

Our objective here is to take a peek into Indian economy of 2047. To predict our economic future of 2047 is a difficult task but a little bit of history of its own growth, scanning the obvious risks, and drawing parallels from other nations which were adjacent to its income and demographics, can get us a good idea of where ours or any other country's economy will be. Not perfectly. But a decent guess nonetheless.

In simple terms, GDP equals the number of workers times their average output. Considering workers are usually aged 20-59, the size of this group in India will grow by 50% in next 25 years. Additionally, each worker's output will likely increase 2.5-fold, growing at 3.5%-4% per year. More or less the same rate at which it grew during 1998-2018. During the same time US worker' output grew at just ~1% annually.

You may be wondering – what is so special in India that its worker's output grows at faster rate than the US worker. Well, the reason is that our workers still produce only a tenth of an American. Such a huge gap means – if we train our people well and don't face any major catastrophe – we will continue to grow faster.

Having estimated the labour force and per-worker output growth, understanding the economy's future size in USD also requires considering potential currency fluctuations over time.

Anyone who has visited the US or Europe knows that the cost of living there is much higher. For instance, a monthly Wi-Fi subscription costs about \$100 in the US, compared to just \$10 in India. Over long periods – the price differentials across economies should reduce, and because Indian prices are so cheap – it is fair to assume that they will converge, slowly but surely with the US.

Should India's prices by 2047 mirror China's current levels, expect a 3% annual real appreciation of our currency. It's crucial to note the significance of "real" in this context: if our inflation rates are 3% higher, our currency's value effectively remains unchanged. A more cautious projection, drawing from past trends, would be a 1.5% annual real increase in currency real value.

To project India's GDP growth in USD, we sum the growth rates of the worker population, per worker output, and currency adjustments. This approach suggests that India's economy could reach a size of \$14-20 trillion, slightly below but comparable to China's and US's current economic scale.

It's important to recognize that the growth rate of our worker population is expected to decelerate significantly compared to the past 25 years. That will chop off our growth over the next 25 years by approximately 1-1.5%. Therefore, this period is the last opportunity to leverage our demographic dividend, as both the overall population and the workers are likely to decline thereafter.

1998-2018						
US inflation						
	Real Perwroker GDP growth	Price convergence (Curr effect)	Worker growth	GDP Growth in USD	GDP 2022 in USD (trln)	
China	7.3%	3.5%	0.8%	11.6%	18	
India	3.8%	1.5%	2.2%	7.4%	3	
US	1.1%	0.0%	0.9%	2.0%	25	
2022-2047						
US inflation						
	Real Perwroker GDP Growth	Price convergence (Curr effect)	Worker Growth	GDP Growth in USD	GDP in 2047	
China base case	2.6%	1.0%	-0.9%	2.8%	35.39	
China Good case	4.8%	2.1%	-0.9%	6.1%	78.01	
India base case	3.6%	1.5%	0.7%	5.8%	13.70	
India good case	3.8%	3.0%	0.7%	7.5%	20.40	
US	1.1%	0.0%	0.3%	1.4%	35.60	

*China worker output's range is 1% higher or lower vis a vis India. The past real currency appreciation in China has been more rapid. At 2% real appreciation – Chinese prices will be equal to that of US in 25 years. Do observe that worker effect (growth in working age group) itself means India GDP will grow at 1.5% faster than China' at same level per-worker output growth.

Population structure of 2023' India is akin to 1998's China

Over next 25 years our populations will age, its growth will slow sharply, we will have fewer babies, similar sized younger workers and many older workers – a transition to a population structure that happened in China over past 25 years. A striking similarity in both the structure and the evolution of the population gives us valuable insights into how India's macroeconomic landscape and consumption patterns might evolve, drawing parallels from China's experience over the past two decades.

Population distribution					Population Change	
	China		India		India	China
	1998	2022	2022	2047	2022-2047	1998-2022
Children	34%	23%	35%	25%	-14%	-25%
Youth	35%	28%	33%	28%	0%	-11%
Old workers	21%	31%	22%	28%	53%	69%
Elderly	10%	19%	10%	19%	129%	121%
Dependents	44%	41%	45%	45%	19%	14%

The ratio of youth to children doubled in China during 1973-1998, from 0.5 to 1, aiding improved parenting, education, and a general care for the younger generation. This- more than anything else - paved way for a more productive work force and growth boom in China over past 45 years.

India's ratio of youth to kids has reached to similar level that China had in 1998. So if you are impressed by China's educational and sports outcomes, patent filing and its rise in high tech – there is a distinct possibility that India witnesses' similar trends over next 25 years. Reason, less babies per family in 2022, leading to better health and educational outcomes from the new working class over next 25 years.

Size of population (in cr)								
China				India				
	1973	1998	2022	2047	1973	1998	2022	2047
Children	45	43	32	20	30	47	49	42
Youth	24	44	39	29	16	32	46	46
Old workers	14	26	44	36	9	17	30	46
Elderly	6	12	27	49	4	7	14	32
Total	89	125	142	134	59	102	139	166
Youth/kids	0.5	1.0	1.2	1.5	0.5	0.7	0.9	1.1
Growth in Total population		41%	14%	-5%		75%	36%	19%

China's population increased by 60% in past 75 years, while India's grew at 140%. Such a rapid rise in population meant that Indian infra, state and utilities couldn't keep pace with the population growth – and that is the key reason of haphazard growth and a weak state. Finally, Indian population growth has slowed and, will likely grow at only 10-20% over next 25 years, somewhat similar to what China saw in 1998-2022 (13%). This is the key reason why Indian public services including infra will improve dramatically over next 25 years, as all incremental spend will improve the per-capita availability of the same.

Fewer children and stagnating youth population over next 25 years

You might find it surprising, but the number of babies born in India has been decreasing each year since 2004. In the next 25 years, the total number of children in our country is expected to be 15% lower than it is today. Pretty much similar to the trend that China saw from 1998-2023.

Even the youth population, a group of age 20-39, will stagnate in India. This group spends a lot on higher education and training, enters the work force and buys a bicycle, a motorcycle, or a small car, rents or purchases first home, and is a major consumer of home furnishing, beverages, fashionable clothing, footwear and accessories. It is a peak spending age. With saturation in this group – India will have past peak weddings very soon. If you are selling talcum powder, soap or cheap footwear, there exists a secular stagnation for your products. Unless of course – you upgrade your products, premiumize them!

If you're currently benefiting from the services of migrant workers, whether as drivers or live-in maids, it's worth appreciating this affordability while it lasts. Over the next 25 years, these services are likely to become more expensive. This change will be driven not just by the evolving aspirations of the 20-40-year-old Indian workforce, who are increasingly seeking different employment opportunities, but also due to the slowing growth rate of this young working population. This phenomenon is not unique to India. About a century ago, countries like Britain and the United States enjoyed similar periods where such services were relatively inexpensive. No more.

Also, because both children and youth population – are collectively declining, it is a structural force that will stay for very long and, if you are an analyst wondering why many of our FMCG firms are showing lacklustre volume growth – don't be surprised if this situation worsens in next many years! There is a reason why many of the consumer stable goods firms trade at single digit multiples in China.

Premiumisation

Presently, less than 4% of Indian households earn \$10k annually. With equitable growth, around 40% of families could reach this income bracket by 2047, representing what we currently define as the upper-middle class and rich. Consequently, about 30-40% of Indian consumers in 2047 may emulate the spending patterns of today's top 5%. That means 8-10x growth in durable goods, jewellery, ready-made food, and services in healthcare, education and tourism.

Viewing India's economic progression through another lens, as the nation's income approaches today's Chinese levels, consumption patterns are likely to align similarly. Consequently, sectors like leisure, recreation, and hospitality could witness exponential growth, potentially 20 times current levels even when many “bread, butter and Parle-G” businesses struggle.

Because of the significant growth in the size of upper-middle class- there exists substantial opportunities for premiumization and growth in sectors yet to reach saturation. Take an example of quality education, even though student population decline secularly now, cost of good quality education will soar. International school costs about 3 lakhs in Mumbai, same costs 22 lakhs per annum in Beijing. In 25 years –cost of premium education as well as- many other premium services will likely converge with today's Chinese costs. Key lesson for most businesses catering to the basic needs of younger population- upgrade the product, in quality and features. Everything premium will see significant growth. But if you are selling uniforms to kids – or tiffin boxes or primary school study material or run off the mill pens or pencils, you may stare at stagnant times!

Rise of middle aged ones – the older workers

The third group of people, the middle aged ones or older workers, from age 20-59, will see significant growth in population in India (about 50%). Unlike the younger demographic, which focuses on physical assets like homes and durable goods, middle-aged individuals tend to lean towards financial savings- as they prepare for retirement. This phase of life is also characterized by an upgrade cycle in consumption: purchasing larger homes, investing in better home furnishings, and upgrading from two-wheelers to small cars, and then to larger vehicles. This group is typically more productive and spends less, making them the peak savers. China experienced rapid growth in this group of people during 1998-2022, which led to fast productivity growth, low inflation, improved current account balances, and a significant boom in financial wealth.

As middle aged cohort builds significant financial savings – those financial savings will have to be rerouted into the economy by banks and others as debt to younger population to help them purchase cars, houses and durables, and for corporations to build newer capacities. Currently, India's private debt stands at only 50% of GDP and has been relatively stagnant for nearly a decade, in contrast to

the US (150% of GDP), China (190%), and Europe (83%). Considering a typical patterns observed at this stage of the economic cycle, it's likely that India's debt will grow rapidly, becoming 75-100% of GDP in the coming 25 years. Though much of the financing is likely to happen on large bank balance sheets - opportunities for niche players catering to unique businesses will also grow rapidly— especially in low ticket business finance, micro finance, real estate, CV and LAP financing. Banks will incrementally retrench from project finance- and firms will have to rely on NBFCs and Alternate pools of capital to fund these projects.

This demographic shift towards middle age group will likely influence culture and politics as well, with more films featuring middle-aged protagonists, reflecting their experiences and interests. Additionally, there will be a notable shift in consumption patterns towards quality, with a growing demand for healthier, premium food options like organic cereals, vegetables, and better-quality milk. This group, with enormous wealth and numbers will remain the most dominant one to force its biases on politics too.

Finance

In the early 2000s, Mutual Fund Assets Under Management in India were approximately 10% of bank deposits, a figure that has risen to about 25% today. This places India's current state akin to where the US mutual fund industry was in the late 1980s. Since then, in the US, mutual fund assets as a percentage of GDP have risen to over 125%. If India continues to see a flow of funds equivalent to 1% of its GDP into mutual funds, and assuming markets deliver even run off the mill returns, it's likely that MF AUM as a percentage of GDP could double to 50% by 2047. This growth trajectory would mean that mutual funds and similar wealth products, grow at 12-14% over next 25 years and would account for about half of bank deposits in the coming period.

Wealth and luxury goods

India's current total wealth stands at approximately USD 15 trillion, in contrast to China's USD 85 trillion and the United States' USD 125 trillion. As Indian economy's size converges with today's China, its wealth too will do so.

In India, an intriguing aspect of wealth is the very high level of promoter shareholding across businesses. Since 2001, promoters have maintained an average shareholding of around 50%, a stark contrast to Europe and other Asian regions where it's closer to 20%. Unlike East Asian economies, where dual structure ownership or cross-holdings are common for maintaining control, Indian promoters often prefer direct majority control in their firms. Given this, the top 2,000 families, who hold a disproportionate share of wealth today, will continue to dominate. This concentration of wealth suggests that India will likely have billionaires, surpassing current numbers in the US (750), China (1,000). Even the tally of those with \$100 million in wealth, will match the US's current 10,000.

This wealth concentration will significantly impact luxury sectors worldwide, including travel, wellness, exclusive education, private jets, luxury cars, yachts, and fine arts. Indian rich will continue to fund grand temples and community places, but will also likely start to help institutes such as IITs to upgrade their infra and research facilities. Concurrently, the growth in private wealth management businesses will be unparalleled, as Indian capital begins to increasingly fund new or riskier ventures through venture capital, private debt, and venture debts.

Rapid rise of Old population

Finally, the elderly population, those aged 60 and over, is projected to increase by 2.7 times by 2047. Since ageing and health care spend correlate well, a substantial opportunity for healthcare businesses catering to teeth, eyes, knees and many such areas, along with tertiary care for major ailments exist. Here- the change is going to be more remarkable in China as this population as % of overall doubles

at 37% of overall population (vs 19% in India from current 10%). This means what China has done to commodities and infra over past 25 years – it will likely do the same to eldercare.

Urbanisation

Apart from demographic transition, India will have another fundamental transition, from being a pre-dominantly a rural and agrarian society to urban and working class one. It's likely that about half of the population will reside in urban areas in 25 years (from current 30%). With the dense population, many rural areas near urban centres will undergo suburbanization, leading to approximately three-quarters of the population adopting an urban lifestyle. So businesses engaged in fashion and home furnishing, fast food, mobility, tourism and delivery will grow rapidly.

Welfare state

Our country's political commitment to capitalism, and property rights remains high– and that means we will continue to have very high inequality of wealth and income. This will give birth to a welfare state- at very low level of per capita income. We will continue to have some of the largest government welfare programs in the world, spanning from food security to health and education. Unlike the US, where these sectors are more privatized, Indian state will continue to provide services in education, finance, and health sectors. As it is, the trend of adopting welfare policies, particularly those prevalent in South India, seems to be gaining traction at the national level.

Indian goods manufacturing will grow but real magic will happen in services

Since many western firms are being forced to review their China-only manufacturing policies due to rising hostility and increasingly expensive labour pool, India may benefit. It is likely that India develops a decent eco system to build its own defence wares as well as electronics. But all of that is unlikely to aid India displace China as pre-dominant supplier of goods. Despite a lot of efforts – both micro and macro ones – Indian non-oil exports have crawled at 3% pa growth in last decade, and today it is at 9.70% of GDP, a level last seen in 2004. Reverse is true for China, whose hegemony has risen secularly over this period, and the current trends suggest that China dominance in global exports will grow further given its dominance in renewable eco system (EV, solar panels) and as it continues to march ahead in terms of productivity growth. Given all of it, even though India will begin to matter to commodities such as crude, where its consumption will be almost 7-8% of the global consumption, double of today's, yet its role in nonferrous commodities will remain peripheral.

Because of India's diaspora, English language skills and cultural advantages –our people, will remain key export to the rest of the world – earning us cumulatively 7% of GDP, through service exports and remittances. This number has grown at 10% over past two decades. India already net exports 150bn worth of software services. That number as % of GDP used to be negligible in 90s, rose to 1% in 2004 and now is at 4%. It is likely that the software services growth continues to rise at 7-8% over next 25 years, making it a trillion-dollar industry by 2047. This will benefit cities like Bangalore, Hyderabad amongst others which supply knowledge labour to the world. Indian office space is still pretty cheap- even though the talent arbitrage has been reducing over years. Expect 10s of REITs springing up across the country – and rise of wealth managers who will cater to invest in such instruments.

Rates and currency

India has historically faced current account deficit, often exacerbated by rising crude oil prices, leading to a steady depreciation of the Indian Rupee over the years. This depreciation has kept Indian wages significantly lower in dollar terms compared to the West. However, as India's demographic profile evolves, with a decline in its youth population and a rise in a more productive middle-aged population, India's current account deficit will likely be half of last 25 years' average. That will reduce pressure on currency and will aid a long term process of price convergence* with the west and China.

Our vibrant democratic system has kept a lid on inflation, a reason why we have never had hyper-inflation – a recurrent feature in most developing countries. Our inflation has averaged at 7.70% for past 50 years, 6.50% over 20 years and 6% over 10 years. But given the changes in demographic profile, we are likely to see inflation rate, move to 4% over next decade and thereafter converge further to western and Chinese level of 2-3%.

The combination of lower inflation and a reduced current account deficit will positively impact the Indian Rupee, which has depreciated at an average rate of 3% over the past 25 years. Given that our inflation differential is likely to be at least 2% lower compared to the past quarter-century, and the current account deficit (CAD) is likely to be about half of what it was during this period, it's plausible to imagine a stable Rupee over long periods. My base case scenario is an annual depreciation of the currency by about 1%.

Stable or slowly depreciating currency will have large implications on interest rates in India. Mirroring the trend seen in China, where interest rates converged with those in the developed world over the past quarter century, something similar may play out in India. Considering this – an Indian 30-year bond at 7.5% isn't a bad deal for long term investors – both local as well as foreigners. I expect more substantial flows in Indian bonds from foreign investors over this period relative to equities. Indian public finance will continue to benefit from interest rates that remain lower than the nominal GDP growth, aiding in more sustainable fiscal management.

Stocks

Our corporate' return on equity are higher than almost all the emerging markets - across time frames. A median Indian corporate, amongst the top 100 that you are likely to invest in, earns a return on equity (ROE) of 16%, distributes about 30% as dividend and grows its earnings at 11%. A median corporate in US is likely to earn about 2% less and grow at 3% less. Do you know that China's listed firms ROE will be less than 10%? This is why our stocks have always remains expensive relative to most of the other stock markets.

As the size of the economy grows, expect a steady decline of ROEs. Indian earnings have grown at 7% in USD over past 25 years. But markets delivered significantly better because of two reasons – our currency depreciated by 3% annually and our stocks got repriced quite sharply. As I expect currency to depreciate at lower rate and stocks having little room to reprice higher, the returns are going to be lower over next 25 years. More like 10-11%. If bond yields converge to the western world, the return could be higher. But purely from the point of view of risk premium, it is at 3% over sovereign bonds.

With the expected slowdown in the depreciation of the Indian Rupee, foreign investors stand to gain as their returns in local currency will translate more favourably into USD returns. Conversely, for local Indian investors, the incentive to diversify investments outside of India may reduce for the same reasons.

Real estate

India for being so big and dense, its big cities will continue to remain very expensive. The only other place to compare Indian real estate price trajectory is that of China. Growth boom, lack of space rapid urbanization & vertical growth - meant that Chinese properties became very expensive over past 15-20 years. A thousand square feet apartment in Beijing costs 7 cr. About 2.25x of Mumbai. (30k per square feet vs 67k odd in Beijing, away from city centre). If our per-capita income and property prices converge with China's in 25 years, our properties will deliver 3% real return. Add to this, 3-4% inflation and 2.5% rental yield, you will receive a decent 9% annualized return.

Real estate of cities like Bangalore and Hyderabad are likely to perform better, both because their economic prospects are better and the current price point is much lower than that of Mumbai (Bangalore is about 35% lower, on average, outside of city centres, and about half near the city centres). Those expecting Indian property markets to align with Western price-to-income ratios will be disappointed. India's unique population structure and density suggest a trajectory more akin to China's, rather than that of the US.

But not everything will get better in India

The stark contrast between the cleanliness, aesthetic charm, and advanced road infrastructure of Western and East Asian nations often leaves us in awe. Despite significant strides in infrastructure over the past quarter-century and matching per capita income with nations like Thailand, India's public spaces still fall short in cleanliness and aesthetic appeal. While improvements are hoped for, reaching the standards we admire abroad might remain elusive.

Moreover, concerns like high AQI levels are expected to escalate. Persistent pollution from industrial emissions will continue to contaminate air and groundwater, and climate change is set to exacerbate issues with increasing heat and humidity. This grim environmental backdrop contributes to the struggle against malnutrition and stunted growth among millions, potentially worsening health outcomes. Urban woes such as traffic congestion are also predicted to intensify, given the dense population and the growing number of vehicles. Tragically, India's prominence as a hub for diabetes and cancer is likely to strengthen.

If China chooses to remain antagonistic towards us, we may face threats from both sides of Kashmir. Our labour participation rate continues to remain puzzlingly depressed and isn't recovering since a secular fall began in 2006. While the future holds promise, these challenges underscore the complexity of India's journey towards progress.

In summary, by 2047, the Indian economy is expected to quadruple, though growth rates will moderate compared to the last two and a half decades. Some sectors may reach saturation, experiencing a slowdown, even as a trend of premiumization and upgrading continues. The burgeoning middle class will markedly elevate the standard of living, and the demographic shift will disproportionately favour premium sectors over mass-market ones. These dynamics signal a consumption upgrade similar to what China witnessed in the last 25 years, marked by shifts from two-wheelers to cars, smaller to larger homes, and a surge in luxury and electronic goods purchases.

*Since 1954, India's per capita (PPP) has converged at 1% compared to the US (Madisson), while China's has been 2% and Korea's 4%. Since 1990, China's convergence has been much faster at 6.5%, while India's has been at 2.5%. There is no evidence to suggest that India's convergence will be faster than what it has been since 1990.