

HARNESSING DEMOGRAPHIC DIVIDEND IN HIGH AND LOW FERTILITY REGIONS OF ETHIOPIA

BACKGROUND

Ethiopia has been striving to reduce its fertility (accompanying a decline in mortality) levels to benefit from the resulting change in the population age structure. The fertility rate has substantially declined from an average of seven children per woman in the early 1990s to about four children per woman at present. With a fast decline in fertility and mortality, along with investments in health, education, and employment opportunities, among others, Ethiopia may be poised to realize an accelerated economic growth known as the demographic dividend (DD). With fewer people to support, a country has a window of opportunity for diverting resources from education and healthcare-related expenditures towards promoting rapid economic growth and development.

Nevertheless, there are notable regional variations in fertility levels. Taking the total fertility rate (TFR) of 4 as a cut-off point, Addis Ababa, Amhara, Dire Dawa, and Gambela have lower fertility rates (Central Statistical Agency (CSA) and ICF, 2016) and are hence named Low Fertility Regions (LFR) each having a TFR of less than 4. On the other hand, the TFRs of Afar, Benishangul Gumuz, Harari, Oromia, SNNP, Somali, and Tigray regions each have a TFR of greater than 4, hence they are High Fertility Regions (HFR). Such variations will certainly retard the process of the demographic transition (DT) in the country and militate against efforts underway to harness the DD. With varying fertility, Ethiopia will have differing opportunities and time lags to open the demographic window of opportunity (DWO) to accelerate economic growth. Evidence of the effects of sub-national variations in fertility on age structure changes and the prospect of harnessing DD is thus important to identify policy priorities that need to take the variations into account.



KEY HIGHLIGHTS

The period of the DWO to harness DD varies between the high-fertility and low-fertility regions (Figure 2). In the low-fertility regions, the declining dependency ratio reached 62.1% in 2020. Since it has already crossed the threshold level of 66.7%, the DWO has already opened in low-fertility regions in 2020. The DWO will remain open until 2080 beyond which the dependency ratio will begin increasing

It may take about 25 years for the high-fertility regions to harness the DD. Since the dependency ratio didn't show any increase until 2100 in the high fertility regions, the DWO continues to be open possibly beyond 2100.

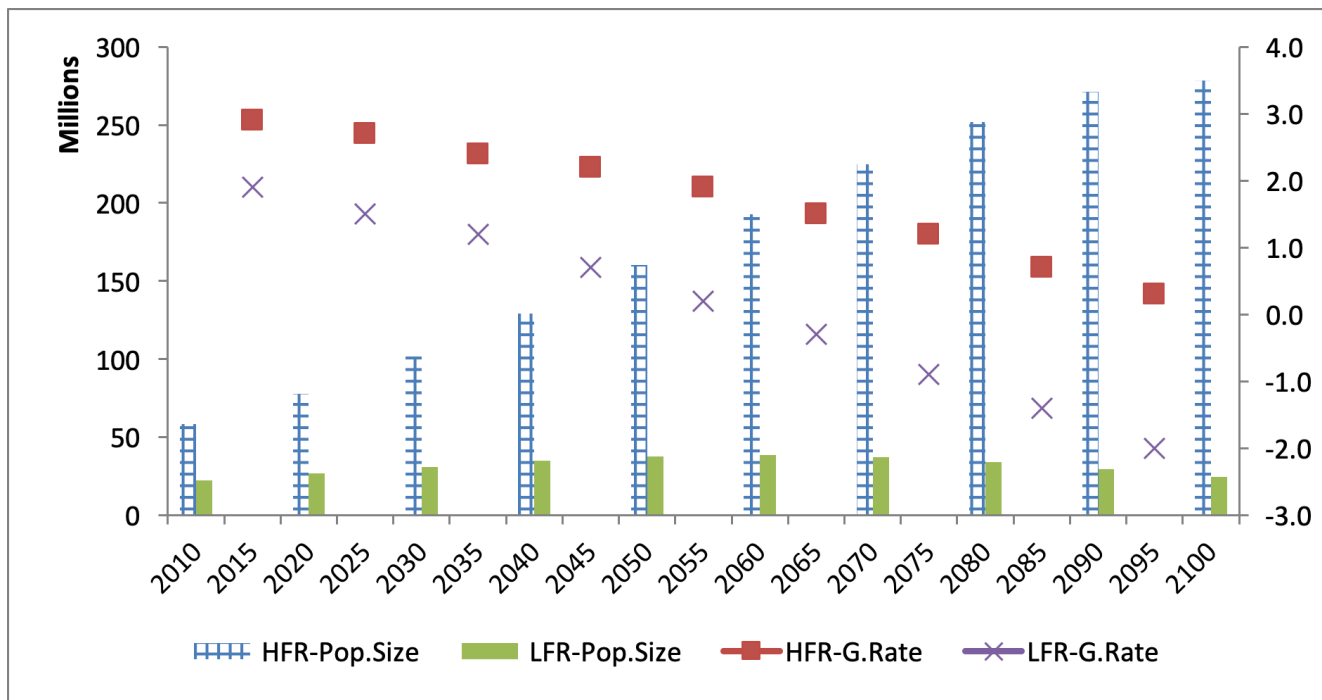
At the national level, women's education, empowerment, and participation in the labour force speed up the opening of the DWO, create the potential to harness DD, and, along with other measures, accelerate economic growth.

Ethiopia's prospect of harnessing DD heavily depends on the progress of DT in the regional states and city administrations. Denoting geographical variations, the DWO is already opened in a few regions with low fertility whereas it lags by decades in most other regions with high fertility.

DEMOGRAPHIC TRENDS IN HIGH AND LOW FERTILITY REGIONS

In the low fertility regions (Amhara, Gambela, Addis Ababa, and Dire Dawa), TFR diminished continuously between 2000 and 2016 (CSA and ORC Macro, 2001; 2006; CSA and ICF International, 2012; CSA and ICF, 2016). In the high-fertility regions, however, two distinct patterns are observed. In Afar and Somali regions, the fertility levels increased incessantly whereas in the other high fertility regions (Tigray, Oromia, Benishangul-Gumuz, Harari, and SNNP), a continuously declining trend of fertility was observed. In high fertility regions such as Tigray, Oromia, SNNP, and Harari both infant and under-five mortality rates showed a persistent declining trend in the past two decades. However, both rates fluctuated in the remaining high-fertility regions (Afar, Somali, and Benshangul-Gumuz). In low-fertility regions, the infant and under-five mortality rates declined uninterruptedly since 2000.

Figure 1: Population Size and Growth Rate in High and Low Fertility Regions (2010 – 2100)



Source: Based on own projection

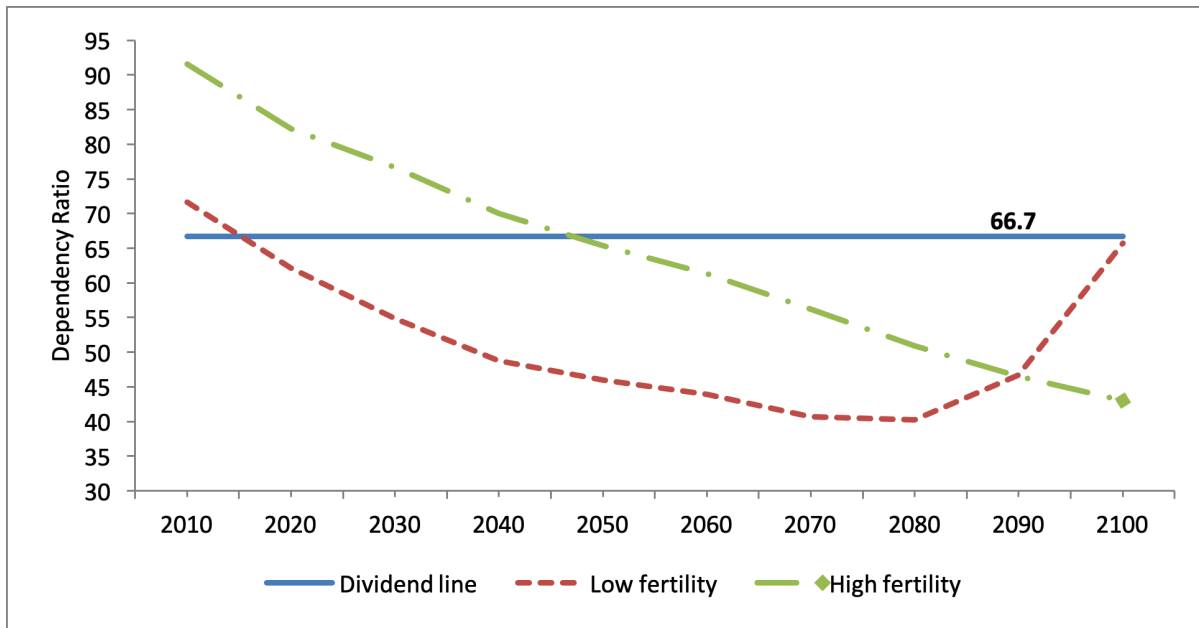
The size of the population in high-fertility regions shows an increasing trend from 2010 to 2100. These regions constitute a larger proportion of the total population of the country during the same time. For instance, the projection in Figure 1 shows that the high-fertility regions constituted 72.5% and 92% of the population in 2010 and 2100, respectively. In the low fertility regions, the population size denotes an increasing trend up to 2060 followed by a declining trend. The growth rates consistently decline in both regions. However, the rate of growth is lower in low-fertility regions (Figure 1).



DEMOGRAPHIC DIVIDEND IN HIGH AND LOW FERTILITY REGIONS

The overall trend of dependency ratios follows a different pattern in the high and low fertility regions between 2010 and 2100 (Figure 2). In the high fertility regions, it declined from 91.6% in 2010 to 43.0% in 2100. In the low fertility regions, it declined from 71.6% in 2010 to 40.2% in 2080 then after it increased to 65.7% in 2100. The trend indicates that the high fertility regions have higher dependency ratios until 2090, and the low fertility regions will attain higher dependency ratios afterward.

Figure 2: The Demographic Dividends in High and Low Fertility Regions



Source: Based on own projection

The period of the DWO to harness DD varies between the high-fertility and low-fertility regions (Figure 2). In the low-fertility regions, the declining dependency ratio reached 62.1% in 2020. Since it has already crossed the threshold level of 66.7%, the DWO has already opened in low-fertility regions in 2020. The DWO will remain open until 2080 beyond which the dependency ratio will begin increasing. For the high fertility regions, the dependency ratio will decline to 65.4% in 2050 during which it will cross the threshold level, heralding the opening of the DWO.

Hence, it may take about 25 years for the high-fertility regions to harness the DD. Since the dependency ratio didn't show any increase until 2100 in the high fertility regions, the DWO continues to be open possibly beyond 2100. These suggest that the potential to harness DD begins earlier in low-fertility regions while it starts thirty years later in the high-fertility regions. Likewise, the DWO for low-fertility regions will end some years earlier than in high-fertility regions. The duration of the DWO to harness DD will be about sixty years in the low-fertility regions, whereas it will take decades until it comes to an end in the high-fertility regions.

DIFFERENTIAL FERTILITY AND IMPLICATIONS FOR DEVELOPMENT

Rapidly declining fertility has beneficial impacts at the individual, household, and national levels. Fewer births and smaller family sizes substantially improve maternal and child health as well as household well-being. Fertility reduction also improves women's education and empowerment due to a decrease in parental time of childbearing and child-rearing responsibilities. Denoting generational impact, reduction in fertility noticeably increases children's education as well-educated and empowered mothers make a lot of investments in children. Women's increased participation in the labour force (i.e., engagement in self or wage employment) raises not only household well-being but also their contributions to national economic growth. At the national level, women's education, empowerment, and participation in the labour force speed up the opening of the DWO, create the potential to harness DD, and, along with other measures, accelerate economic growth (May and Rotenberg, 2020). The national economic benefits of low fertility are associated with an increase in national saving rates and investment due to a declining dependency ratio, an increase in the proportion of the working-age population, women's higher labour force participation rates, and the consequent rise in economic outputs and income.

On the other hand, high fertility limits development (World Bank, 2010). First and foremost, too many and too frequent births to a woman (particularly at younger and older ages) imply higher risks of infant, child, and maternal mortalities. Second, children from large families are less educated and less healthy due to resource dilution, signalling the generational effect of high fertility. Third, reproductive responsibilities undermine women's education, employment, and earning prospects. Fourth, high fertility increases the dependency ratio and diverts resources to the expansion of social services instead of channelling them into productive investments. Last, but not least, it deters the process of DT, delays the opening of the DWO, and hampers national economic growth.

POLICY MEASURES AND CHALLENGES

The Government of Ethiopia enacted the National Population Policy in 1993 with the goal of harmonizing population and economic growth rates. Specifically, it aimed at reducing fertility from 7.7 children to 4 children in 2015 along with reductions in infant, child, and maternal mortalities. As a means to reduce the demographic and socio-economic impacts of early marriage, the policy sets the minimum age at first marriage to 18 years. Remarkable improvements were made during the past years of the policy implementation. The proportion of women married before age 15 and between ages 15 and 17 decreased by 6.3% and 4.2%, respectively between 1990 and 2016. Ethiopia has massively cut its fertility rate. The infant, child, and maternal mortality rates have declined substantially. However, the TFR of the country (4.6 in 2016) is greater than the target set to be attained eight years ago. There also exists significant variation in fertility between regions, urban and rural areas, and various socioeconomic groups. High-fertility regions, rural areas, and women with no education and lower wealth quantile have higher fertility levels. These are partly associated with the practice of early marriage, lower education, low empowerment, and limited use of reproductive health services (Laelago et al., 2019). Effective implementation of the policy is also challenged by a lack of political support for population issues, proper institutional framework and coordination, legal framework to enforce policy implementation, integration of population issues into development plans, and lack of or inadequate budget to implement population programs and activities (Ethiopian Academy of Sciences, 2019).

Ethiopia adopted a national health policy and many other health-related strategies, programs, and plans to make the health status of its population better. Specifically, Ethiopia adopted the National Reproductive Health Strategy to address the reproductive health problems of women, men, adolescents, and youth. Among the primary targets are reducing infant and maternal mortality rates, increasing contraceptive prevalence rate and maternal healthcare services utilization, and reducing sexually transmitted infections and unintended pregnancy. The execution of these policies and strategies has yielded positive outcomes in terms of improving the health of the wider population in general and women and children in particular.



The proportion of women utilizing antenatal, delivery, and postnatal care services has increased steadily; contraceptive prevalence rate among currently married women increased remarkably; maternal mortality ratio decreased from 1400 deaths per 100,000 live births in 1990 to 412 in 2016 and is estimated to be 400 in 2020. The launching of the Health Extension Program in 2003 played an instrumental role in improving access to and utilization of maternal and child health care services. Nevertheless, reproductive health problems remain a critical concern. Unmet need for family planning is very high; maternal healthcare service utilization is still very low; maternal mortality is one of the highest in Africa; males' support for affirmative reproductive health decision-making is lower; and regional and urban-rural inequalities are persistent (DeMaria et al., 2022).

Population issues were considered as cross-cutting to be addressed within the framework of other socioeconomic development policies and strategies emphasizing gender sensitivity in all interventions to ensure equality in participating in and benefitting from development. These include increasing women's access to education and narrowing gender disparity, increasing female labour force participation, and improving their decision-making power. These integrated approaches yielded notable results in improving the socioeconomic status of women. Females' school enrolment has increased at all levels of education and the gender gap has narrowed. However, females' progression to higher grade levels is very low; the gender gap is wider at tertiary education; females dominate informal sector employment and unpaid family workers; active involvement in decision-making is limited to the highest executive organs; and females' access to and control over resources remains inadequate. Consequent to these social and economic situations, women bear the disproportionate burden of poverty and reproductive health responsibilities, contributing to their high fertility and wider geographical disparity in the potential to harness DD.

CONCLUSION

Ethiopia's prospect of harnessing DD heavily depends on the progress of DT in the regional states and city administrations. Denoting geographical variations, the DWO is already opened in a few regions with low fertility whereas it lags by decades in most other regions with high fertility. A slow decline in fertility or its stall delays the opening of the DWO and lessens the potential economic benefits to be obtained from the changing age structure. On the other hand, the lack of productive employment offsets the likely positive impacts of increasing the working-age population in low-fertility regions at present and high-fertility regions later. Hence, measures taken to reduce regional disparity in development undertakings determine how much of the DD can be salvaged by the country and how soon.

POLICY OPTIONS

Owing to the differing fertility patterns in the country, the government needs to consider a two-pronged approach to speed up fertility transition and changing age structure and maximize the ensuing potential economic benefits. In the low-fertility regions, policies aimed at increasing the contribution of the larger working-age population to economic growth are required. For instance,

·The competencies of working-age individuals are decisive for successful labour market integration. Hence, the government should devise mechanisms that help job seekers obtain the knowledge and skills demanded by the labour market.

The government has to make concerted efforts to create decent employment opportunities that can absorb the growing number of the working-age population focusing on economic sectors that can generate as many jobs as possible. Ensuring stable macroeconomic conditions is also important as a prerequisite for sustained economic growth and job creation.

- Since females dominate informal sector employment and unpaid family work which have limited roles in improving their living standard, measures have to be taken by the government to promote their involvement in productive employment and transform their businesses from informal to formal ones as well as from micro to small, medium, and large enterprises
- Since the creation of job opportunities requires the mobilization of huge resources, the government is required to put in place strategies that promote personal and government savings, foreign direct investment, and the active involvement of the private sector.

Fertility and mortality reductions are the key priority areas in the high-fertility regions to create a favourable age structure to harness DD. In this vein,

- Concerted efforts of the government are required to improve females' access to education and progression to higher grades. In particular, post-secondary education is important to reduce fertility by counteracting sociocultural factors favouring high fertility, delaying the age at first marriage, and improving employment prospects and earning potential.



- Empowering women and girls by increasing their involvement in productive employment and improving their decision-making power is of paramount importance in delaying marriage, improving healthcare-seeking behaviours, generating and using income, and freely making reproductive health choices and decisions.
- The government has to improve the availability, accessibility, and quality of reproductive health services, especially family planning, to help women make informed fertility decisions (including limiting and spacing births) and elevate the positive health outcomes of mothers and children.
- Ensuring a consistent decline in infant and child mortality in the high-fertility regions requires strong public health measures.

REFERENCE

Central Statistical Agency and ICF (2016). *Ethiopia Demographic and Health Survey 2016*. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF.

Central Statistical Agency and ICF International (2012). *Ethiopia Demographic and Health Survey 2011*. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Agency and ICF International.

Central Statistical Agency and ORC Macro (2006). *Ethiopia Demographic and Health Survey 2005*. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Agency and ORC Macro.

Central Statistical Authority and ORC Macro (2001). *Ethiopia Demographic and Health Survey 2000*. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Authority and ORC Macro.

DeMaria, L.M., Smith, K.V. and Berhane, Y. (2022). *Sexual and Reproductive Health in Ethiopia: Gains and Reflections over the Past Two Decades*. *Reproductive Health*, 19 (Suppl 1): 175.

Ethiopian Academy of Sciences (2019). *Comprehensive Assessment of the Implementation of the National Population Policy of Ethiopia*. Addis Ababa.

Laelago, T., Habtu, Y. and Yohannes, S. (2019). *Proximate Determinants of Fertility in Ethiopia: An Application of Revised Bongaarts Model*. *Reproductive Health*, 16: 13.

May, J. F. and Rotenberg, S. (2020). *A Call for Better Integrated Policies to Accelerate the Fertility Decline in Sub-Saharan Africa*. *Studies in Family Planning*, 51(2): 193-204.

World Bank (2010). *Determinants and Consequences of High Fertility: A Synopsis of the Evidence*. The World Bank, Washington, DC.

