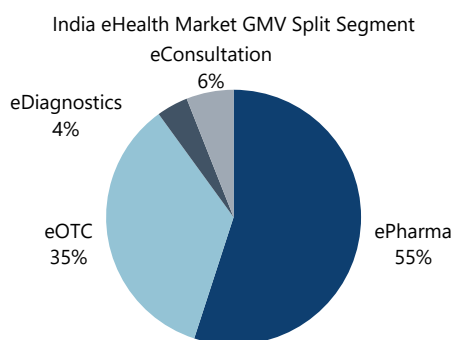
Source: RedSeer Research, Jefferies

Exhibit 4 - India eHealth GMV registered 67% CAGR in past two years



Source: RedSeer Research, Jefferies

Exhibit 5 - Pharma accounts for more than half of India's eHealth GMV



Source: Redseer Research, Jefferies

Note: GMV indicates gross GMV at selling price post discount

Exhibit 6 - API holding: Operational Snapshot

	Unit	Value
Total GMV (1) (2)	INR bn	78.7
Pro forma revenue (1)	INR bn	43.2
Active Pharmacies (3)	#	87,194
Active Wholesalers (3)	#	3,261
Prescribing Doctors (3)	#	4,617
Hospitals (4)	#	926
Digital Prescriptions generated (1)	Million	10.7
Daily Clinical Investigations (1)	#	565,000
eConsultations Conducted (1)	Million	3.4

Source: API Draft Red Herring Prospectus, Jefferies

1. For Fiscal 2021

2. GMV is defined as follows: (i) For products and services (other than Retailio 3P), GMV refers to API's revenue for such products and services as per API's books of accounts, grossed up for applicable taxes, (ii) for Retailio 3P, GMV refers to the gross merchandise value of products and services transacted using Retailio (excluding Retailio 1P GMV).

3. For the month of June 2021

4. For the three month period ended June 30, 2021.

Exhibit 7 - In FY21, 35% GMV was from Retailio 3P and 30% was from Retailio 1P

	Unit	FY20	FY21	1QFY22
Active pharmacies on Retailio (1)	#	47,527	80,449	87,194
Total Hospitals serviced by Aknamed (2)	#		780	926
GMV by products and services (3)				
Distribution to Retailers (A) + (B)	INRm	15,541	16,725	5,252
(A) On Pharameasy Market Place (4)	INRm	7,140	10,661	5,185
(B) Medlife digital distribution + Medlife digital pharmacy marketplace (5)	INRm	8,401	6,064	67
Retailio 1P (Distribution to Chemist/Institution)	INRm	19,934	23,418	7,821
Aknamed (Distribution to Hospital)	INRm	265	6,061	2,375
Retailio 3P (6)	INRm	10,329	27,139	13,013
Thyrocare diagnostics (7)	INRm	4,343	4,946	1,646
Medlife diagnostics	INRm	357	366	155
Total	INRm	50,769	78,655	30,263

Source: API Draft Red Herring Prospectus, Jefferies

1. For the month of March 2020, March 2021 and June 2021.

2. For the three month ended as of March 2020, March 2021 and June 2021. API acquired Aknamed effective September 2021.

3. GMV is defined as follows: (i) For products and services (other than Retailio 3P), GMV refers to API's revenue for such products and services as per API's books of accounts, grossed up for applicable taxes, (ii) for Retailio 3P, GMV refers to the gross merchandise value of products and services transacted using Retailio (excluding Retailio 1P GMV).

4. These retailers are typically registered sellers on the PharmEasy marketplace.

5. In January 2021, API acquired Medlife. Medlife's digital pharmacy business has since been integrated with PharmEasy

6. Retailio 3P GMV is the GMV of products transacted using Retailio (excluding Retailio 1P GMV).

In September 2021, we acquired Thyrocare.

Exhibit 8 - API holding has positive contribution margin

	FY21	1QFY22
	% of Pro Forma Revenue from Operations	
Pro Forma Revenue from Operations (A)	100%	100%
Cost of Material Consumed (B)	-4%	-3%
Purchases of Stock-in-Trade (C)	-85%	-91%
Changes in Inventories of Stock-in-Trade (D)	4%	8%
Warehousing and Lab Cost (E)	-8%	-7%
Other Direct Cost (F)	-2%	-2%
Direct Operating Costs (G=B+C+D+E+F)	-95%	-95%
Pro Forma Contribution Margin before sales promotion and marketing expense(H=A+G)	5%	5%

Source: API Draft Red Herring Prospectus, Jefferies

Exhibit 9 - Repeat transacting users went up from 0.8m in FY21 to 1.3m in 1QFY22

	Unit	FY20	FY21	1QFY22
Transacting users with fulfilled orders on PharmEasy	Million	2.0	2.4	2.1
Repeat transacting users with fulfilled orders on PharmEasy	Million	0.4	0.8	1.3
Unique users with fulfilled orders - Medlife	Million		1.7	0.5
Fulfilled Orders on PharmEasy	#	7,345,122	8,827,952	4,424,161
Fulfilled Orders on Medlife	#		5,738,136	869,187

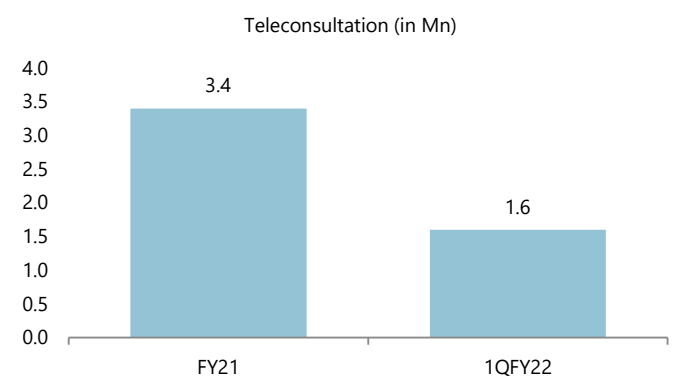
Source: API Draft Red Herring Prospectus, Jefferies

Exhibit 10 - 3.7 orders per transacting user were generated on an average in FY21

Consumer business Metrics	Units	Value
Total Registered users (as of June-21)	Million	25.0
Annual transacting users (FY21)	Million	2.4
Online Pharmacy orders Fulfilled (FY21)	Million	8.8
Share of Repeat User GMV (1QFY22)	%	79.0%
Pin Code Coverage (for Jun-21)	%	97.3%
Share of Orders outside top 50 Indian cities (1QFY22)	%	37.8%

Source: API Draft Red Herring Prospectus, Jefferies

Exhibit 11 - Covid 2nd wave led to lot of traction for Teleconsultations



Source: API Draft Red Herring Prospectus, Jefferies

Exhibit 13 - Business per retained customers goes 3x in 3 years time on Pharmeasy

Pharmeasy Cohorts - GMV per Retained User				
	Y1	Y2	Y3	Y4
FY18	1.0x	3.0x	3.6x	3.1x
FY19	1.0x	2.8x	2.9x	
FY20	1.0x	2.7x		
FY21	1.0x			

Source: API Draft Red Herring Prospectus, Jefferies

GMV per User is at maximum retail price for all fulfilled orders

Exhibit 15 - API holding is a tech-driven company

Technology Metrics	Units	Value
Datapoints processed daily (for Jun-21)	Million	700+
Health Records Digitized (as of Jun-21)	Million	54.9
Products & Service Listings (for Jun-21)	Million	40+
End Users connected monthly (for Jun-21)	Million	17.40
Microservices provided (for Jun-21)	#	200+
ERP Software (at Wholesale) Integrated (as of Jun-21)	#	49

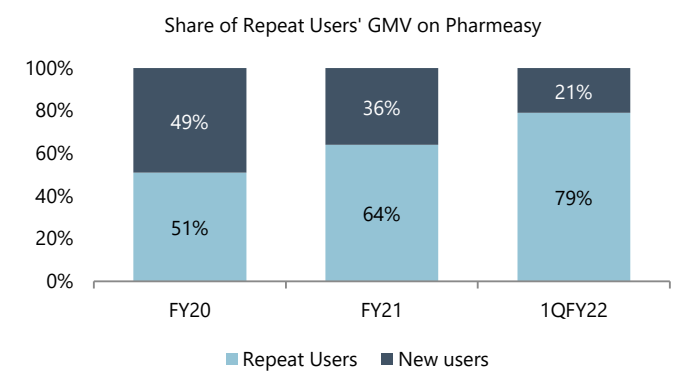
Source: API Draft Red Herring Prospectus, Jefferies

Exhibit 17 - API holding has 5,713 employees on its payroll

Employees by function	As of Jun-21
Technology and Product	481
Operations	2,924
Sales and sales enablement	1,674
Corporate Functions	634
Total	5,713

Source: API Draft Red Herring Prospectus, Jefferies

Exhibit 12 - Business from repeat users have continuously increased for Pharmeasy market place



Source: API Draft Red Herring Prospectus, Jefferies

Exhibit 14 - Even on Retailio platform GMV reaches 3x in 3 years

Retailio Cohorts - GMV per Retained Pharmacy			
	Y1	Y2	Y3
FY19	1.0x	3.0x	3.0x
FY20	1.0x	3.5x	
FY21	1.0x		

Source: API Draft Red Herring Prospectus, Jefferies

Exhibit 16 - API has pan India supply chain presence with 82 warehouses

Warehousing and Procurement Metrics	Values
Warehouses Pan India (as of Jun-21)	82
Warehouse Personnel (as of June-21)	10,886
Warehousing Space (Sq.ft) (as of Jun-21)	699,000
Last Mile Delivery Partners (for Jun-21)	1,879
Daily Delivery/Personnel (for Jun-21)	26.4
Daily Orders Fulfilled (for Jun-21)	76,000
Deliveries within 24 hours (for Jun-21)	85%

Source: API Draft Red Herring Prospectus, Jefferies

Exhibit 18 - API holding Proforma P&L statement

Proforma P&L INRm	FY21	1QFY22
Revenue from operations	43,192	15,689
Cost of material consumed	(1,624)	(523)
Purchases of stock-in-trade	(36,644)	(14,230)
Changes in inventories of stock-in-trade	1,512	1,199
Gross Profit	6,436	2,136
Gross Margin	15%	14%
Employee benefits expense	(5,279)	(1,863)
Other expenses	(9,201)	(2,874)
EBITDA	(8,044)	(2,601)
EBITDA Margin (%)	-19%	-17%
Depreciation and amortisation expense	(1,886)	(448)
EBIT	(9,930)	(3,049)
Other income	440	216
Finance costs	(4,471)	(1,310)
Impairment of Goodwill	(1,031)	-
Impairment of Software acquired through business acquisition	(53)	-
Share of profit / (loss) of associates	(1)	1
Exceptional items		(49)
PBT	(15,045)	(4,191)
Tax	(440)	(61)
Minority Interest	(116)	(294)
Profit for Majority	(15,601)	(4,547)

Source: API Draft Red Herring Prospectus, Jefferies

Analyst Certification:

I, Abhishek Sharma, certify that all of the views expressed in this research report accurately reflect my personal views about the subject security(ies) and subject company(ies). I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this research report.

I, Dhawal Khut, certify that all of the views expressed in this research report accurately reflect my personal views about the subject security(ies) and subject company(ies). I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this research report.

Registration of non-US analysts: Abhishek Sharma is employed by Jefferies India Private Limited, a non-US affiliate of Jefferies LLC and is not registered/qualified as a research analyst with FINRA. This analyst(s) may not be an associated person of Jefferies LLC, a FINRA member firm, and therefore may not be subject to the FINRA Rule 2241 and restrictions on communications with a subject company, public appearances and trading securities held by a research analyst.

Registration of non-US analysts: Dhawal Khut is employed by Jefferies India Private Limited, a non-US affiliate of Jefferies LLC and is not registered/qualified as a research analyst with FINRA. This analyst(s) may not be an associated person of Jefferies LLC, a FINRA member firm, and therefore may not be subject to the FINRA Rule 2241 and restrictions on communications with a subject company, public appearances and trading securities held by a research analyst.

As is the case with all Jefferies employees, the analyst(s) responsible for the coverage of the financial instruments discussed in this report receives compensation based in part on the overall performance of the firm, including investment banking income. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Aside from certain industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgement.

Investment Recommendation Record

(Article 3(1)e and Article 7 of MAR)

Recommendation Completion	December 10, 2021 , 12:36 ET.
Recommendation Distributed	December 10, 2021 , 12:36 ET.

Explanation of Jefferies Ratings

Buy - Describes securities that we expect to provide a total return (price appreciation plus yield) of 15% or more within a 12-month period.

Hold - Describes securities that we expect to provide a total return (price appreciation plus yield) of plus 15% or minus 10% within a 12-month period.

Underperform - Describes securities that we expect to provide a total return (price appreciation plus yield) of minus 10% or less within a 12-month period.

The expected total return (price appreciation plus yield) for Buy rated securities with an average security price consistently below \$10 is 20% or more within a 12-month period as these companies are typically more volatile than the overall stock market. For Hold rated securities with an average security price consistently below \$10, the expected total return (price appreciation plus yield) is plus or minus 20% within a 12-month period. For Underperform rated securities with an average security price consistently below \$10, the expected total return (price appreciation plus yield) is minus 20% or less within a 12-month period.

NR - The investment rating and price target have been temporarily suspended. Such suspensions are in compliance with applicable regulations and/or Jefferies policies.

CS - Coverage Suspended. Jefferies has suspended coverage of this company.

NC - Not covered. Jefferies does not cover this company.

Restricted - Describes issuers where, in conjunction with Jefferies engagement in certain transactions, company policy or applicable securities regulations prohibit certain types of communications, including investment recommendations.

Monitor - Describes securities whose company fundamentals and financials are being monitored, and for which no financial projections or opinions on the investment merits of the company are provided.

Valuation Methodology

Jefferies' methodology for assigning ratings may include the following: market capitalization, maturity, growth/value, volatility and expected total return over the next 12 months. The price targets are based on several methodologies, which may include, but are not restricted to, analyses of market risk, growth rate, revenue stream, discounted cash flow (DCF), EBITDA, EPS, cash flow (CF), free cash flow (FCF), EV/EBITDA, P/E, PE/growth, P/CF, P/FCF, premium (discount)/average group EV/EBITDA, premium (discount)/average group P/E, sum of the parts, net asset value, dividend returns, and return on equity (ROE) over the next 12 months.

Jefferies Franchise Picks

Jefferies Franchise Picks include stock selections from among the best stock ideas from our equity analysts over a 12 month period. Stock selection is based on fundamental analysis and may take into account other factors such as analyst conviction, differentiated analysis, a favorable risk/reward ratio and investment themes that Jefferies analysts are recommending. Jefferies Franchise Picks will include only Buy rated stocks and the number can vary depending on analyst recommendations for inclusion. Stocks will be added as new opportunities arise and removed when the reason for inclusion changes, the stock has met its desired return, if it is no longer rated Buy and/or if it triggers a stop loss. Stocks having 120 day volatility in the bottom quartile of S&P stocks will continue to have a 15% stop loss, and the remainder will have a 20% stop. Franchise Picks are not intended to represent a recommended portfolio of stocks and is not sector based, but we may note where we believe a Pick falls within an investment style such as growth or value.

Risks which may impede the achievement of our Price Target

This report was prepared for general circulation and does not provide investment recommendations specific to individual investors. As such, the financial instruments discussed in this report may not be suitable for all investors and investors must make their own investment decisions based upon their specific investment objectives and financial situation utilizing their own financial advisors as they deem necessary. Past performance of the financial instruments recommended in this report should not be taken as an indication or guarantee of future results. The price, value of, and income from, any of the financial instruments mentioned in this report can rise as well as fall and may be affected by changes in economic, financial and political factors. If a financial instrument is denominated in a currency other than the investor’s home currency, a change in exchange rates may adversely affect the price of, value of, or income derived from the financial instrument described in this report. In addition, investors in securities such as ADRs, whose values are affected by the currency of the underlying security, effectively assume currency risk.

Distribution of Ratings

Distribution of Ratings						
			IB Serv./Past12 Mos.		JIL Mkt Serv./Past12 Mos.	
	Count	Percent	Count	Percent	Count	Percent
BUY	1967	63.99%	157	7.98%	25	1.27%
HOLD	982	31.95%	30	3.05%	7	0.71%
UNDERPERFORM	125	4.07%	1	0.80%	0	0.00%

Other Important Disclosures

Jefferies does business and seeks to do business with companies covered in its research reports, and expects to receive or intends to seek compensation for investment banking services among other activities from such companies. As a result, investors should be aware that Jefferies may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Jefferies Equity Research refers to research reports produced by analysts employed by one of the following Jefferies Group LLC ("Jefferies") group companies:

United States: Jefferies LLC which is an SEC registered broker-dealer and a member of FINRA (and distributed by Jefferies Research Services, LLC, an SEC registered Investment Adviser, to clients paying separately for such research).

United Kingdom: Jefferies International Limited, which is authorized and regulated by the Financial Conduct Authority; registered in England and Wales No. 1978621; registered office: 100 Bishopsgate, London EC2N 4JL; telephone +44 (0)20 7029 8000; facsimile +44 (0)20 7029 8010.

Germany: Jefferies GmbH, which is authorized and regulated by the Bundesanstalt fuer Finanzdienstleistungsaufsicht, BaFin-ID: 10150151; registered office: Bockenheimer Landstr. 24, 60232 Frankfurt a.M., Germany; telephone: +49 (0) 69 719 1870

Hong Kong: Jefferies Hong Kong Limited, which is licensed by the Securities and Futures Commission of Hong Kong with CE number ATS546; located at Suite 2201, 22nd Floor, Cheung Kong Center, 2 Queen's Road Central, Hong Kong.

Singapore: Jefferies Singapore Limited, which is licensed by the Monetary Authority of Singapore; located at 80 Raffles Place #15-20, UOB Plaza 2, Singapore 048624, telephone: +65 6551 3950.

Japan: Jefferies (Japan) Limited, Tokyo Branch, which is a securities company registered by the Financial Services Agency of Japan and is a member of the Japan Securities Dealers Association; located at Tokyo Midtown Hibiya 30F Hibiya Mitsui Tower, 1-1-2 Yurakucho, Chiyoda-ku, Tokyo 100-0006; telephone +813 5251 6100; facsimile +813 5251 6101.

India: Jefferies India Private Limited (CIN - U74140MH2007PTC200509), licensed by the Securities and Exchange Board of India for: Stock Broker (NSE & BSE) INZ000243033, Research Analyst INH000000701 and Merchant Banker INM000011443, located at 42/43, 2 North Avenue, Maker Maxity, Bandra-Kurla Complex, Bandra (East), Mumbai 400 051, India; Tel +91 22 4356 6000.

Australia: Jefferies (Australia) Securities Pty Limited (ACN 610 977 074), which holds an Australian financial services license (AFSL 487263) and is located at Level 22, 60 Martin Place, Sydney NSW 2000; telephone +61 2 9364 2800.

This report was prepared by personnel who are associated with Jefferies (Jefferies International Limited, Jefferies GmbH, Jefferies Hong Kong Limited, Jefferies Singapore Limited, Jefferies (Japan) Limited, Tokyo Branch, Jefferies India Private Limited), Jefferies (Australia) Pty Ltd; or by personnel who are associated with both Jefferies LLC and Jefferies Research Services LLC ("JRS"). Jefferies LLC is a US registered broker-dealer and is affiliated with JRS, which is a US registered investment adviser. JRS does not create tailored or personalized research and all research provided by JRS is impersonal. If you are paying separately for this research, it is being provided to you by JRS. Otherwise, it is being provided by Jefferies LLC. Jefferies LLC, JRS, and their affiliates are collectively referred to below as "Jefferies". Jefferies may seek to do business with companies covered in this research report. As a result, investors should be aware that Jefferies may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only one of many factors in making their investment decisions. Specific conflict of interest and other disclosures that are required by FINRA and other rules are set forth in this disclosure section.

If you are receiving this report from a non-US Jefferies entity, please note the following: Unless prohibited by the provisions of Regulation S of the U.S. Securities Act of 1933, as amended, this material is distributed in the United States by Jefferies LLC, which accepts responsibility for its contents in accordance with the provisions of Rule 15a-6 under the US Securities Exchange Act of 1934, as amended. Transactions by or on behalf of any US person may only be effected through Jefferies LLC. In the United Kingdom and European Economic Area this report is issued and/or approved for distribution by Jefferies International Limited ("JIL") and/or Jefferies GmbH and is intended for use only by persons who have, or have been assessed as having, suitable professional experience and expertise, or by persons to whom it can be otherwise lawfully distributed.

JIL and Jefferies GmbH allows its analysts to undertake private consultancy work. JIL and Jefferies GmbH's conflicts management policy sets out the arrangements JIL and Jefferies GmbH employs to manage any potential conflicts of interest that may arise as a result of such consultancy work. Jefferies LLC, JIL, Jefferies GmbH and their affiliates, may make a market or provide liquidity in the financial instruments referred to in this report; and where they do make a market, such activity is disclosed specifically in this report under "company specific disclosures".

For Canadian investors, this material is intended for use only by professional or institutional investors. None of the investments or investment services mentioned or described herein is available to other persons or to anyone in Canada who is not a "Designated Institution" as defined by the Securities Act (Ontario). In Singapore, Jefferies Singapore Limited ("JSL") is regulated by the Monetary

Authority of Singapore. For investors in the Republic of Singapore, this material is provided by JSL pursuant to Regulation 32C of the Financial Advisers Regulations. The material contained in this document is intended solely for accredited, expert or institutional investors, as defined under the Securities and Futures Act (Cap. 289 of Singapore). If there are any matters arising from, or in connection with this material, please contact JSL, located at 80 Raffles Place #15-20, UOB Plaza 2, Singapore 048624, telephone: +65 6551 3950. In Japan, this material is issued and distributed by Jefferies (Japan) Limited to institutional investors only. In Hong Kong, this report is issued and approved by Jefferies Hong Kong Limited and is intended for use only by professional investors as defined in the Hong Kong Securities and Futures Ordinance and its subsidiary legislation. In the Republic of China (Taiwan), this report should not be distributed. The research in relation to this report is conducted outside the People's Republic of China ("PRC"). This report does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves. In India, this report is made available by Jefferies India Private Limited. In Australia, this report is issued and/or approved for distribution by, or on behalf of, Jefferies (Australia) Securities Pty Ltd. It is directed solely at wholesale clients within the meaning of the Corporations Act 2001 of Australia (the "Corporations Act"), in connection with their consideration of any investment or investment service that is the subject of this report. This report may contain general financial product advice. Where this report refers to a particular financial product, you should obtain a copy of the relevant product disclosure statement or offer document before making any decision in relation to the product. Recipients of this document in any other jurisdictions should inform themselves about and observe any applicable legal requirements in relation to the receipt of this document.

This report is not an offer or solicitation of an offer to buy or sell any security or derivative instrument, or to make any investment. Any opinion or estimate constitutes the preparer's best judgment as of the date of preparation, and is subject to change without notice. Jefferies assumes no obligation to maintain or update this report based on subsequent information and events. Jefferies, and their respective officers, directors, and employees, may have long or short positions in, or may buy or sell any of the securities, derivative instruments or other investments mentioned or described herein, either as agent or as principal for their own account. This material is provided solely for informational purposes and is not tailored to any recipient, and is not based on, and does not take into account, the particular investment objectives, portfolio holdings, strategy, financial situation, or needs of any recipient. As such, any advice or recommendation in this report may not be suitable for a particular recipient. Jefferies assumes recipients of this report are capable of evaluating the information contained herein and of exercising independent judgment. A recipient of this report should not make any investment decision without first considering whether any advice or recommendation in this report is suitable for the recipient based on the recipient's particular circumstances and, if appropriate or otherwise needed, seeking professional advice, including tax advice. Jefferies does not perform any suitability or other analysis to check whether an investment decision made by the recipient based on this report is consistent with a recipient's investment objectives, portfolio holdings, strategy, financial situation, or needs. By providing this report, neither JRS nor any other Jefferies entity accepts any authority, discretion, or control over the management of the recipient's assets. Any action taken by the recipient of this report, based on the information in the report, is at the recipient's sole judgment and risk. The recipient must perform his or her own independent review of any prospective investment. If the recipient uses the services of Jefferies LLC (or other affiliated broker-dealers), in connection with a purchase or sale of a security that is a subject of these materials, such broker-dealer may act as principal for its own accounts or as agent for another person. Only JRS is registered with the SEC as an investment adviser; and therefore neither Jefferies LLC nor any other Jefferies affiliate has any fiduciary duty in connection with distribution of these reports.

The price and value of the investments referred to herein and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments.

This report may contain forward looking statements that may be affected by inaccurate assumptions or by known or unknown risks, uncertainties, and other important factors. As a result, the actual results, events, performance or achievements of the financial product may be materially different from those expressed or implied in such statements.

This report has been prepared independently of any issuer of securities mentioned herein and not as agent of any issuer of securities. No Equity Research personnel have authority whatsoever to make any representations or warranty on behalf of the issuer(s). Any comments or statements made herein are those of the Jefferies entity producing this report and may differ from the views of other Jefferies entities.

This report may contain information obtained from third parties, including ratings from credit ratings agencies such as Standard & Poor's. Reproduction and distribution of third party content in any form is prohibited except with the prior written permission of the related third party. Jefferies does not guarantee the accuracy, completeness, timeliness or availability of any information, including ratings, and is not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained

from the use of such content. Third-party content providers give no express or implied warranties, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use. Neither Jefferies nor any third-party content provider shall be liable for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including lost income or profits and opportunity costs) in connection with any use of their content, including ratings. Credit ratings are statements of opinions and are not statements of fact or recommendations to purchase, hold or sell securities. They do not address the suitability of securities or the suitability of securities for investment purposes, and should not be relied on as investment advice.

Jefferies research reports are disseminated and available electronically, and, in some cases, also in printed form. Electronic research is simultaneously made available to all clients. This report or any portion hereof may not be reprinted, sold or redistributed without the written consent of Jefferies. Neither Jefferies nor any of its respective directors, officers or employees, is responsible for guaranteeing the financial success of any investment, or accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this report or its contents. Nothing herein shall be construed to waive any liability Jefferies has under applicable U.S. federal or state securities laws.

For Important Disclosure information relating to JRS, please see https://adviserinfo.sec.gov/IAPD/Content/Common/crd_iapd_Brochure.aspx?BRCHR_VRSN_ID=483878 and <https://adviserinfo.sec.gov/Firm/292142> or visit our website at <https://javatar.bluematrix.com/sellside/Disclosures.action>, or www.jefferies.com, or call 1.888.JEFFERIES.

© 2021 Jefferies Group LLC