Polar Capital Emerging Market Stars Strategy

The New India: As Seen From Time On The Ground

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Contents

Naomi Waistell
Portfolio Manager

Naomi joined Polar Capital in August 2020 as a Portfolio Manager on the Polar Capital Emerging Market Stars Strategy. She has 15 years of industry experience.

There are two types of emerging market: those that feel familiar, are higher on the income scale or are just somehow more temperate, and then there are those that arrest all your senses as soon as you step out of the airport – the heat, the car horns, a cacophony of shouts, the amalgamation of smells and sheer colour. India is most definitely one of the latter. It slaps you in the face in the most wonderful way with its vibrancy. It is a place where things are without doubt happening. There is a level of activity that makes one wonder what it must have been like to experience COVID-19 here, when some of that innate activity was stifled. From what I saw during my visit in October, the pandemic has only served to catapult the pace of innovation and change in what was already a growth-minded, entrepreneurial society.

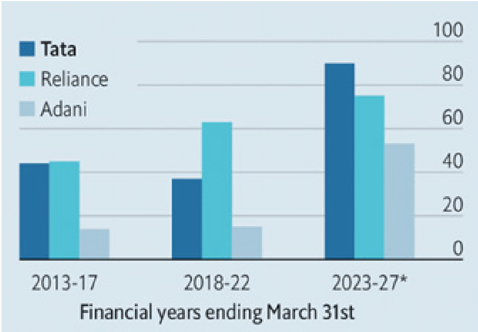
Many people in India asked me what I felt had changed the most since my last visit, pre-Covid. My answer was what has changed is not visible but behavioural: as has been the case globally, the ability of digitisation to pervade every aspect of consumer and corporate life has given rise to sweeping changes. India has long been renowned for its prowess in 'old' IT services delivery which is a large part of its economy and capital market, but rapid growth in smartphone penetration (now 60%) and an anticipated c900,000 4G and 5G user base by 2025, helped by disruption from Reliance Jio and low-cost, high-speed data packages, means more and more digital business is being enabled.

The government's rollout of its Unified Payments Interface (UPI) has been a game changer. This is truly world-class technology which dwarfs the scale of real-time payment transactions in other countries and has achieved what feels like overnight, astonishing success by facilitating fast, free money transfer. All this has precipitated numerous new businesses, disrupted old models, lowered barriers to entry and attracted increasing investment from venture capital and private equity players. This is hugely positive for India over the long term and, speaking to one of the earliest employees at Softbank India, the current backdrop remains abundant, though conservatism is creeping into bringing forward profitability and cashflow forecasting for companies, as we have seen across markets, and aligns with the large drawdowns the publicly-listed internet companies in India have seen this year.

However, digital acceleration aside, something else is going on too. There is an opposing force at play which is mutually exclusive to the digital trend and no less powerful. India is on the cusp of a much-needed resurgence in physical asset investment: put simply, a new capex boom. The last capex cycle was 2003-08, over a decade ago, and the country needs better infrastructure to grease the wheels of business, de-bottleneck the flow of trade and build more capacity in strategic industries. There is already evidence this is picking up in areas such as logistics, manufacturing and renewables. The government's Product Linked Incentive (PLI) schemes (see below) are aimed at onshoring more domestic production and seeing both Indian and global players set up facilities that can compete or diversify manufacturing capabilities away from China, to assist with India's trade balance, internally, and position the country as a one of the major winners as part of a China Plus One relocation strategy for those companies wanting to secure supply chains. There was no mistaking the soaring ambition of India to compete with China which ran as a theme across many areas of my trip.

India is already seeing benefits in the form of FDI (foreign direct investment) flows and project wins. Domestically, the real money seems to be being injected in the near term by the large group companies: Reliance Industries, The Adani Group and The Tata Group.

India's conglomerate groups capital spending ($bn)



Source: Bloomberg; Morgan Stanley; press reports; The Economist; September 2022. *Based on estimates.

"India is making clear it wants a seat at the biggest table with the largest economies and is intent on defining that place as a real player, with global might, global ambition and increasingly global-standard technology and innovation"

The values shown above could even underestimate the potential to come from these giants as Guatam Adani, Chairman of the Adani Group, has stated recently that the Group will spend $50bn-$70bn over the next decade on solar PV modules and advanced chemistry battery cells. These are two 'green' areas included in the PLI schemes. Clearly the PLIs have the potential to give a strong fillip to capex which unsurprisingly cratered during the pandemic. The political capital, competitive will and capital might of these conglomerate groups is a powerful force in India that cannot be avoided, and debate on their influence, next moves and comparative positions underlie all conversations and understanding of India's future direction. Essential to their visions are close relationships with the government which have always been well maintained and remain a condition of doing business, especially in these strategic areas, and will be key to monitor.

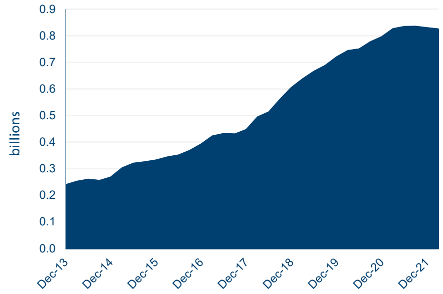
There are, of course, areas of tension and while India has largely managed to navigate a calm, strategic path of domestic political stability and neutrality abroad, some pinch points may come more to the fore as we get closer to the 2024 election. India is making clear it wants a seat at the biggest table with the largest economies and is intent on defining that place as a real player, with global might, global ambition and increasingly global-standard technology and innovation. This has been the vision of Prime Minister Narendra Modi's growth-minded reform agenda and all the changes that are in train now, with the ultimate goal of becoming a $5trn economy by 2027. Naturally, there is nothing China likes less than India's assertion of its rise. Just possibly, China sees a little of its own experience in where India is now: GDP growth (excluding during the pandemic) for multiple years of 7-8%; rising urbanisation and a huge infrastructure build-out; mass internet connectivity leading to the increasing formation of exciting internet companies that, though they tend to list in waves and may not always do well at first, ultimately build out a new market sector, with the ability to catalyse new consumption patterns and, crucially, enhance society. India's burgeoning capital market is one that is proving itself to be a new source of innovation, not in the mould of China, or of Silicon Valley before that, but with echoes of what has gone before as it looks outwards to learn. Despite many advances, India still has a very long runway for growth, so if it does remind me of China, it is of China 10-15 years ago – and that is exciting.

What strikes me is that India – by which I mean the government, the people, place, something about the fabric of the society – lends itself to experimentation. It is well-known for its excellent laboratory facilities and in a sense this is what is happening in the digital shift. The palpable clamour for change and pace of change, to be better than one's neighbours, the Tiger versus the Dragon, means we are seeing India being more the disruptor than the copycat. Where China is famed for reverse engineering or creating the Chinese [insert name of your preferred internet company], India is reworking things and its scale is big enough to do so in its own way, fit for a unique market that earns it credibility overseas with the potential to export a new kind of technology, rather than the old age in which India's comparative advantage was to deliver outsourced, lower tech, lower cost labour arbitrage: UPI is better than other payment models, ONDC has ambitions to reinvent how e-commerce operates, and the world is watching.

A new India is coming.

Perhaps the biggest change in India has been the rapid spread of digital technologies and the country is now well on its way to becoming a 'digital first' economy. Since 2014, under Modi, the proportion of the population with internet access has more than quadrupled, from less than 200 million to well over 800 million.

Number of internet subscribers



Source: CEIC, RBI, TRAI, GSTN, IndiaDatahub, Macquarie Research, January 2022.

This change has been led by the government's Digital India strategy which set the foundations by enrolling more than 1.2 billion citizens into a digital biometric ID program, Aadhaar, which has been a strong catalyst in giving each individual the means to exist and transact online with fluency, helping a faster ramp-up than seen in many other economies, emerging or developed.

However, it has not just been driven by public sector policy. Take the radical act of one of India's largest 4G network providers, Reliance Jio (scratch the surface and the actions of this group have wide ripple effects across the whole economy), to disrupt the telecoms market, bringing affordable internet services to hundreds of thousands by offering 'free' smartphones at low-cost tariffs and forcing down data costs across the sector, spurring innovation. Data costs have tumbled more than 90% since 2013 and download speeds for fixed-line telecoms have increased many times over. Data consumption growth has therefore been triple digit and on a trajectory unequalled elsewhere in the world. Given India's consumption base, this offers one of the largest and fastest growing pools of digital consumers – a market brimming with potential and individuals who are hungry for high-quality, online, digital living: buying clothes and food, watching content, paying bills. Everyday life is has been digitised.

Another key factor which has reduced friction across India to allow for this shift is the meteoric rise of online payments where UPI (unified payments interface) has expanded exponentially the ability for consumers and businesses to transact via mobile devices – another gamechanger. This technology has truly revolutionised payments in India. Every person you speak to, as an individual or a business person, immediately and in the most emphatic language has the same verdict: UPI has been the single most successful thing the government has put in place; it has got this absolutely right. The government was determined to reduce the high rate of cash in use in India, as witnessed via bold moves such as 2016's demonetisation policy. UPI was, therefore, introduced at a 0% merchant discount rate (MDR), making it completely free. This means there is a large amount of potential profit being missed out on, but the adoption curve has been stratospherically steep.

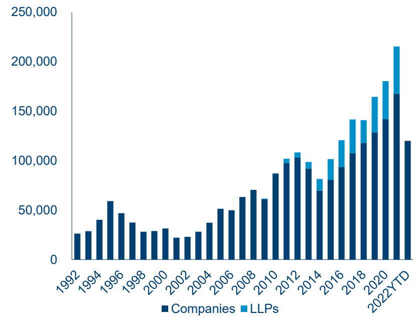
UPI is not a wallet or bank account. It is an open-source technology, an API (application processing interface) which other banks and FinTech companies such as PhonePe, PayTM and GooglePay can integrate into their own apps. For the consumer there is no need to preload any money, just link an ID and a pin code. It is convenient, faster, secure and compatible with all devices. UPI's scale continues to grow. In 2021, the number of transactions was close to 40 billion, in value terms close to $1trn and c30% of India's GDP. In his speech at Digital India Week 2022, Modi made clear that UPI is a technology India will continue to expand overseas, showcasing the country's innovation capabilities beyond its borders.

The government has also announced an open-sourced platform for e-commerce, known as ONDC (Open Network for Digital Commerce), established on a similar premise: to provide an open source, digital foundation technology for businesses to transact over, rather than the current closed platform model which is characterised by a relationship between a defined buyer and seller and has led to monopolies. It incorporates the full ecosystem of e-commerce needs from inventory to logistics as well as providing buyers more choice, allowing small kirana ('mom and pop') stores greater reach to consumers to whom they do not have the advantage of proximity, on a more even footing with retail giants without the complexity of having to manage multiple apps, democratising e-commerce – the 'infinite shelf' truly becomes infinite under this model. ONDC's aim is to have 25% of all internal Indian commerce transacting online within two years, up from the current 8% – a huge ambition. Such expansion should be good for all, not just the current underdogs. Reliance is, of course, present here too – a key way Reliance Retail is expanding is via supplying kirana stores. These represent c85% of the grocery market in India and relationships are incredibly loyal, but by working with these 'mom and pop' stores, supplying them a wide variety of SKUs (stock-keeping units) at high frequency and reducing their working capital is a path Reliance sees taking a significant share in the online grocery market. ONDC is focussing initially on online grocery, due to lower ticket sizes, fast turns and no returns.

While, in the wake of the huge success of UPI, it is impossible to discount the potential for this project, it is still at a very early stage and will face a number of material challenges, not least adoption by both sellers and buyers to create a network of critical mass. Many players have signed up already, with Flipkart and Amazon notable in their absence. This is a government initiative, with backing from the state, though it is a private company and the list of partner investors and board members they have installed has impressive, relevant experience, including the designers of UPI and the owners of Protean, a village delivery-point business, setting the company up well. It is an initiative we will watch with interest.

This entrepreneurial society has been further assisted by supportive business reforms such as the GST (goods and services tax) which provided an effective incentive for companies to digitise operations. It is little wonder that an increasing number of companies are now seeing the benefits of, and easier conditions for, doing business in India and the number of new business registrations has risen steadily over the past seven years.

India's annual new business registrations



Source: Ministry of Corporate Affairs; IndiaDataHub; Macquarie Research; January 2022.

This is an indication of the strength and confidence of the economy, its increasing formalisation, compounding optimism and dynamism. The powerful set-up of the business environment bodes well for a rich future of high productivity, investment and potential for profitable growth. This is similarly reflected in the surge in capital market activity we have seen in the past two years. The table below shows the number and rupee (₹) value of stock market listings over the past decade, clearly displaying that 2021 and the first half of 2022 are of a dramatically different magnitude to previous years.

IPOs each year in the Indian stock market

Year	Number of IPOs	Amount Raised (Rs Cr)
2012	13	6,834
2013	5	1,284
2014	7	1,201
2015	21	13,513
2016	27	26,501
2017	38	75,279
2018	25	31,731
2019	16	12,687
2020	16	26,628
2021	63	119,882
2022	22	44,717

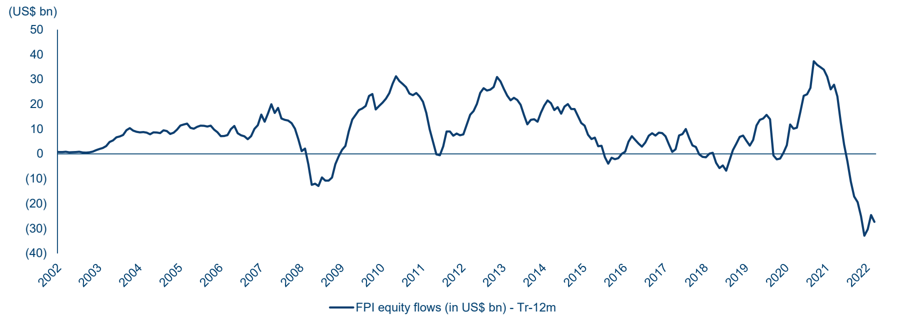
Source: Polar Capital; https://www.chittorgarh.com/report/list-of-ipo-by-year-fund-raised-success-mainboard/85/; October 2022

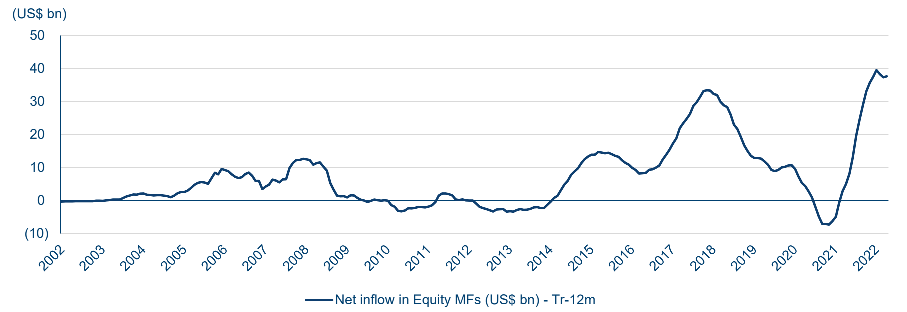
We believe this represents a step-change in India's relevance as a global capital market and that its economy will continue to become more and more important going forward. Due to its beneficial geopolitical position, attractive macroeconomic outlook and the rising number of first-rate, exciting, high-growth companies across a broad range of sectors and market-cap sizes, the Indian capital market is becoming more diverse and the long-term opportunities for us as stock pickers is richer and more exciting as a result.

It is not just international investors such as ourselves who recognise the attractions and potential of India as a burgeoning investment destination. The local market is now participating more actively and in more meaningful size. If you had told us at the beginning of this year that the oil price would rise as it has, global equities – especially other emerging markets – would tumble in the fashion we have seen, the dollar would be as strong as it is and India's inflation would breach its upper band, we would not have expected the SENSEX index to have performed relatively as strongly as it has year-to-date, falling 'just' c6%, in dollar terms, compared to -30% for the broader emerging markets index and more for individual markets including China (as at the end of October).

The answer is not as simple as a flow of foreign investors away from other emerging markets which have been beleaguered this year and into India. In fact, it is more encouraging for the long-term health of the Indian capital market. Foreign investors have been net sellers of the Indian market during 2022, withdrawing c$40bn in equities; conversely and simultaneously, domestic mutual fund flows into the market have been almost exactly commensurate, offsetting what would have been a negative impact and pointing to a willingness to increase their ownership of the market – as displayed in the charts below.

Foreign versus domestic Inflows





Source: Factset; Jefferies; September 2022.

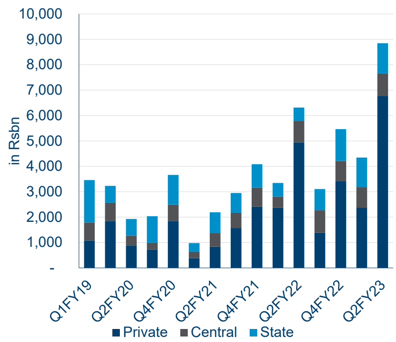
This comes with a health warning. Historically, Indian investors have been more momentum-driven and, if the tide turns, some of this positive effect may reverse. However, the reality is that compared with other nations, Indians remain highly underinvested in financial assets, with mutual fund assets to GDP at <10%. The traditional household balance sheet has been weighted towards real assets, property and gold but, again, the rise of digital enabling technologies is allowing greater participation in wealth management services at lower cost as well as access to information and education about what is available along with a rise in FinTechs offering such services and attracting a new audience.

Following the 2021 boom year for high-profile IPOs such as Zomato a Pay TM, which captured popular attention, individuals are aware that theirs is a growing capital market and, with strong wage growth, low household debt and rising savings, increased account openings by households has been one of the big trends of the past few years as part of the ongoing digitisation of the financial system. The $40bn inflows seen this year could be sustained annually with just a 10% allocation to equities from households compared to $10 seen in 2020, helping to maintain greater stability and depth at times when global investors withdraw, another way India can become more self-sufficient and diverge from global headwinds.

There are good reasons to believe, and even tangible signs, that the long-awaited revival of private capital in India – lacklustre since before the global financial crisis – may now have the conditions to be making a true, sizable recovery. Companies have fortified balance sheets, healthy earnings and improved returns on equity; there is a recapitalised banking system that is through the other side of their non-performing loans issues and willing to lend, a pro-business policy reform backdrop and rising demand, in part helped by diversifying global supply chains. This sets the scene for a boost to spending after a long period of underinvestment which can have a multiplier effect on the economy. The last capex cycle in India was 2003-08 and, due to regulatory constraints, inflation, a higher cost of capital and weaker business environment as well as corruption issues, private capex has languished ever since.

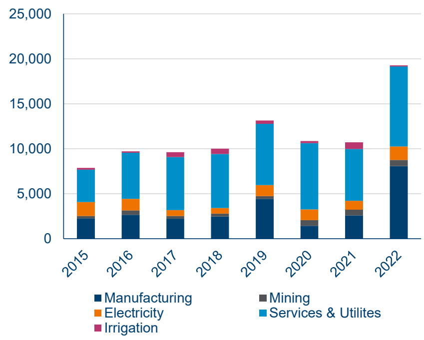
The second term of Modi's NDA (National Democratic Alliance) government, has proven to be more business friendly, implementing a number of important reforms, including cutting the corporate tax rate from 30% to 25%, establishing a new labour code, increasing FDI limits in a range of sectors and a large increase in magnitude and pace of infrastructure construction to de-bottleneck the flow of people and goods across the country at much faster speeds. The charts below show a marked pick-up in private sector capex returning over the past few quarters with notable strength in the manufacturing sector, supported by the PLI (Production Linked Incentive) schemes, indicating that this is the initiative with the potential to have most impact.

New capex announcements by owner



Source: Projects Today, Goldman Sachs

New capex announcements by sector



Source: RBI, Goldman Sachs

The intent of the PLI schemes is to redress some of the imbalance present in India's merchandise trade, particularly with China. In recent years, India's imports have been 50% higher than its exports. This is offset in the overall trade balance from services, but the government wants to become more self-sufficient in their goods manufacturing and have therefore built out a comprehensive 'Make in India' strategy. Growing demand for manufactured goods such as electronics, a growing workforce and India's established know-how in engineering all augur well for domestic strength as well as positioning the country to benefit as a China Plus One supplier.

Investment in infrastructure is also part of this global competitiveness drive, as currently logistics cost in India is a much higher proportion of overall production costs compared with China. The ongoing build-out of a dedicated freight corridor – the owners of which I met with during my trip – will see close to 3,000km of rail constructed, connecting the most utilised routes between key cities and cutting journey times in half in a strategy to shift more volume from road to rail, where India currently falls behind other nations.

The PLI scheme itself targets specific subsectors, offering incentives – a percentage of revenue – to entice both domestic and multinational companies to set up manufacturing bases in India. Fourteen subsectors have been identified as eligible, with a total government investment of $35bn over the next eight years as the companies who qualify meet the necessary thresholds and are reimbursed. The way the scheme works is that beneficiary companies must meet pre-set minimum annual investments and minimum incremental revenue targets, in return for which they receive a revenue percentage as an incentive.

"Modi's government is serious about moving up the [semiconductor] value chain and is willing to pay out $10bn for India to enter that market - facilities are already being built"

PLI scheme by sector

	Sectors	Financial outlay (Rs bn)	Financial outlay (US$ bn)	Date of final approval
Winners announced - execution stage				
1	Mobile & Electronic Component	410	5.5	Oct-20
2	Drug Intermediaries and APIs	69	0.9	Mar-21
3	Medical Devices	34	0.5	Feb-21
4	IT hardware	73	1.0	Jul-21
5	Telecom & Networking Products	122	1.6	Oct-21
6	Food Products	109	1.5	Dec-21
7	Pharmaceuticals	150	2.0	Nov-21
8	White Goods (ACs & LED)	62	0.8	Nov-21
Policy execution stage				
9	Advance Chemistry Cell Batter	181	2.4	NA
10	Textile: Man-made Fibres, Technical textiles	107	1.4	NA
11	Automobiles & Auto Components	261	3.5	NA
12	Speciality Steel	63	0.8	NA
13	Semiconductor	760	10.1	NA
14	Solar PV Modules*	240	3.2	NA
Total		2,641	35.2	

Source: Government of India; Macquarie Research; January 2022.

As can be seen from the table, the government has firstly focused on electronics segments, likely due to both domestic demand and the importance in its trade balance. India has a de minimis share in global electronics exports today (0.3%) compared to China (33%) and Vietnam (approaching 5%). Yet to be approved are the schemes for more advanced technologies. What can be seen from the table, however, is the greatest reward of all is on offer for the semiconductor industry. Modi's government is serious about moving up the value chain and is willing to pay out $10bn for India to enter that market. Facilities are already being built in Tamil Nadu and while India may not yet have leading (or even lagging) edge capabilities in this area, global partnerships are being forged to help: Taiwan's Foxconn has tied up with India's Vedanta, and it is said TSMC and Tata have an agreement. Semiconductor production in India would be a huge and potentially highly fruitful shift so, despite challenges, the scale of the opportunity and the carrot being offered are attracting international investment.

For now, the largest scheme approved is for mobile phone manufacture. Domestic companies are required to invest ₹2bn (c$25m) over four years while foreign companies must invest four times that. The revenue incentive received is 6%. Currently, five domestic and five foreign players are approved. Key among these companies is Dixon, a local Indian business that is in fact approved under five of the PLI schemes and stands to benefit over the next five+ years as volumes dramatically increase.

Dixon is the largest Indian EMS (electronics manufacturing services) company, having started out in televisions, initially benefitting from import restrictions on certain goods at a time of Sino-India clashes during the early 2000s when the government decided to boost domestic production and Dixon had the largest installed capacity. The new wave under PLIs should see Dixon benefit again. It is at the confluence of three structural tailwinds which support the outlook for the business:

- **'Make in India':** Electronic products sold in India will increasingly be manufactured in India.
- **Outsourcing:** Rising trend for outsourcing by global companies, as brands prioritise their internal resources for branding and hi-end technologies.
- **Competitive:** Indian manufacturing is improving its global competitiveness, creating a large opportunity to increase export share.

Dixon's top line should grow by close to 5x from 2022-27 due to the capacity ramp-up, PLI approvals and mix. Execution will be critical in delivering the multi-year growth and returns cycle the company has the potential for. It is now at what we see as a key inflection point: investing capex to expand into this growing market, targeting being a top-10 player.

During my trip, I visited two of Dixon's plants: one for smartphone manufacture (2G-5G) and an LED lighting facility.

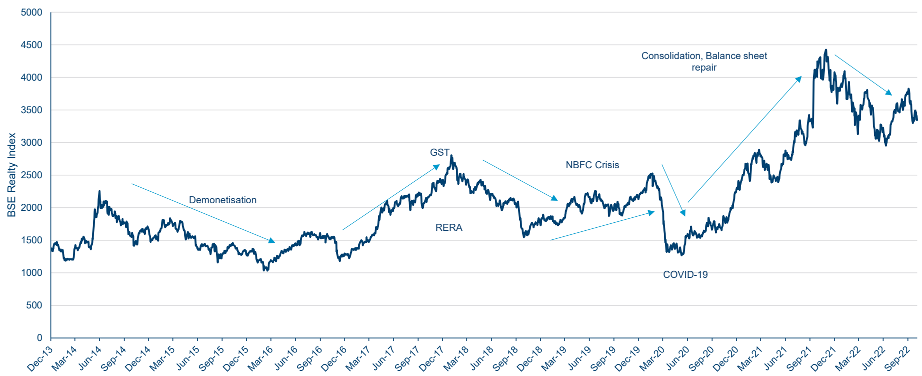
These are not the shiny, futuristic factories of South Korea or Taiwan. This is India. The advantage here is labour cost rather than a new technology. Instead of seeing a factory floor almost deserted as machines have moved in, Dixon's production lines were lined with workers – the cost of which still outcompetes automation, for the most part. Machines are used for specific functions, such as placing microscopic components onto printed circuit boards (PCBs), and then heating them to seal – but, for example, separating the four PCBs was done by hand.

However, this is a slim-margin business and as an investor it is not desirable to see fancy facilities or lavish spending. It being basic is reassuring in this kind of model and it will be advanced incrementally over time as befits the business. Accuracy on the other hand, was not compromised – as I walked the floor, all quality readings showed <0.5% defect rates. These are not unskilled workers, these are young people with at least a diploma in engineering. They work eight-hour shifts on a 24 hour pattern. It is not easy, but if the 'Make in India' initiative is successful it could offer a crucial source of employment for a high number of Indians – a vital issue for the country.

The Indian residential real estate market is in the early stages of a multi-year upcycle. Long-term trends include continued population growth, urbanisation and reducing household size which, together with the benefits of strong wage growth, are leading to very positive demand dynamics. The supply-side, meanwhile, having undergone a significant shakeout and process of concentration, is now composed of far fewer active developers than there were five years ago, with some cities seeing up to an 80% reduction in the number of developers. In turn, this is leading to much more discipline and tight supply that is just now preparing to meet the raft of demand. However, India cannot be built in a day and this makes for an attractive imbalance, leading to low inventory levels, good prices and a backdrop for launches and presales to at least double by the end of 2025 from pre-Covid levels.

The Indian property market overall is made up of sales of 300,000 units per annum (in its top 80 cities). To put this into perspective, China dwarfs this with sales of 10-12 million units each year, as does the US with one million. With both structural and cyclical drivers now supporting the Indian market, the expectation is for India to reach a market size of one million units by the end of this decade – a tripling in the next seven years. This follows the previous seven years which featured almost a cycle a year as the market lurched from oversupply to digestion and struggled to find equilibrium against an onslaught of regulatory and economic headwinds.

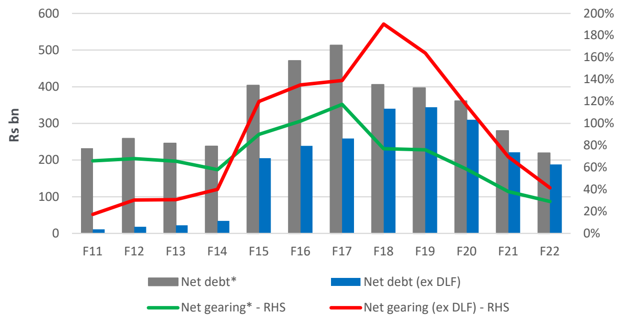
Indian Property Market Cycles



Source: Polar Capital & Bloomberg, 14 October 2022.

This boom/bust past was built on foundations of land banking and high leverage fuelled by an economic rise rather than any need for professional execution, and has now moved to a new era of greater trust by both homebuyers and investors. Only higher-quality names, good pedigree promoters and cleaned-up balance sheets remain. As HDFC Chairman Deepak Parekh has said: "Real estate in India is on an upcycle. Developers are now financially stronger and more disciplined."[1]

Debt and gearing



Source: Company data; Morgan Stanley Research; cumulative data based on DLF, GPL, Oberol, PEPL, MDL and Sobha.

1. India on Cusp of Economic Transformation, Home Loan Market To Double In 5 Years: HDFC Chairman (news18.com)

All opinions and estimates constitute the best judgment of Polar Capital as of the date hereof, but are subject to change without notice, and do not necessarily represent the views of Polar Capital, and may not be achieved. It should not be assumed that recommendations made in the future will be profitable or will equal the performance of securities in this document. A list of all recommendations made within the immediately preceding 12 months is available upon request.

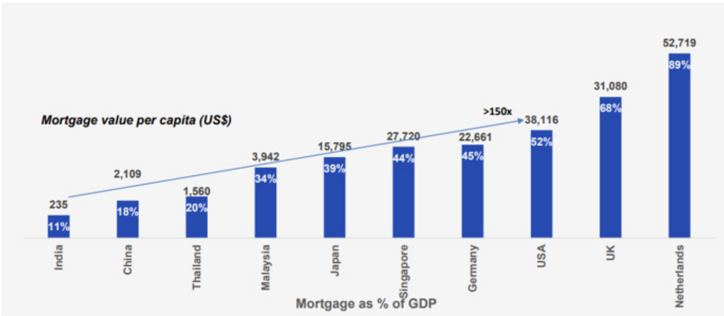
"[Housing] demand is driven by secular factors including ongoing urbanisation, a rising desire for non-multigenerational living [and] low levels of overall mortgage penetration"

The industry has quickly become more developed under the supervision of the Real Estate Regulation and Development Act (RERA) which came into force in 2017, with the aim of safeguarding buyers and sellers, reducing delays and resolving disputes, including the mandatory registering and tracking of projects, all reducing the risk of fraud to promote the long-term resiliency of, and confidence in, the sector.

One of the key changes is that builders have to place buyers' advances in reserve accounts covering 70% of the project, stopping them from misappropriating these funds into other projects which can cause funding shortages, or worse. This new period has ushered in more considered company business models. We have seen the formation of REITs, successful lower capital intensity partnership models and the largest, strongest 4-5 major players continuing to become larger and stronger. In all these cases, the ongoing ability to allocate capital and manage net gearing, monetising or acquiring land in value-accretive ways has been vital, together with an ability to convert that into launches and sales to drive up asset turns.

Looking to the future, the outlook for the sector is now more structurally supported. Demand is driven by secular factors including ongoing urbanisation, a rising desire for non-multigenerational living, low levels of overall mortgage penetration which, at 11% of GDP, is far lower than many comparable Asian economies meaning there is a long runway for growth as the current level of development is way below its potential. India also has great cost advantages compared to other countries, with construction costs, for example, just 30-40% of the sales price. Inflation on these costs has also been relatively manageable, partly because much is from domestic supply chains, partly because India is used to inflation at 6-7% and also because even if the overall cost base rises 10% it's only 3-4% of the selling price and with prices rising above that due to the favourable supply/demand dynamics, it is still possible to increase margins.

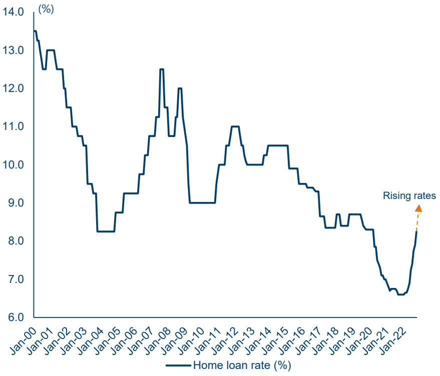
Mortgages as a %age of GDP



Source: Polar Capital; Macrotech Developers; July 2022

Healthy wage growth also means affordability is just shy of the best levels ever, a point worth spending a little more time on. Mortgage rates fell, nigh-on halving over the past 20 years, driving affordability ratios to all-time lows (see chart below). With a c130bp rise and stated mortgage rates back above 8% (though many providers are competing to subsidise at lower levels or providing guaranteed lower rates), this is importantly still below the pre-Covid level of 8.5%. Meanwhile, house prices rising c7-10% has a larger impact on affordability, however incomes are also rising c10%, meaning affordability is still good. This is again corroborated by the HDFC chairman saying: "Rising interest rates won't impact housing demand. A home loan is for a long tenor and during this period there are bound to be both upward and downward interest rate cycles". Property consultants Anarock find there is low to moderate sensitivity to mortgage rates up to 9%, but at 9.5% there would be a market impact. We are a way from that and do not foresee that scenario in India.

Home loan rate trend (2000-22)



Source: Jefferies Research

Affordability ratio (2014-22)

Source: Polar Capital, Macrotech Developers

What I heard from many of my meetings on the ground was confidence in the strength of the property sales recovery. With inventory levels so low after a long downcycle and little development activity, evidence suggests sales growth and pricing trends are likely to be positive. All the structural drivers leading to such pent-up demand, plus the compounding effects of the need for more and different space post-Covid, mean this momentum is unlikely to fade soon.

India is the world's third-largest energy-consuming country, accounting for roughly a quarter of energy demand growth over the next two decades as ongoing modernisation and economic growth, a rising population, urbanisation and continued industrialisation propel energy needs. Thus, the country's energy mix matters: the current dependence on fossil fuels has to shift. Renewables currently comprise c20% of India's energy mix, but under the government's target for 500GW of renewable capacity by 2030, this would rise to c30%. To meet this ambition, annual spend on solar PV modules, wind turbines and the batteries required to store the energy they produce would need to increase four-fold to $40bn per annum by 2040.

Leading the way in investment in this area is Reliance Industries, with their $10bn+ capex announcement. Once better known for building one of the world's largest and most disruptive hydrocarbon refineries, they have now recognised "this model of growth is no longer sustainable"[2] and believe that "businesses, especially large businesses, have a responsibility to solve the biggest and most complex problems facing humanity". Several times before they have succeeded where many doubted, entering and out-competing incumbents in markets such as telecoms and retail which require not only a vast capital commitment but also a deep understanding, vision and a culture of drive, openness and tenacity that may not be found elsewhere. Comparing this latest growth project with the past, Reliance's chairman said at their 2022 AGM: "The sheer magnitude of this responsibility and opportunity has made our new energy business far more ambitious, far more transformational, and far more global in scope than anything Reliance has ever done before". This one is bigger, it sounds like it might be riskier, but it also sounds like it means more.

I had the chance to meet with a number of key people at Reliance during my trip, executives with long tenure at the business as well as external experts. Some of the softer insights were notable. First, despite rumours to the contrary of the oft-faced issue of generational shift in a family business, it is still Mukesh Ambani at the helm. He is on top of all operations and knows where everything is. The chairman's office is without doubt where all strategic decisions are taken. However, he is no dictator. The atmosphere is one of freedom – try things, anything, and really go for it; the purse strings are not tight, money is plentiful, but if it fails, stop and do not do it again. This is what has led to early business ideas and yielded growth. The culture is to give stretch goals, with no roadmap for how they might be achieved. Things are not handed on a platter; employees are to show initiative in solving challenges.

Perhaps this mindset and mode of operating is part of why the company has been comfortable in committing to a net zero carbon target of 2035, but with little by way of interim stage posts or further detail behind this ambition. What management have been clear on so far is the intention to invest $10bn of capex in their new energy materials business, which they may double to $20bn over the next 10 years, depending on its success. This business covers five gigafactories: solar PV modules, energy storage batteries, green hydrogen, fuel cells and power electronics.

The first area being developed is solar capacity with an aim for 10GW by 2024, doubling to 20GW by 2026 and a mid-term goal of 100GW of solar by 2030. In tandem, Reliance are rolling out a similar amount of battery capacity, so they will have 20 GW of solar PV cell and modules and storage. Not all of this is included in the $10bn capex, but Reliance will partner with others and not take all this on their books. The aim is to replace their existing energy resources. Initially all capacity will be used internally, to provide energy for the needs of their Jio telecoms business and all other subsidiaries. However, the longer-term intent is to be able to export globally. To achieve this means becoming cost competitive with the Chinese solar players who hold 80% of the market.

At a country level, India has a number of advantages which mean they should already be able to reach cost competitiveness in solar, it is just a matter of scale. Labour costs are lower and labour is 60% of the balance of system costs for solar PV (the rest is modules and inverters); the internal rates of return are lower for blue-chip operators with access to capital from European ESG money or sovereign wealth funds; curtailment costs are also lower in India as China's generation and consumption are in opposing regions. This year, India imposed a 40% import duty on Chinese solar to protect domestic producers and conversely granted any backward-integrated domestic company the lower tax rate of 15% rather than 25%. There are also sizeable subsidy schemes for both solar PV makers ($3.1bn) and advanced chemistry battery makers ($2.4bn). Reliance qualifies for both and they are testament to the government being serious about the level of policy support.

Reliance acquired 100% of REC Solar who sell into the highest end markets globally and has the best efficiency in solar panels in the market, using heterojunction technology (HJT). They are continually improving and aim to reach 28% efficiency, from 23% currently. They are also working on technologies to increase the life of a PV module from 25 to 50 years. Reliance also acquired Nextwave, whose technology is among the first quartz-to-module solutions, this means it cuts out many costly and inefficient interim steps, integrating all the way from quartz (or sand) to solar PV. Due to the high cost to heat sand to the temperatures necessary to produce polysilicon, power usage for this process can be reduced by c25%. This is still in its very early stages, and the technology is proven but not yet scaled though it could have meaningful benefits as the key to reducing costs to a level to be competitive with China is the cost of energy. They are focused on building out the kind of scale that means the first thing that will be evident is costs reducing. The aim is to make Reliance's Jamnagar facility a hub for solar across the value chain, with multiple technologies. What Reliance feel they offer as a non-Chinese competitor in a market that is currently 80% China dominated is an alternative with which some customers may feel more secure.

"Solar is just the start. While an investment of $10bn has been announced, it is highly likely they will spend perhaps four times this"

Solar alone is not enough for Reliance's vision. What they are trying to create is their own full value chain, fully integrated with green power. No other company in the world is attempting this. It is classic Reliance, but is it also why Ambani says this is far bigger and more transformational. The biggest change, and the biggest risk to what has gone before, is that this time they are not entering an established market with stabilised players and technologies and serving as the disruptor to something already in place or just bringing something new to India. This time the technologies are not fully known; they are nascent; all players and the market as a whole are not established and if they were to use established Chinese technology in the one area that is more developed, solar, they would not be able to match their cost. Therefore, this is from scratch, with 'green' partners in both senses, and it is Mukesh Ambani's last hurrah.

Solar is just the start. While an investment of $10bn has been announced, it is highly likely they will spend perhaps four times this, though net debt levels will remain manageable due to cash flow from the mature businesses. The sun only shines six hours a day, so this does not provide a full, stable energy supply and even with wind power too this does not reach 100% availability. Batteries are a necessity to provide reliable grid-scale energy. Reliance has invested alongside Bill Gates in a company called Ambri, a Stamford start-up which has IP for batteries that have longer discharge cycles to cover when the sun is not shining, (12-20 hours compared to eight for a traditional LFP – lithium ferro-phosphate – battery) and with lower capacity loss after several cycles. The first commercialisation is happening with Microsoft and two other companies. If this proves successful over the next year, Reliance will base their batteries on this. Reliance's aim in battery technology is not only for improved storage, but also to move into batteries for "mobility and stationary applications for residential and commercial use…an end to end battery ecosystem". Production of the battery packs is slated for 2023, to scale to 5Gh by 2024 and 50GWh by 2027.

"The company and its leader are deadly serious about making this company green, about reaching their net zero goal. It is not a marketing message; it is a – if not the – central focus of their strategy"

For the hydrogen gigafactory, the company is keeping an open mind across all electrolyser technologies – alkaline, PEM (proton exchange membrane) and sodium oxide – but have a tie-up with Danish company Stiesdal which they hope can help accelerate cost reduction and efficiency with their alkaline technology. Reliance target transitioning from grey to green hydrogen by 2025, but have not announced any more detailed targets yet.

What we have been pleased with is that Reliance has committed to TCFD (Taskforce on Climate-related Financial Disclosures) implementation by 2024. The next steps towards this involve scenario analysis that the company is currently working on – they told me they were not sure if/when that would be made public. SBTi (science-based targets) is something that has been implemented in Jio, Reliance's telecoms business, but for the oil and gas businesses they are waiting for a methodology announcement/update. They have been waiting on this because they want to have correct data, confidence in what they put out, the right format and to do it with integrity when they do report.

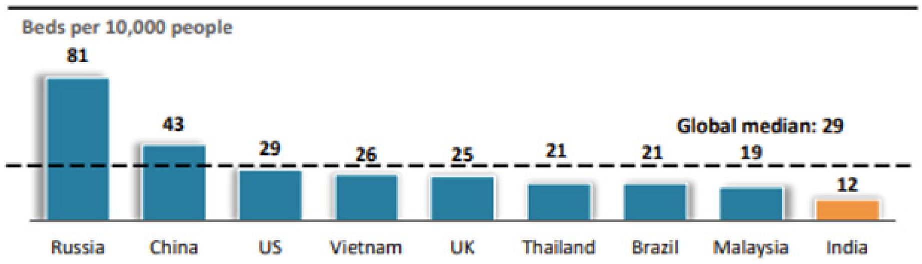
Separately, Reliance is also working to further improve aspects of its governance, notably Board oversight, and compensation structures which will take a further two years. Part of the improvement in governance includes the introduction of a New Energy Council, an initiative which includes some of the most respected renewable energy names, among whom are advisers to governments internationally. The intention is to gain knowledge and perspective from their experience and for them to help Reliance's transition to become a renewable energy powerhouse.

What is clear from my meetings, from the moves Reliance is making and from the manner in which they themselves and others talk with confidence about the realisation of vast, full-value chains is any market concerns that this is a far-off 2035 goal with nothing but a wing and prayer in between is a nonsense. This is a company that for all its reputed showiness is private: of the 25 meetings I had in India, only one requested I met them unaccompanied and what I found in those meetings was people of high quality who were happy to talk in detail about the company, but experienced enough to admit there are things that remain unknowns. What is known is that the company and its leader are deadly serious about making this company green, about reaching their net zero goal. It is not a marketing message or something they did because they felt obliged to; it is a central focus, if not the central focus of their strategy. They have not fully revealed and accounted for every line of how they might get there (few have), but the size of what they have committed so far, the acquisition of key technologies, the new Board, the timeline on additional capacity ramps and investment, and the overriding ambition to beat the Chinese and compete globally, as Reliance have done in a number of other markets, not to mention the strong government support, gives confidence this is very real.

One sector which at once typifies this ubiquity of digitisation as well as illustrating the need for ongoing investment in infrastructure across the country is healthcare. COVID-19 caused the industry to wake up to the need to serve patients differently and develop new and better models to deliver medical care. Piggybacking on the data-driven revolution taking place in the country, healthcare providers were able to harness higher online penetration rates and change consumer behaviour to move to a lower-touch/further-reach model which resulted in improved access and affordability for more of the population. There has been an influx of app-based healthcare delivery businesses from both incumbents and start-ups, and growth in demand for telemedicine and e-pharmacy services skyrocketed, with the number of online consultations and the users of online e-pharmacy each growing 3x between March and November 2020.

These high levels of growth speak to the high unmet medical need in India which sorely lags global peers in the availability of critical care infrastructure and resources. Doctors and nurses per 10,000 people are around half the global average and the situation with beds is weaker still, significantly worse than peers in Brazil, Vietnam and Malaysia.

Beds per 1,000 people



Source: Apollo Hospitals, 2022

Despite this dearth of necessary supply, the outlook for rapid demand growth is strong due to structural factors related to demographics as the upper age groups in India are growing faster and naturally require more medical care. As the country becomes wealthier there is also a tendency to spend an increasing proportion of disposable income on healthcare and from what is currently a predominately out-of-pocket rather than insured market, we would expect more people to be able to either choose to take on private cover or fall under new government-sponsored schemes. This means greater access to quality to care for more people – and more hospitals are certainly needed.

During my trip, I toured Apollo Hospitals just outside New Delhi and was impressed by the level of facilities and operational efficiencies in place. It was the pioneer in India of introducing high standards of clinical excellence that saw mortality rates fall from 15% at public hospitals in the late 1980s, to 2-3% today. Apollo benchmarks many clinical outcome metrics to the highest international standards and is on par or better than global peers. There is still significant work to be done to invest in the wide infrastructure, human resources and outcome gaps India has to the rest of the world. Healthcare spend per capita is $73 in India, $10,000 in the US, c$3,000 in Singapore, $850 in Brazil and $100-$450 across ASEAN, but this is on the right track.

There is a degree of market fear around pricing controls on essential drugs and the ability for hospital operators to charge very high rates under the current free market system. However, Apollo has a diversified range of price points and offers affordability via subsidised pricing by working with partners to provide services at lower rates for those who cannot pay upfront, sometimes with 0% interest. The table below shows the international competitiveness of Apollo's pricing. A Harvard Business case review of Apollo described the offering, given the standard of clinical excellence, as "First-world healthcare at emerging market prices", helping to democratise access to care.

Hospital operations: internation price comparison

Ailments (US$)	US	Korea	Singapore	Thailand	India
Hip replacement	50,000	14,120	12,000	7,879	7,000
Knee replacement	50,000	19,800	13,000	12,297	6,200
Heart bypass	144,000	28,900	18,500	15,121	5,200
Angloplasty	57,000	15,200	13,000	3,788	3,300
Heart valve replacement	170,000	43,500	12,500	21,212	5,500
Dental Implant	2,800	4,200	1,500	3,636	1,000

Source: Apollo Hospitals, Company filings.

Apollo is now investing in developing its Apollo 24/7 business to become the leading online healthcare platform in India, for which it has a partnership with Amazon, and was described by a lifelong industry expert I spoke with during my trip as "the biggest positive change to the industry I have seen during my career". Apollo is forecasting impressively high growth from this business and good traction has been seen so far.

It is also positive that the company is thinking seriously about sustainability and already generates 40% of energy from renewable sources, with a target to reach 70% in the medium term. Solar panels are installed on the roof of a number of their hospitals, including their Vanagaram hospital in Chennai, shown on the left.

They have installed 100 panels with a capacity of 250 watts per panel, giving a capacity of 25 KWh. Annually, all Apollo's hospitals across the state of Tamil Nadu have an aggregate power requirement of 60 million KWh to which wind power is also contributing, helping to substantially reduce the company's carbon footprint, even as they continue to grow.

Many of these positive changes have come since Prime Minister Narendra Modi has been in office. While he remains popular and most likely to win the 2024 election, 'Modi Mania' with which he was ushered in is now long forgotten. The difficulty of the reality of rule is that India is structured in a four-caste hierarchy, which features heavily in the identity of individuals as well as strongly influencing voting decisions. The country is also 85% Hindu and 15% Muslim, making it difficult to create single policies for the whole of India, which is after all a vast subcontinental landmass. Execution on public policy – with a few notable exceptions and backward steps – has been excellent under Modi. However, there is a reason for this. In order to get things done, Modi has used executive orders – which, unlike statutory orders, do not require parliamentary ratification – that has led to a faster pace of change. Previous governments shied away from taking decisions on behalf of the parliament and not speaking in one voice.

Modi has been clear on his plans, partly helped by being in coalition and partly due to the cleanout of corruption, but the corollary of this going forward is how to build a government for a potential third term of which some believe in majority rule, taking the old guard along with him. All this has led to high tensions between communities and violent street riots. Minority groups feel they are not being represented or receiving adequate protection. This is most heightened in the Muslim community, as Indian Muslims are those who chose to make the country their home following the separation of India and Pakistan in 1947 and were given a special place in society. Many of the traditional elite in India also originate from Pakistan. The division of the countries and subsequent integration of Muslims in India was a terribly traumatic time such that any perception of threat now is a highly sensitive and political issue. There has always been a Hindu majority, but it has never been asserted – in fact it has been the responsibility of the 85% to make the 15% feel comfortable – a silent contract which currently seems more precarious.

Further from home, geopolitics is, as everywhere, something that is being managed. India has positioned itself in a more advantageous position in that is in not the number one adversary of either the US or China, the two largest superpowers. However, due to those two countries' intense rivalry with one another, by de facto picking a side or leaning closely to one or the other, India necessarily loses out on the other side. For India, the relationship with the US is clearly much smoother than with China, where the shared border creates issues and things have become ever more strained since the Belt and Road Initiative. Ultimately, it comes down to one core problem: India's rise. India wants to be in all and no camps but it also, passionately, wants to compete in a serious way – a way China wants to stamp out.

Additionally, India's handling of the Russia/Ukraine war has been at best wanting. The country has abstained in votes at the UN Security Council and declared neutrality. Modi has told President Vladimir Putin this is "not the time for war", however the official position is one of neutrality. The two countries have previously been allies, with Russia supporting India, and the current trade of arms and oil is important to India. Any statement to denounce the recent false referendum votes on Ukrainian regions puts India in a tight spot due to their similar circumstance in Kashmir. India is now distancing itself from Russian actions and calling for negotiations, but a firmer break from Russia would make foreign policy overall easier and be more broadly seen as the 'right' thing.

The Strategy has long held a very positive view towards India, reflected in its current overweight position. We remain firmly of the view that this is one of the most, if not the most, exciting and high-return potential emerging markets for the next five years, or our investment horizon. With the coming capex boom which should only be enhanced after the election, an overall supportive macro picture helped by the strong upturn in the housing market and health restored to balance sheets meaning credit growth is back, India looks very well placed among gyrating global markets.

Admittedly, market valuations are expensive, but we are active investors and India is an excellent market for selective stock-picking across the market-cap spectrum which, of course, is exactly what we do. We concede there could be the chance of a pullback in the overall market in the near term, but we have strong conviction in the long-term case for each of the companies we own in the portfolio. Given India is advantaged by a large internal market and less buffeted by global influences, we have preferred to position in those domestic sectors rather than those with global linkages, and favour companies with the kind of thematic, structural growth stories discussed above, such as real estate, healthcare, PLI-linked manufacturing and high-quality private sector banks. We also have an investment in Reliance Industries which, as described in detail above, we support as a key enabler of India's transition to a low carbon future.

India's timing in reaching its $5trn GDP target will depend a great deal on both internal and external factors: whether there is a prolonged or mild recession in the US, what happens in Russia and Ukraine and to global supply chains, as well as the fortunes of arch-competitor China. However, the multiplier effect that can come from the investment being injected into the economy, together with easier business conditions and the creation of an investor-friendly ecosystem should help to reinforce, if not 'fortress India', resulting in an attractive investment destination which many investors have not even started to explore. If Modi's message has been that India is open for business and intends to compete on a global scale, then it is only just getting started.

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