

A PASSAGE FOR INDIA –

A DEVELOPMENT PATH FOR A NEW ERA

Lawrence Burns, Investment Manager. Fourth Quarter 2016



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A PASSAGE FOR INDIA — A DEVELOPMENT PATH FOR A NEW ERA

BY LAWRENCE BURNS

Since the industrial revolution, developing countries have been following the same manufacturing-orientated path to economic growth. How else might one generate employment for the masses, bring them into the formal economy, and so lay the foundations for a domestic consumer economy in the years to come? This model is now under threat. On the back of greater factory automation, cheap labour may no longer be the spur to development it once was. This poses a dilemma for India. In order to grow, it must branch out in a new direction.

In this respect, technology will be both India's biggest challenge and potentially its greatest opportunity, with the emergence of mobile platforms providing alternative avenues for economic development.

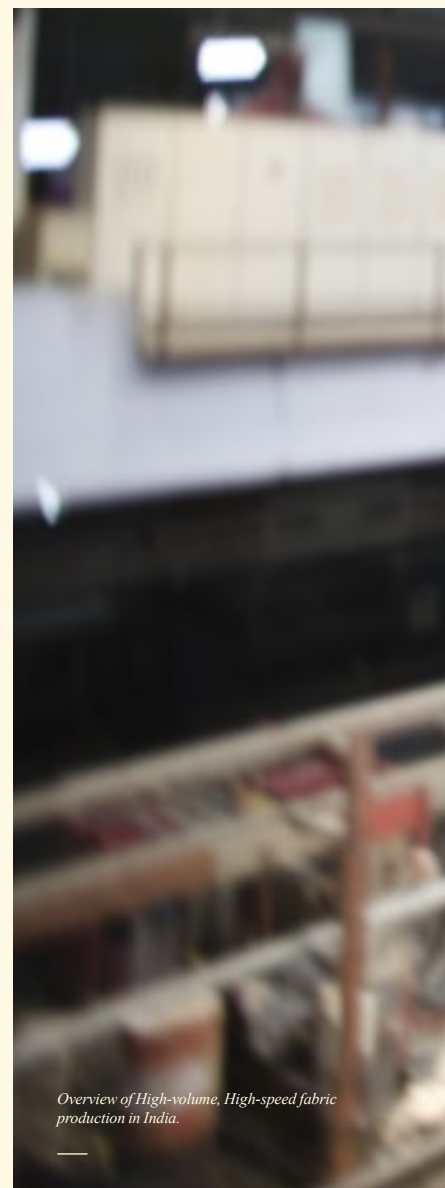
THAT WAS THE WAY IT WAS BUT THIS IS NOW

Advances in transport and communications infrastructure have facilitated an explosion in global trade during the last 50 years. By enabling production to be co-ordinated across vast distances, and goods moved quickly and easily across the planet, companies no longer had to go through the arduous process of building out whole supply chains. Manufacturing activities were therefore rapidly outsourced en masse to low-cost exporters. Another spur was containerisation. In isolation, the advent of standardised inter-modal containers boosted bilateral trade by 790% in the first 20 years following their introduction. By plugging into global supply chains in this way, countries such as China, South Korea and Taiwan developed at a speed not previously seen.

But times are changing. China's meteoric rise was facilitated by technological progress in transport and communication, yet India's may be hampered by progress in automation. Those countries wishing to play the cheap labour card must navigate the growing

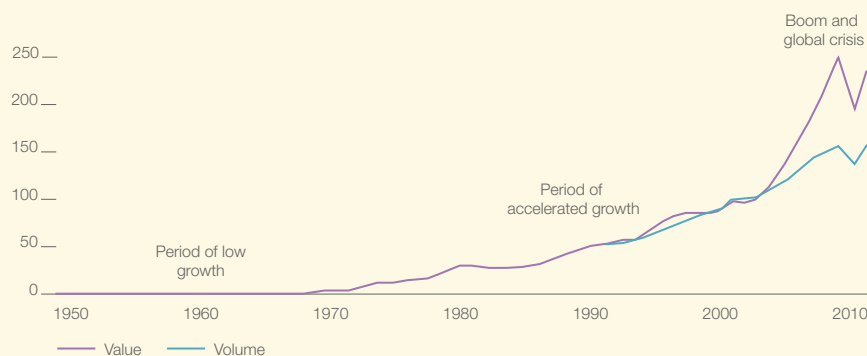
challenge from robotics. India's abundant supply of low-cost labour, where factory costs are 40% lower than in China, is no longer a game changer. Where once an importer would have kept costs down by seeking out the cheapest source of labour, they now also have the option of replacing workers with machines.

The word 'automation' used to conjure up images of slick factories in Japan, but this is an outdated assumption. Factories around the world are employing fewer staff. Foxconn recently announced it will replace 60,000 workers with robots in China. Adidas is to produce its running shoes in a German factory operated largely by robots. Even Indian companies are doing the same. Hero Moto's new factory in Rajasthan operates with a skeleton crew using robotic arms and automated storage and retrieval systems to do most of the work. And these changes may only be the beginning. 3D printing is in its infancy, but will revolutionise manufacturing processes.



Overview of High-volume, High-speed fabric production in India.

Long-term trends in value and volume of merchandise exports 1950 – 2010 (Index numbers, 2000=100)



Source: UNCTAD secretariat calculations, based on UNCTADstat and CPB Netherlands Bureau of Economic Policy Analysis, World trade database.

From Development and Globalization, Facts and Figures 2012, by United Nations Conference on Trade and Development, © 2012 United Nations. Reprinted with the permission of the United Nations.



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MANUFACTURING WILL EMPLOY FEWER PEOPLE

The Nobel-Prize winning economist Joseph Stiglitz is absolutely clear on this point; productivity increases will continue and fewer people will be employed in manufacturing in the coming decades:

*[THE] OBSERVATION IS UNCONTROVERSIAL...
GLOBAL EMPLOYMENT IN MANUFACTURING
IS GOING DOWN BECAUSE PRODUCTIVITY
INCREASES ARE EXCEEDING INCREASES IN
DEMAND FOR MANUFACTURED PRODUCTS
BY A SIGNIFICANT AMOUNT.*

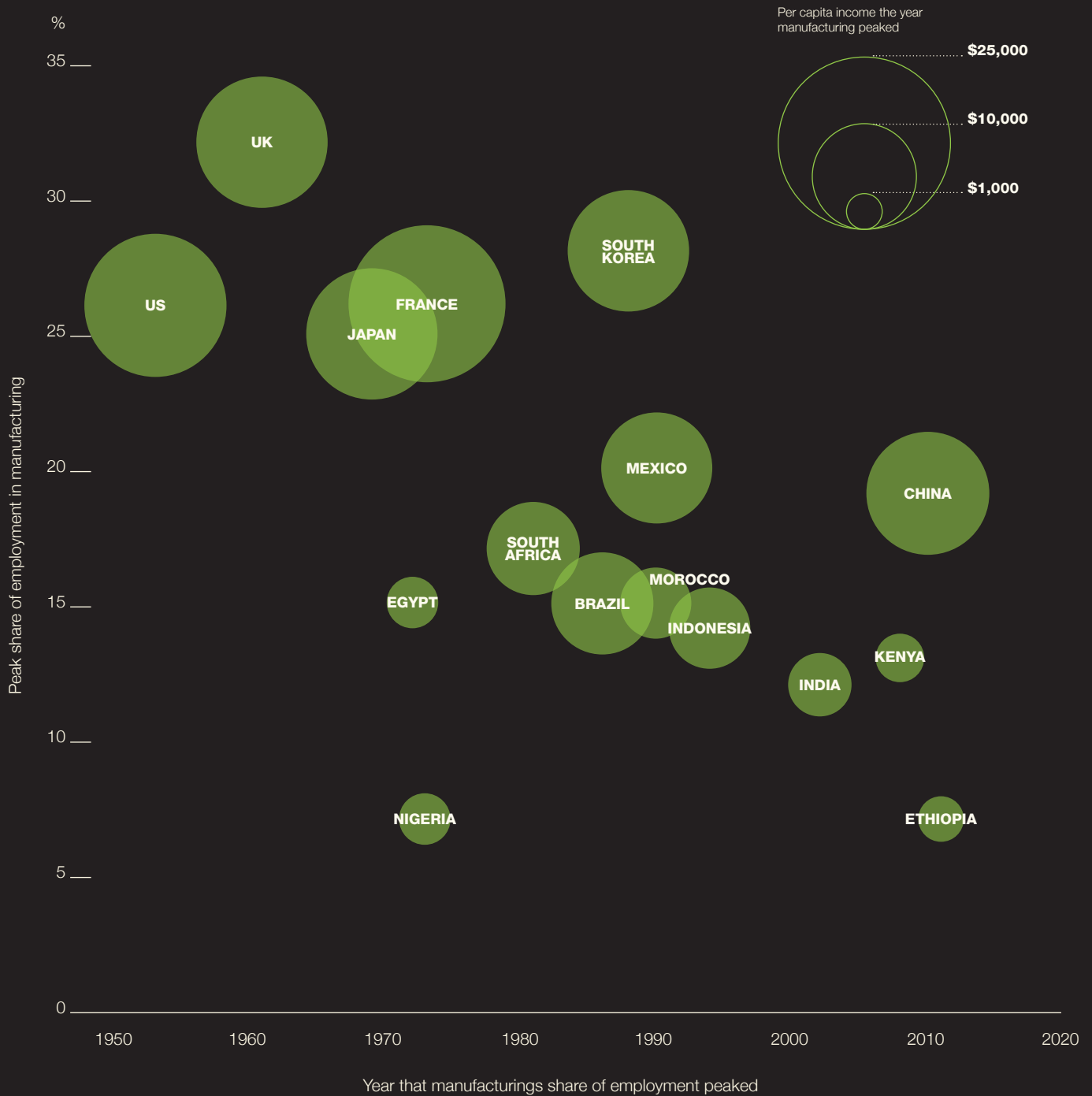
India's Chief Economic Adviser Arvind Subramanian agrees. His work has highlighted that all countries, regardless of their income level, are less reliant on manufacturing, both in terms of output and employment, than they once were. But the downward trend goes further. It is not just the number of people employed within the industry that is declining; the level of income per person at which a country's reliance on manufacturing peaks is also in decline. As illustrated in the graph opposite, when South Korea reached its manufacturing peak in 1988, the average annual income for a worker was just over \$10,000 (in Purchasing Power Parity (PPP)-adjusted 2015 dollars) per person; less than a decade later, Indonesia

peaked at close to \$6,000; by the time India peaked around a decade after, its manufacturing high saw an average income of only \$3,000. Manufacturing then, gets you ever shorter distances along the development path.

How can India expect to compete, given that its scale puts further pressure on the factory-led development model? Between 2005 and 2012, India's workforce expanded by 51 million, whereas manufacturing jobs increased by only 6 million. This is not enough. For manufacturing to have a meaningful impact on the formal economy it needs to generate tens of millions if not hundreds of millions of jobs. When up against the forces of China and automation, this is a tall order.

Failure to Launch

With a few exceptions, countries whose manufacturing peaked later didn't see the same growth opportunities that the US, Japan and Western Europe did.



Note: Incomes are based on purchasing-power parity and expressed in inflation-adjusted 2015 dollars.
Source: Groningen Growth and Development Centre, University of Groningen.

AT A CROSSROADS – WHERE DO WE GO FROM HERE?

So if India cannot manufacture its way from rags to riches, where does its hope lie? Is it with the outsourcing sector? This alone will not solve the development puzzle. For the same reasons that technological progress itself will not provide the whole answer. While new communication technologies have enabled IT services to become exportable and Indian companies have taken advantage, its impact is also limited by the sheer scale of jobs that would be required to drag the economy as a whole along the developmental highway.

And in terms of creating mass employment, there are a number of factors limiting India's ability to step up its level of IT recruitment. It is easy to overlook the fact that only 10% of the population speak English, but this is often a requisite skill within the

IT outsourcing industry. And while Indian tertiary education is good, the general lack of secondary education makes tech-related jobs a select rather than mainstream employment opportunity. And just as low-skilled manufacturing workers are feeling the brunt of automation's rise, so too are those employed in the lower-end of the IT industry. India's two largest companies in the industry are investing in automation platforms that enable software *bots* to perform commoditised IT jobs at a fraction of the cost and time that it would take a human engineer. Demand for IT services is being hit by companies, that would previously have outsourced to Indian datacentres, opting instead for cloud-based solutions with off-the-shelf software. As a result, the Indian IT outsourcer industry is growing at its slowest rate in five years.





Stores on Brigade Road at Night.
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Stores on Brigade Road at Night.
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TIMES ARE CHANGING

Technology has always had something of a bad press. A pinnacle of historical irony was surely the American politician who wrote to President Hoover in the 1930s expressing his fears that technology was “Frankenstein’s monster” that would “devour civilisation” – he was the mayor of Palo Alto (now the heart of Silicon Valley)! Just as the mayor’s fears were unfounded, so too is the current hyperbole surrounding automation often overdone. Data produced by statistician Professor Hans Rosling has demonstrated that, by applying new technologies alongside our accrued knowledge, countries are now able to achieve higher levels of social development with lower levels of GDP than was previously possible. This is supportive of economic growth in the long term.

Increasing automation may, at first glance, seem to hamper developing countries’ attempts to formalise their economies, because it restricts

their ability to employ large swathes of people via the traditional manufacturing route. Yet the flip side of technology should be new opportunities for growth and job creation. I am not suggesting that this will be a panacea to cure all of India’s woes; the automation of low-skilled factory work will be a heavy blow. But technology will provide new avenues for Indian entrepreneurs to explore.

Alibaba’s Chief Strategy Officer has spoken of the need to be open-minded to new company formats in the wake of technology. The mobile internet offers a new way to structure businesses that blend the efficiency and scale advantages of large firms with the nimbleness of entrepreneurs. Perhaps this is why, in part, Amit Agarwal, the head of Amazon India, has suggested the most important events of modern India have been the freedom struggle, the mobile phone and the mobile internet.

INDIA – IMAGINING THE FUTURE

The overriding characteristic of India today is its lack of formalisation. Around 90% of all employment is in the informal sector; 60% of Indians do not have a bank account; only 3% pay income tax; and 90% of retail is unorganised, consisting of cramped shops and roadside vendors. The section of society that pays its taxes, takes out loans and saves is a thin layer on top of an invisible, but vast, self-organised economy.

What if by combining India's large self-organised sector and the mobile internet, the country could produce an alternative development path for itself that would bypass the need for big, formal companies to accelerate economic growth, but rely instead on network-based companies to drive the economy?

India has already taken tentative steps in this direction. India's answer to Uber is Ola. It has hundreds of thousands of self-employed cab drivers on its mobile platform. For the drivers, the benefits of large-scale aggregation come not just from operating under the umbrella of a relatively trusted brand, but also from the ability to access big data analytics and the scale it gives in areas such as payment. It should also bring them into the formal economy. The network provides an audit trail – including both verified income levels and customers' reviews – which the drivers can then use to apply for personal or business loans. For even greater security, lenders can become part of the network and so take loan instalments directly from a driver's revenue. The government benefits too, because it both becomes harder for the drivers to avoid paying tax and easier for them to pay it.

Flipkart is another example of a network of thousands (of small merchants) reaching millions (of consumers) through an online platform, benefitting from access to its traffic, hosting, big analytics and logistics capabilities.

Fortunately for India, not only are these networks potentially a more efficient form of organising labour, but they can also be created far more easily and rapidly than scaling up a company in the traditional way. Take the meteoric rise of US online accommodation provider, AirBnB. It has more rooms available than some of the world's largest hotel groups but has only 800 direct employees. The same could hold true for Indian companies such as OYO Rooms (invested in by Softbank), which has established a network of more than 6,000 properties in just three years.

These companies are also notable for the fact that they are not listed. Capital light business models, network effects and rapid growth rates have allowed these and other online companies to achieve significant scale while remaining in private hands. It may be some time before the likes of Ola, OYO Rooms and Flipkart come to the public market but, in the meantime, it is important to continue tracking their rise, not only as possible future investment opportunities, but also in recognition that they are re-shaping their respective industries, which has knock-on implications for investing in companies more generally.



Ola's cab-hailing smartphone app is seen on a mobile phone in New Delhi, India. Aiming to wrest control of India's booming taxi market, two cab-hailing smartphone apps – Uber and Ola – are promising hundreds of millions in new investment while also facing off with one another in court.

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CONCLUSION

This is not intended as a Luddite note. But investors expecting India to repeat China's most recent leap forward may be disappointed. The possibilities that automation brings to reshape and reduce the workforce means that manufacturing cannot spur development to the same degree that it once did. India's development path will have to adapt to reflect this. Our challenge is to imagine the route this path will take and focus

our investment research accordingly. Companies that leverage mobile platforms will play a key role in shaping India's journey, all the more so because of their ability to scale their business quickly. We will continue to monitor the development of India and its mobile platform companies, and indeed those companies, such as Softbank, that are actively backing this sector.

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CURIOUS ABOUT THE WORLD

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