

## India's Demographic Dividend: A Synthesis of Issues and Challenges

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### Abstract

*India has a potential demographic dividend, as more than three-thirds of its growing population is in the working-age group of 15-64 years. Historical experience as well as cross-country evidence show that a vibrant, labor-intensive manufacturing sector is a pre-requisite for maximizing a country's demographic dividend. This paper provides a synthesis of the vast literature related to the subject. The paper does use a fair amount of quotes from the existing studies relating to the subject in an effort to put 'the right pieces in the right places'. The key conclusion of the paper is that India is far from maximizing its demographic dividend. Therefore, there is much merit in the policy makers considering four sets of economic reforms to boost the labor-intensive segment of India's manufacturing sector: liberalizing external trade; attracting foreign investment; deregulating domestic labor laws; and keeping up India's traditional strength in IT-related services.*

### Key terms

Demographic dividend; informal sector; labor-intensive; liberalization; productive jobs; structural reforms; unemployment untapped potential.

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## 1. Introduction

India has now surpassed China as the most populous country in the world. Moreover, at 68%, India has one of the highest percentage of working-age population -- defined as people in the age-group of 15-64 years. The median age of the Indian population is about 28 years, compared to 37 years in China and the United States (US), 45 years in Western Europe, and 49 years in Japan (Business Today 2023, 24 September). Indeed, while the rest of the world is ageing, India is getting younger (Ernst and Young 2023, October).

When a country's share of working-age population remains high, that country is supposed to be enjoying a 'demographic dividend'. It is a 'dividend' because the much larger supply of its workforce could allow the country's economy grow faster. However, for the country to maximize the demographic dividend, it has to find productive employment to the increasing number of working-age population (Kapoor 2023, 3 November). "The 'Asian Miracle' was built on harnessing this trend: Japan entered this sweet spot in 1964, South Korea in 1967, and China in 1994" (Chakravorti and Dalmia 2023, 6 September).

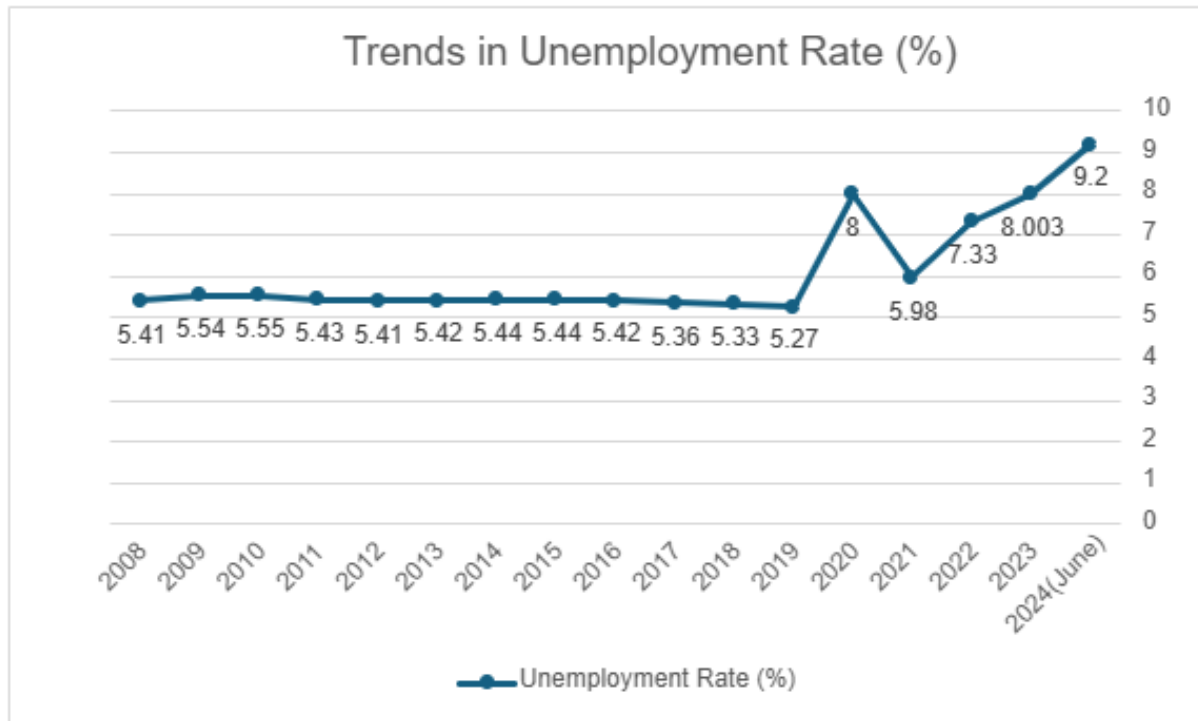
Demographic dividend is thus a plausibility, not a certainty. Put differently, if the demand for a country's young and growing workforce does not keep pace with the increasing supply, the country would end up with either higher unemployment rate and/or higher underemployment rate (a scenario in which a person is engaged in a job that is far less commensurate with her/his skills). If that happens, the demographic dividend could turn out to be a demographic disaster.

This paper is a synthesis of issues and challenges that India faces in realizing its demographic dividend. The key contribution of the paper lies in systematically weaving through the storyline that emerges from the existing work and thinking on the subject. While doing so, the paper does use a fair amount of quotes from the existing studies on the subject -- in an effort to put 'the right pieces in the right places'. Section 2 of the paper examines how far India has utilized its demographic dividend. Section 3 comes up with policy options that the policy makers could consider to maximize the demographic dividend in the coming years. Section 4 sums up.

## 2. India's Demographic Dividend: The Evidence

India did post admirable economic growth rates in the last decade and a half. Indeed its economy has been one of the fastest growing large economies in the world. However, it seems that the growth in the manufacturing sector has been somewhat tardy to absorb the rapidly growing young workforce. One of the key indicators that could be used to assess how far the country has realized the demographic dividend is trends in the unemployment rate (Figure).

**Figure: Recent Trends in Unemployment Rate in India**



Source: Forbes India (2024, 8 July) “Unemployment Rate in India: Current Rate, Historical Trends and More”, <https://www.forbesindia.com/article/explainers/unemployment-rate-in-india/87441/1> (accessed on 25 August 2024). These rates were estimated by Forbs India using data from India’s Center for Monitoring Indian Economy (CMIE). Unemployment rate is calculated as number of unemployed persons as a percent of civilian labor force.

Trends in the unemployment rate indicate that there is significant scope for maximizing the country’s demographic dividend. This is especially so because unemployment rate among the youth (who are in the age group of 20-24 years) is reported to be a whopping 42% (Bloomberg News 2024, 9 May). It is not surprising that: “While India has experienced growth levels of approximately 8% or higher over 10 nonconsecutive years between 2003 and 2022, its performance in the creation of jobs has been disappointing” (Mitra 2024, 10 January). Reasons for the country not realizing its potential demographic dividend could be many, but the most important one seems to be the inability to develop a labor-intensive manufacturing sector.

Almost a decade ago, a study by the Organization for Economic Cooperation and Development (OECD) had highlighted that India’s manufacturing sector has not contributed much to the country’s economic growth and employment generation; in addition, the sector’s share in total merchandise exports has been declining (Joumard et.al., 2015, 8 January). The study also found that even the little employment the manufacturing sector generated has been in the ‘informal

sector' where productivity is low because of the small size of the firms that precludes them from realizing economies of scale.

A 2020 study by the Asian Century Institute did also point out that the weak spot in an otherwise robust economic growth and development India has posted lies in the slow progress in its labor-intensive manufacturing sector. No wonder that the country's "manufacturing exports have fallen as a share of total exports and their composition has shifted from labor-intensive to high-skill and technology-intensive items. Indeed, for textile, garment and footwear, India has seen its share of world trade decline in recent years, while Bangladesh has almost caught up to India, and Vietnam has well overtaken it" (West 2020,18 February).

The study cautioned that the lack of labor-intensive exports is very costly for India. It pointed out that the country has 11 million youngsters entering the labor market every year. These youngsters could indeed offer the country a demographic dividend, something that Japan, Korea and China enjoyed during their high growth periods. However, India has not been generating enough productive jobs for these youngsters (West 2020,18 February).

More recently, another expert came to similar conclusion: "India's idiosyncratic structural transformation from agriculture to services — leapfrogging the phase of manufacturing growth — has generated limited opportunities for well-paid employment for those at the lower end of the education and skills ladder" (Kapoor 2023, 3 November). A recent Report by the international Labor Organization put it so aptly "...the Indian economy has managed to surpass expectations in its recovery and is likely to remain the fastest-growing among G20 economies in 2024. However, rapid economic growth has not translated into productive employment and decent work opportunities for the vast majority of India's labor force" (International Labor Organization 2024, 29 March).

A 2020 Report on India by McKinsey and Company had underscored the need for India to create 90 million new nonfarm jobs in the decade between 2020 and 2030 if the country were to fully utilize its demographic dividend (McKinsey & Company 2020, 26 August). The Report went on to say that "A clarion call is sounding for India to put growth on a sustainably faster track and meet the aspirations of its growing workforce" (McKinsey & Company 2020, 26 August). Similar cautionary notes have been sounded by other experts too (UNFPA 2022, 13 January; Mehrotra 2023, 30 October; Mitra 2024, 10 January; Singh and Sheriff 2024, 1 September)

A 2023 International Monetary Fund (IMF) Report had emphasized that excluding those at school, the number of young people who completed more than upper primary level education increased by 44 million over the eight years before the outbreak of the 'corona' pandemic. However, only 10 millions of them could find employment, while the rest of them either struggled to find descent job or remained unemployed (International Monetary Fund 2023, April).

One-third of young Indians is neither pursuing education nor is employed. Moreover, about two-fifths of the country's youngsters have an education level below the secondary level (Mahapatra 2024, 15 April). It seems that "half of urban workers have full-time jobs, while far too much of India's employment is in low productive informal sectors" (Chakravorti and Dalmia 2023, 6 September). "India needs at least 10-12 million new nonfarm jobs each year to realize its demographic dividend. For the country to generate new jobs of that magnitude, it needs to anchor its economic growth on a vibrant, labor intensive manufacturing sector, just as China and the East Asian countries did in their high-growth phase" (Mehrotra 2023, 30 October).

A recent report by Standard and Poor's – the global credit rating agency – went on to say that increasing the share of manufacturing in the economy is a major challenge for the country's policymakers (Standard and Poor's 2023, 3 August). In a similar vein, a 2023 report by Ernst and Young noted that India's structural change has been accompanied by a rising share of the surplus labor released by agriculture moving in to service sector rather than to the manufacturing sector (Ernst and Young 2023, October). In 2023, the share of manufacturing in India was 12.8%, compared to some of the other Asian countries - China (26.2%), Vietnam (23.9%), and Malaysia (23.0%) (World Bank 2023). In 2022, the share of manufacturing jobs in India stood at 11.7%, compared to figures in, say, China (28.7%), Vietnam (21.7%), and Malaysia (16.7%) (UNIDO 2023).

Other experts too echo this sentiment: "India and Indonesia, two of most promising candidates for transformative industrialization over the coming decades, stand at a critical juncture in their development strategies. Their youthful populations and recent strong economic performance put them in a demographic sweet spot... The attunement of their development strategies to the principles derived from the East Asian experience would position them better both to fulfill their economic potential and avoid the danger that both now face of jobless growth" (Drsysdale and Joshi 2023, 6 November).

It is also important to note that India's informal manufacturing sector has been inhabited by miniscule enterprises. "The small informal sector firms which employ over 75% of the manufacturing workers cannot compete in world markets. In contrast, China's manufacturing employment is concentrated in 1000+ worker firms and has much higher productivity. This means that it is necessary to create conditions for small-scale units to evolve into medium and large industries with much higher productivity and wages" (Rao 2024, 2 February).

In 2017, one expert had put it so very aptly: "One of the most labor-intensive industry is textiles, and India has been a long-term player in this field. So long term and unsuccessful that both Bangladesh and Vietnam, significantly behind us a few years ago, are rapidly catching up. Five years ago, India exported \$ 33 billion worth of textiles, with Bangladesh \$ 19.1 billion, and Vietnam \$16.8 billion. In 2015, Indian textile exports were at \$ 37.2 billion, Bangladesh at \$ 28.1 billion and Vietnam, \$ 27.3 billion" (Bhalla 2017, 28 January). This phenomenon has not changed



much since then. In 2022, India's share in global textile trade was 4.4%, behind China (32.2%), Bangladesh (6.1%), and Vietnam (4.4%).

All these evidences indicate that India is far from maximizing its demographic dividend. A more positive way of summarizing that assessment is that the country has a huge untapped potential to exploit its demographic dividend. East Asian countries initially and China subsequently grew at exceptionally high rates and at the same time provided productive manufacturing jobs to their workforce. Their remarkable performance was anchored on deeper integration of their economies with the global production networks and supply chains in the manufacturing sector. As a result, their economies were subject to the disciplines of international markets (Madhur 1994, 5 February).

Overall, it looks as if "India and the Indians have made some progress in the seventy-five years after Independence. It looks good but not good enough... the shine from the story fades when India is compared with the East Asian Tigers and China" (Lahiri 2023, p.306). Indeed, following the economic liberalization of China beginning late 1970s, its economy grew at an annual average rate of 10% for three decades (Bloomberg News 2024, 8 April).

Such huge economic expansion made China a magnet for foreign investment. To put it figuratively, every big international company then had to have a 'China Strategy'. Labor-intensive manufacturing has consistently been the most important route to achieving high economic growth and job creation. "Vietnam's manufacturing miracle is the most recent evidence to support that establishing large scale manufacturing exporting to the world market can catalyze economic growth and employment generation in a country" (Srinath and Sagar 2023, 3 October).

Indeed, "the space vacated by China was fast being taken over by Bangladesh and Vietnam in case of apparels; Vietnam and Indonesia in case of leather footwear. What was worse, even Indian apparel and leather firms were relocating to Bangladesh, Vietnam, and even Ethiopia" (Kaul 2020, 13 May). All these evidences sound a wakeup call to India.

### 3. Issues and Policy Options

The historical experience and cross-country empirical evidence presented in the previous section unequivocally show that a vibrant manufacturing sector is the kingpin for a country to realize its demographic dividend. India is now in a favorable position to give a big boost to its labor-intensive segment of its manufacturing sector. The most of important of these favorable factors are two. First, in recent years, the investor sentiment towards China has been deteriorating, as the United States and its allies began following the so called 'de-risking strategy'. Second, China is slowly but surely moving up the global production networks and supply chains – from being an 'imitator to an innovator' (Madhur 2024, February; Madhur, July). India should, therefore, look out for opportunities arising from the relocation of labor-intensive manufacturing away from China.

With the right policies that would subject domestic firms to global competition, it is quite possible for India to develop an efficient manufacturing sector by taking up the labor intensive manufacturing that are being vacated by China. In particular, India's policy makers need to recognize that the demographic dividend has an expiry date. Indeed, the country's policymakers owe a huge debt to the younger generation of Indians, if they fail to fully reap the country's potential demographic dividend. If they fail in this task, the demographic dividend could turn into a demographic disaster.

Encouragingly, The Chief Economic Officer of India's NITI Ayog (meaning 'Policy Commission' if translated into English), Subramanyam put it aptly: "...in the next 15 to 20 years' time span, India has an opportunity in manufacturing. But the opportunity and the window for India is at best two to three years, because supply chains are unwinding, they're becoming shorter, and they're looking for new geographies" (reported in The Economic Times 2023, 8 December).

He went on to add: "India has a two-to-three-year window to capitalize on the global strategy of de-risking from China and the government needs to be very alert to come up with a set of policies that make the shift of businesses to India attractive and easier" (reported in The Economic Times 2023, 8 December). From now on, if the country were to provide productive employment to about 11 million youngsters entering the labor market every year, it is critical that the country's policy makers focus on increasing the export competitiveness of labor-intensive manufacturing products.

The government recognizes the importance of creating more manufacturing jobs in the country, but its response to the problem tends to be introduction of a new government-sponsored 'administrative scheme'. In the 2024 Budget, the Union Government introduced three government subsidized schemes under which about 300,000 youths are expected to benefit (Sharma 2024, 23 July). Stripped to its core, the Scheme provides government subsidies to firms for hiring youth who are eligible under the Scheme. The 2024 Budget has allocated Rs.150,000 to finance the subsidy.

This is a good gesture on the part of the government. However, it is important to remember that these three government schemes introduced in 2024 simply add to about 41 somewhat similar schemes that already exist – 40 of them initiated since 2014 (Directorate General of Employment (2024, 19 July). Despite these large number of previous government schemes, there still remains a huge shortage of productive manufacturing jobs

Government sponsored schemes such as these may just about provide a chip on the margins, without addressing the core problem of youth unemployment and shortage of productive manufacturing jobs. Such schemes are typically administrative measures rather than hardcore policy liberalization that the country badly needs to realize its demographic dividend. Creating jobs through government subsidies have more often than not played a minor role in creating productive jobs over the long term. Such schemes involve the government departments administering them taking the economy back to the good old 'Permit Raj' system or its variants.

Moreover, “given the shortage of resources and administrative capacity, the time is opportune to rethink the role of the State. It should complement the market rather than compete with it” (Rao 2024, 2 February).

Moreover, the policy makers need to recognize the slow pace of productive manufacturing employment in the country is fundamentally a structural problem – which require structural reforms, not piecemeal, temporary, government-subsidy schemes. The government would, therefore, be better off if it could create an enabling business environment for the private manufacturing sector to grow and create productive employment to the country’s growing young population. “While India’s policy environment and business climate have improved in recent years, there is much need for improvement before India can be a major player in Asia’s Global Value Chains” (West 2020, 18 February). To do that, there is an enormous merit in the policymakers considering four sets of economic reforms: liberalizing external trade; attracting foreign investment; deregulating the domestic labor laws; and keeping up India’s strength in IT-related services.

### 3.1 Liberalizing External Trade

“India still retains many restrictions on international trade, despite the impressive trade liberalization from the early 1990s. (West 2020, 18 February). “Indian trade policy has long had a protectionist bent. Even the liberalizing reforms of the early 1990s – as important and beneficial as they were – were limited, and vested interests and populist domestic politics continue to trump policies that would be beneficial for India now and into the future” (Batra, 2023, 6 February).

Another expert put it so aptly: “International experience shows that opening up the economy for trade and investment is important to accelerate growth and create employment. Exports have been strong engines in every country that has shown high growth performance such as South Korea, Taiwan and, more recently, China. India has 17% of the world’s population but accounts for just about 2.5% of global exports” (Rao 2024, 2 February).

High import duties are acting as a huge deterrent to the country’s ambitions of “Make in India, Make for World” — a government initiative to make Indian manufacturing globally competitive and enhance exports (Dewan 2023, 20 January). In the past 11 years preceding 2023, India’s trade-weighted average Most Favored Nation (MFN) rate rose from 7.7% to 11.4%, in comparison to a decline in the global average from 7.7% to 6.9% (Pandey (2023, 18 July).

Moreover, India imposes higher import duties on capital and intermediate goods such as machinery and transport equipment than on the end-products – the phenomenon of tariff-inversion (Mitra 2024, 10 January). The 2023-24 Budget continued the trend of raising import duties (International Trade Administration (2024, 12 January). The multiple clearances that enterprises are required to get from government departments adds to the burden of manufacturing enterprises.



As one expert pointed out: India's high import tariffs on electronic parts and components have hurt assembly and input processing, which was the engine of growth and employment generation in China; similarly 60–125 per cent tariffs on import of automobiles have made the domestic automobile industry enormously inefficient and uncompetitive – another case of missed opportunity in labor-intensive automobile assembly line (Mitra 2024, 10 January).

“India would need to raise its competitiveness in high-potential sectors like electronics and capital goods, chemicals, textiles and apparel, auto and auto components, and pharmaceuticals and medical devices, which contributed to about 56 percent of global trade in 2018. India's share of exports in these sectors is 1.5 percent of the global total” (McKinsey & Company 2020, 26 August). “Despite our contrarian experience, there has been steadily increasing protectionism since 2017, and this has led to a fall in exports as a percentage of GDP” (Rao 2024, 2 February). In order to change this policy regime, far-reaching policy reforms are badly needed now.

A quintessential part of the required policy reforms should involve dismantling all the hurdles to the country's external trade and foreign investment. Indeed, at this juncture, policymakers should avoid a ‘piecemeal’ approach to policy reforms; instead, they should adopt a ‘big bang’ approach to its external trade liberalization. The Indian economy needs a long-overdue shake up, if it were to wake up to international competition and fully reap its demographic dividend – no more negative lists of imports, no constraints on exports, and just adopt a low customs duty across all imports, if at all it is required. In other words, India needs a ‘free trade and investment regime’. Let the entire country be a ‘large free economic zone’ for external trade and foreign investment.

“The time is ripe for India to become a major manufacturing player, and the present geopolitical system has given us the right opportunity. Given the sheer size of India, we should ideally be in a position create at least 5 Vietnam's within India! This will only be possible if we can successfully create a globally competitive ecosystem in manufacturing” (Srinath, Nitya and Ayaan Sagar 2023, 3 October). Another expert nearly echoed that sentiment: “To absorb its large and still-growing labor force into the future, India still needs a strong, broad-based, internationally competitive and dynamic manufacturing sector. For this, trade openness is essential” (Batra, 2023, 6 February).

Vijay Kelkar, a well-known Indian economist was once reported as saying: “If you want to be great economic power, you can't be protectionist” (Shirali and Mehra 2021, 21 January). Those words are even more important in today's global setting. Indeed, the policy slogan should be: free up the economy to let the young Indians flourish! Moreover, at this juncture, India could liberalize its external trade regime from a position of strength, as the country's foreign exchange reserves are at an all-time high of about \$684 billion (The Economic Times 2024, 7 September). These reserves provide a coverage for about 11 months of the country's import bill. If policymakers do

not implement a big-bang trade liberalization now, posterity would judge them as denying the country's youngsters productive employment and a descent standard of living!

### 3.2 Attracting Foreign Investment

“Attracting foreign direct investment is often a starting point for participating in global value chains. And while India has been attracting growing amounts of FDI, its restrictions on FDI remain higher than most OECD countries, based on the OECD’s Foreign Direct Investment Regulatory Restrictiveness Index” (West 2020, 18 February).

The rapidly changing geopolitical configuration, including the ‘de-risking’ strategy of the U.S and its allies is translating into new business opportunities for India (Chakravorti and Dalmia 2023, 6 September). A good example of this trend was the recent plan of Apple to relocate its iPhone production from China to India (Time Magazine 2023, 2 October). In 2022, about 232 million iPhones that Indian consumers bought were made in a single massive Foxconn facility in Zhengzhou city in China. However, as per Apple’s plan, beginning 2024, the Indian Plant is expected to quadruple its production of iPhones to around 20 million a year, creating about 50,000 jobs.

Similarly, in recent years Boeing India has grown its India team in engineering, research and development, with more than 6000 employees as of December 2023. Indeed, Boeing’s India team has the largest number of employees, more than in any country outside the United States (Bloomberg News 2024, 8 April). The company has also set up a new engineering center in Bengaluru in southern India. The setting up of the center will cost \$200 million. In addition, the company has pledged to spend \$100 million on infrastructure and training pilots to meet the growing demand for pilots.

Foreign investment such as these should help India reduce its unemployment and at least partially help it reap its demographic dividend. Indeed, India could and should attract many more such big-ticket foreign investments, just as China did during its 3 decades of double-digit annual economic growth. India has a great opportunity to allure many more international companies to relocate their labor-intensive manufacturing production to India. That, in turn, would require India to dismantle most of its hurdles on external trade and foreign investment.

In recent years, India has strengthened its infrastructure and logistics. Reflecting that, “India’s overall logistics performance index (LPI) score has risen from 3.08 in 2014 to 3.40 in 2023, and its global rank has improved from 54<sup>th</sup> to 38<sup>th</sup>” (Khurana 2024, 21 March). However, quite a few hurdles such as inadequate handling facilities at ports and delays in customs clearance of imports at times increase India’s overall trade costs. “Becoming a global player means raising standards at home” (Khurana 2024, 21 March).

### 3.3 Deregulating Domestic Labor Laws

“The prevailing factor-market rigidities, generated by existing land and labor laws, prevent the structural change required for economic development and the creation of better jobs” (Mitra 2024, 10 January). Similarly, “The cost of doing business in India has improved, but many challenges remain. Land acquisition can stall construction projects and the courts are slow-moving institutions. Land records may be non-existing or outdated and environmental clearances have created additional barriers. On top of this, contract enforcement remains challenging... A legacy of protectionism still persists” (Chakravorti and Dalmia 2023, 6 September)

It is encouraging that recently the policy makers have specified that to form a trade union in any firm, the majority of the workers have to be represented. This should discourage formation of trade unions which more often than not become ‘vested interest groups’ hindering employment expansion. “Shorter, fixed-term labor contracts and a new web portal for self-reporting of labor law compliance have also been introduced” (Mitra 2024, 10 January). “The reforms initiated by the Union Government to impart flexibility to the labor market by merging 24 laws into four codes should help in the medium and long term. The new Industrial Relations Code allows manufacturing units up to 300 workers to hire and fire without the government approval” (Rao 2024, 2 February).

These are welcome moves from the government, but effective implementation of these measures is as important as their initiation. Moreover, “While the government has offered production subsidies and protective tariffs, many companies have not boosted manufacturing capacity at a rate commensurate with India's rapid economic growth” (Sharma 2024, 10 September). Indeed, there is enormous merit in policymakers completely abolishing the requirement of government approval for hiring and firing labor, irrespective of the size of labor employed in a firm. In other words, India needs a quick move to ‘constructive destruction’ – it is high time that firms that cannot compete in the world markets should give way to those that can.

Without such a process, the country would continue to have zombie firms hanging in there, neither offering quality products to the consumers nor providing productive employment to the youngsters. “When a firm goes out of business, we feel a certain sorrow about its departure. But a key idea of economics is that birth and death of firms is healthy and desirable. The great economist Joseph Schumpeter termed this process ‘creative destruction’” (Kelkar and Shah 2022, p.104)

### 3.4 Keeping Up the Strength in IT-Related Services

To be sure, none of these policy options should be taken to mean that the country should give up its strength in service sectors related to such Information Technology and Artificial intelligence (AI) and machine learning–based analytics (McKinsey & Company (2020, 26 August).

As one expert put it so aptly: “India has a lot of extremes. It has the brightest minds, and then the greatest institutes in India that compete with the Ivy League universities, but then on average human capital levels are just not quite comparable to most other countries in the region, let alone higher or more developed countries,” (Alexandra Hermann - Quoted in Bloomberg News 2024, 8 April). The country needs to manage these extremes effectively so that the benefits of its economic diversity helps, rather than hinders economic growth and employment generation

India’s prowess in AI is not just a temporary phase of excellence. It indeed is “a testament to the nation’s growing availability of talent, ample resources, and sustained government support” (Wheebox 2024). It is estimated that India now has more than 2 million AI professionals. By 2025, that figure is estimated to surge to about 5 million.

India’s commitment to build a talent pool in artificial intelligence is evident from the efforts from institutions ranging from industry to academics. On the part of the government, it has initiated the National Skill Development Mission (NSDM), a flagship program designed to propel skill development in the country. As part of the NSDM, the FutureSkills Prime program is a noteworthy initiative, offering free online AI training courses that seems to have reached millions of youngsters nationwide (Wheebox 2024)

More recently, The United States has come forth to explore the possibility of a joint venture with India on semiconductor supply chain (U.S Department of State 2024, 9 September). Manufacturing of essential products ranging from vehicles to medical devices relies on the strength and resilience of the semiconductor supply chain. This collaboration between the United States and India underscores the potential to expand India’s semiconductor industry to the benefit of both nations. A comprehensive assessment of the feasibility study shall provide the groundwork for this joint venture.

That said, “The shape of tech leadership has evolved from core tech to digital and AI, and now it’s moving into business and functional leadership. The potential value from rewiring enterprises is growing, as are advances in tech. The link between creating tech and creating business value is stronger than ever. To meet the moment, company leaders and tech leaders must capture the rewards of this shift in mindset” (McKinsey & Company 2024, 11 September).

#### 4. Summing Up

India is in its demographic prime. India needs to make sure that its demographic dividend is realized fully, especially if India has to play a major role at the global level. “India’s ambitions of assuming major power status are justified – it is the world’s largest democracy ... and has huge economic and political potential. But its ambitions will remain just that – ambitions – if its economic growth doesn’t deliver upon its potential. Fundamental will be an update to trade strategy that encourages, rather than hinders, participation in global value chains and the development of a competitive manufacturing sector” (Batra 2023, 6 February).

Indeed, “We have been through similar surges of Indo-optimism before. But the on-the-ground reality has continued to frustrate even the most ardent of India’s champions. From bold predictions that it would overtake China (an economy still five times larger than India’s), to McKinsey’s 2007 “bird of gold” promise of the Indian consumer that never quite panned out, to deregulation followed by policy reversals and crises of confidence in doing business with India, to devastating periods through the pandemic, the country’s promised inevitable rise has remained elusive” (Chakravorti and Dalmia 2023, 6 September).

Moreover “economic policy lies within the subject of political economy, the dark crossroads where economics and politics meet” (Kelkar and Shah 2022, p.13). “In a democracy, politicians and their parties, who aspire to capture positions of governance and formulate policies, must carry the people along with them. Doubtless, they can sway public opinion to some extent, and some charismatic leaders can do that better others, but within finite and region-specific limitations” (Lahiri 2023, p.41).

“Economics provides the principal rationale for human cooperation. Politics provides the framework within which that cooperation works. Economics and politics are necessarily symbiotic ... They are married to each other. But theirs is also a difficult marriage. Managing this productive, yet fraught, relationship requires awareness of these realities” (Wolf 2023, p.13). Effective political leaders would circumvent the political constraint rather succumb to it.

While addressing the G20 meeting in September 2023, PM Modi did so eloquently articulate the need for India to be well integrated with the rest of the world: “our global conduct is rooted in the fundamental principle of ‘Vasudeva Kutumbakam’, which means ‘world is one family’” (Government of India 2023, 8 September). One hopes that he puts this mindset into action.



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