Economic Growth By Way of Demographic Transition

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Abstract- *India, a developing economy has an undying need for stimulating economic growth. A daring yet growth catalytic ingredient is a change in the growth planning DNA which realises the potential of demographic dynamics. With over 600 million people below the age of 25 years, the country's workforce is surging with young and aspiring workers, however, this "youth bulge" lacks the skills required for India to remain globally competitive. This decade and the next offer a golden opportunity for the nation to skill these youngsters and build a strong workforce in order to unlock the hidden potential of this much-touted "demographic dividend". Census data shows that India's youth bulge is now sharpest at the key 15-24 age group, even as its youngest and oldest age groups begin to narrow. The economics of demography provide better understanding to the policy makers to set their priorities for future planning. Demographic transition also helps in creating policy environment that takes maximum advantage from the demographic potential of the country. Changes in family structure, the status of women and children and the way people work all provides a powerful narrative in which policies can be framed. In this light, this paper describes the beginning of the demographic transition process that India has been experiencing since 1950. This paper explains why demographic change is of such profound importance. It examines India's demography, and looks at the nature of the demographic transition across the region. Finally, it explores the practical policy challenges created by changing demography-focusing especially on labour markets, education, the family, health, and pensions. The paper reveals that an ageing population, high illiteracy rate, high proportion of unorganized sector workers and urbanization and disintegration of the informal social security make India one of the most suitable countries to be addressed by socio-economic policies and programs.*

Keywords- Demographic Transition, Youth bulge, Life expectancy, Skill development, Labour market, Economic growth.

I. INTRODUCTION

As the world sits up and takes notice about India's economic prospects, it is time to look back at how economic changes in the world in the last few years have changed the way we look at emerging nations, particularly India. Emerging nations have experienced brisk economic growth and decline in mortality as well as fertility rates in the recent past. On the strength of an annual population growth rate of 1.7%, the world population grew from 2.6 billion to 6 billion in the fifty years from 1950 to 2000 alone. The population growth rates are expected to drop sharply to under 0.8 % in the next 50 years, however, an additional 6 billion people will be added to the world in this period. This has produced age-structural transitions that are rapid and unprecedented in nature. A new issue that has emerged is the demographic dividend in case of some emerging economies, where the balance between working age and dependent populations has shifted constructively towards the former, and therefore there are now more people in the working age population than in the dependent age groups.

For years, economists have debated the effect of population change on economic growth rates. It was always propounded that population growth restricts, promotes and is independent of economic growth. Studies in the past focussed upon population size and growth, thereby ignoring that critical aspect of age-structure of a population, which is the percentage composition of different age groups within the overall population. Economic behaviour of the people and requirements vary with age, therefore changes in the economic structure can have significant impact on the country's economic performance. Linkages between population and development had been difficult to establish in a distinguished manner. However, once the effect of age structural transition is recognized, this linkage becomes clearer.

The economic growth and demographic dynamics in the case of the Indian economy animate the question as to how closely economic growth is linked to the demographic structure. Let us study the impact of demographic structure and trends upon economic growth in the Indian context with focus on the demographic factor of age composition. In addition, attempt to draw inference from change in population composition, fertility rates, sex ratios and their effects upon the overall economic growth rate. Declining fertility rates have changed the age structure of India's population, resulting in a 'bulge' in the working age-group. This 'demographic dividend' has improved the dependency ratio leading to the hypothesis that the bulge in working population will lead to an acceleration in growth. However, recent employment figures indicate that the absorption of the Indian youth into the labour force is not as high as one would expect. This is perhaps due

to the poor employability of the workforce, which is severely affected by a deficit in educational attainment and health. This needs to be remedied in order to take advantage of the opportunity for growth that the demographic dividend is supposed to give India.

During recent years there has been an increasing awareness of a direct influence of demographic structure on the macro economy. Thus, the notion of demographic dividend needs to be well appreciated and acknowledged in considering the economic growth of a country. An understanding of demography is of enormous importance to policy-makers. It can be used in three main ways. First, it is a predictive tool of great power, providing a powerful lens through which future trends can be viewed. Second, demographic change can provide beneficial conditions for development, offering a country the chance to set out on a path of rapid growth. Finally, demography offers a narrative about the challenges of the future. Demography is the story of people. And in the modern economy, more than ever before, it is the quality, commitment, and enthusiasm of a country's citizens that determines whether it thrives. During the last 50 years, India has undergone demographic as well as economic changes of historic proportions. The present demographic structure of India represents the transition from high birth and death rates to low birth and death rates as the country develops from a pre-industrial to an industrialized economic system. This transition is not casual: a lower fertility rate implies smaller families, therefore a smaller number of mouths to be fed and, eventually, more resources saved and invested in capital and education. More investments, then, contribute to boost the economic growth. India has transited from the 'Hindu Rate of Growth' of around 3.5 per cent during the first three decades of planned economic development to a higher growth trajectory of close to 6 per cent over the last 25 years, and it has moved on to a new growth trajectory along which growth could average as much as 9 per cent per or more annum. By 2008, India established itself as the world's second-fastest growing major economy. However, the growth rate of Indian economy is not as significant as the same in population, which can double a population in 35 years. China and India began their own family planning programmes almost together in fifties, China steered through well but India, due to political backlash, slowed down and can surpass China in population in next 18 years. When population will increase, the demand for natural resources will also increase leading to further reduction in natural resources. There will be substantial increase in greenhouse effect. It can lead to an imbalance in nature and hence endanger the human species.

First important reason for cheer is increase in life expectancy. India has seen dramatic increase in life expectancy resulting in greater longevity. For example, around the middle of the 1900s, the life expectancy in India was merely 32 years. By the turn of the century, life expectancy doubled to 64 years. In 2011 the life expectancy in India reached 65.48 years. That year, the life expectancy for women was 67.08 years and for men 63.95 years (Figure 1).

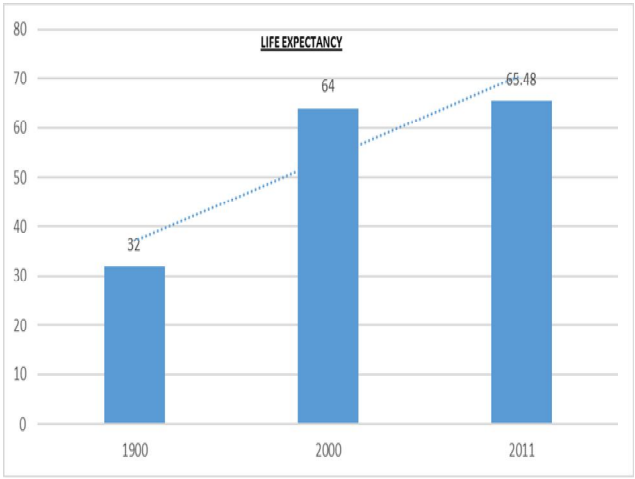

Figure 1. Life Expectancy in India
Source: UNDP, 2013*

Life expectancy rose rapidly in India due to improvements in health care facilities, nutrition, prenatal care, water and sanitation facilities, medicine and advancements in technology that allow earlier detection and treatment of formerly fatal health problems. An increase in life expectancy, which can be thought of as a proxy for population health, has a number of potential economic effects. To the extent that health affects labour quality and productivity, one would expect improved health in India, and therefore rising standard of labour inputs, to have an effect on GDP per worker. Added to this, due to longer life, healthy individuals may be inclined to accumulate more savings than individuals in poor health. Higher savings as a proportion of national income increases investment prospects and may therefore lead to higher national output. In essence therefore, dramatic reduction in life expectancy affects the labour force and hence labour productivity in addition to the allied potential lasting adverse effects on growth particularly within the Indian economy. Indeed, health improvements can influence the pace of income growth via their effects on labour market participation, workers productivity, and increased savings. But, high life expectancy in India will also raise the issue of ageing population such as increased spending for pensions, potential labour shortages, as well as problems in the field of social and health care. At present, in India 90 per cent of the population does not have pension and less than 10 per cent has medical insurance. Due to improved health care facilities in India, the death rate is on decline, this indicate that by the year 2016

persons above age of 60 will increase and will be 8.94% of the total population.

Another demographic change which will add to India's growth story is young population. In 2020, the average Indian will be only 29 years old, compared with 37 in China and US, 45 in West Europe and 48 in Japan. Further, during 2010-2030, India will add 241 Million people in working-age population, Brazil will add around 18 million, while China will add a meagre 10 million people during the same time. Moreover, 70 per cent of Indians will be of working age in 2025, up from 61 per cent now. Also by 2025, the proportion of children younger than 15 years will fall to 23 per cent of India's total population, from 34 per cent today, while the share of people older than 65 per cent will remain around 5 per cent. Also, 64 per cent of India's population is expected to be in the age bracket of 15-59 years by 2026, with only 13 per cent of the total aged above 60 years (Table 1).

Table 1. Demographic Projection for India

Age group (in years)	**Years**			
	2001	**2011**	**2021**	**2026**
0-14	35.50	29	25.1	23.4
15-59	57.80	62.7	64	64.3
60+	6.90	8.2	10.7	12.5

Source: Census of India
Note: All numbers are in percent of total population.

While China's demographic dividend would start tapering off by 2015, India is expected to enjoy the benefit until 2040. An increasing proportion of working population will provide a window of opportunity to improve labour productivity, increase domestic production, enhance revenue from services, increase savings and reduce the burden of old residents on the working population. Empowered with unique demographic advantages and guided efforts, India is poised to position itself among developed economies within the next 10–15 years.Third, the idea of Demographic Dividend assumes that more people in a certain age group will mean more jobs and more income for the country. Since a majority of the youth knock on the doors of the labour market right by the age of 15, the youth segment of the population will also have to be considered in relation to the larger working age (15-59 years) population. As on 2010, half of India's population is below 25 years of age, and 62 per cent of its population is in the working-age group. India, thus, accounts for 17.5 per cent of the world's total working-age population. From 2010 to 2030, India's total working-age population is poised to rise from 749 million to 962 million, accounting for about 28 per cent of the increase in the world's total working-age population over the period. In contrast, the working-age population of China will shrink by 45 million. More important, the median age an Indian will be 32 years in 2030, much younger than US with a median age of 39 years,UK (42), Japan (52), and even China (43) and Brazil (35). Right now about one quarter of the world's workers are in China, that falls to below 20% by around 2030, at the same time India the share of the world's employed that reside in India will rise from around 17% to around 21%.This means India will have the largest youth workforce in two decades.

This demographic advantage can help propel India's GDP growth by a CAGR of 6.7%, faster than China's projected growth of 6.6%, as per projections made by global think-tanks including Ernst & Young and IHS. While much of the young workforce would be absorbed in the fast-growing services sector whose share in GDP is expected to rise from 57% in 2010 to 68% by 2030, India will still be left with 47 million surplus labour which can migrate to other labour-deficit countries such as US, UK and Japan. By 2050, India will have 100 crore employable people. This is presented as the dividend against USA's 27 crore employable people and Europe's 45 crore (Ray, 2013).Fourth, demographic factor which will add to India's growth story is 'dependency ratio'. A nation's "dependency ratio" is the ratio of the dependent population to the working-age population. At 46.6 persons under the age of 15 for every 100 of working age, India's 2010 youth dependency ratio is nearly twice that of China's (24.4). India has fewer old-age dependents than China, but the difference between the two countries in their old-age dependency ratios (8.3 for India, 11.8 for China) is much smaller than it is for youth dependents. Currently, 85 percent of India's dependents are youths, compared with 67 percent in China. What is different about India is the prediction that it will see a sharp decline in this ratio over the next 30 years or so. The dependency ratio in India is expected to fall to 48 percent in 2025 because of continued fall in child dependency ratio and then rise to 50 percent by 2050 because of an increase in the old age dependency ratio as the bulge moves forward and the death rate in the older income group declines. In short, one child policy of China has created disproportionately large elderly population that effect of which China will feel around 2030 when 400 million people will be over the age of 60. India, however, is poised to advance in the next 40 years with an increasingly younger population. This is what constitutes the demographic dividend for India. A high dependency ratio indicates that the economically active population and the overall economy face a greater burden to

support and provide the social services needed by children and by older persons who are often economically dependent. A high youth dependency ratio, for instance, implies that higher investments need to be made in schooling and child-care.

The proposition behind this story is: as fertility levels decline, the dependency ratio falls initially because the proportion of children decreases while the proportion of the population of working age increases. The period when the dependency ratio declines is known as the "window of opportunity" when a "demographic dividend" may be reaped because society has a growing number of potential producers relative to the number of consumers. India's fertility rate-that is, the average number of children a woman expects to have in her life time-used to be 3.8 in 1990. This has fallen to 2.9 and is expected to fall further. Since women had high fertility earlier, India now has a sizeable number of people in the age-group 0-15 years. A more indirect but vital benefit for the economy is the effect this can have on savings. Human beings save most during the working years of their lives. When they are children, they clearly consume more than they earn, and the situation is the same during old age. Hence, a decline in the nation's dependency ratio is usually associated with a rise in the average savings rate. India's savings rate as a percentage of GDP has been rising since 2003 (Figure 5). It was 29.5 in 2011 and now stands at 33% which is comparable to the Asian super-performers, all of whom save at above 30%, with China saving at an astonishing near 40% rate. But in China, consumers are less willing to spend because of limited social safety nets.

However, as fertility levels continue to decline, dependency ratios eventually increase because of the proportion of working age starts declining and the proportion of older persons continues to increase. As populations grow older, increases in old-age dependency ratios are indicators of the added pressures that social security and public health systems have to withstand.This savings growth is driven by improvements in the government's fiscal health and a sharp rise in corporate savings. But even if these factors disappear, the decline in the dependency ratio should enable India to hold its savings and investment rate above the 30% mark for the next 25 years. Where India has been very successful in lifting its rate of actual output growth, at the same time India has also seen an increase in the investment to output ratio. Currently around 31 percent, India's investment ratio compares with China's 48 percent. India aims to raise its ratio by about four or five percentage points over the next few years, fuelled largely by household and corporate savings.

Another demographic trend that may have economic implications for India is fall in dependency ratio. The latest value for Age dependency ratio (% of working-age population) in India was 54.34 as of 2011. Over the past 51 years, the value for this indicator has fluctuated between 81.51 in 1965 and 52.4 in 2013. India's dependency ration is expected to fall sharply compared to China and USA. The dependency Ratio is important because, as the chart shows, India is just entering its Goldilocks period while China, like the United States, is already leaving. Furthermore, the dip in the Indian chart is more gradual and longer-lasting than the corresponding dip for China. For the next several decades, China will be tacking into the wind while India still has its spinnaker up. Chinese economic growth will slow, while India's, assuming a supportive policy environment, will edge past it (Dolan, 2011). Fall in dependency ratio is considered as good indicator of economic growth because it shows the ratio of economically inactive compared to economically active. Economically active will pay much more income tax, corporation tax, and, to a lesser extent, more sales and VAT taxes.

Added to these, there are many demographical factors which will contribute to India's growth story. Young people of India are shifting from traditional job search models to entrepreneurship models. The main reason behind this shift is the requirement of very low capital intensity compared to the US and Europe; and willingness to challenge the status quo, to create different business models. For example, Western pharmaceutical companies go from lab to mice to men to market, a billion dollar process. Indian companies are exactly opposite. The companies look for medicines that already work on people: 3000 to 4000 years old treatments like Ayurveda. They figure out in the lab why it works, replicates that knowledge in clinical trials, and launch it, all for half billion dollar. This is also called 'reverse pharmacology'. Urbanization will bring tremendous transformation because now hundreds of millions people may have access to ICTs which is a potent tool of social transformation and economic growth in the modern world. But for urbanization to succeed, business willhave to move into Tier Two and Tier Three cities and not get concentrated in the main metropolitan areas. Finally change in the family system will also bring some opportunities and challenges to the Indian society and economy. In the last few years, there has been a shift from the joint family system to nuclear family systems. Nuclear family system is regarded as best in the sense that it promotes savings in the society and enhances the level of education of children. But, the joint family system, which used to provide the most widespread form of social security wherein the young ones take care of the old, is disintegrating.

II. CONCLUSION

In order to increase the employability of this burgeoning workforce, the emphasis needs to shift towards making soft skills and value-based training a part of the curriculum. Academic learning should be integrated with industry exposure through workshops where students can interact and learn from professionals as well as on-the-job training through internships, apprenticeships, etc. but this cannot be achieved through arbitrary governance. What India needs is a structured approach, with phased government planning and policies. The government needs to play a big role as a facilitator and bring in the right policy framework to build this education/skilling infrastructure.

From the above discussion it is clear that demographic dividend can accelerate economic growth. Evidently, countries such as Thailand, Braziland China have reaped the reward from their demographic dividend because demographic dividend has a finite window and is not automatic, the timing of policy action is critical. Many policymakers mistakenly think that a demographic dividend results automatically from a large population of young people relative to the population of working-age adults and without the needed population, social, and economic policies. India cannot reap the dividend of demographic change until policymakers do four things better. First, evidence suggests that India faces a major deficit in the areas of education and health which could adversely affect the conversion of a growing labour force into an effective workforce offering quality, low cost labour. With low mortality rate and a baby boom still on, India has to ensure that its children are healthy and educated. As we have seen, most women in the working-age population do not seek employment in the labour market because of what they term personal or family responsibilities. Change in this circumstance would require action and progress on three fronts:

- Increasing education levels starting at the primary and secondary level, especially in less developed regions
- Reducing the burden of household work
- Empowering women to reduce gender disparities and breaking down traditional mind sets through pro-active policies and interventions, including reservation of jobs in the public sector and higher grade positions.

Country's economy, becomes less of a burden when they age in vast numbers. Therefore, additional investment in health and education sector is needed in India to open the window of opportunity. Second, a gender equitable environment is critical to achieving a demographic transition because in such a setting, women are free to access and use family planning without many of the barriers they currently face in developing countries like India. Such an environment also enables women and couples to choose the number, timing, and the spacing of children and allow women to participate in the labour force and contribute more to the family's economic well-being. As an important step toward gender equity, and to foster economic growth, countries need to develop and enforce policies that enable girls to go to school and equip them with skills to compete for higher-paying jobs. In many parts of India, women-especially poor women-consistently have lower access than men do, to mass media and technology, leaving them less informed and less empowered. Women need improved access to a variety of types of information that will help them shape and improve their own lives as well as their children's lives. Third, it has been rightly emphasized that for India to reap the gains of the demographic dividend, it is necessary to create productive employment opportunities for the new entrants into the labour force.

A key factor in ensuring remunerative and productive employment opportunities is ensuring mobility of labour both from rural to urban areas and across and within sectors. This requires a smooth-functioning labour market and availability of skills in demand, with better-educated and more skilled labour earning higher returns. Investments in job creation should be mainly in sectorswith high demand for low- skilled workers. Jobs also need to be created in knowledge-intensive sectors with greater added value as the level of educationin the country increases. The job market must also be modernised with increased flexibility in hiring, job mobility and increased investments in training by the private sector. Access to employment must be equal for both men and women. Added to this, for knowledge economy India needs a flexible education system, basic education would provide the foundation for learning, secondary and tertiary education would provide full capabilities and through technical skills further means of achieving lifelong learning. Fourth, in case of India, most women in the working age population do not seek employment in the labour market because of what they term personal or family responsibilities. To change this situation would require empowering women to reduce gender disparities and breaking down traditional mind-sets through pro-active policies and interventions, including reservation of jobs in the public sector and higher grade positions. Lastly, the value of India's demographic dividend will depend in great measure on whether the public and private sector have the political will and foresight not only to create jobs but also to train the new young workforce, encourage global trade, improve a failing education system, provide better housing, lure capital to support invention and innovation, and implement policies that engender confidence in the economy.

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