

Extended Abstract

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Projection of South African Demographic Situation and Status of Economic Growth

INTRODUCTION: - South Africa's highly unequal Society is reflected in its economy in which a sophisticated modern sector with high incomes exists alongside a low income informal sector. Over the last decade South Africa's economic performance has on average been solid but its growth has lagged behind that of its peers. Although the growth rate has picked up in recent years, between 2001 and 2006 annual average per capita (1.8%) was only half that of low and middle income countries generally (3.7%). Considering that South Africa has a relatively stable economy, abundant natural and labor resources and well developed financial markets.

A country has much influence by its population structure, in terms of society, economy, politics and other anthropological status. According to David Bloom – for decades, economists and social thinkers have debated the influence of population change on economic growth. Three alternative positions define the debate: that population growth restricts, promotes, or is independent of economic growth. Proponents of each explanation can find evidence to support their cases. All of these explanations however, focus on population size and growth.

AGE STRUCTURE TRANSITION: - One of the important effects of Demographic Transition is the change in age structure of a population. Age structure transition is the series of change or the shifting of age structure from young to an old population. Here the concept of “Demographic Bonus” comes because the shifting from the young to the old age population leads to a rapid growth of working age population. This period is termed as “Window of Opportunity”.

Some assumptions of “Window of Opportunity” are –

1. Socio-economic status of an area or region is changed with the change of relative size of the age group.
2. With distinct economic consequences, each age group population behaves differently.
3. Different Demographic Waves are created by bulge in the working age structure.

NEED FOR THE STUDY: - It is the need of the hour to study on the relationship between age transition and labor force as the volume and the participation of the labor force determines the momentum of economic development. This study tries to understand the past trends in the age-sex transition and based on this the implications of future age-sex structure is studied. For a developing country like South Africa's economy it is necessary to understand the participation of its labor force at the present time and the projection of such participation in the future, so that proper planning can be made for micro level implementation to get a desired Macro Level change.

OBJECTIVES: -

- To study how much change will occur in near future in terms of demographic context in South Africa.
- To explore how demographic dividend or labor force accelerate South African economic structure.

DATA SOURCES: - Data have been taken from various penal data sources for the purpose of the study. These are South a Africa 2001 census, UNDP 2001 report, Demographic Projections of Africas Population by E.O. Udjo, South Africa World bank Report.

METHODOLOGY: - For the purpose of the study Spectrum Software and M.S. Excel software has been used for fulfill the objectives of this paper. This paper projects some demographic crucial components like birth rate, death rate, total population, age-sex wise district level and state population, labor force, GDP, new job requirement, dependency ratio etc.

For calculating percentage of age specific fertility rate the formula is:-

$$\text{Percent of ASFR} = \frac{ASFR_{x-x+n}}{\sum ASFR} * 100$$

Where, $ASFR_{x-x+n}$ = Age Specific Fertility Rate at age x-x+n (like 15-19)

$$\sum ASFR = \text{Total Age Specific Fertility Rate.}$$

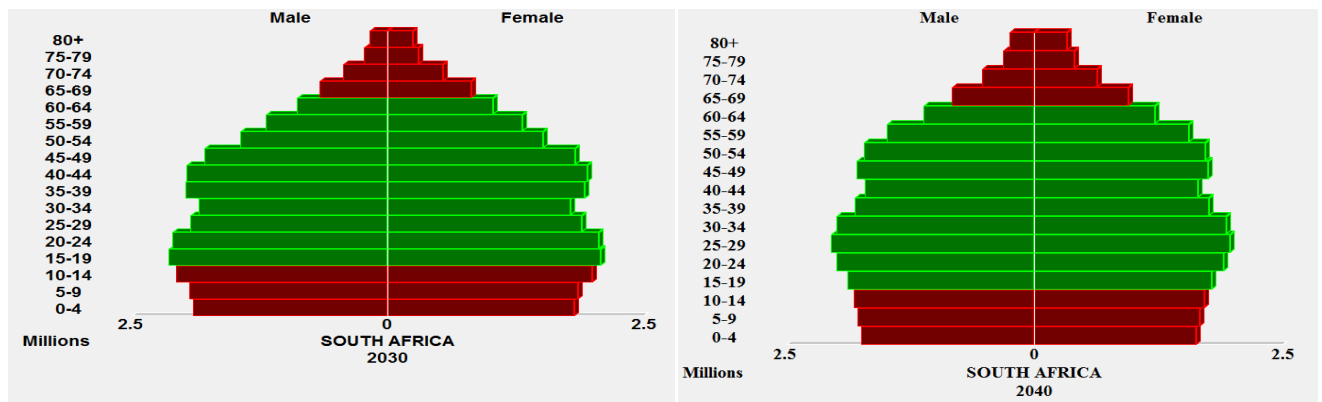
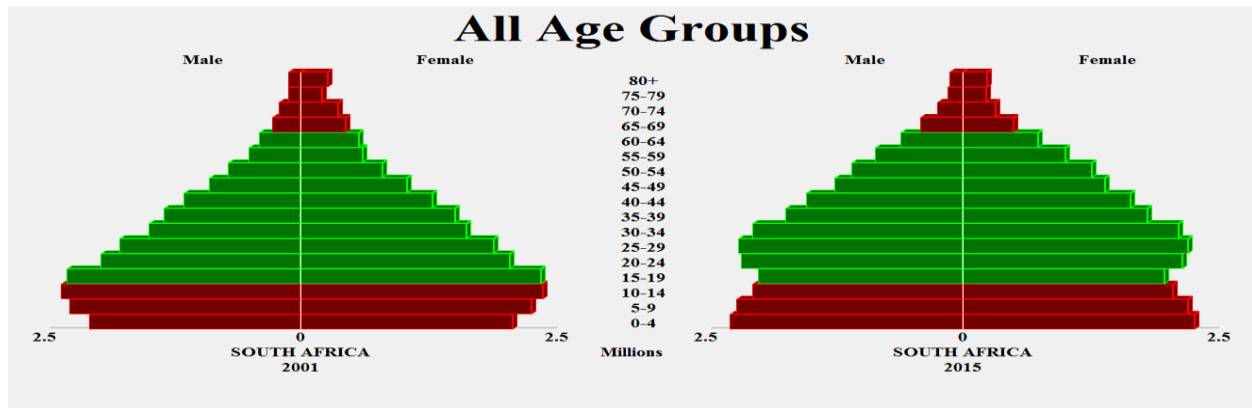
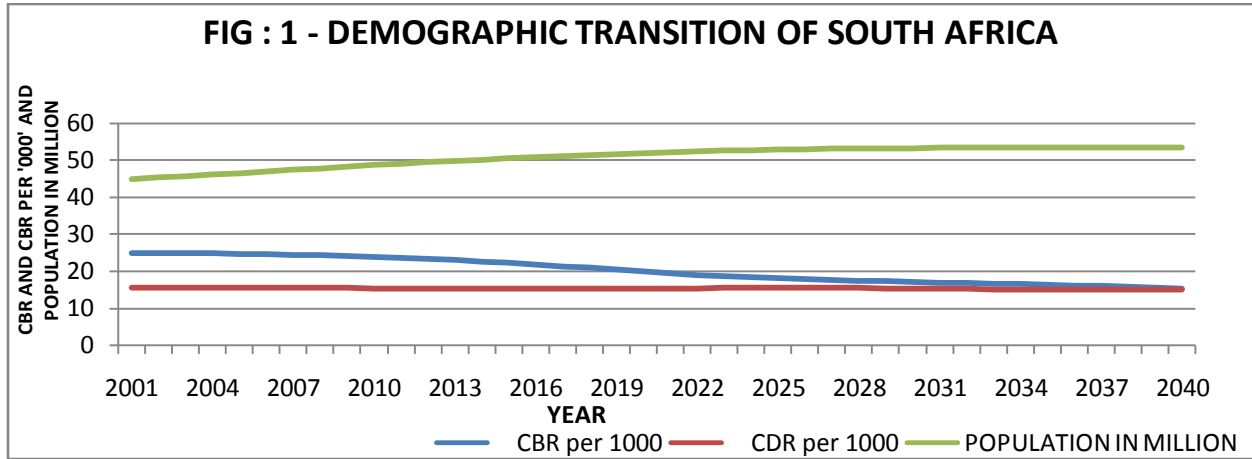
For calculate age sex specific labor force the formula is:-

$$mLFPR_{x-x+n} = \frac{mLFx-x+n}{\sum mPx-x+n} * 100$$

Where, $mLFPR_{x-x+n}$ = Male Labor force Participation Rate at age x-x+n

$\sum mPx-x+n$ = Male Population at age group x-x+n

RESULTS: - Demographic Transition of South Africa: - From the diagram 1 we observed that South Africa having increased total population over the period of time. The population line of this transition graph is showing very slow population growth from 2025 year. Crude Birth rate is declining, but the rhythm is very slow and after 2025 it is almost constant. On the contrary Crude death rate is near about constant from the starting point to the end point.

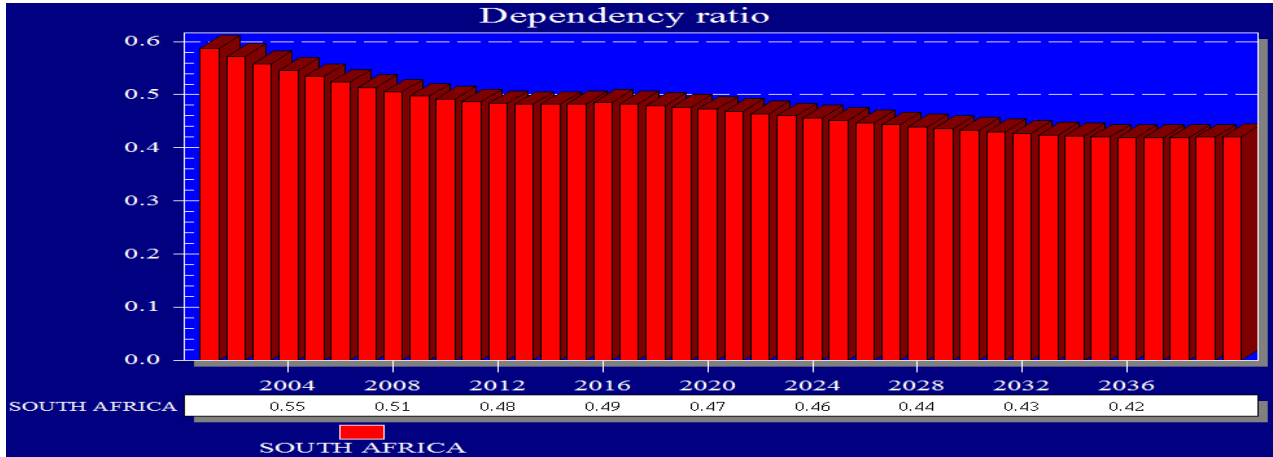


The age pyramids of South Africa (2001, 2015, 2030 and 2040) showing totally different figure among each other. The first one describing that the percentage of base population is very high. And with increasing the age group the total population is going to decrease. But in comparison with female population the aged female population is very high at that time (2001).

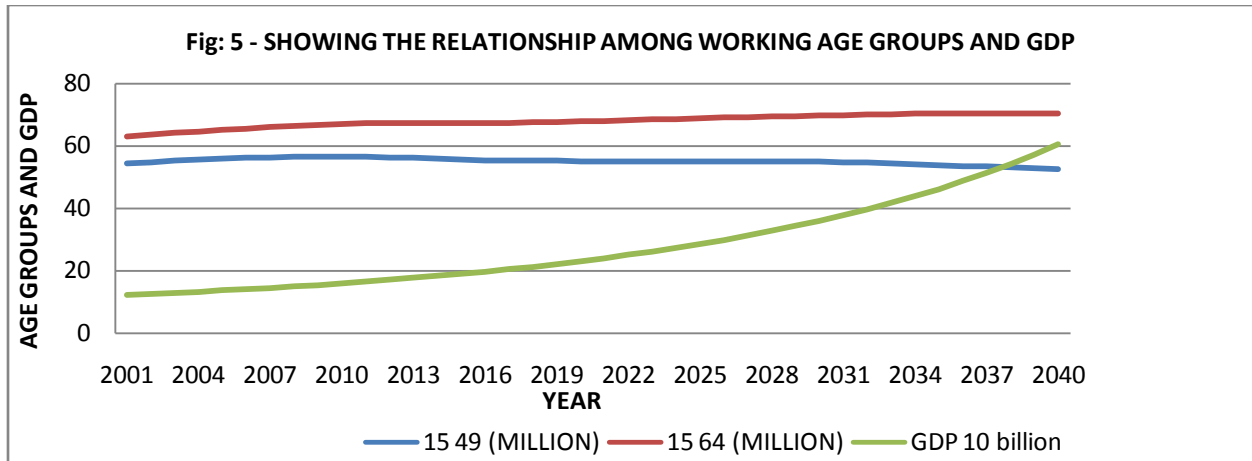
The second pyramid is showing little developed condition in terms of socio economic context. As the 15 to 34 age group people are increased so the economic status also changed with this. This population is termed as working population or demographic bonus or window of opportunity. Generally this population accelerates the economic status of a country.

But last two diagram showing very much improved demographic status, with the increasing of working population the aging population increased. This indicates low mortality, high life expectancy, controlled birth, good medical facilities and well social life style as well.

FIG: - 4 SHOWING SOUTH AFRICA DEPENENCY RATIO



From the above diagram it is observing that South Africa declined its dependency ratio consistently. As we seen the old age population increasing but still dependency ratio declining. That indicates South Africa reducing total fertility rate in a gentle manner.



From The diagram no 5 we found that total working population increasing, which is 15-64 years of age. But 15-49 years of age population declining after 2030. So the fact is mainly 50-64 years of population highly increased after 2030. If we look at Gross domestic product we found there is positive relation between 15-64 years population and GDP, both are increasing. But opposite situation found between 15-49 years population and GDP of South Africa.

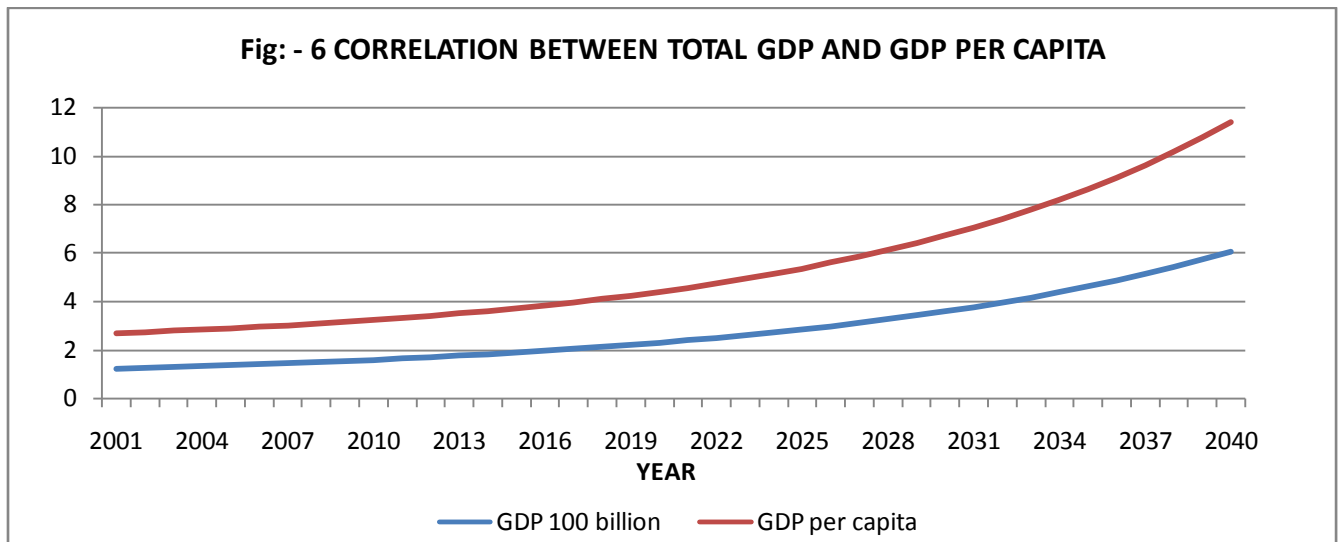


Figure 6 showing projected GDP and per capita GDP. From the diagram it is observed that the growth rate of total GDP and Per capita GDP are almost same at the time of 2020. But after this time per capita GDP growth are very high than GDP growth. And from the time of 2030 Per capita GDP accelerates at a very faster rate, which is showing a good South African economic status in near future.