Uganda's demographic dividend

Dr Sarah Birungi Nahalamba and Judith Mutabazi look at the implications for development policies

The demographic dividend (DD) is an opportunity for economic growth, development and improved well-being that arises from changes in the population age structure. When fertility rates decline significantly, the share of the working-age population increases in relation to previous years.[2] The larger working-age population, if properly nurtured, can enable a country to increase gross domestic product and raise incomes.[2,4]

Learning from the Asian Tigers and other developed countries that attained demographic dividends, many countries in Africa are taking strategic policy actions to accelerate realisation of the DD. Uganda's rapid population growth, young age structure and consequent high child dependency burden, however, are potential threats to the realisation of the DD and associated socio-economic development. To curtail these challenges, the National Planning Authority modelled a suitable socio-economic pathway for Uganda to beat the odds, against its dividend.

Towards the demographic dividend
The National Planning Authority spearheaded a baseline study in 2014 on harnessing the Demographic Dividend for Uganda. It was found that taking an approach of only economic interventions would make the country miss its DD and growth targets, whereas the combined economic and human capital development path would enable the country to hit both its DD and growth targets of 2040 Vision.

The implementation of employment focused economic reforms, increased use of family planning and targeted investment in human capital (education, health and skills) are likely to result in marked improvements in the quality of life of the population, leading to a reduction in the Total Fertility Rate (TFR) from 5.4 to 2.5 children per woman, an increase in life expectancy from 64.5 to 75.3 years, and a projected population of 67.5 million in 2040. The country is also likely to meet its 2040 Vision target of GDP per capita of US$9,500.

The baseline study model suggested a need for accelerating the demographic transition, creating a healthy workforce, enhancing the coverage and quality of education and skills development. These interventions guided the identification of priority areas for population

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and human capital development in the Second National Development Plan (NDP II). A review of progress in 2017 and further remodelling showed some progress, but not as fast as initially anticipated.

Methodology
The DemDiv Model was used in 2017. It has two inter-related components, namely the demographic component and the economic component. The demographic component projects the population, its age-sex structure and characteristics. This information is fed into the economic component which projects total production as a function of the labour force, capital formation and total factor productivity. Two distinct scenarios were generated as follows:
1. Economy Scenario (economic emphasis only) – assumes extra intervention in the economic policies, while the education and health sectors maintain the routine interventions as in the Base Scenario
2. Combined Scenario (both economic emphasis and human capital development) – assumes extra intervention in the economic policies, education and health sectors.

2017 modelling findings
The findings revealed that if the current development path is maintained, the GDP per capita in 2040 would be $4,583, which is 52% of the Vision 2040 target.[2] Emphasis on economic reforms without associated improvements in the quality of human capital would lead to a higher GDP of $6,735, but still miss the target. The model revealed that concurrently implementing a combination of job-oriented economic reforms and investments in human capital would enable Uganda to attain its Vision 2040 target of being a higher middle-income country with a GDP per capita of $9,523. The findings further revealed that irrespective of the reforms, Uganda's population will continue to grow because of the already built momentum. Consequently, the population entering the labour market would continue to increase from 800,000 in 2018 to 1.4 million by 2040.[2]

Population growth and structure: As of mid-year, 2017, Uganda's population was estimated to be 37.7 million, with an annual growth rate of 3%. Commitment to family planning was strong, which helped in the efforts to increase the use of modern contraceptive methods from 18 in 2000 to 35% in 2016, and the TFR declined from 5.8 children to 5.4 children per woman. Despite the achievements, there was not much change to the population age structure as indicated in Table 1 and Figure 1.

Table 1. Pop. age distribution (%)

Age	1991	2002	2014	2017*
<18	56.4	58.5	55.1	54.1
6–12	20.0	22.0	21.3	20.6
18–30	21.0	20.0	22.5	22.9
18–64	42.9	40.9	44.2	45.6
>60	5.0	4.5	4.1	3.7

Table 2. Economy Scenario outcomes

Population	73.4 million
Population under 15	43 million
Total fertility rate	3.8
Life expectancy at birth	71.1
Dependency ratio	71
Working age population	38 million
GDP per capita	$6,735

Table 3. Combined Scenario outcomes

Population	67.5 million
Population under 15	42.7 million
Total fertility rate	2.5
Life expectancy at birth	75.3
Dependency ratio	58
Working age population	38.2 million
GDP per capita	$9,523

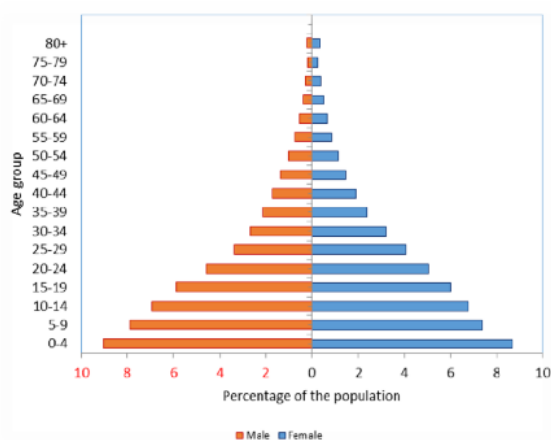Figure 1. Population pyramid 2014

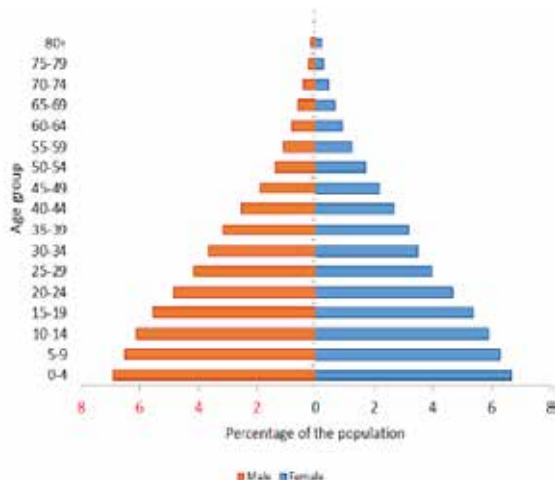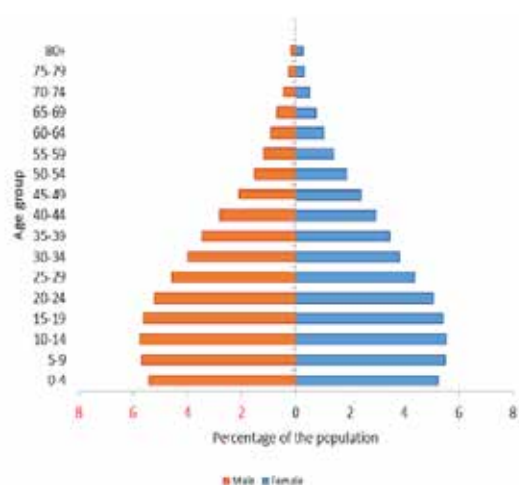Figure 2. Economy Scenario population pyramid 2040

Figure 3. Combined Scenario population pyramid 2040

In the economic scenario, the reduction in fertility does not lead to a significant change in the age structure of the population. The age structure remains quite youthful with a broad-based population pyramid (see Figure 2) although the base is slightly narrower than that observed in 2017. Such an age structure is not conducive for harnessing the potential demographic dividend.

In the combined scenario, there is significant reduction in TFR to 2.5 per women, leading to a notable change in the age structure which transforms from a child-heavy structure to a structure with a youth bulge developing prior to transitioning into working age groups, as shown in Figure 4. Children below 15 years would reduce to only 38% of the population. The Dependency Ratio reduces substantially from 97% in 2017 to 58% in 2040. It is the youth bulge that will enable the country to reap the demographic dividend when that population group moves into the working-age bracket.

Figures 2 & 3 and Tables 2 & 3 indicate the key outcomes under the two scenarios.

Morbidity and mortality: Overall, there was a reduction in morbidity from 40% in 2012/13 to 28% in 2016/17.[2] A general improvement in both childhood and adult mortality was recorded, however, mortality levels in Uganda remain comparatively high in global context. The under-five mortality rate declined from 128 deaths per 1,000 live births in 2006 to 64 deaths in 2016. The key driver of this indicator is the persistently high neonatal mortality, which only declined from 33 deaths per 1,000 live births in 2000 to 27 deaths in 2016. The Maternal Mortality Ratio was 336 deaths per 100,000 live births. Life Expectancy at Birth increased from 50.4 years in 2002 to 63.7 years in 2014.

Education and skills: The improvement in education and skills indicators was slower compared to projections. The mean years of schooling for persons aged 25 years and above were projected to increase to 5.7 for females and 7.2 for males. The review showed that these stagnated at 4.8 and 5.0 respectively. Similarly, the expected years of schooling which were projected to increase to 12 for either sex were only 11.2 and 11.9 for females and males respectively. Slow progress in the education indicators is a result of a declining primary school net enrolment rate and increasing school dropout rate. In addition, BTVET has not been universally embraced as can be observed from enrolments of less than 500,000 in 2016, with the males constituting about two-thirds of the total BTVET enrolment. Only one in 40 persons (2.5%) are deemed to have the appropriate skills to immediately benefit from the

labour market. This leaves the country with a large and unskilled labour force, low productivity potential and hence minimal contribution to economic growth.

Labour and employment creation: The Labour-force participation rate went down from 59.8% in 2012/13 to 52.3 in 2016/17. The working age population in 2016/17 stood at 19 million, of whom 15 million were actually working. The most common types of activity were found to be subsistence agricultural activities involving about 40% of the working population. Only 18% of the labour force were primarily engaged in non-agricultural wage employment, an increase from 14% in 2012/13. Persons in urban areas were more likely to be engaged in wage employment (44%) compared to their rural counterparts (17%). In 2016/17, about 9 million out of 19 million persons of working age were employed for pay or profit, an increase from 7.7 million recorded in 2012/13. Thus Uganda, like many other African countries, is faced with high rates of unemployment, underemployment and labour underutilisation. The unemployed persons in Uganda were mainly those with no skills, constituting 91% of the working age population.

Economic growth: In 2014 it was projected that GDP per capita would be $980 in 2017, and further rise to $9,567 in 2040. By 2017 the per capita GDP was U$40 – 24.5% short of the projection. In Vision 2040, it was projected that average GDP growth rate would be 8.2% per annum up to 2025 before it gradually declines to an average of 7.8% in the last five years of the Vision period. There was a delay however, in accelerating growth and therefore Uganda was not able to double its GDP even with the introduction of new technologies and the expansion of infrastructure. These compounding factors highlight the need to further explore the country's critical path for accelerating harnessing the DD.

Key policy interventions

To achieve the best development results, first the country needs to implement reforms that lead to a reduction in the dependency ratio through consistent rapid fertility reduction. Second, interventions aimed at increasing labour productivity such as investments in a healthy, educated and appropriately skilled human capital are paramount. Third, introduction of economic reforms geared towards labour market flexibility and global competitiveness are required. The specific interventions include the following:

1. Fertility reduction: with focus on the key determinants of fertility such as reduction of the high unmet need for family planning to less than 5%, specifically targeting rural and hard-to-reach areas; and switching from short-term to Long Acting Reversible Contraception methods (LARCs).
2. Human capital development: Education of women is essential for empowerment and harnessing returns on investment. The priority should be to design a national incentive programme to keep girls at school and the establishment of a long-term strategy for boosting their skills. On average, a birth reduces a woman's labour supply by almost

two years during her reproductive life. Behavioural change, in the form of increased female labour supply, contributes significantly to economic growth during the demographic transition when fertility declines.[1]
3. Employment creation: the DD can only be attained if a larger proportion of the population is in the working-age group and the economy generates job opportunities to fully utilise them. The economic reforms should be able to generate one to 1.5 million jobs annually to absorb the population that is entering the job market. There is need to create economic autonomy for women to increase household incomes and decision-making powers. This, in turn, reduces vulnerability to sickness and mortality and contributes to faster poverty reduction.
4. Governance and accountability: To instill confidence in both local and foreign investors, Uganda needs to design the appropriate institutional setting to implement the policy reform interventions or strengthen existing institutions through governance enhancement. To expedite growth of local industries, government needs to strengthen import substitution strategies and export promotion initiatives.

Conclusion and policy recommendations

The comprehensive reforms that countries must enact and implement to harness the demographic dividend can be categorised into the following five pillars: accelerating demographic transition through investments that facilitate rapid fertility decline; improving education outcomes and general empowerment of women through enhancing investments in high-level education to develop a well-educated, skilled and innovative labour force; enhancing investments in health; implementing economic reforms to accelerate economic growth and job creation for the rapidly expanding labour force; introducing fiscal policies and governance reforms to enhance savings, attract foreign direct investment (FDI), and ensure efficiency and accountability in the use of public resources.

Economic development is a multi-dimensional phenomenon. When countries with high fertility rates implement cross-sectoral policies with the aim of reducing birth and death rates, they could potentially benefit from the demographic dividend.[4]

Overall, the best development results towards realisation of the DD, are achieved when combined economic and human capital interventions are designed and implemented concurrently.[2]

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