Title: "Understanding the demographic dividend in Ghana, Sierra Leone and The Gambia: Prospects or missed opportunities?"

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Abstract

Objective: This study comparatively investigates the onset of the demographic dividend (DD) in Ghana, Sierra Leone and The Gambia. The paper attempts to examine the onset of DD in the three countries to inform relevant policy actions to reap its benefits.

Methodology: The study uses the National Transfer Accounts Approach to examine the demographic transition alongside economic development in each country to determine the commencement of the DD and its implications for policy action.

Results: While the DD of Ghana started in 1980 and expected to end in 2025, that of The Gambia and Sierra Leone began in 1990-2000 and 2003 respectively, estimated to end by 2050. This calls for strategic investments in productive sectors to position the countries to reap the benefits of the DD.

Conclusion: The analysis suggests that the onset of the DD could be a prospect or missed opportunity which will vary across the three countries.

Key Words: Demographic dividend; Ghana; Sierra Leone; Gambia; Prospects; Missed opportunities

Introduction

The concept of the demographic dividend (DD) describes the process of accelerated economic growth that begins with changes in the age structure of a country's population as it moves through the demographic transition from high to low birth and death rates. While all countries are expected to go through a process of transition from high to low birth and death rates, the onset of the DD along the transition is conceived to occur at different points in time. This paper attempts an analysis of the timing of the onset of the DD in three West African countries: Ghana, Sierra Leone and The Gambia to highlight the relevance of identifying the timing of the DD either as a prospect or a missed opportunity to inform development planning programming activities in these countries.

According to the World Bank (2015), fertility has been slow in its decline in Africa, a situation that is likely to result in a rapidly growing population, projecting the region to have a much bigger share of the future global population than it has today. The Bank reports that Africa will contain 2.8 billion of the world's projected 10 billion population by 2060 in comparison to 5.2 billion in Asia, 1.3 billion in the Americas, 0.7 billion in Europe, and 0.1 billion in the rest of the world. This rapid growth in Africa's population will also vary within the continent and across different countries. However, this rapid growth in the population that characterizes the population dynamics of most of sub-Saharan Africa's countries does not necessarily spell doom for countries in the region. This is because associated with the current growth of the population of most of these countries is the development of a demographic dividend that must be identified and harnessed for sustainable development.

The demographic dividend is typically revealed through the changing population pyramid from a broad base to one with a shrinking base, increasing labour force and a shrinking age dependency ratio. This is aptly described as the "youth bulge" which demonstrates an increasing number of young people entering the labour market every year for whom the state will need to find jobs for. Many sub-Saharan African countries are either beginning to witness this situation or are already in it.

The relevance of the demographic dividend is mainly related to four key sectors of every country's development. These sectors are the economy, health, education and governance. From an analysis presented by Ahmed (2015), it is argued that Africa's demographics could account for 11-15 percent of the region's gross domestic product growth between 2011 and

2030 with a variation across different countries. It is further projected that due to demographic changes, Africa's poverty rate which stood at 52 percent in 2007 could reduce to 17-37 percent made up of between 210-451 million poor people (Ahmed, 2015). Quite clearly, this shows the possible impact of the onset of the demographic dividend in each country and how it could be appropriated for the country's benefit. It means that depending on the way the demographic dividend is managed and responded to by policy interventions, more people would be taken out of poverty.

In the health sector, reducing rates of births is expected to have reducing effects on infant and child mortality, increase life expectancy at birth and further increase the population's potential for production and wealth creation as the national expenditure reduces. It also will require strategic investments in education while ensuring transparent, participatory and accountable governance to reap the benefits associated with the demographic dividend.

However, currently, there is limited knowledge on the timing of the demographic dividend in many countries in Africa due to the varying socio-cultural, economic, demographic and political situations in these countries. The timing of the onset of the demographic dividend is also linked to the demographic transition in each country within the context of the socio-political economy of each country.

Against this background, we examine the demographic dividend in Ghana, Sierra Leone and The Gambia to understand how the differences between the three countries could inform respective policy and programme initiatives towards realising the sustainable development goals (SDGs). We specifically aim to examine the income and consumption profiles in relation to age in each of the three countries; analyse the life cycle deficits in each country; and discuss the economic support ratio which demonstrates the support of the working population for the non-working population as a consequence of the built-in dependency emanating from the changing age structure in each country depicting the onset of the demographic dividend.

The choice of the three countries is first based on their geographical location in the West African Region and are all English-speaking. Secondly, the three countries were involved in a training workshop in Ghana on the NTA that aimed at equipping national-level experts on the application of the NTA methodology in analysing the possible implications of their respective

country's socio-demographic situation as they affect development. Finally, data on these three countries were available for the analysis.

Data and Methodology

The analysis uses relevant data sources from Ghana, Sierra Leone and The Gambia. In Ghana, we use the 2013 Ghana Living Standard Survey (GLSS). This is a nationally-representative survey of 8,687 urban and rural households and 37,128 household members in Ghana. It was carried out by a series of detailed household interviews conducted by the Ghana Statistical Service (GSS) over a 12-month period. Detailed information was collected on demographic characteristics of respondents and all aspects of living conditions including health, education and housing. Information on private expenditure composed of food and non-food items while income comprises of employment and self-employment. The survey collected household-level data on household size; and individual-level data on age in years, wage income, self-employment income, level and costs of education, health status, number of visits to health facilities and costs of treatment.

In the case of Sierra Leone, we use the 2011 Sierra Leone Integrated Household Survey (SLIHS), which is the Sierra Leone survey used to estimate household income, consumption and expenditure as well as poverty levels in the country. The survey combines estimates of household income and consumption over a period of one year. We use these to estimate age profiles of the various NTA variables, which are adjusted proportionally to ensure that their aggregate values, conditional on the Sierra Leone population structure in 2011, match the corresponding aggregate totals in the National Accounts where these are available, which we obtained from the 2010-2016 Ministry of Finance and Economic Development financial reports. To estimate the health profiles for Sierra Leone, we used data from the Health Finance Report from the Ministry of Health and Sanitation (2010-2011). We also used profiles from the Ministry of Education, Science and Technology's 2010/2011 Annual School Census Report.

The Data for The Gambia are from the 2015/16 Integrated Household Survey (IHS) and private consumption on health, education and other expenditures. The purpose of the survey was to provide identification of policy target groups; to provide a mechanism whereby key poverty indicators can be easily and regularly produced in order to describe and monitor the well-being

of different categories of households; to provide some key data on how the economic policies affect the availability and quality of social and economic services to households, both as producers and consumers of products; to collect data relating to such areas as health, education, employment, nutrition, agriculture, non-farm enterprises, governance, etc; to derive consumption patterns of households; to identify individual items which should be included in the consumption basket; to determine the income group(s) for whom the index will be computed. The integrated household surveys of Sierra Leone and The Gambia which are used in this study are equivalent to the living standards survey conducted in Ghana. The three surveys which provided the data for the analysis are therefore comparable, having collected identical variables and indicators appropriate for the kind of analysis done in this study.

For the demographic data, we use the three most recent population and housing censuses conducted in the three countries. For Ghana, we use the 1984, 2000 and 2010 censuses while for Sierra Leone we use the 1985, 2004 and 2015. On the other hand, in The Gambia, census data were from 1985, 2005 and 2015.

The study uses the NTA method of analysis in the presentation of results. The NTA is a comprehensive system for measuring economic resource flows across ages, done at the aggregate level and for a prescribed period. In the NTA, the individual is the fundamental analytic unit. All transactions are treated as flowing to (inflows) and from individuals (outflows) and are classified based on the age of those individuals. In the NTA approach, inflows to one age group (x) should equal outflows from that same age group. The inflows are made up of labour income, transfer inflows, capital income, and property income. The outflows on the other hand are made up of consumption, transfer outflows, property income outflows, and savings. This is summarized in equation (1) as:

$$Y^l(x) + \tau^+(x) + Y^k(x) + Y^{p+}(x) = C(x) + \tau^-(x) + Y^{p-}(x) + S(x) \text{---------------- (1)}$$

In equation (1), Y^l, τ^+, Y^k and Y^p refer to labour income, transfer inflows, capital income and property income, respectively for each age x. Similarly, C, τ^-, Y^{p-} and S refer to consumption, transfer outflows, property income and savings, respectively for each age x. Aggregating equation (1) yields the profiles for all ages producing equation (2) where the left-hand side represents national disposable income and the right-hand side represents the net of consumption and savings.

$$Y^l + Y^k + Y^p + \tau = C - S \text{--- (2)}$$

Rearranging the equation (2) gives equation (3).

$$C(x) - Y^l(x) = Y^A(x) - S(x) + \tau^+(x) - \tau^-(x) \text{ -------------------------------------- (3)}$$

The left-hand side of equation (3) represents lifecycle deficit for age group x. The lifecycle deficit (LCD) is defined as Consumption (C) less Labour Income (Y^l). The lifecycle deficit is positive during the dependent years and negative during the working years of the person. The right-hand side gives the assets-based reallocations within the age group x

$$(Y^A = Y^k + Y^{p+} - Y^{p-}).$$

Equation (3) can further be aggregated as

$$C - Y^l = Y^A - S + \tau^+ - \tau^- \text{ -- (4)}$$

Equation (4) presents the key variable of interest which is $C - Y^l$ and is defined as the life-cycle deficit (the difference between consumption and labour earnings at each age). In this equation, inflows consist of labour income (Y^l), capital and property income inflows (Y^A), and transfer inflows (τ^+). On the other hand, outflows consist of consumption (C), savings (S), transfer outflows (τ^-), and property income outflows. Thus, equation (1) basically states that the difference between consumption and production, known as the lifecycle deficit (LCD), must necessarily equal age reallocations, made up of assets-based reallocations and net transfers.

In this study, we provide estimates of the Demographic Dividend. First, we compute the consumption and income profiles per capita, the life cycle deficit and the economic support ratios for each of the three countries. The Demographic Dividend is then computed as the growth of the economic support ratio. The National Income Accounts (NIA) "equivalent" of the NTA components were obtained from the World Development Indicators. These values that are consistent with the national income accounts are then regarded as the aggregate control that is used in the estimates. Aggregate consumption expenditure was further decomposed by purpose: education, health, and other expenditure items for both the private and public sectors.

The Demographic Transition and Onset of the Demographic Dividend in the three countries

The demographic transition of the three countries clearly depict them as being at different stages in the transition as shown by the changing age structure by broad age groups. From

Table 1, we deduce that the demographic transition in Ghana is quite different from the two other countries. This is because it shows clearly that the age structure of Ghana's population has witnessed quite visible changes in comparison with the other two countries. The population below 15 years has reduced from a high of 45 percent in 1984 to 41 percent and 38 percent respectively in 2000 and 2010. This compares with Sierra Leone's population which remained almost the same during the same period, the population less than 15 years having stayed at about 42 percent in both 1985 and 2004 and about 41 percent in 2015. The proportion of the population in The Gambia below age 15 years so far has been the biggest, staying at 46 percent in 1985, 2005 and 2015 with very slight changes.

Table 1: Percent of population by major broad age groups, Ghana, Sierra Leone and The Gambia

Ghana			
Age/Year	1984	2000	2010
<15	45.0	41.3	38.3
15-64	51.0	53.4	57.0
65+	4.0	5.3	4.7
Dependency Ratio	96	87	76
Sierra Leone			
Age	1985	2004	2015
<15	41.9	41.7	40.9
15-64	54.4	53.9	56.6
65+	3.7	4.4	3.5
Dependency Ratio	83.8	85.5	78.4
The Gambia			
Age	1985	2005	2015
<15	46.4	46.3	45.7
15-64	50.7	51.2	52.0
65+	2.9	2.5	2.3
Dependency Ratio	97.2	95.3	92.3

Source: Extracted from the national censuses of Ghana, Sierra Leone and The Gambia for the different years

Table 1 further shows Ghana again standing out of the two other countries in terms of the changing proportion of the population within the economically active age of 15-64 years. In 1984, the population in this age group was 51 percent, which increased to 53 percent in 2000 and 57 percent in 2010. In contrast, Sierra Leone and The Gambia had virtually no change in the proportionate share of their population 15-64 years between the first two years in the table (1985-2004 for Sierra Leone and 1985-2005 for The Gambia) before seeing an increase to almost 57 percent and 52 percent respectively in Sierra Leone and The Gambia in 2015.

The changing age structure also shows that not too much visible change occurred in the three countries in the three most recent censuses in these countries. While Ghana's situation indicates a rise of the proportion of the elderly population (65+) from 4.0 percent to 5.3 percent between 1985 and 2000, it reduced to 4.7 percent in 2010, that in The Gambia steadily declined from 2.9 percent in 1985 to 2.5 percent in 2005 to 2.3 percent in 2015. The situation in Sierra Leone was like that in Ghana, the proportion of the population in this age moving from 3.7 percent in 1985 to 4.4 percent in 2004 but reducing to 3.5 percent in 2015.

The dependency ratio in the three countries has also seen changes over the three respective recent census years. The changes, however, have been more visible for Ghana where it reduced from as high as 96 percent in 1984 to 76 percent in 2010 compared to The Gambia's 97 percent in 1985 which in 2015 was reported at 92 percent. In contrast, Sierra Leone's dependency ratio which was about 84 percent in 1985, rose to about 86 percent in 2004 and eventually reduced to about 78 percent in 2015.

The changing age structures of the three countries have obviously come about from the reductions observed in the total fertility rate in the respective countries. So far, Ghana has recorded the lowest total fertility rate which stood at 4.2 in 2014 (Ghana Statistical Service, Ghana Health Service and IFC, 2015), followed by Sierra Leone's 5.2 in 2015 and 5.6 in Gambia in 2013. The three countries are also at different levels of urbanization which is measured by the proportion of the population reported to be living in localities classified as urban in these countries. About 51 percent (2010), 41 percent (2015) and 58 percent (2013) of the populations in Ghana, Sierra Leone and The Gambia respectively were reported to be resident in urban localities.

These varied demographic indicators of the three countries obviously suggest that they are at varying stages of the demographic model, which also signify that they may be experiencing the demographic dividend quite differently with different implications for their respective development. Again, these descriptions are not able to point to the exact timing or onset of the demographic dividend in the three countries. This requires an analysis using more appropriate techniques or approaches to bring out the critical issues involved to be able to make more realistic comparison among the three countries with better understanding of the demographic dividend relative to each of the three countries. The National Transfer Account approach is

therefore considered appropriate in providing the answers we need and has been used in this study in the analysis to go beyond trend analysis of changes in the age structure as development progresses.

Results

Age Consumption and Income Profiles

The age profiles for consumption and labour income are presented and subsequently used to construct the lifecycle deficits. We first present the profiles for total household consumption and labour income profiles for the three countries. Figures 1, 2 and 3 present the consumption and income flows per capita at all ages for Ghana, Sierra Leone and The Gambia respectively.
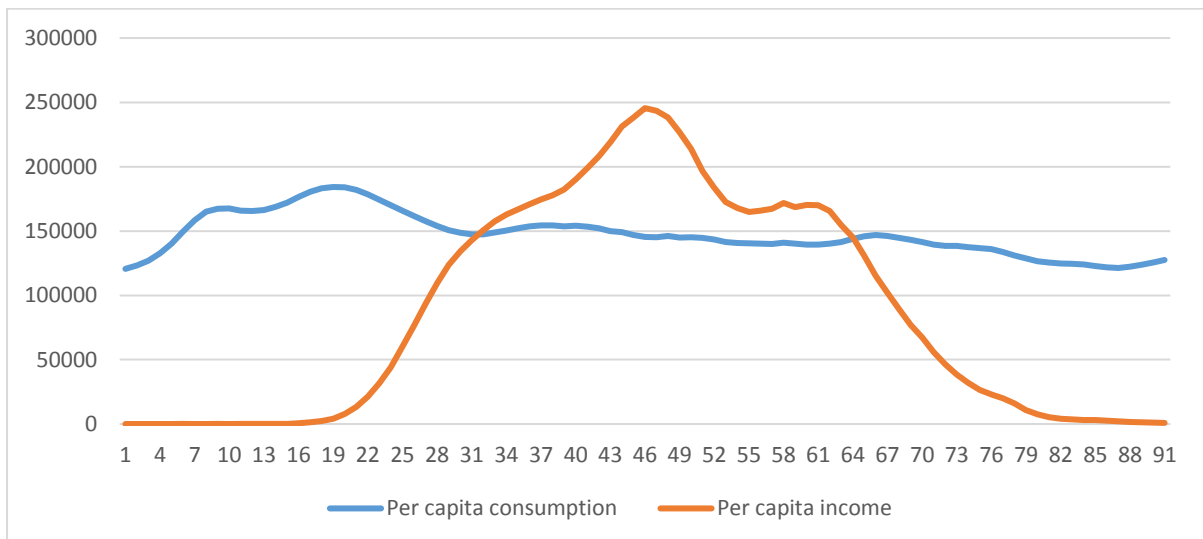
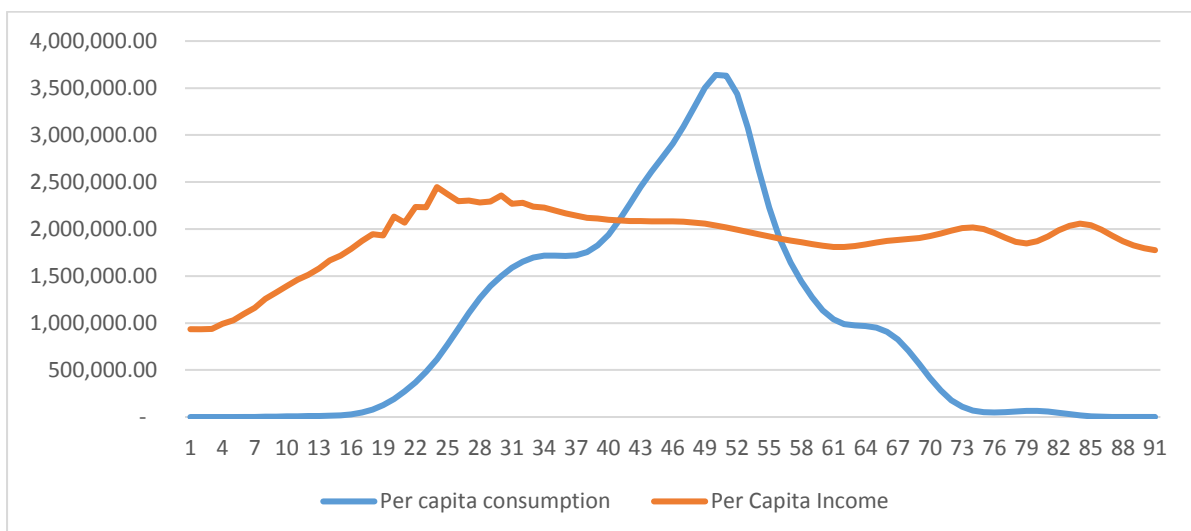Figure 1: Income and Consumption Profiles of Ghana

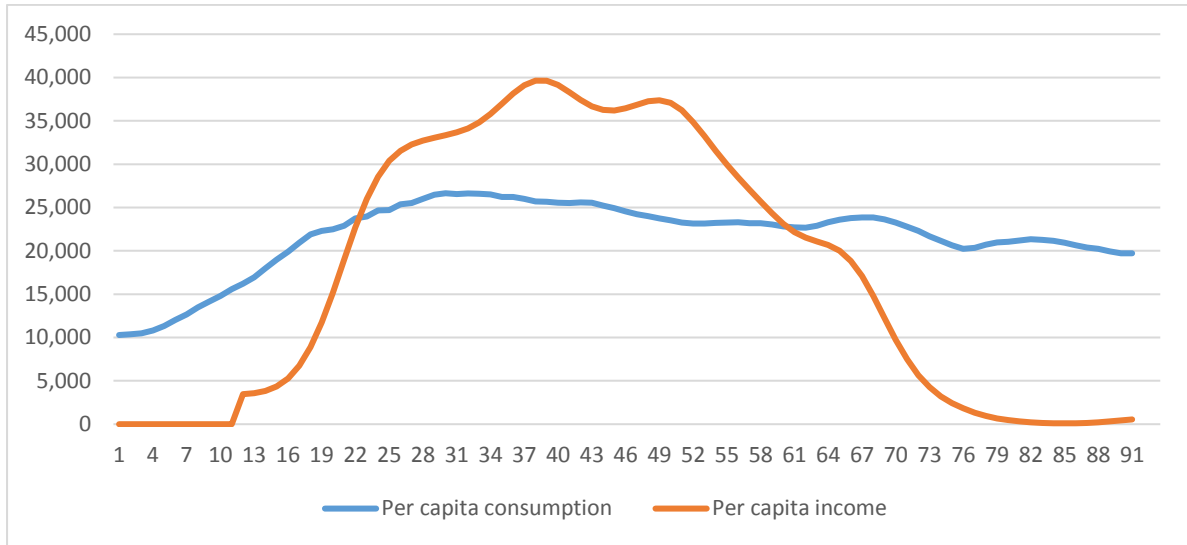Figure 2: Income and Consumption Profiles of Sierra Leone

Figure 3: Income and Consumption Profiles of The Gambia

It is observed that consumption at the lower ages peaks at age 19 in Ghana and declines slightly around the mid ages and then increases slightly again towards the older ages. In Sierra Leone, consumption peaks at about age 22 while in The Gambia it peaks at about age 28. Compared to income, which describes payments for labour, it is lowest at these young ages since those within these ages are mostly in school and for that matter do not usually work to earn income. These results, therefore, indicate that there exists a lifecycle deficit for the segment of the population below age 25. Also, consumption is lowest in the middle ages (28-61 years), but income is highest (peaks around age 46 for Ghana, 50 for Sierra Leone and 37 for The Gambia.
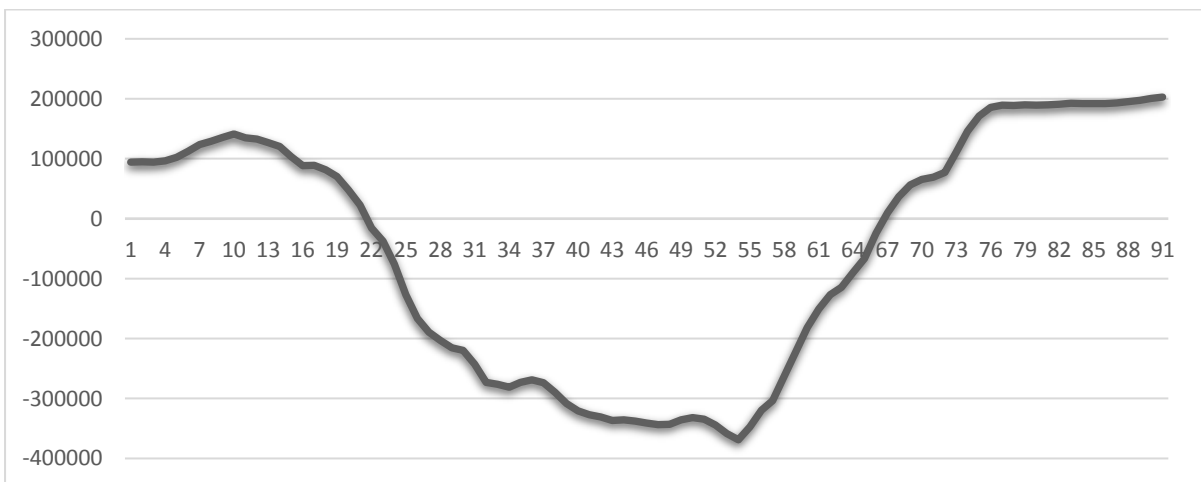
Life Cycle Deficit

Figure 4 shows the lifecycle of a deficit for Ghana at all ages. The lifecycle deficit is defined as Consumption less Labour Income. Where total labour income exceeds consumption at any age, the lifecycle deficit is negative and where the reverse is the case, lifecycle deficit depicts a positive picture. Figure 4 shows that the lifecycle deficit in Ghana is positive during the dependent years (0-30 years for younger ages and 65+ for older ages) and negative during the working years (31-64 years). On the other hand, the life cycle deficit is positive for Sierra Leone for ages less than 41 years and 56 years and older and negative during 41-55 years while in The Gambia, the negative life cycle deficit spans below 22 years and 66 years and older but positive during 22-65 years.
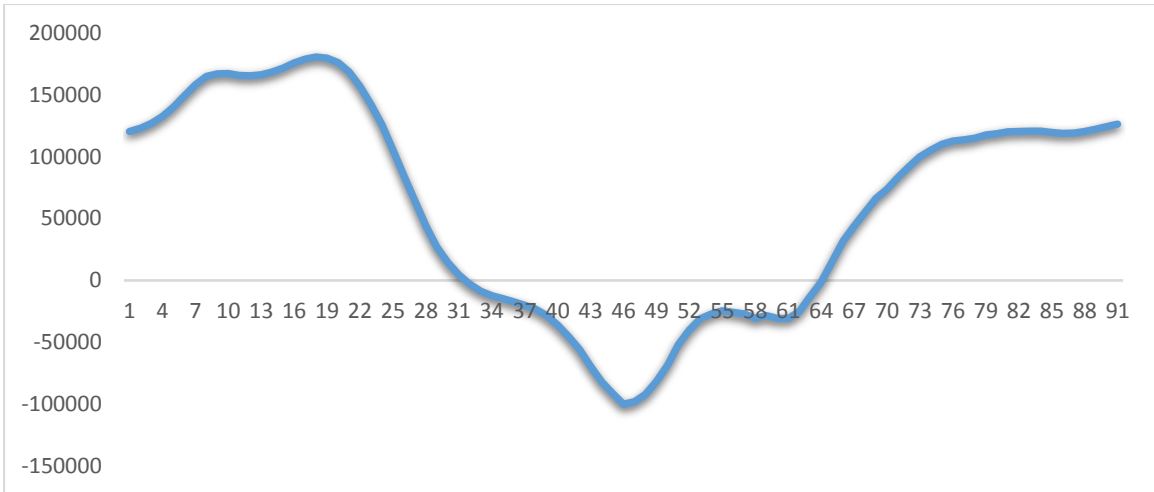
Figure 4: Age-specific Life Cycle Deficit in Ghana
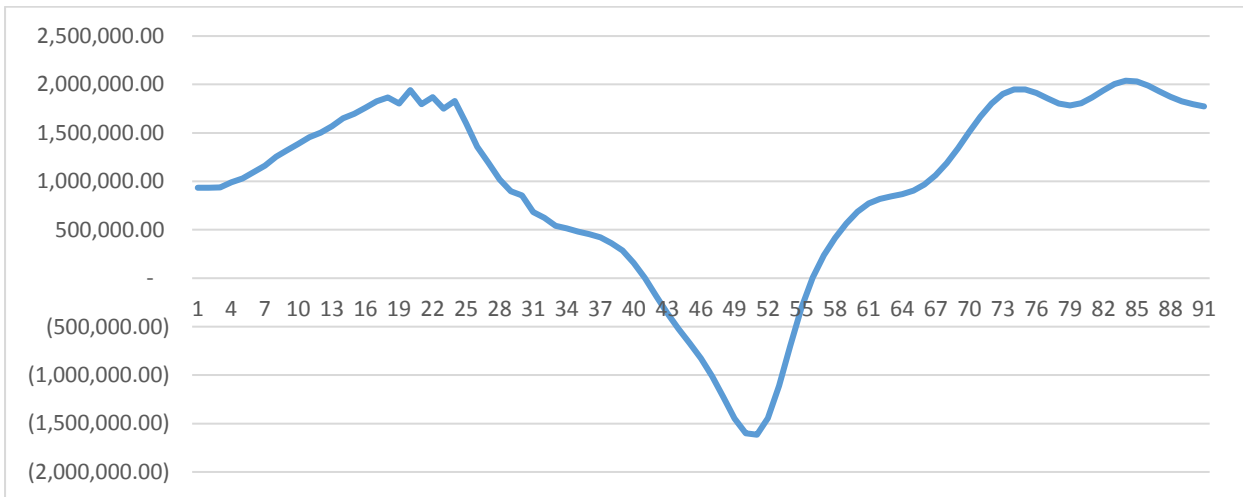
Figure 5: Age-specific Life Cycle Deficit for Sierra Leone

Figure 6: Age-specific Life Cycle Deficit for The Gambia

The Economic Support Ratio

The economic support ratio is calculated as the inverse of the dependency ratio. It shows the extent of support workers provide to non-workers in the economy. The results of the support ratio by year for the three countries are shown in Figure 7. It can be realised that the economic support ratio was high for all the three countries until 1990 for Ghana and The Gambia when the support ratio started decreasing hence leading to the demographic dividend.
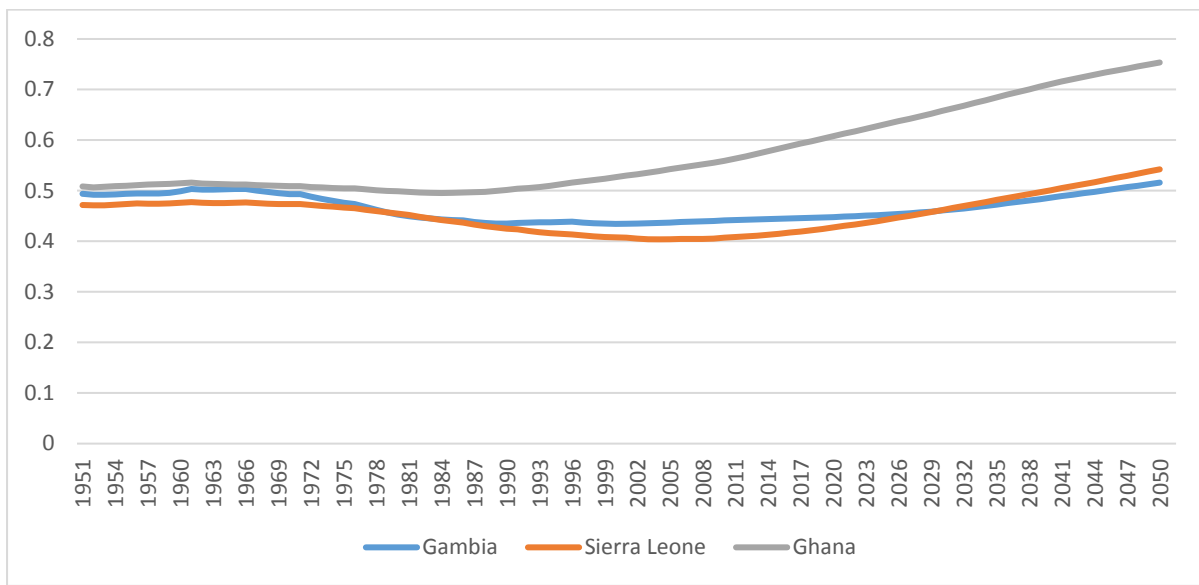

Figure 7: Economic Support Ratio for Ghana, Sierra Leone and The Gambia

From Figure 7, we observe that for all three countries, the support ratio was around 0.5 during the period before 1970 with that for Sierra Leone slightly lower. This suggests that about half of the population was effectively working to take care of themselves and the other half that was not working in Ghana and The Gambia. In contrast in Sierra Leone, the proportion of the population effectively working to economically support the non-working population was below 50 percent. The period of the 1970s and 1980s saw some declining support ratios in all three countries, but the decline was higher for Sierra Leone and The Gambia with that of Sierra Leone continuing to fall below that of The Gambia until somewhere after 2023 when both of them are expected to experience a rise in their respective support ratios with Sierra Leone expected to record a slightly higher support ratio than The Gambia towards 2050. It is also interesting to note that even by 2050, the support ratio in both Sierra Leone and The Gambia is not likely to be too different from its situation in the period before the 1970s (i.e., the support ratio is slightly higher than 0.5).

In contrast, Ghana's situation post-1990 reveals an increasing support ratio which is expected to be higher than 0.7. This means that the proportion of the population that is expected to work to effectively support the rest that is not working is far higher, which is quite a positive development that must be sustained through strategic interventions to record further fertility decline while expanding the productive base of the economy.
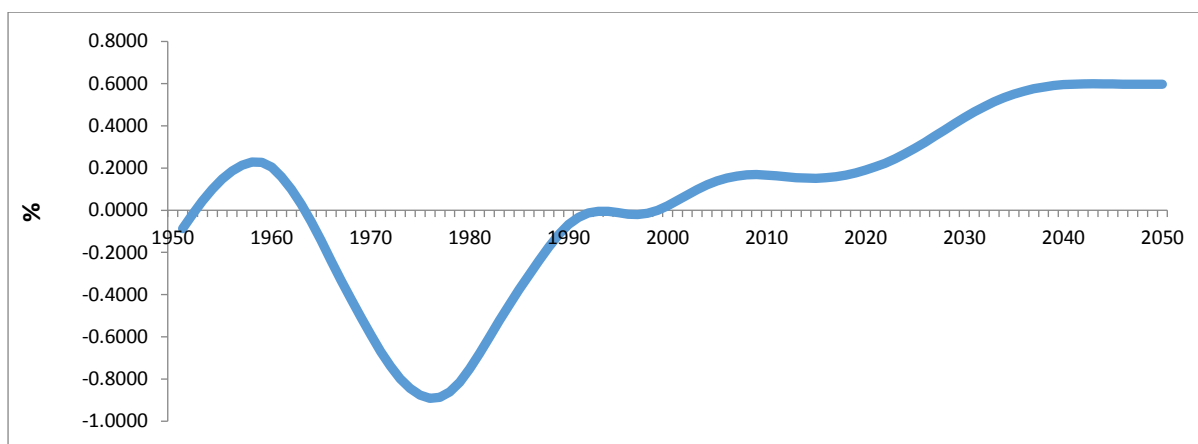
The Demographic Dividend

Demographic dividend is an increase in economic growth due to a fall in fertility which in turn affects the age structure of the population. A significant reduction in the number of children implies a reduction in the number of dependents which in turn frees up resources for development and improvement in welfare. With lower fertility every year, the working age population temporarily grows faster relative to the number of dependents hence creating a window of opportunity for rapid economic growth if the right social and economic policies are developed and investments made, making the demographic dividend become a prospect and a missed opportunity if otherwise. Figures 8-10 present the trend of the demographic dividend for the three countries.
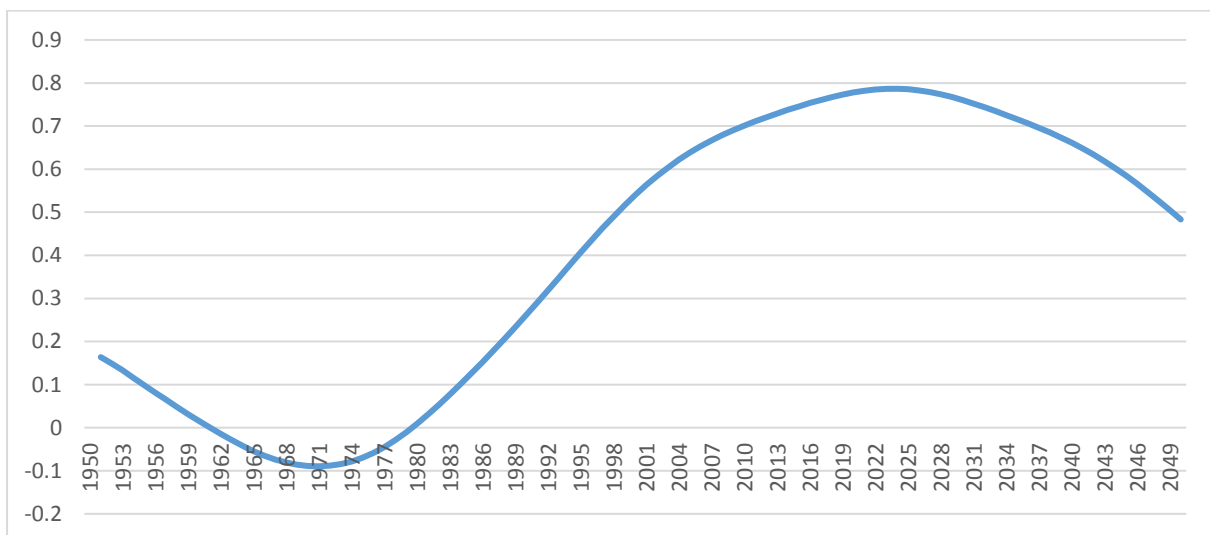
Figure 8: Ghana's Demographic Dividend by year
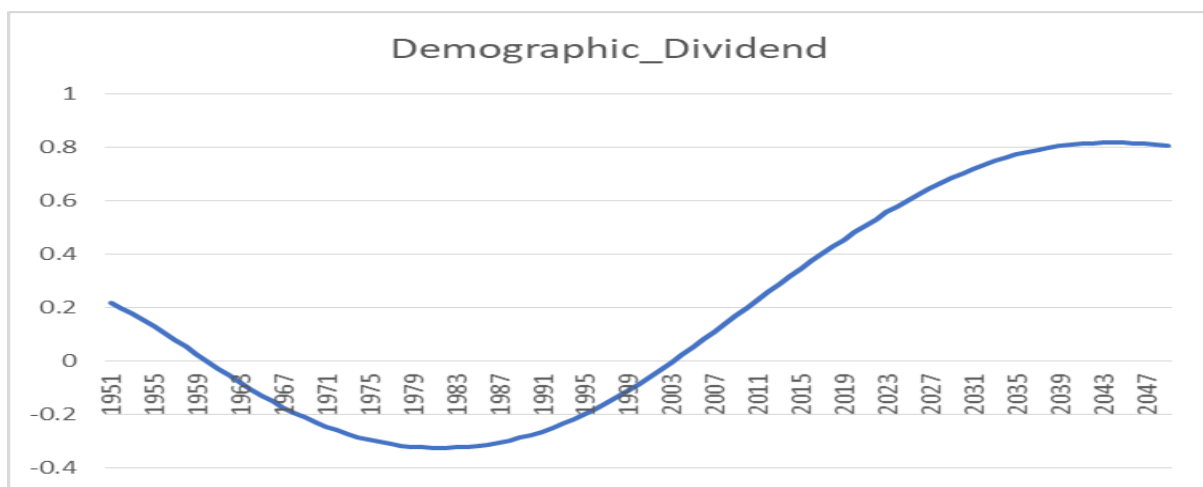
Figure 9: Sierra Leone's Demographic Dividend by year

Figure 10: The Gambia's Demographic Dividend by year

From these figures, we deduce that the demographic dividend began in 1990 in Ghana and is expected to end in 2030. In contrast, the demographic dividend started in 2000 and is expected to end in 2050 for both Sierra Leone and The Gambia.

Discussion

All over the world, including West Africa, people are having fewer children and are living longer. As a result, populations throughout the region are growing relatively older. During the early stages of the demographic transition, the proportion of children below 15 years is high due to high fertility and high but decreasing mortality. In contrast, the population of persons in the working-ages (15-64 years) is relatively smaller in proportion with a small proportion of the elderly population beyond age 64 years. As the transition progresses, however, fertility eventually declines, resulting in the shrinking of the population of persons at the younger ages with a gradually increasing working age population while the proportion of the population living beyond age 64 increases.

This change in population age structure brings about a period of enhanced accelerated economic growth termed as the "first demographic dividend." With fewer children, there is less demand on available household and government resources to provide better education, health care, housing, etc., for each child, with surpluses to invest in productive sectors of the economy, thereby improving their standards of living. As fertility continues to decline, the population of children below age 15 years eventually enters the working ages and will require jobs to do; some of the population in the working ages will transition into retirement and may become dependent if they were unable to accumulate enough wealth and resources to take care

of themselves. At this stage, earlier investments in health, education, and physical capital accumulation can help sustain economic growth, based on a smaller, but more productive workforce. This is the "second demographic dividend" which can be more beneficial and long lasting. By providing estimates of labour income and consumption at every age, the National Transfer Accounts (NTA) methodology or process helps to measure the economic impact of changes in population age structure throughout the demographic transition.

The observed patterns found in the respective countries' age-specific life cycle deficits (profiles) presented in this study show that the higher consumption at the lower ages can be attributed to the higher investment by both government and households in education and health in addition to other expenditures apart from health and education. With respect to income, i.e., payments for labour, it is lowest since those within this age are mostly in school and for that matter cannot work to earn income. Within the middle ages, most people are economically active and, therefore, engage in some form of economic activities to earn income. The income and consumption pattern for the elderly population is like that of the lower ages, except that in this case, the expenditure is mainly on health and other expenditures other than education.

For Sierra Leone, the chart shows that the margin between income and consumption is greater for ages 0-40 years and age 55 onwards. While consumption shows a steady pattern that is almost smooth, income demonstrates a bell-shaped curve like a normal distribution graph. At age 41 years and 55 years, income is higher than consumption and these ages are associated with more responsibility with respect to savings for care-giving for the young and the elderly. The figure shows that consumption patterns for ages below 40 and above age 55 are greater than the income they are generating. This means that they are dependent on age 41-55 years. What the chart depicts is that in Sierra Leone much of the consumption is financed through transfers as the consumption line is higher than that of income earnings. The few income earners above the consumption line must support those below the consumption line.

From the income and consumption profiles, we find that Sierra Leone is quite different from Ghana and The Gambia with respect to the coverage of the recorded income surplus over consumption. While the income surplus covers a span of about 36 years and 42 years respectively in Ghana and The Gambia, that in Sierra Leone covers just about 15 years. This could be the result of the 11 years of civil wars between 1991 and 2002 that might have affected

the productive incomes of the working age population in Sierra Leone compared to Ghana and The Gambia which have had long years of political stability.

The inverse of the age consumption and income profiles is what has translated into the lifecycle deficits for the three countries. Of the three countries, The Gambia stands out from the two other countries in terms of size of the surplus of income over consumption as is depicted in the lifecycle deficits.

The results of the changing support ratio analysis for the three countries reflect the different stages they are relative to the demographic dividend in terms of the changing age structure. The vast difference between Ghana and the other two countries shows the earlier commencement of the demographic dividend evidenced by the fall in the fertility rate which began much earlier in the country compared to Sierra Leone and The Gambia. Again, the declining fertility which has been more visible in Ghana than in the other two countries has led to a higher reduction in the dependency burden that is inherent in the age structure of the countries. As the dependency ratio reduces, so we expect the support ratio to also increase. However, for the benefits associated with the increasing support ratio to be realised there is need to invest more practically in the countries' young human resources while expanding the productive base of the country through strategic investments to make the observed demographic dividend associated with the falling fertility become a prospect for development.

The analysis of the demographic dividend for the three countries suggests that its onset began far earlier in Ghana compared to Sierra Leone and The Gambia. This is because of the earlier fertility decline Ghana experienced compared to the other two countries. Currently, Ghana's fertility is far lower than that in Sierra Leone and The Gambia. The 2017 Ghana Maternal Health Survey reported a total fertility rate of 3.9 (Ghana Statistical Service, Ghana Health Service and ICF, 2018) compared to 5.6 in both Sierra Leone in 2015 (Statistics Sierra Leone, 2017) and The Gambia in 2013 (The Gambia Bureau of Statistics, 2014). Besides, in terms of economic growth and overall development, Ghana stands taller in view of its lower middle-income status. However, Ghana has a much shorter time left for the demographic dividend to close compared to Sierra Leone and The Gambia. Hence, Ghana needs to work harder to invest in the youth to reap the benefits associated with the dividend before it closes unlike Sierra Leone and The Gambia that have longer years to work towards the hastening of the

demographic dividend through sustained fertility decline and strategic investments targeted at the youth.

Conclusion

The study suggests different timing of the onset of the demographic dividend with different implications for development. Depending on the policy attention given to the implications of the trend of the demographic dividend and when it closes, each country stands to benefit differently. It is important that each country pays attention to the different trend shown and respond accordingly with relevant policy interventions, mindful of the timespan for the demographic dividend to close. It should also be noted that efforts towards reaping the demographic dividend should aim at adopting strategic policies and interventions in the economic, education and health sectors while ensuring participatory, transparent and accountable governance, mindful of the different time frames for the opening and close of the demographic dividend window in each of the three countries studied. For Ghana, the time left for the demographic dividend to close is shorter and, therefore, a lot will have to be done by way of strategic investments to equip and absorb the large army of youth for productive jobs to make the dividend a development-oriented prospects or in no time it will become a missed opportunity if the right policies and programmes are not undertaken. On the other hand, for Sierra Leone and The Gambia, the onset of the demographic dividend is much later but is projected to last much longer before closing. The two countries must, however, invest in family planning to ensure faster fertility reduction to hasten the onset of the demographic dividend before reaping it as a development prospect otherwise the demographic dividend may be a missed opportunity that may never be realised.

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