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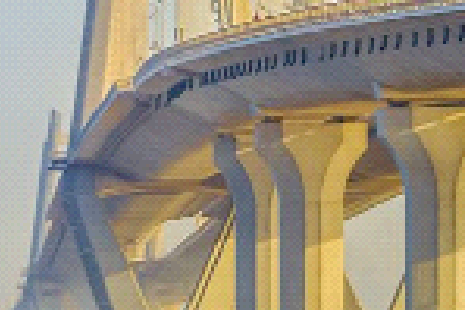
Aurum Small Cap Opportunities Quarterly Portfolio Update – Q1, FY 22

Dear Investor,

In Q1, the second covid wave hit India like a sudden tsunami with record no. of cases / deaths leaving healthcare infrastructure completely overwhelmed and economy reeling again due to lockdowns. Every one of us witnessed that scary moment where hospital beds and/or critical medicines were unavailable for a friend or family member. Yet again we were reminded of the bitter truth that Covid is here to stay and not going out of our lives anytime soon! Rural India, which had largely escaped the wrath of Covid in the first wave, also got impacted this time around. As we write this quarterly update, the early signs of a looming third wave are becoming visible with rising cases in some pockets and that too, of the highly virulent Delta variant. We do hope that the administration will be better prepared to handle the third wave and the increased vaccination coverage will help reduce severity of the infection.

Despite the overarching gloom created by the second wave and fear of a third wave, markets have shrugged off fears of any major economic impact on account of the same and have continued their upward march much to the surprise of economists and analysts alike. The optimism of investor fraternity can partly be explained by the fact that the informal to formal economy shift is in top gear, with stronger organized players being the biggest beneficiaries. However, the coming flood of IPOs (and that too at sky high valuations in most cases), definitely makes us cautious! ***As grey haired investment professionals, we have seen this movie many times before and don't want to get carried away by those saying that 'This time it is different'! Therefore, despite a continuing robust out performance of our small cap strategy over the last quarter, it would be best to mentally prepare ourselves for a volatile ride going forward and moderate short term return expectations.*** We however remain bullish for the long term and continue to discover superior ideas from time to time with potential to generate good returns over next 5 years.

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The Coming Global Healthcare Ecosystem Upgradation Opportunity

Fault lines prevalent in the healthcare systems were completely exposed as the pandemic spread, be it the developed economies or otherwise. We saw:

- Just in time and cost efficiency driven supply chains got disrupted leading to all kinds of shortages from drugs to PPE kits to oxygen plants to patient transportation
- Situation got further accentuated by shortage of medical personnel – doctors, nurses and other healthcare workers leading to complete breakdown of the healthcare infrastructure in many places across the world

As the population ages, democracies across the world realize that the healthcare systems need to be fixed as a climatically hotter world is likely to unleash more pathogens thereby creating pandemic like situations more often. The fixing of healthcare systems would require:

- Higher use of technology (IoT, AI, ML etc) in medical equipment, devices and diagnostics
- Flexibility / interoperability of the healthcare infrastructure
- Augmentation of healthcare personnel – doctors, nurses, technicians, support staff

We believe that over the next 5 years, this presents an over a trillion-dollar opportunity globally and a good chunk of it can be targeted by Indian companies.

In this quarterly update, we wish to share our thoughts on the Indian medical equipment and devices industry which we believe has strong growth prospects both in domestic and overseas markets and is well placed to capitalize on the global healthcare ecosystem upgrade opportunity.

Medical Equipment & Devices

The Indian pharmaceutical industry has achieved significant size and scale over the last two decades helping India become substantially self-sufficient and also emerge as the generic pharmacy for the world. On the other hand, medical equipment, devices & consumables (sometimes referred to as medtech also)

has been well behind the development and scale curve. Even today, we continue to be import or MNC dependent to the extent of 60-70% of medical equipment & consumables. However, we think this is slated to change over the next decade with global market dynamics and policy tailwinds playing in the industry's favour. We strongly believe that the Indian medical equipment industry is at the cusp of a high growth trajectory akin to the generic pharma growth that we saw in last 15 years.

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Medical Equipment and Devices ('MED') are a vast array of products defined to include all instruments, apparatus, implant, material or articles, including software & accessory (but not pharmacological, immunological or metabolic means), which may assist in diagnosis, prevention, monitoring, treatment or alleviation of any disease or injury or investigate, replace, support or modify any anatomical part, support life and control of conception.

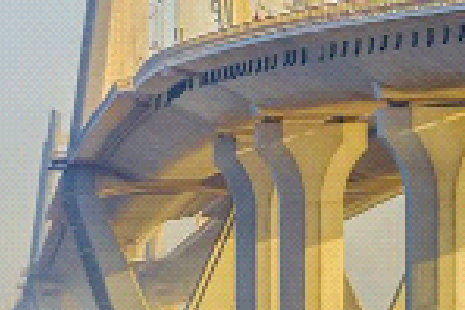
The size of **MED** space in India is ~ USD 11 bn (INR 82,000 cr), growing @ ~12-15% p.a. It is a derived demand industry, wherein the spend on hospital infra, other health care constituents & home care have a multiplier effect on the demand for MED. Going forward, we expect this growth to accelerate a bit on account of the following:

1. **Higher GDP allocation to health care translates into higher spend on MED:** Currently, India has an estimated 1.1 beds per 1,000 people (largely in top 50 cities), well below 3.5 beds per 1000 people recommended by WHO. We need to get to 2.5% of GDP spend on health care to address the paucity of health infrastructure. A significant %

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of the spend will go towards hard assets like hospitals, diagnostic labs & health care centres. Investment in each hospital bed will have a multiplier effect on labs & other health care centres. We estimate that MED will account for about 30-40% of overall capital spend in the health care sector.

2. **Higher 'single use' compliance:** Long back, needles used to be reused after boiling the same. Now we have single use needles & syringes and other consumables. However, in consumables like dialysis filters, single use compliance is still low. We expect single use compliance to go up as these products are locally produced and priced more accommodatively.
3. **Economic wellbeing & healthcare insurance penetration:** At USD 9 bn of health care insurance premia p.a., we as a country are woefully under insured. Even today a large part of the population faces the danger of sliding back into poverty because of 'out of pocket' emergency health care spend. To prevent this back slide and as a part of its 'health care for all' policy, Government enhanced health care coverage of the population through the implementation of PMJAY. It brought in ~ 25% of the bottom of the pyramid population under health insurance for secondary & tertiary treatment. With growing prosperity & demographic changes, we can expect health insurance to continue to grow @15-20% CAGR over the 10 years. Higher insurance penetration will translate into investment in preventive medical care & better quality of health care delivery, ultimately resulting in disproportionate MED spend.
4. **Global ageing:** As the developed economies like EU & Japan age, there is urgent need to ramp up its health care delivery specifically for the aging population. However, there are not enough number of locally qualified people available to fill this gap. This is a large opportunity for allied health care professionals from India like nurses, medical technicians and care givers, non-allopathic practitioners and wellness professionals. However, the usage of MED also is expected to go up especially in the areas of remote and self-diagnostics.
5. **Development of National Health Stack:** Like the finance & the agri stack, Gol is investing in developing a national




healthcare stack. The healthcare stack being developed by the Govt will have the following components;

- **National Health Electronic Registries:** Health data of the national population
- **Coverage and Claims platform:** National health insurance scheme, coverage, payment & fraud detection
- **Federated Personal Health Records (PHR) Framework:** Giving patients access to their health record and also use it for research & decision making
- **National Health Analytics Platform:** To enable smart policy making, through application of data science
- **Other horizontal Components:** This may include, unique Digital Health ID, Health Data Dictionaries and Supply Chain

Thus, the health stack would include two parts, namely; development of a data intensive, connected and adaptive healthcare system and micro mapping health care infrastructure & capabilities like bed & critical care equipment, hospital capability and various technologies and apps. It may also include telemedicine and AI-enabled decision support systems in the last mile delivery of primary care including screening, diagnosis, monitoring, evaluation, tele-consultation and decision support. All of this would be MED intensive with a strong technology /IT backbone.

The medical devices rule 2017-enabled domestic companies to develop, undertake clinical trials and obtain registration of their products unhampered by the rules applicable to development & production of pharma products.

6. **Enabling regulatory environment:** FY17 was landmark year for domestic medical equipment industry in India. In FY17, Medical Devices Rule 2017 was introduced which categorized medical devices as a sub category under Drug and Cosmetics Act 1940, with its own set of approval process and control. Post its introduction, the bill enabled domestic companies to develop, undertake clinical trials and obtain registration of their products unhampered by the rules applicable to development & production of pharma products. It also mandated imported equipment to be compulsorily registered within a time frame. **Secondly**, the trade margin for stents and joint implants was capped at ~ 30%. Post which, the market share of stents moved in favour of Indian companies from about 30% to 70%. Thus, given an equitable regulatory playing field, Indian companies can emerge as credible players in medical equipments like implant &

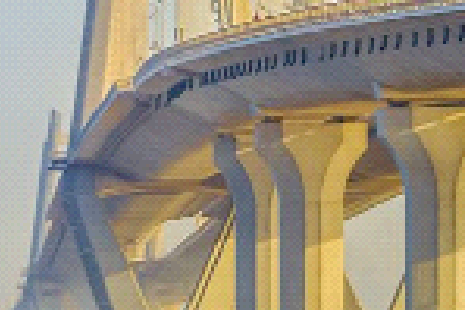


consumable and also in relatively less capital intensive equipment like patient monitors (home & hospital), dialysis machine, x ray imaging (diagnostic), defibrillator, oxygenators, diagnostic machines and critical care units. We are already seeing evidence of that with a large number of companies like Skanray, Medived, Transasia, Polymedicure and others manufacturing and successfully marketing relatively frugal but robust MED in India and globally.

7. **Development of national stockpile:** Lastly, in the aftermath of the 2nd wave of covid, government is contemplating creation of a national stockpile of critical care medicines and equipment. This could include antibiotics (azithromycin, doxycycline, etc.), steroids (dexamethasone) and equipment like nasal cannula, oxygen regulator, humidifier, ICU bed, multi parameter patient monitor, etc. to the extent of 25-30% of annual national demand. Countries like USA have such stockpile as a part of their disaster management exercise.

Indian MED landscape

As would be evident from the table 1 below, over the years we have seen the emergence of a large number of domestic companies, competing successfully and moving up the value chain, from mid to high technology implants & consumables and also in mid-priced medical equipment like X Ray, ECG, ventilator, dialysis, Patient Monitoring Machine, defibrillator, anesthesia equipment, lapro & endoscopy, ventilation, Ultra sonic surgery, haemodialyser, etc.



Segment	Product Type (Equipment / Consumable)	Segment Domination (Domestic Co.)	Segment Domination (MNC & Import)	Technology Application & Comments
Consumables	Suture, wound closure, needle & syringe	Sushrut Surgicals, Lotus Surgical, Hind Syringes	3M	Low. Highly fragmented
Consumables	Infusion & transfusion Therapy (Catheter, cannula, blood collection, etc.), wound closure	Polymedicure, Axiobio	BD, B Braun	Low to Medium. Still dominated by MNC products but emergence of players like Polymed & niche Axiobio
Diagnostic & Imaging	CT & PET Scan, MRI, USG probe, Scintigraphic & radiography unit		Varian, Siemens, GE	High. These are very capital intensive equipment with high level of service backup
Diagnostic, Imaging, Monitoring & others	X Ray, ECG, ventilator, dialysis, Patient Monitoring Machine, defibrillator, anaesthesia equipment, lapro & endoscopy, ventilation, Ultra sonic surgery, haemodiaslyser	Skarray, BPL, Opto Circuit, Nureca, Maestroes Electronics, Transasia, Biotec Lab, BEL	GE, Siemens, Omron, Philips, Medtronics, Stryker	Mid to High. While earlier this space was dominated by MNC, we have seen emergence of start-up and mid-tier Indian companies as well
Lab Diagnostic	Lab processing equipment		Siemens, Roche, GE	High. These are capital intensive, high through put diagnostic machines
Lab Diagnostic	Reagent & accessories		Roche, Siemens, Danaher, Abbot, BD, Bayer	Mid. Largely suppliers of machines also control the
Implants	Pacemaker, hearing aid, cochlear implant & stent, artificial joints & fixation device	J&J, Abbot, Stryker, Zimmer, Terumo,	Sahajanand, Meril, Medived, Relisys Miedical, TTK Healthcare	Mid to High. Indian companies have tasted success in this segment
Dental & Ophthalmic	Dental implant, artificial teeth, dentistry equipment & instruments	Mectron	3M, Bausch & Lomb	Niche

The above * table 1 is indicative and not exhaustive.



NRC's view of the way forward for Indian MED space

We have been looking at this space for some time and have been invested in one company for about 2 years. As mentioned above, we believe, this space will see the emergence of a number of credible Indian companies, including from the start up space.

While MNCs continue to dominate the entire space, we believe, the largest opportunity for Indian players are in the following areas:

- o Mid to high tech consumable equipment (catheter, dialyser, etc.)
- o Mid to high tech implants & orthopaedics(stent, joints, dental)
- o Mid tech and non-invasive equipment (monitoring, imaging & care)
- o New diagnostic solutions & re agents

Venture Capital investments in the medtech and health-tech companies have gone up manifold in the last few years in India and the same augurs well for this industry's growth. Many Indian companies have already made successful forays into global markets and have gained a decent foothold. With massive investments that are likely to go into upgrading the entire healthcare ecosystem, MED companies will remain at the forefront of capitalizing on the big spending while also creating visibility and better acceptance for Indian companies in the MED space over the long term. We expect MED companies to follow a similar growth trajectory as the Indian generic pharmaceutical industry and would like to participate in a few such growth stories in due course.

Looking forward to your continued support and encouragement.

Warm regards,

Sandeep Daga



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