The Population Factor and Economic Growth and Development in Sub-Saharan African Countries

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Abstract

Background: The consequences of rapid population growth for development and policy options for addressing undesirable population trends remain at the core of demographic enquiry in developed and developing countries. In this paper, we re-examine the data on the particular relationship between population trends in sub-Saharan Africa and economic growth and development. We use case studies of Zambia and Botswana to demonstrate the implications of different rates of population growth in the push to eradicate different dimensions of extreme poverty and hunger.

Methods: We use extensive review of published and grey literature; the search of databases of the United Nations and World Bank; and analysis of relevant secondary data.

Results: The economic profile of Botswana and Zambia were similar in the late 1960s but since the early1980s, Botswana has maintained one of the world's highest economic growth rates, diversified its economy and ranked as the most wealthy and most stable country on the African continent.

On the other hand, Zambia's economy lacked economic diversity, with heavy external indebtedness,and high levels of poverty. We show how divergent demographic indicators (fertility levels, population growth rates, and dependency ratios) for Botswana and Zambia since the 1960s offer understanding of their divergent economic trajectories over the same period. Data from 42 SSA countries show that average gender gap in primary enrolment is negatively associated with rates of population growth.

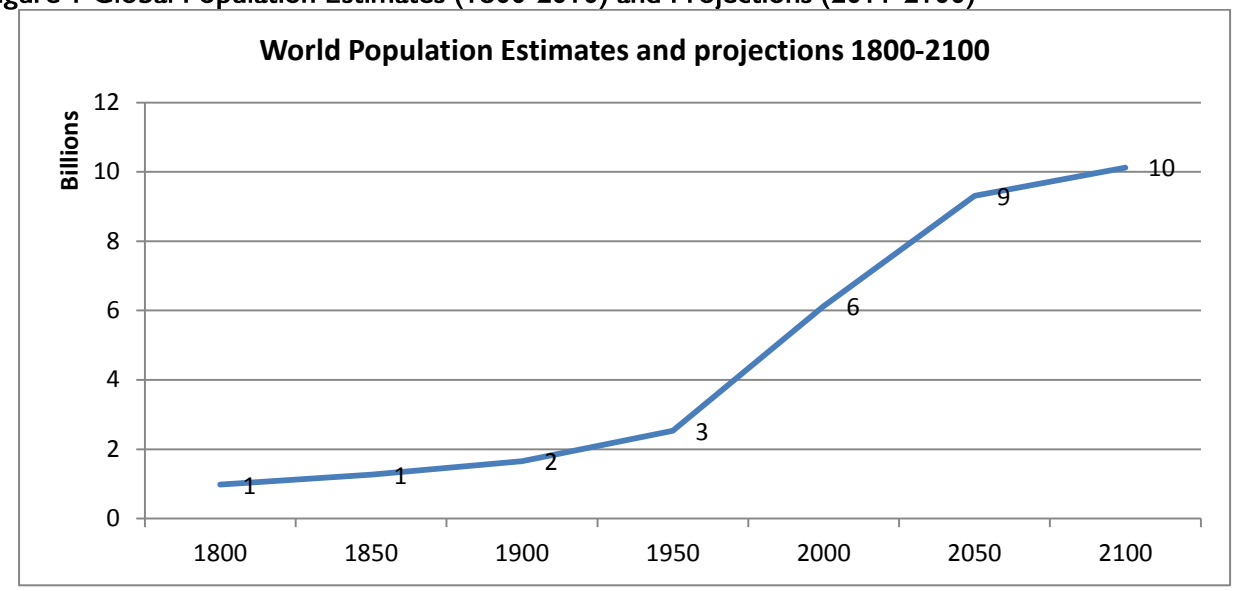
Conclusions: Our analysis highlights the inevitable role of population factors in achieving key development goals and the need for interventions, such as investments in voluntary family planning, around alleviating pressures caused by rapid population growth to poverty reduction, maternal and child mortality, and women's empowerment.

Key words: age difference, fertility, Uganda, partners, DHS.

Introduction

The global population clock reached the 7 billion mark in 2012, following more than a half century of unprecedented growth (US Census Bureau, 2012; Population Reference Bureau, 2012). The modern expansion of human numbers was linked to the onset of the industrial revolution in the late 18th century with a decline in the death rate of Europe and Northern America. In the 20th century, reductions in death rates in Africa, Asia and Latin America followed, leading to the population "explosion" of the second half of the 20th century. Today, growth continues in most countries but declines in birth rates are offsetting declines in death rates and the global population size is expected to reach 10.1 billion at the end of this century (United Nations 2011). If this projection holds, the world's population will have grown by more than tenfold – from 0.8 to 10 billion – between 1800 and 2100, following the UN 2010's median fertility variant projections.

Figure 1 Global Population Estimates (1800-2010) and Projections (2011-2100)



Data Sources: pre-1950 - "The World at Six Billion", United Nations, 1999; 1950-2100 - UN, Dept. of Economic and Social Affairs, Population Division (2011). World Population Prospects: The 2010 Revision.

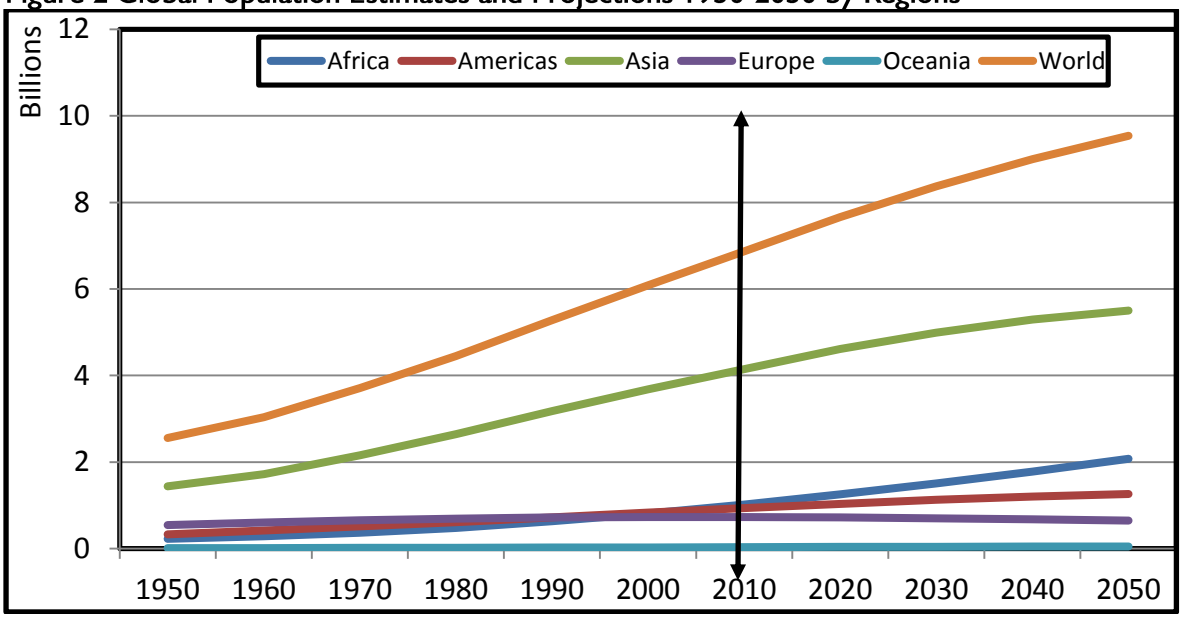
The determinants of population growth and its consequences for development for different regions of the world together with policy options for addressing undesirable population trends has been and remains at the core of demographic enquiry in developed and developing countries. In this chapter, we re-examine the data on the particular relationship between population trends in sub-Saharan Africa and economic growth and development. We closely highlight the implications of the region's high population growth rates for the achievement of specific Millennium Development Goals (MDGs) 1, 2 and 3. We identify key policy options to address the determinants of rapid population growth in order to achieve population thresholds congruent with economic growth and development aspirations in the region. In the face of mounting economic, political and social challenges, this review underscores the role of the population in achieving the MDGs and the global consensus that these goals are difficult or impossible to achieve with prevailing levels of population growth in the least developed regions (APPG, 2007).

Following this introduction, we articulate the trends of population growth in the region in the context of global trends and identify its implications for development. In section three, we use case studies of Zambia and Botswana to demonstrate the implications of different rates of population growth in the push to eradicate different dimensions of extreme poverty and hunger. In section four, we focus on the relationship between population growth rates and the goal of achieving universal access and gender parity in primary education in the region. Finally, in the concluding sub-section, we underscore the need for interventions around alleviating pressures caused by rapid population growth and highlighted the substantial consensus that family planning interventions are consistent with the achievement of development goals relating to poverty reduction, maternal and child mortality, and women's empowerment as well as other salient objectives, such as environmental stability and access to natural resources.

Africa's Population Growth Trends and implications for Development

Africa is the most rapidly expanding region (+345%), followed by Latin America (+253%) and Asia (+197%) between 1950 and 2050 (see Fig 2) (United Nations, 2011). In contrast, the developed world grew at a slower pace: North America doubled in size and Europe expanded by only a third (35%). Projections from 2010 to 2050 expect Africa to more than double in size, while Asia, Latin America and North America each add about 25%. In contrast Europe's population is projected to decline slightly.

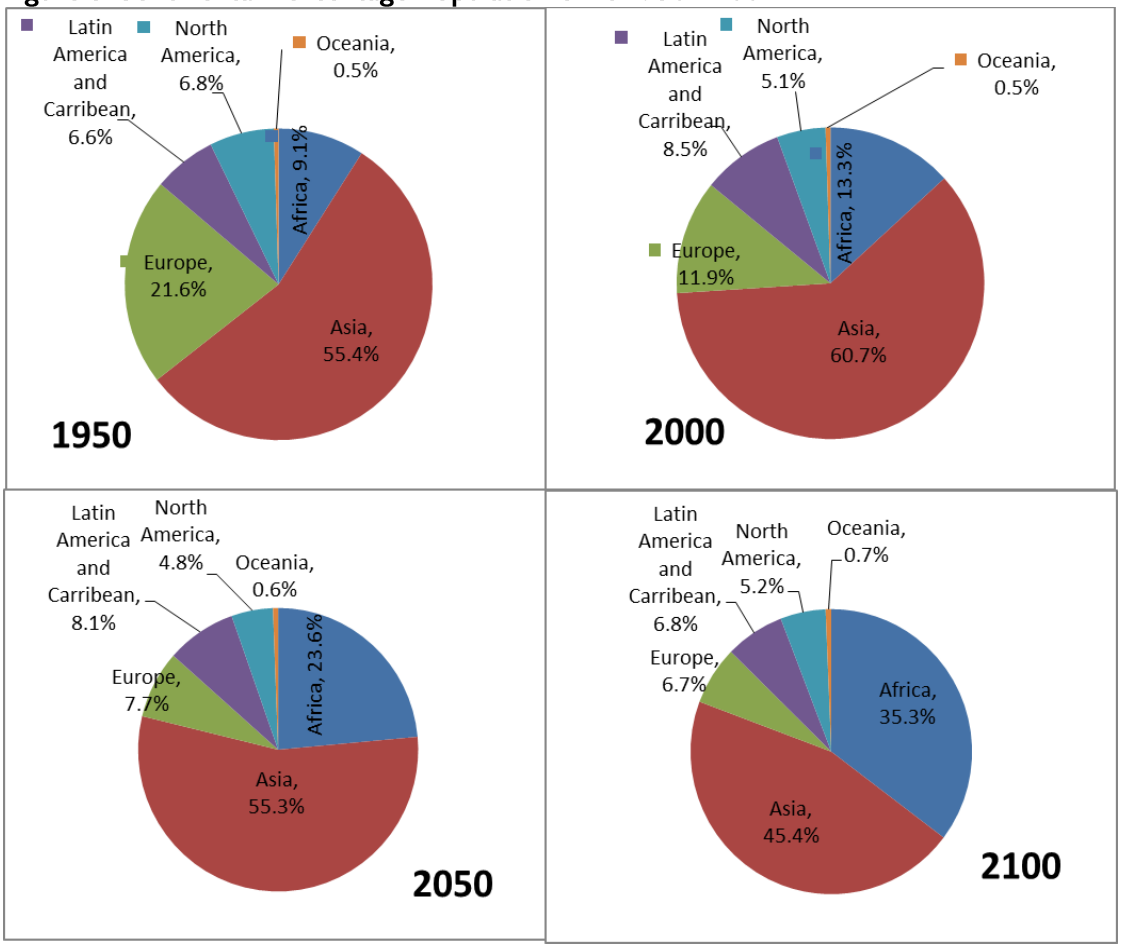
Figure 2 Global Population Estimates and Projections 1950-2050 by Regions



Data Source: UN, Dept. of Economic and Social Affairs, Population Division (2011)

With most countries in the African region growing at over 2% per annum regional distribution of population is shifting substantially over time in favor of Africa and the region's share of the world population is estimated at 9% in 1950, 24% in 2050 and 35% by 2100 (UN, 2011). However, Asia will remain the largest continent with well over half the world's population around 55% in 2050 and 45% in 2100 (see Figure 3).

Figure 3 Continental Percentage Population Shift 1950-2100



Data Source: UN, Dept. of Economic and Social Affairs, Population Division (2011)

At the current population growth rate of >2% per year, most African countries are in the company of most of the poorest countries in the world, which includes parts of South Asia (Pakistan and Afghanistan), the Arabian Peninsula (which also includes rich oil-producers with small populations) and a few small countries in Latin America (Ezeh et al. 2012). These populations are either in the early transition stage with high fertility and declining mortality or in the mid-transitional stage with moderate fertility and low mortality. Population size in this group is expected to double by 2050 with some countries even tripling (e.g. Niger). Such rapid growth has been implicated in several adverse socio-economic and political consequences summarized under the following sub-headings.

Pressure on public services and infrastructure.
Low income countries tend to have limited public services (health care, education, municipal), an insufficiently trained labor force and weak infrastructure (roads, water supply, electricity, telecommunications, etc.). As governments struggle to overcome these problems, the situation is made more difficult by the rapidly growing number of people that need to be served. New services, new school graduates and new infrastructure have to be created at a rate of 2 to 4% per year simply to maintain current conditions and to prevent their deterioration (Ezeh, et al.2012).

Reduced economic growth: Rapid population growth and high fertility are among the key causes of poverty. High fertility leads to a high ratio of young to working age people, thus reducing per capita income and contributing to low savings (Birdsall et al. 2001).

Poor health: Low income countries lack the private and public resources to insure adequate health care and available health care facilities are unable to serve adequately the ever increasing needs of the population. In addition, high birth rates, childbearing at advanced ages and short birth intervals elevate maternal and child mortality burdens (Cleland et al. 2006).

Stress on the environment: Expanding populations contribute to several alarming trends: shortages of fresh water, depletion of soils, pollution of air, water and soil, rising food and energy costs, global climate change, deforestation, and loss of biodiversity. Prospects are grimmest for the poorest countries (most of them in sub-Saharan Africa) with limited natural resources and extremely rapid population growth (Alexendratos 2005). For example, Niger's population is projected to more than triple in size– from 16 to 53 million– between 2005 and 2050 even though available arable land is extremely limited and threatened by desertification, and much of the current population live on the edge of famine.

Eradication of extreme poverty and hunger: The Case of Zambia and Botswana
In 2000, the United Nations set the Millennium Development Goals (MDGs) for global development to be achieved by 2015. The eight goals seek to eradicate extreme poverty and hunger; achieve universal primary education; promote gender equality and empower women; reduce child mortality; improve maternal health; combat HIV/AIDS, Tuberculosis (TB), malaria and other diseases; ensure environmental sustainability; and develop a global partnership for development. Although the goals set no target in relation to population growth nor gave recognition of its impact in the achievement of the goals, experts are largely in agreement that current population growth rates, especially in the poorest countries, pose serious threats to human health, socioeconomic development, and the environment. According to the United Kingdom's All Party Parliamentary Group on Population, Development and Reproductive Health (2007), the MDGs are difficult or impossible to achieve with the current levels of population growth in the least developed countries and regions and despite global efforts to fight poverty, rapid population growth in much of poorest countries in the developing world is making it impossible to stabilize or reduce the numbers living in extreme poverty. Emerging data following the latest evaluation of global progress in meeting MDGs support the significant role of the population growth factor. The most recent preliminary estimates indicate that global poverty rate at $1.25 a day fell in 2010 to less than half the 1990 rate and over two billion people gained access to improved drinking water sources, such as piped supplies and protected wells between 1990 and 2010 (UN, 2012). Consequently, the first target of the MDGs—cutting the extreme poverty rate to half its 1990 level—will have been achieved at the global level well ahead of 2015. The target of improvements in the lives of 100 million slum dwellers exceeded the slum target, as more than 200 million slum dwellers gained access to either improved water sources, improved sanitation facilities, or durable or less crowded housing by 2010 (UN, 2012). Notwithstanding, hunger was identified as an ongoing global challenge, with the most recent FAO estimates of undernourishment setting the mark at 850 million (15.5 per cent of the world population) living in hunger in the world in the in 2006/2008 period (UN, 2012). This reflects the lack of progress on hunger in several regions, even as income poverty

has decreased. Despite a reduction in the share of urban populations living in slums, the absolute number has continued to grow from a 1990 baseline of 650 million to an estimated 863 million people now live in slum conditions. In terms of water and sanitation, nearly half of the population in developing regions—2.5 billion—still lacks access to improved sanitation facilities. By 2015, the world will have reached only 67 per cent coverage, well short of the 75 per cent needed to achieve the MDG target (UN, 2012). Further, despite important improvements in maternal health and reduction in maternal deaths, progress is still slow and decreases in maternal mortality are far from the 2015 target. Similarly, while there have been reductions in adolescent childbearing and continued expansion of contraceptive use, the pace has been slower since 2000 than over the decade before (UN, 2012).

In relations to SSA and as 2015 approaches, we examine the implications of trends in national population growth rates for the achievement of specific MDGS focusing on eradicating extreme poverty and hunger, women empowerment through employment and lower fertility, drawing specific examples from Zambia and Botswan: two neighboring countries in the region, with virtually similar levels of natural resource endowment, political history and stability, HIV/AIDS epidemic, but very divergent demographic and economic trajectories since independence.

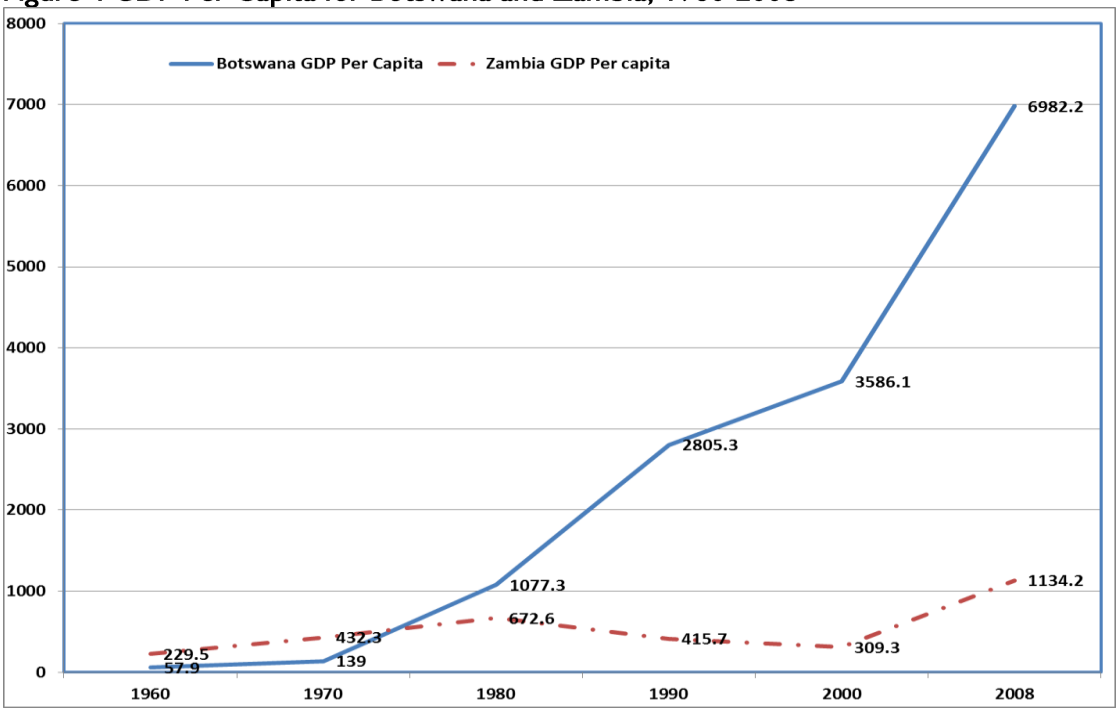
In terms of background, Botswana and Zambia share similar characteristics as countries with high levels of natural resource endowments. Both are landlocked and geographically located in south central Africa, sharing some common boundary and neighbors. Botswana occupies a land area of 226,012 square miles, most of which include desert, hills and salt lakes, while Zambia occupies 285,994 square miles, mostly a plateau. Botswana is mostly rich in Diamond deposits, while Zambia is the third largest miner of copper after the United States and Russia. Both countries got their independence from Britain, Botswana in 1966, while Zambia got her independence two years earlier in 1964. Both countries have been among the most stable

democracies in Africa. They also share similar health challenges related to high HIV/AIDs prevalence, although data for the 10 years (1998-2007) show that Botswana have had, on average, about 10 percentage point higher prevalence than Zambia: 25.5% versus 15.3% respectively. The same gap remains in the latest estimates for 2011, with prevalence rates for adults aged 15 to 49 being 23.40% and 12.50% in Botswana and Zambia respectively (United Nations General Assembly Special Session on HIV and AIDS (UNGASS), 2012; Ministry of Health, Botswana (2011).

The economic profile of Botswana and Zambia were similar in the late 1960s with Zambia being relatively better off than Botswana up to early 1980s. Since the early 1980s, Botswana has maintained one of the world's highest economic growth rates and is currently ranked as the most wealthy and most stable country on the African continent. Diamond mining has fueled much of the expansion and currently accounts for more than a third of its GDP, 70-80% of export earnings, and about half of the government's revenue. The economy has diversified into other key sectors including tourism, financial services, subsistence farming, and cattle rearing. Despite heavy reliance on a single luxury export, which was a critical factor in the country's sharp economic contraction in 2009 and the additional persistent threat of high HIV/AIDS prevalence, Botswana has successfully transformed itself from one of the poorest countries in the world to a middle-income country with a per capita GDP of $6,982 in 2008 (see Figure 5) (World Bank, 2010).

On the other hand, Zambia's economy has been heavily dependent on copper mining and agriculture; it is characterized by lack of economic diversity, subject to fluctuations in copper prices and weather patterns, and heavy external indebtedness. Despite strong growth in recent years with real GDP growth in 2005-08 at about 6% per year following privatization of government-owned copper mines in the 1990s, higher copper prices and foreign investment, and significant debt relief under the Highly Indebted Poor Country Initiative consisting of approximately USD 6 billion, poverty remains a significant problem in Zambia. As shown in Figure 4, Zambia maintained slightly higher GDP per capita than Botswana in 1960 and through the 1970s, but fell behind by 1980. Between 1980 and 2000, Zambia's GDP deteriorated 54% and have only gained significant recovery in the last 10 years. Despite this recent recovery, Zambia's GDP per capita in 2008 was similar to Botswana's GDP in 1980.

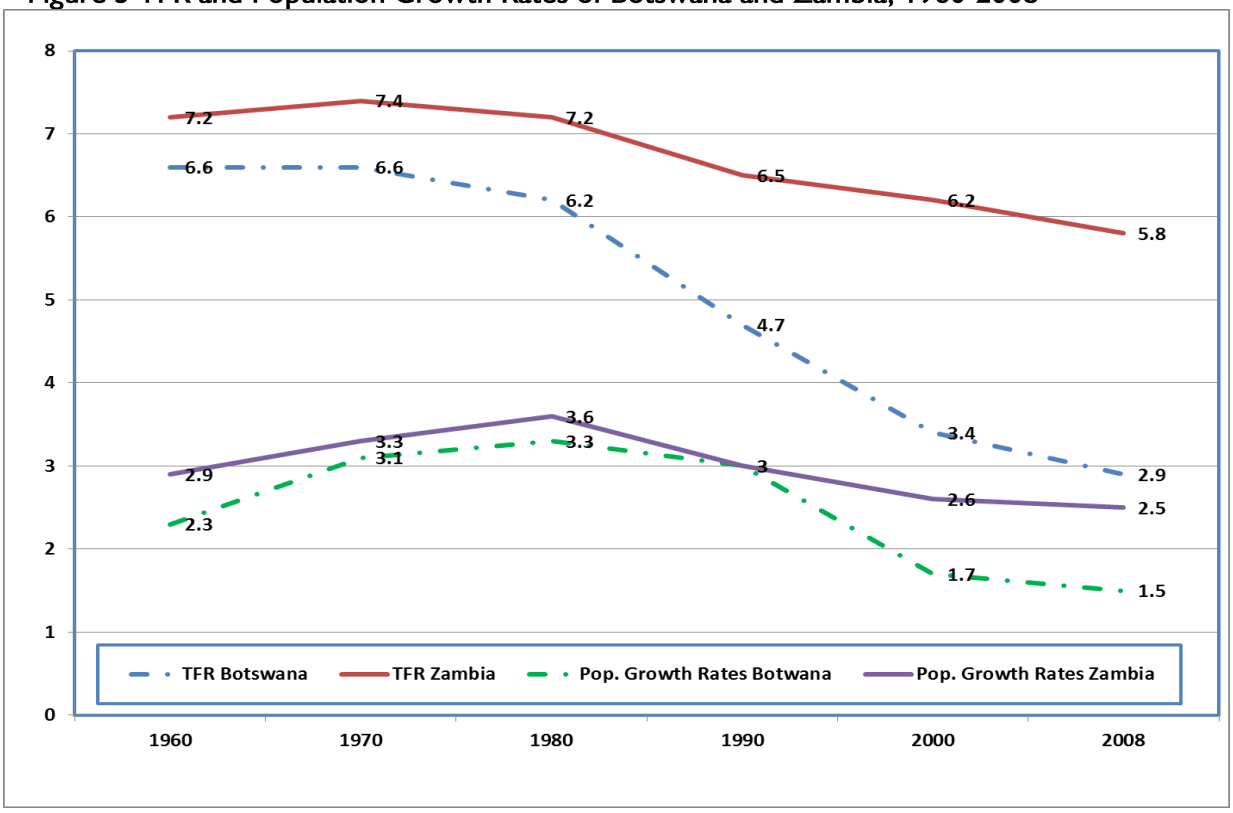
Figure 4 GDP Per Capita for Botswana and Zambia, 1960-2008



Data Source: The World Bank, 2010, http://data.worldbank.org/country

While many factors can be advanced for the above divergent economic paths of Zambia and Botswana over the past four decades, including such factors as political governance and corruption in the national economic outcomes, what has often been ignored in such analysis is the role of demographic factors. We summarize below some key demographic indicators for Botswana and Zambia since the 1960s as an alternative view to understanding their divergent economic trajectories over the same period. Figure 5 shows significant variation in the total fertility rates (TFR) of both countries over the last 5 decades. While both countries started in 1960 with a high pre-transition fertility level of about 7 children per woman, Botswana's fertility witnessed a significant transition, especially since the 1980s and by 2008 had reached less than 3 children per woman. Zambia, on the other hand, while showing signs of decline by 1980, remained at pre-transition level of about 6 children per woman by 2008. These fertility patterns have resulted in higher annual population growth rates for Zambia than Botswana. Zambia's population is now projected to reach 29 million by 2050 (nearly 10 times its 1960 population of 3 million people) while Botswana is projected to reach 2.76 million (barely 5 times its 1960 population).

Figure 5 TFR and Population Growth Rates of Botswana and Zambia, 1960-2008

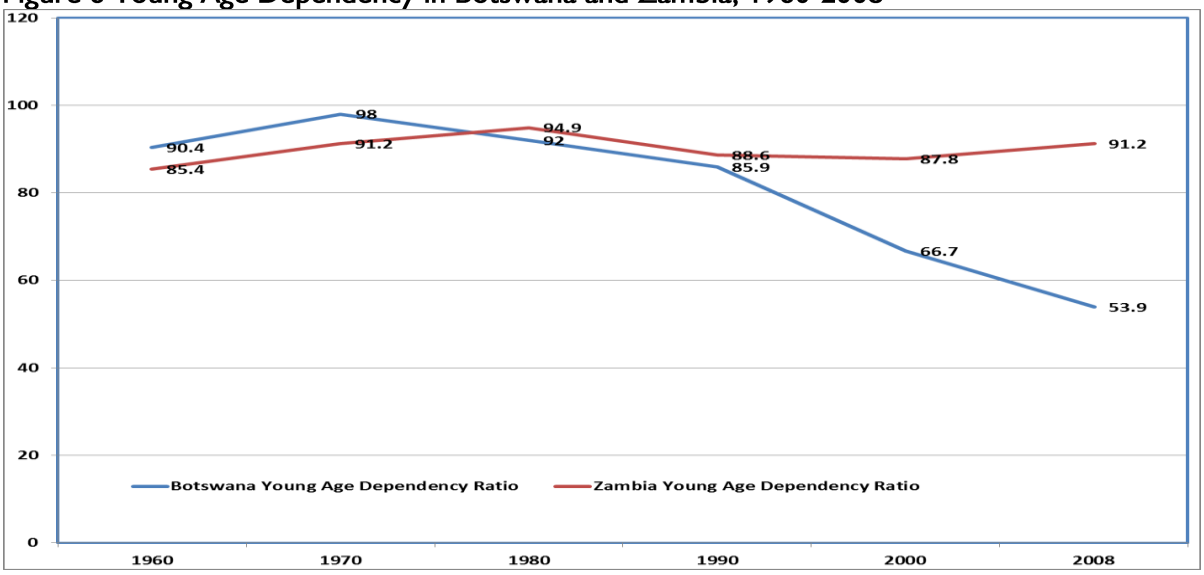


Data Source: The World Bank, 2010,

How are these demographic indicators related to the divergent economic performance of the two countries over the past five decades? Consistent with the targets under MDG 1, we look at two key indicators, youth age dependency ratio and proportion of females employed outside the agricultural sector (industrial and service sectors). The assumption is that reductions in fertility rates would mean women could spend less time in reproduction and more in productive activities outside the home. As children require care produced in part with their mothers' time which may reduce the maternal probability of employment and hours of work, researchers have shown that fertility reduction potentially lead to better economic outcomes, as women with fewer children engage more in income-generating activities and do invest more in the education of their children (Mason & Lee, 2004). More importantly, Target 2 of MDG 1 focuses on achieving full and productive employment and descent work for all, including women and young people. Reduced youth dependency ratio and increased female engagement in the formal sector is likely to result in greater savings which would lead to greater investment and greater economic growth.

Figure 6 shows that young age dependency ratio (the ratio of dependents younger than 15 years to the working age population 15-64) was higher in Botswana relative to Zambia between 1960 and late 1970s. However, consistent with fertility patterns and population growth rates in the two countries, the dependency ratio started to decline in Botswana from the 1970s while that of Zambia continued to increase. By 2008, youth dependency ratio had dropped to 54% in Botswana while exceeding 90% in Zambia.

Figure 6 Young Age Dependency in Botswana and Zambia, 1960-2008



Data Source: The World Bank, 2010, http://data.worldbank.org/country

Across much of the developing world, the role of reversals in dependency ratios in propelling economic growth and reducing poverty has been documented. In most East Asian countries about a third of their impressive growth in the second half of the 20th century have been attributed to this "demographic dividend" occasioned by significant declines in their dependency ratio (Mason and Kinugasa, 2005).

Despite lack of employment data for different sectors of the two economies for most years, for the years in which data was available, Table 1 shows the differences between women employed in industry and service sectors in Botswana and Zambia are substantial. By 1985, close to 40% of women in Botswana were employed in the industrial and service sectors, this increased to 84.5% by 2000. Conversely, the proportion of women in both sectors in Zambia was 22% by 1990 and declined to 20.4% by the year 2000. This trend reverses when we examine

Table 1 Proportion of Women in Employment by Sectors in Botswana and Zambia

Year	Women in Industry & Service Sectors (%)		Women in Agriculture (%)	
	Botswana	Zambia	Botswana	Zambia
1985	39.5%	-	60.5%	-
1990	-	22.1%	-	56%
1996	89.2%	-	10.7%	-
1998	-	22.8%	-	77.2%
2000	81.5%	20.4%	17%	78.6%
2003	87.1%	-	12.9%	-
2005	75.6%	-	24.3%	-

Data Source: World Bank, 2010.

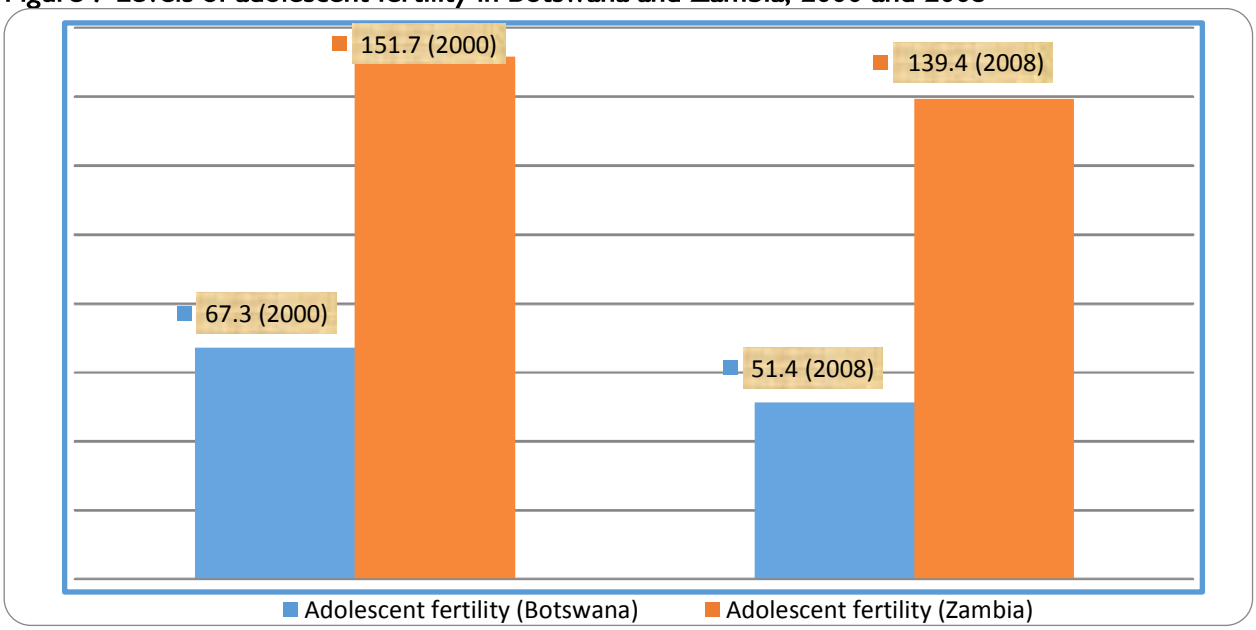
employment in the agricultural sector, where 60% of women in Botswana were employed in the agricultural sector by 1985 and this declined to 17% by 2000 (although there is an upswing to 24.3% by 2005), whereas 56% of Zambian women were employed in the agricultural sector in 1990 and this increased to 78.6% by 2000.

Closely related to the challenge of the population factor and women empowerment is the growing concern on the increasing prevalence of adolescent early sexual relationships in developing countries over time and its implications for reproductive health and other life outcomes (Mberu and White, 2011; Isiugo-Abanihe and Oyediran, 2004; Blanc and Way, 1998). This concern is significantly motivated by findings that the timing of first sexual intercourse is highly associated with exposure to sexually transmitted infections (STIs) and HIV/AIDS, human papilloma virus and precancerous changes of the cervix, use of contraception, pregnancy and pregnancy complications (Gage, 1998; Isiugo-Abanihe and Oyediran, 2004). While poverty has been identified as a driving force and motivation behind the increasing sexual activity of particularly unmarried adolescents (1993; Luke, 2003), the outcomes, primarily early pregnancy, abortion

and motherhood can compromise young women's health (Onifade, 1999 ; Mberu, 2008) and associated with psychosocial problems (Amobi & Igwegbe, 2004), all of which interrupt schooling, which in turn can lead to fewer job opportunities, lower income and perpetuation of poverty (McCauley et al. 1995). This will particularly compound the situation of women, who already face lower chances of independent escape from poverty, in part because of their large share of motherhood and domestic commitments, which prevents them from seizing new and profitable opportunities (Adeyeye, 1996; Haddad, 1991).

Building on this body of work, we examine the prevalence of adolescent fertility burden among women aged 15-19 in Botswana and Zambia. While estimates for the last ten years, summarized in Figure 7, suggest only a marginal decline in adolescent fertility in both countries, but consistent with its high fertility and dependency burden, adolescent fertility was 56% higher in Zambia in 2000 than in Botswana, and this relative disadvantage increased to 63% by 2008 (World Bank, 2010)".

Figure 7 Levels of adolescent fertility in Botswana and Zambia, 2000 and 2008



Data Source: The World Bank, 2010, http://data.worldbank.org/country

The foregoing indicators highlight that despite similar initial poverty levels (GDP per capita), location in the same region with similar reliance on high natural resource endowments and exports, relatively stable democracies, high HIV/AIDS burdens, these countries are currently at very different economic growth and development levels. What is also clear is evidence of significantly different fertility trajectories that have resulted into historically different patterns of population growth rates. While other conclusions are possible, what is undeniable is evidence that the respective population burdens of each country offer significant explanation into the varied economic experiences in these similarly endowed countries. With simply many more mouths to feed, and more people in need of services, Zambia has not progressed as well as it could have relative to Botswana. This conclusion is also reflected in other health and economic indicators from both countries. For instance, though Zambia spends higher proportion of its government expenditure on health than Botswana (an average of 14.8% versus 13.8% respectively, between 2003 and 2007), yet the proportion of children immunized has been consistently higher in Botswana than in Zambia, particularly in the last ten years. In 1990, 92% of children 12-23 months were immunized in Botswana and this increased to 96% by 2008, but the corresponding proportion in Zambia for the same age group and over the same years was 91% in 1990, decreasing to 80% by 2008 (World Bank, 2010). Similarly, while the proportion of the population in the labor force have increased in Botswana from 73% in 1980 to 76% in 2008, it marginally increased in Zambia from 68.6% in 1980 to 69.1% in 2008. In the face of high HIV/AIDS burden, life expectancy in Botswana declined from 60 years in 1980 to 54.2 in 2008 and despite a relatively lower burden, life expectancy in Zambia decline from 52 years in 1980 to 45 years in 2008 (World bank, 2010). Again these indicators are consistent with the divergent fertility and population trajectories of both countries and collectively speak to the challenges of built-in population related disadvantages in Zambia, which

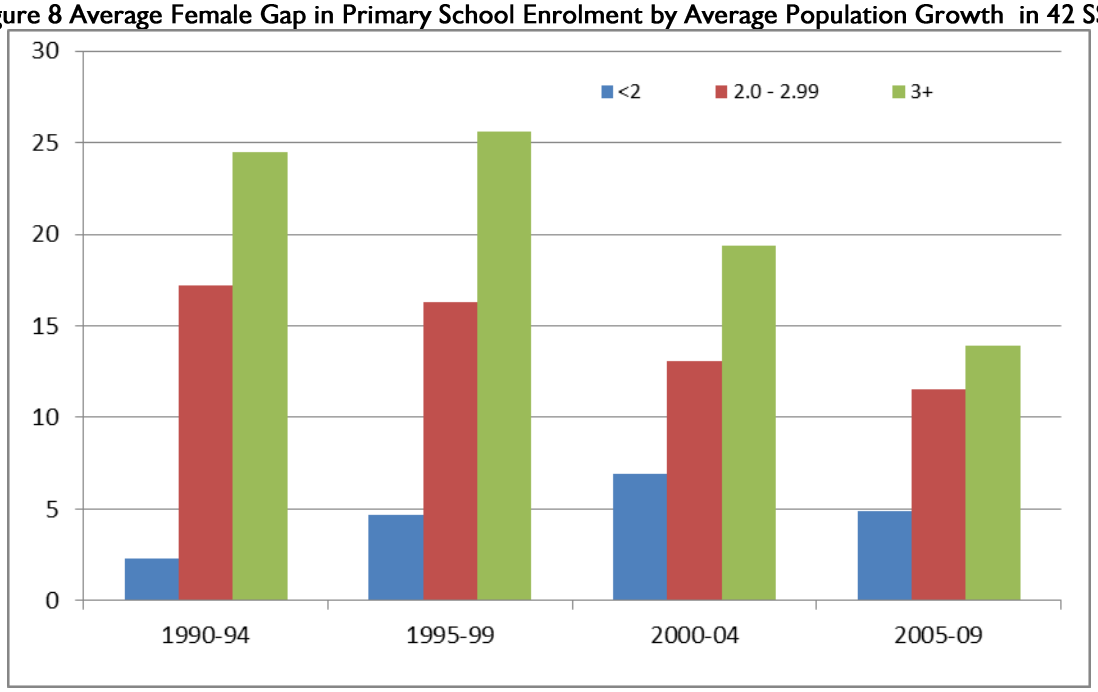
could drag back future economic growth, widen the gap between her and neighboring Botswana, frustrate future attempts at eradication of extreme poverty and hunger in line with the MDG 1 targets.

Achievement of universal primary education and gender parity in education in 42 African Countries

The second MDG is focused on achieving universal primary education by 2015, with the set target that children everywhere, boys and girls alike, will be able to complete a full course of primary schooling by 2015. The latest evaluation of the MDGs reported that the world has achieved parity in primary education between girls and boys at the 2010 gender parity index value of 97, which falls within the plus-or-minus 3-point margin of 100 per cent (UN, 2012). In SSA however, while enrolment rates of children of primary school age increased markedly from 58 to 76 per cent between 1999 and 2010 and many countries succeeded in reducing their relatively high out-of-school rates, primary school age populations were growing, and achievements were unequally distributed across and within regions and countries.

We examined data from 42 SSA countries and the results showed that average gender gap in primary enrolment is negatively associated with rates of growth of the population (See Figure 8). Countries with population growth rate of 3% or more have, on average, about 14 to 25 percentage point disadvantage in female enrolment compared to 2 to 7 percentage points disadvantage for those with less than 2% growth rate between 1990 and 2009. Although the gap has narrowed in the recent past, countries with population growth rates of 3% or more over the period 2005-2009 had almost three time more female disadvantage in primary school enrolment compared to those with growth rates of under 2%.

Figure 8 Average Female Gap in Primary School Enrolment by Average Population Growth in 42 SSA Countries



Data Source: Authors' analysis of education and population growth data (World Bank, 2010).

Beyond the disadvantages identified through macro data are intra-country disparities in educational achievement, which generally widens the political and economic gap between regions in one country. In some countries, the in-country disparities are reinforced by anti-state religious and ethnic groups that mobilize against all forms of formal education, especially for women in regions of their control (Reed and Mberu, Forthcoming). The problem is exacerbated by evidence that fertility rates are highest among women with less than a secondary education, who are most likely to come from the poorest backgrounds. Among adolescents similar patterns are observed, as pregnancy and childbearing outcomes follow the educational attainment gradient. Accordingly, adolescents who have the lowest levels of schooling also have the highest levels of motherhood and pregnancy (Reed and Mberu, Forthcoming).

The African data finds support from multiple sources, which have underscored how rapid population growth rates could undermine basic

education in a vicious cycle of mutually destructive ways (APPG&RH, 2007). Experts agree that reduced fertility and population growth rates enable governments to invest more per capita in education and for individual families to invest more in each child (Cleland et al. 2006). This conclusion is supported by evidence that a falling birth rate and growing economy enabled China to raise educational expenditure by a factor of 10, the literacy levels among 15 to 25-year olds rose to 98.6%, middle school enrolment from 67% to 90%, and China achieved a 90% balance of girls to boys in schools (APPG&RH, 2007).

Conclusion

Building on the inevitable role of population dynamics in development generally and the achievement of the MDGs, we underscore the need for interventions around alleviating pressures caused by rapid population growth. There is substantial consensus that such intervention are consistent with the achievement of development goals relating to poverty reduction, maternal and child mortality, and women's empowerment as well as other salient objectives, such as environmental stability and access to natural resources (Singh et al. 2009). To this end, voluntary family planning services has been identified globally as a panacea to rapid population growth as fertility declines are achieved by expanding the use of contraception among women of reproductive age (Ezeh et al. 2012). Research evidence show that regions and countries where information and contraceptive services were made available saw moderate to rapid declines in birth rate; increased autonomy, education and status of women; fewer unintended pregnancies; fewer maternal and newborn deaths; healthier mothers and children; greater family savings and productivity; and better prospects for educating children, strengthening economies and reducing the pressure on natural resources (Singh et al. 2009). Conversely, countries where many pregnancies remained unwanted and the birth rate did not fall are currently seeing an explosive growth of urban slums, a failure of the state to keep pace with educational demands and, in some cases, the continuing oppression of women (APPG&RH, 2007). Consequently, research and program initiatives have emerged in recent years to highlight and reposition family planning and reproductive health as an essential component of maternal, newborn and child health strategies. These studies have linked the continuing high levels of unmet need to about 20% to projected global population growth by 2050 (Cleland et al. 2006). Meeting the existing unmet need for family planning has been estimated to have reduced fertility by 35% in Latin America and the Caribbean, by about 20% in the Arab States and in eastern and southern Africa, and by about 15% in Asia and West Africa (Westoff, 2006). In 2003, an estimated 200 million women in developing countries had an unmet need for modern contraceptives, seventy-five million had unintended pregnancies and 20 million of these women had unsafe abortions (Singh et al. 2009; WHO, 2007a). Every year, more than half million women die from pregnancy-related causes (WHO, 2007b), and nearly four million newborns die from mostly preventable conditions (Lawn, 2006).

In sum, rapid population growth and high fertility are a threat to the wellbeing of individuals and societies in the poorest developing countries. The choice of voluntary family planning programs as the main policy instrument is based largely on evidence of a substantial unsatisfied demand for contraception (Ezeh et al. 2012). Addressing this demand requires substantial increased investment in family planning and maternal and newborn health services, which in turn will accelerate progress toward achieving the Millennium Development Goals (MDGs) by 2015 and beyond in developing countries.

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