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Aurum Small Cap Opportunities & Aurum Growth Portfolio 17th Quarterly Update – QE March 2017

Dear Investor,

Donald Trump, President of the US of A is yet to complete 100 days in office and is already the most divisive if not the most unpopular President of US in living memory! Travel ban, failed attempt to repeal Obama Care, H1B Visa uncertainty, Mexican Wall, acrimonious appointment of Judge to the Supreme Court of US, diplomatic goof ups and the Russian taint. A bag of muddled policy and execution failures!

Trump & his protectionist policies - A contrarian view!

However, let us look at him from an Indian business perspective. Much has been said about how the protectionist policies being unleashed by Donald Trump will negatively impact trade and Indian IT & Pharma sectors in particular. As we write this piece, Trump's attempt to repeal Obamacare had failed and tighter H1B visa screening norms have been introduced.

Indian Tech Sector

You would recollect that in our quarterly update of *September 2015*, we had highlighted how **tech automation** (software automation) was disrupting the software industry by rapidly shrinking the need for entry level coders and testers, who usually formed a large part of the 'labour arbitrage' workforce of traditional Indian IT services companies. A careful reading of the newly introduced H1B visa screening process reveals that it primarily targets this same category of tech workers. In essence, the threat of immigration bar is to that class of tech manpower that was anyway becoming redundant due to automation!



The H1B policy clamp down, we believe, is a 'silver lining' for the Indian tech industry and will hasten further migration of high end development work to India. For the record, neither was Obama administration in favour of indiscriminate immigration and had steeply hiked H1B visa fees. As can be seen from Chart 1, net additions at India's top IT firms have been coming down for a while. (FY15 was an aberration due to large hiring by Infosys). Progressive Indian IT companies had started re-modelling their business to accommodate more local hires and incorporate automation process in BPO, testing and RIM. As regards manpower with high level skills, there is a significant demand supply gap in the US and therefore any clampdown on immigration in this category can seriously enfeeble US business interests and leadership position in tech. We are willing to stick our neck out and say that once the current rhetoric of protectionism mellows down over next 6-9 months, it should be business as usual for Indian IT companies, with the companies themselves having reoriented their business processes.

We believe, the next generation of growth for Indian tech companies will come from moving to IP driven business models, focused on high end skills that target cloud computing, mobility, artificial intelligence, cyber security, virtual and augmented reality, among others. This policy clamp down, we believe, is a 'silver lining' for the Indian tech industry and will hasten further migration of high end development work to India.





*Chart 1: NRC Research





Pharmaceutical Sector

Trump has time and again emphasized on the need to bring down drug prices and also bringing back pharma manufacturing to the US. However, Trump's inability to repeal Obamacare speaks volumes about the complex dynamics of US healthcare, with powerful lobbies on both sides. We believe, that the only way to keep healthcare costs in check in US is to set up Standard Operating Procedures (SOP) for treatment and continue to encourage progressive usage of generics. Thus, we believe, Indian companies would continue to serve the large and expanding US health care market. Even more so, perhaps, as a large number of Indian companies move up the value chain from simple generics to complex generics. In fact, even before Trump the US FDA was proactively targeting SOP indiscipline of Indian drug companies. This, we believe, has made many companies future ready for US markets. Barring the need to tweak the business models somewhat, we do not foresee any negative fallout for Indian pharma.

Opportune time for India to accelerate reverse brain drain and be the next Silicon Valley

It is a well-known fact that Silicon Valley and its tech giants owe a large part of their success to Indian tech professionals and who in turn lead some of the largest companies in the world today. The main reason for this brain drain was lack of opportunities in India, further accentuated by a difficult environment to do business. With the advent of a vibrant tech investing ecosystem and a political dispensation that is focused on ease of doing business, this may be opportune time to accelerate the reverse brain drain that is already underway.

We are already seeing some indicators of this. As can be seen in Chart 2, there are a significant number of foreign educated Indians working in technology in India. We strongly believe that if the Government of the day continues to prioritize bureaucratic unshackling through e-Governance, further strengthens IPR laws and pushes forward economic reforms, India can witness a reverse brain drain of unimaginable proportion. Moreover, such a reverse brain drain will also be accompanied by inflow of risk capital from US (& other global) investors.

Foreign Educated Indians working in India



^{*}Chart 2: NRC Research

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When the sanctions post Pokhran were lifted, India had a robust eco system for defense, space and nuclear programs, with multi-billion dollar business opportunities and their spin off technology benefits. Something along similar lines may well play out in the face of immigration curbs to the US.

Can we Draw Clues from History?

Post Pokhran nuclear explosions in 1998, India was subjected to sanctions, led by US. It was feared that these sanctions would bring many of our defense, space and civil nuclear programs to a grinding halt. However, what followed was truly outstanding. Over the next 10 years, our otherwise bureaucratic DRDO labs in collaboration with the private sector, developed and inducted vital defense systems under Integrated Missile Development Program (Akash, Agni, Prithvi, Astra, etc) and the 4th generation fighter, Tejas. ISRO too developed a lot of import substitutes for its space program in collaboration with private companies. Globally, ISRO today, is one of the low cost service providers. Similarly, the domestic nuclear power program developed indigenous mission critical spare parts and components (eg. end shields & control rod drive mechanisms) to ensure continuity & serviceability of our nuclear power plants. Adversities notwithstanding, India continued to grow. Eventually when the sanctions were lifted, India had a robust eco system for defense, space and nuclear programs, with multi-billion dollar business opportunities and their spin off technology benefits. Something along similar lines may well play out in the face of immigration curbs to the US.





Industrial Automation

India is on a drive to create jobs through the 'Make in India' program. Similarly, Trump wants to bring manufacturing back to the US and thus create jobs. However, we believe, both in India and the US, investment in manufacturing and allied activity would be oriented towards automation. Consequently, creation of blue collar jobs will not be as anticipated or in the same ratio and proportion as in the past.

So, what is '*automation*' and how is this different from '*mechanization*' of the past?

Mechanization is the use of machines to reduce human labour. Industrial automation is the use of various control systems (with embedded logic or software) for operating machinery and other applications so as to reduce or eliminate human intervention. Thus, to that extent automation is use of machines (mechanization) with embedded intelligence so as to further reduce direct human intervention.

To begin with, the impact of automation is being felt more in industries that entail a lot of routine work. Even jobs that require a high level of training are not immune from the impact – as most jobs can be broken down into a series of routine tasks. There seems to be a general consensus that manufacturing and retail and ancillary industries would be amongst the first ones to be impacted.

Higher levels of automation are driven by two factors, namely; lower cost of automation and progressively higher cost of labour with relatively lower productivity gains. While the cost comparison is often with direct labour cost, the real comparison should be with other manufacturing & soft cost like defect rates, down time, labour benefits & union action, etc over an extended period of 7-10 years, ie: life of an automation system.

Automation is the use of machines (mechanization) with embedded intelligence to further reduce / eliminate direct human intervention.





Approximately 40% of US jobs are vulnerable to automation. Germany's manufacturing workplace is most susceptible while Japan is better placed among developed peers.

The next level of evolution of automation would be application of Artificial Intelligence to enable autonomous decision making in the manufacturing process !!

Countries that are at higher risk

According to a PWC study, nearly 40% of jobs in the U.S. may be vulnerable to replacement by robots in the next fifteen years. Similarly, Germany's workforce is most susceptible to a massive shakeout as large part of it is employed in manufacturing. Japan is better placed than most of its developed peers due to the fact that jobs there are bundled with high management and organizational tasks. Also, Japan already uses a significant amount of automation, compared to other countries.

Counter intuitively, adoption of automation will be far steeper in developing countries than in many developed nations, as there is less capital tied up in old ways of manufacturing in developing countries. As a result, the proportion of threatened jobs in manufacturing is much greater in poorer countries: 69% in India, 77% in China and as high as 85% in Ethiopia.

If History is any Solace..

The fear that versatile robots may replace labour on a scale never seen before is not entirely misplaced. A more recent case in point is automated teller machines (ATMs), which speaks otherwise. These were expected to spell doom for bank tellers by taking over some of their routine tasks. In US, their average number fell from 20/ branch in 1988 to 13/branch in 2004. However, that substantially lowered the cost of running a bank branch, allowing banks to open more branches in response to customer demand. The number of urban bank branches rose by 43% over the same period, so the total number of employees increased. Rather than destroying jobs, ATMs changed bank employees' work mix, away from routine tasks and towards things like sales and customer service that machines could not do.

Historical evidence suggests that technology has always ended up creating more jobs at a macro level than it destroys. However, this is not to say that some part of the work force will not get affected as automation gains further traction in the manufacturing process.

In conclusion, while it is easy to see fields in which automation might do away with the need for human labour, it is less obvious where technology might create new jobs. Also, government and corporates will need to focus on reskilling people, with greater emphasis on vocational training. Finally, the next level of evolution of automation would be application of Artificial Intelligence to enable autonomous decision making in the manufacturing process !!





Conclusion

A deep bear market tests the conviction of an investor vis a vis his investee companies. Similarly, a runaway bull market tests the conviction of the investor in the underlying investment decision making process. Under such runaway market conditions, there is a temptation to short circuit the process and quickly get into the 'Buy' mode to participate in the bull market. At NRC, while we are always trying to hasten the process of investment approval, we continue to be as disciplined and rigorous as always. Till the 'I's are dotted and the 'T's crossed and the price guard rails decided, we do not cross the bridge. This discipline is important in such frothy markets.

Warm regards,

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