

Basu, Alaka M.; Basu, Kaushik

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The prospects for an imminent demographic dividend in Africa

The case for cautious optimism

Alaka M. Basu¹ and Kaushik Basu²

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Abstract: This paper looks at the prospects of a demographic dividend in Africa in the near future. While acknowledging that the fertility declines which change population age structures and thus dependency ratios have been slow to begin and often seem to have stalled once they have begun, we nevertheless conclude that there are many underlying features of Africa today which might hasten the process. These features have to do with some of the preconditions under which fertility fell in other parts of the world—such as economic development, social modernization, mortality decline and a rise in ‘natural’ fertility—but also include the fact that the global world today is again, after a hiatus, interested in and proactively working towards investments in voluntary family planning. All these conditions are conducive to faster fertility decline than in the past and with the right policies could allow the region to exploit this demographic window of opportunity. We also comment on some of the economic implications of a demographic dividend in Africa, including the helpful fact that when it occurs, the economic impact of a relatively larger labour force may be enhanced because of, unlike in some other parts of the world, the historical and cultural acceptance of women in the labour force.

Keywords: Africa; age distribution; family planning, health
JEL: E0, J110, J130, I110

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Tables are at the end of the paper.

¹United Nations Foundation and Cornell University, ab54@cornell.edu; ²The World Bank and Cornell University.

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1 Introduction

In the last two decades, interest in a country's population and its implications for economic growth and development has moved from a concern with the size and distribution of a population to its composition. In particular, various studies of surges in economic development in a number of developing countries have noted the role of the *age* composition of the population during such surges. It seems to be a common theme that, demographically, what pushes a nation onto a high-growth path is not so much the growth (positive or negative) of its population as a palpable change in its age structure. When there is a rise in the proportion of the population of working age, other things being held constant, there is a fall in what is called the 'dependency ratio'—the number of dependents supported by the working age population. Such a decline in dependency ratios means that more of the incomes of the working age groups can be diverted to productive investments rather than being used up in the maintenance and upkeep of the non-productive part of the population. The freeing up of these resources in turn fuels further economic growth as well as improves the standard of living of the general population.

Since such a change in dependency ratios is usually (but not necessarily always and not necessarily only) an outcome of falling fertility, it has also been described as a demographic dividend or a demographic bonus, because it is a gift bestowed upon a population by demographic factors. It is also called a demographic window of opportunity because it cannot last forever—once the relatively small cohort that results from reduced fertility itself reaches working age, dependency ratios will again rise unless the fertility decline is continuous so that each succeeding generation is smaller in relative size than its predecessor; which cannot happen indefinitely. Moreover, as the children from a low-fertility cohort reach working age, dependency ratios also begin to rise because they now have a relatively larger older age (ie non-working) population to support.

Studies of the prospects for economic development therefore need to pay attention to demographic factors as much as to economic policies and political capabilities and a host of other environmental and social correlates of development. The contribution of demographic change has been emphasized in the massive growth in GDPs that occurred in the 1980s in East Asia and in Ireland as well as many of the Latin American countries during the 1990s (see, for example, the review in Bloom and Canning 2003) and perhaps the Indian sub-continent more recently (Aiyar and Mody 2011). For many of these places, the window of opportunity has already shut and while it was open, policies and background factors have taken more or less advantage of it. Indeed, this question of strong supporting policies, related to education and human capital as well as to increased economic opportunities to absorb the productive labour of the labour force, has occupied much of the recent literature on the demographic dividend. But here we want to do something different.

In this paper, we speculate on the specific nature and possibility of a demographic dividend in Africa, independently of its potential for success once it rears its head. But we also, in the next section, discuss some of the economic implications of a demographic dividend in the specific context of Africa. We do this relatively briefly both because much of what one can

say about it is relevant to economic policies in general and not related only to the demographic dividend.

2 The economics of a demographic dividend

Africa has had a good run as an economy over the last decade. Poverty, as measured by the percentage of the population living on less than US\$1.25 (purchasing power parity adjusted) per day, has seen a steady decline, which was not the case earlier. In 2013, when most countries were under economic and financial strain, sub-Saharan Africa grew by a remarkable 4.7 per cent. And according to the World Bank's most recent forecast, it will grow by 5.3 per cent in 2014 (World Bank 2014). Of course every forecast comes with upside and downside risks. African has in recent times relied increasingly on China in terms of both trade and capital flows. If China has a slowdown as it tried to rein in its large credit and shadow banking sector, this could have a substantial negative impact on Africa.

On the upside, Africa as we elaborate in later sections, is at a nascent stage of a demographic bulge in the working age population. This can confer a dividend to the region's economy. However, the demographic dividend comes with its own complexities and will need nurture and complementary policies. The potential benefits of a rise in the proportion of working age population are obvious. Since the fraction of breadwinners rise during such a phase, there is a direct increase in per capita income in the economy. Secondly, there is enough evidence that the age-group of roughly 20-65 consists of the high savers in a nation (Basu 2007). Hence, one side effect of demographic dividend is a rise in the savings rate in the economy. In relatively, poor nations with surplus labour, as is the case in most African economies, a rise in the savings rate translates into higher growth (Solow 1994). Further, it is possible that during such phases, there is migration of labour from rural to urban areas which causes a concomitant rise in labour income (Basu 1997).

As, however, the introduction to this paper emphasized, the demographic dividend is only a *potential* dividend. Whether these potential gains from changing age structures are realized and how they may be realized depends a lot on labour market conditions. In addition, the shift from a changed age structure brought about by falling fertility to actual gains in welfare can be thought of as being influenced by a number of socioeconomic and political factors as well as resulting in socioeconomic and political changes. In addition, one may also of course reflect on the socioeconomic and political factors that drive the fertility decline that in turn changes population age structure, but we leave that part of the discussion to a relatively brief section in a later part of this paper in which we touch upon what have been called the preconditions for fertility decline and examine the state of these preconditions in the African context.

Here, we focus on the nature of the economic dividend and loss possible from changing age structures. In the process we also touch briefly upon the economic determinants of these gains and losses; that is, on the background and policy factors that determine the nature and level of a realized demographic dividend.

To begin with the downside, what are some of the potential problems with the rise in the proportion of working age population that a demographic dividend refers to? Two of these

bear specific mention here. First, if there is a rise in the proportion of the working age population but without access to the actual work that these working age people need to immerse themselves in and need to generate the incomes and productivity that will now go into supporting the smaller number of dependents that falling fertility results in, what we could have on our hands is what the pessimists call a ‘youth bulge’ or, more tellingly, a ‘demographic disaster’. In a situation of high unemployment, mechanical improvements in age-based dependency ratios are not a proxy for improvements in actual economic dependency ratios (Basu 2011), so what we have is demographic change rather than a demographic dividend. Worse, this surge in the relative size of the working age population, when combined with the economic and political disenfranchisement that high unemployment reflects, can be a source of political and social instability that in turn worsens economic strain.

What do employment levels and trends in Africa tell us about the possibility of such a negative demographic dividend as fertility levels begin to fall more rapidly in many parts of the continent? Unfortunately, unemployment data for developing countries are either not reported or, more alarmingly, reported. The alarm is caused by the fact that work has such varied meanings in developing countries that employment statistics are hard to interpret. The World Bank’s (2013) compendium of development indicators leaves the unemployment columns for most African countries blank; this is not surprising. But some hints of the trouble that poor employment prospects coupled with large increases in the youth population can lead to appear in the rises in political instability that some of the poorest parts of the continent have seen in recent years. At the same time, even if there is a relationship, it is not clear whether it is one with rises in the absolute numbers of the young or their relative numbers. Intuitively both these rises can be expected to contribute to political and social trouble under the right conditions. But it would be unwise to take this thread any further without a more serious analysis of demographic trends and political trouble, so all we do is flag the question here.

The second possible economic fallout of fertility decline relates to inequality. Unless the changing age structure that frees up resources for productive investment occurs across the board, the groups that are at the forefront of the fertility decline will benefit more than the laggards, thereby worsening inequalities, given that it is usually those that are already better off that usually lead a fertility decline. So, other things remaining the same, the longer the gap in the onset of fertility decline between different groups, the greater the chances of growing socioeconomic inequality (Eloundou-Enyegue 2013). This increase in inequality can occur at regional, national or subnational levels. For example, the earlier and more rapid falls in fertility in Northern Africa (and to some extent in Southern Africa) documented later in this paper imply that the head start that these regions have in economic conditions could become even more of a handicap to the Central and Western African countries (especially Congo, Niger, Mali and the Gambia) that are slower to begin their fertility transition.

At the national level, if different socioeconomic groups within a country have radically different rates of fertility change these socioeconomic differentials can become exacerbated as the groups with more fertility declines have more resources to invest into productively gains. For example Demographic and Health Surveys data suggest that in Liberia and Zambia the total fertility rate of the lowest socioeconomic group is at least 2.5 times that of the

highest groups (Eloundou-Enyegue 2013), a difference that has the potential to dramatically widen the socioeconomic gap between groups.

This widening can become even more severe in the long run as countries or groups get ready to benefit from the gains of what has been called the *second* demographic dividend—the stage during which the children of low fertility cohorts grow up and enter the labour force. The children from these cohorts will be more productive than their peers from high fertility parents since they should have had more invested in their education and health just because there were fewer of them.

Government policies can mitigate some of this inequality potential in two ways: (i) by investing in health and family planning services that make fertility decline more universal within a country or region rather than confined to the better off; and (ii) by investing in the health and education of *all* children, those from low fertility as well as high fertility families, so that at working age, there is a reduced gap in potential productivity. That is, if it is a benign state rather than private family resources that provides for child education and health, the gains of reduced fertility can be less lopsidedly invested. In addition, if the fertility decline is large or widespread enough to generate greater savings that can be deployed in higher investment, the changing age structure in some groups of a population can benefit the prospects of an entire population even as it waits for the laggards to begin their own fertility decline.

At the same time, there is a positive caveat to the inequality question. Africa is a large and diverse continent and there is at least one way in which the absence of simultaneous and rapid fertility declines across the continent may be good for the economy. As the forerunners of the fertility decline (in this case the northern and southern regions of Africa) begin to reach the end of their demographic dividend and begin to actually experience a labour shortage, this shortage can conceivably be met by the relatively large working age population of the slow fertility decline countries or regions. Naturally this depends on the ease of migration, the match between the skills demanded by host countries and available in sending countries and so on; but in principle at least, some of the pressures of continuing high fertility can be absorbed by countries with sustained fertility decline more easily within Africa than they can be when migrants have to cross continents and greater cultural divides for work. Something like this certainly has happened and is happening in India, where the labour shortages of the low fertility southern part of the country are being increasingly met by migration of labour from the high fertility central states, to the benefit of both regions.

This logic also explains a part of the contemporary migration from Africa into the industrialized countries. Many of these host countries are experiencing a rise in their older populations at the same time as long declining fertility has reduced the relative size of their labour force, and the still growing youth populations of Africa are stepping in to fill this gap. Given the political, physical and economic challenges to this kind of intercontinental migration, inequalities in the timing of the demographic dividend within Africa should make things easier for both sending as well as receiving countries within the region. As it is, intraregional migration accounts for half of all migration from African countries; this figure is even higher—about 65 per cent—for migration from sub-Saharan countries (Ratha et al. 2011). With the right policies this preference for relatively short distance and relatively

culturally homogeneous migration can be exploited for the economic development of the continent, at least in the short run when there are labour shortages in some countries and labour surpluses in others.

Of course all the above paragraphs assume that the resources freed up by falling dependency ratios at the national or family level do get used productively (for the short—as in through infrastructure or job creation for example, or long—as in through greater investments in human capital, run). If instead the savings are used largely for present consumption by either or both families or the state, then the demographic dividend can be at best a very short-term gain.

At the same time, one needs to avoid the kind of misleading fear-mongering about the rise of working age population that is seen emblazoned in headlines like ‘x million new jobs will need to be created each year’, where x is an impressively large number. The reason this is misleading is that it creates the impression that all the new entrants into the working age population will be seekers of jobs, with the responsibility for creating jobs being with the government and international organizations. In reality, many of the new young will be entrepreneurs looking for hands to employ. Indeed, by going to the other extreme and assuming that all the new young will be entrepreneurs, the headline could be made equally alarming (and misleading) in the reverse way by saying that ‘y million additional workers will be needed each year’.

The truth of the matter is that with the demographic dividend, Africa will have both new workers and new employers. Hence the overwhelming odds for Africa are that it will benefit from the demographic structural shift over the coming decades. The governments do not have to take on the primary responsibility for creating jobs. They will have a lot of responsibility nevertheless, but that will be more about providing an enabling ethos and an effective regulatory system, and providing for the basic needs of citizens and keeping a check on excessive inequality. Alongside this, there will be a need for governments to keep a check on the strains on the environment that will inevitably come from larger populations and greater economic activity.

In short the state’s responsibility will be for the gamut of what is called development policy to facilitate a society’s taking advantage of the natural benefits from a demographic dividend. That is, the demographic dividend merely provides a favourable background for economic development. How this (temporarily) favourable background is exploited depends crucially on the framing and execution of development policy.

However we will not do much more than flag this last question here as central to any speculation on the relationship between demographic and age structure change and economic development in Africa. Instead, the next sections of this paper focus on the first piece of the process—on our reasons for expecting the demographic and age structure changes that create a demographic dividend to become more easily and quickly visible in Africa in the coming years.

3 The prospects for a demographic dividend in Africa

We ask the following question in the rest of this paper: is there a demographic dividend already on the scene in some parts of Africa. And where there is not, is there one on the horizon? On both these questions, we challenge the current pessimism about high African population growth using the past experience of demographic change in other parts of the world and the current state of fertility in Africa to make the case for a cautious optimism about the arrival of the demographic dividend on the continent.

Our contingent optimism is based on the recent evidence of fertility decline, on recent changes in some of the determinants of fertility decline, and on some background cultural conditions in many parts of Africa which have the potential to magnify the impact of a demographic dividend once it does occur. We also comment on the fortuitous combination of current national and international policy processes that make fertility decline, and therefore more advantageous population age structures, more possible in Africa today than would have been the case a decade or two ago.

One unsurprising but important finding that emerges from our perusal of the data on all these matters is that the truism that Africa is a continent and not a country is literally true as well as true in the often vast regional and country differentials that exist in all our indicators and therefore predict important continuing differentials in the emergence and speed of emergence of a demographic dividend. At the same time we want to make the case that perhaps this moment in time is one that is most capable of narrowing these differentials if the bull is taken by the horns so to speak.

Thinking about the demographic dividend is also a way of addressing the underlying pessimism in the newly revised population projections from the United Nations, which have received wide public attention. The September 2013 revision of the 2012 projections now expects the global population to reach about 9.6 billion in 2050, compared to its earlier estimate of 9.3 billion (United Nations 2011, 2013). Almost all this extra growth is expected to come from Africa, where, according to the UN Population Division, population growth rates have not subsided as much as had been expected and where, in some cases there has actually been a rise in fertility, so that the projection for Africa for 2050 of 2.19 billion made in 2010 has been revised in 2012 to 2.39 billion. The point we make here is that both these factors—the slower decline in fertility as well as possible rises in some places—(which are related but not completely the same thing) are in fact signals that we could see significant declines in each of these factors in the coming years. Which also means that perhaps we can anticipate the appearance of an important demographic dividend in Africa in the not too distant future.

3.1 Trends in the emergence of the demographic dividend in Africa

Before we talk about future prospects, what does the demographic dividend in Africa look like just now? Table 1 uses a proxy for dependency ratios—the proportion of the population of working age, taken to be 20-64—in the different countries of Africa and in some other world regions for purposes of comparison. While most official agencies provide labour force statistics for the 15+ population, one of the features of development is surely to increase the human resources of a population, which in turn means increasing the number of years of

education significantly. If that kind of development accompanies the demographic dividend in Africa (or anywhere in the world for that matter), then we may be looking at somewhat lower labour force participation rates if we continue to use the 15+ cutoff. Our labour statistics will have to be focused on the 20+ age group. In addition, with increasing longevity, a cut-off of 59 for labour force participation looks increasingly untenable. That is why Table 1 uses this slightly unusual 20-64 grouping.

The most important finding here is that except for the countries of Northern Africa and a little bit for the countries on Southern Africa, favourable changes in this proportion are incipient at best. In several cases, we even have a *decline* in the proportion of working age population in the 1980s and 1990s. But we do not view this finding with as much disappointment as it might warrant in a casual observer of the data, because, we try to look *behind* the figures and conclude that: (i) some of the slow pace of change is for positive factors like major falls in child mortality and (ii) some of it may be due to increases in fertility, but (iii), in both these cases there cannot but be soon enough a compensating fall in fertility. In addition, real, dependency ratios will improve further as (a) adult mortality (especially from HIV/AIDS) also falls further, and (b) as African women who already have a long history of participation in the labour force, become more productive as their birth rates fall.

In the next few sections, we elaborate on all these hypotheses and try to justify what we call our 'cautious optimism'.

3.2 Africa and the preconditions for fertility decline

In a seminal paper, Ansley Coale (1974) identified three broad 'preconditions' for a sustained and significant fertility decline to occur in any society. These are:

1. The idea of fertility control has to enter the calculus of conscious choice. This phrase, the calculus of conscious choice, has acquired some iconic status in the field of demography and refers to the change in social conditions from a situation in which reproduction and childbearing and numbers of children are treated as (if they are consciously thought about at all) matters for some higher authority to determine to one in which it becomes something on which in principle at least individuals and couples can exercise some control.
2. The advantages of fewer births should outweigh the disadvantages and/or should be perceived by couples to be so.
3. The means to achieve fewer births than before should be available.

For birth rates to come down, all three conditions need to be met; too often either one or two of them are not. In a slightly different formulation, Lesthaeghe (2001) described this situation as one in which couples were 'ready, willing and able' to practice birth control, by whatever means.

Looking at Africa today, on the whole one might say that condition 1 has already been met; indeed the global push towards family planning programmes since the middle of the twentieth century means that there is hardly any part of the world any more in which families do not know that it is possible to choose one's numbers of births. As we discuss in a later

section, at the present time, with a new international effort to increase access to contraception in the developing world, condition 3 is also coming closer to be met.

So it is condition 2, really, the evolving rationale for fewer births, that will determine the timing and speed of a fertility decline in the African countries and in the following section, we focus on one of the central motivations for such a rationale—significant perceived improvements in child survival.

3.2.1 Mortality decline as a precondition for fertility decline

In the large and sometimes contentious literature on the preconditions for fertility decline—is it the costs of children that matter more, or the benefits? are children needed for old age security or to satisfy one's ancestors? do opportunities for women's education lower fertility more or opportunities for women's employment?, and so on—if there is one precondition that no one argues about, it is a decline in mortality. Until parents can feel more confident that their offspring will survive to adulthood, the premise is, they will feel obliged to have larger numbers of births to guard against the few that must inevitably die in childhood.

Indeed, traditional demographic transition theory is built around the idea that as societies modernize, first mortality falls, then, usually after a lag, fertility decline takes off. Further theorizing talks about the evolutionary reasons for this ordering of demographic change, as well as the micro-compulsions that persuade families to reduce fertility as mortality levels fall. Empirically, too, barring a few small examples from historical Europe, there is no evidence of significant *voluntary* declines in fertility in the face of continuing high mortality, high childhood mortality in particular.

What does this theory and empirical evidence say about the prospects for fertility decline in Africa in the near future? Table 2 displays trends in child mortality rates since the 1980s. After very little progress during the 1980s and often even the 1990s, the new century has thus far seen remarkable declines in the probability of a child dying by the age of 5 in country after country. At least partly this is a result of the impetus given to attempts to improve child survival thanks to the MDG project.

Of course there is still a long way to go and except for the countries of Northern Africa (barring Sudan) and Mauritius, nowhere has the child mortality rate dropped below 50. The conflict-ridden states do especially poorly and underline once more how important political stability is for the well being of the vulnerable. What is possible is of course not always (or even usually) what is probable, but the pace of decline in the last decade suggests that the next ten years could conceivably see even faster rates of reduction than the rate shown for the last 20 years in the last column of Table 2.

If that happens, there will indeed be a rise in dependency ratios as the child population swells (this time due to fewer child deaths rather than to more child births) but all past experience suggests that this will be a very temporary phenomenon and will soon be more than compensated by the decline in birth rates that tends universally to follow major declines in child mortality rates. Indeed, it is very likely this initial rise in child population due to falling mortality that accounts for at least some of the slow rise in the proportion of the working age population in Table 1.

So we are inclined to convert some of the pessimism about dependency ratios falling too slowly into optimism about the future given this particular reason for the slow rise.

Such optimism is also generated by the important changes in adult mortality that are taking place in Africa, thanks mainly to a greater control of the HIV/AIDS epidemic. To the extent that HIV disproportionately affects young adults, reducing its spread means increasing the numbers of working age (and working, since the illness is so often debilitating) individuals; in turn this should change dependency ratios in a favourable direction more quickly than the fertility decline that will do so after a lag as it compensates for better child survival.

Data on trends in prevalence rates of HIV/AIDS indicate that the rise in prevalence until 2000 has in the last decade actually shown a slow but steady decline. This is a very good sign, even if the prevalence rates are falling more slowly than we like, because one reason for the continued high prevalence is the larger numbers of young adults now living with the infection rather than dying of it. This becomes clearer from incidence rates; incidence measures the presence of new cases of the infection and here the declines in the last decade are much sharper.

To sum, trends in mortality are good news for the demographic dividend in the short run because of falling adult mortality and then become good news in the longer run too as falling child mortality ignites falling fertility.

3.3.2 The African advantage in timing

In a recent paper, Bongaarts (2013) looks at the timing of the onset of fertility decline in Africa to find three important differences with fertility decline in Asia and Latin America in the twentieth century:

1. Fertility decline began in Africa much later (in the 1980s and 1990s, compared to the 1960s and 1970s in Asia and Latin America).
2. Fertility decline in Africa began at lower levels of national development than it did in these other regions.
3. However, once begun, the pace of decline was slower in Africa than it was in these other regions.

The first point above is consistent with the fact that socioeconomic development in Africa took off later than it did in Asia and Latin America. The second finding is consistent with the fact that social change (which is largely what fertility decline exemplifies) in the latecomers is usually helped by learning from the experience of the forerunners. And the third point raises (although Bongaarts does not specifically address this) questions about the role of active voluntary family programmes in hastening the speed of decline once it has begun. The 1980s and 1990s were for a variety of reasons a period during which the world lost interest in family planning (compared to the often excessive enthusiasm for it in the 1960s and 1970s) and it is possible that the African fertility decline, beginning as it did during this same period) suffered from the lack of facilitating conditions that such programmes might provide.

Fortunately, and perhaps precisely because fertility declines have been slow or stalled in many parts of Africa, after a period of relative hiatus, global and national interest in non-

coercive but proactive family planning programmes has experienced a major upswing in recent years. While some would say that high fertility in Africa only demonstrates that the supply of family planning cannot create a demand (see, for example Pritchett 1994), other research suggests that while existing demand is important, family planning programmes still have a very important role to play in both hastening and sometimes directing the speed of fertility declines (see, for example, Bongaarts 1994; Tsui 2001; Bongaarts 2011). If one accepts this second view, then being on the cusp of a demographic dividend at this time is in Africa's favour: the easier and more officially committed access to contraceptive advice and services in this decade will at the very least do much to reduce the unmet need for family planning that exists in many parts of the developing world even after more than a half century of official family planning programmes.

Table 3 demonstrates both the progress (sometimes very slow) that has been made as well as the challenges that remain. Couple Protection Rates (or CPRs: the use of contraception by sexually married couples) have risen uniformly in most countries. Among the larger countries in which it has not risen appreciably is Nigeria and Table 3 highlights the need for greater effort in this case.

The figures for unmet need for contraception (the proportion of couples who do not want another child ever or at least at the moment, but is not doing anything to prevent a pregnancy) in the second third of Table 3 tell us another part of the story. In all parts of Africa, the unmet need for contraception is high. Even in Nigeria, 13 per cent of non-contracepting couples do not want another child and 6 per cent of non-contracepting couples want to delay the next birth. If all these couples could be helped to achieve this wish to not become pregnant, birth rates in this country would fall significantly and perhaps temper the current pessimism of global population projections since expectations for Nigeria contribute significantly to this pessimism.

Using Table 3, one way of classifying the countries in Africa in terms of their potential to move quickly towards a demographic dividend (see Table 4) might be based on whether they have a high (>30 per cent) level of contraceptive use and whether they have a high (>15 per cent) level of unmet need for contraception, in the following way:

- A. High CPR/Low Unmet Need: These countries are already on their way to achieving significant fertility decline and need mainly support to maintain the situation. While all these countries are in Northern Africa (Egypt, Morocco, Tunisia) or in Southern Africa (South Africa, Swaziland), several countries in Eastern Africa (Kenya, Uganda, Rwanda, Zambia, Zimbabwe) are getting close to entering this A category; this movement can also be gauged from the relatively sharp declines they have experienced in the levels of unmet need since the 1990s.

Not only do these countries offer leadership in actualizing a demographic dividend, their experience can also offer lessons the countries in category B below. In particular the remarkable recent progress in Rwanda in improving access to voluntary family planning shows that policy can make a difference.

- B. High CPR/High Unmet Need: All that these countries are waiting for is good family planning programmes; obviously a demand for them exists and the high levels of simultaneous contraceptive use even with simultaneously high unmet need suggests that there are few entrenched barriers to contraceptive practice. It is not surprising that many of the countries in this category are in Eastern Africa (Kenya, Madagascar, Malawi), given the lead provided by their neighbors (Rwanda, Zambia and Zimbabwe) as discussed above. For the same reason, nor is it surprising that the rest of the countries here are in Southern Africa (Botswana, Lesotho, Namibia).
- C. Low CPR/High Unmet Need: These are the countries where a demand for lower fertility exists but where meeting this demand faces important structural or cultural barriers, as reflected in the low overall levels of contraceptive use. Most of these countries are in Middle Africa or Western Africa and most of them are relatively small in overall population size. Among the larger countries in category C, one (Ethiopia) is in Eastern Africa and seems to be rapidly catching up with its neighbors, three are in Middle Africa (Cameroon, Democratic Republic of the Congo and Sudan) and the rest in Western Africa (Burkina Faso, Cote d'Ivoire, Ghana, Mali, Niger and Nigeria). Except for Nigeria, both contraceptive use rates and unmet needs trends provide some evidence of recent success and the new Gates Foundation inspired Family Planning 20/20 initiative will hopefully come up with the programmatic innovations and communication strategies to accelerate these trends.

Unfortunately, the largest country in Africa, Nigeria with a population of 162 million, bucks all these trends and is likely to pull down averages for the region for a considerable more time. However, even here, the latest projections from the United Nations foresee a gradual rise in the proportion of the population of working age and given the theories of the global diffusion of the motivations for fertility decline, perhaps Nigeria will still turn out to be one of those later-but-faster birth rate decliners.

- D. Low CPR/Low Unmet Need: The good news is that no country in Africa today falls in this disappointing category. Perhaps Niger, with a population of 16 million, comes closest to still belonging to this category, but even here the trends are not hopeless. On the whole, where contraceptive use is still to pick up, the unmet need is high and often rising (meaning an increase in demand) and where the unmet need is low, contraceptive use is high (meaning a satisfied demand).

This new commitment to good voluntary family planning services is already evident in many countries in Africa and also already showing impressive results in some of them. The two countries repeatedly cited as examples of both today are Ethiopia and Rwanda, where through a mix of innovative interventions (such as using community level family planning workers and/or home visits by family planning workers, as well as guaranteed supplies of contraceptive methods), rapid increases in contraceptive use and rapid declines in fertility no longer appear impossible to achieve.

At the end of this section, one must however return to another important finding in the last third of Table 3, which will make one pessimistic or optimistic depending partly on one's disposition. This is the fact that while the trends in fertility displayed in the last three

columns of the table are consistent with the sharp increases in contraceptive use seen in the same table for the countries of Southern Africa, in Eastern Africa on the other hand, the impressive increases in CPRs do not seem to be accompanied by equally impressive declines in fertility. Here even many of the countries that have reached CPR levels of 40-50 per cent still have total fertility rates around 5. This inconsistency is not unexpected to the demographer familiar with African social practices. What we may be seeing is the next step from the initial pretransition fertility increases discussed in the next section.

3.3.3 *The counter-intuitive fact of pre-decline increases in fertility*

When Coale (1973) and others theorized about the preconditions for fertility decline, they were looking at the kinds of intuitive as well as empirical changes that occurred in people's lives that then made them choose to reduce the number of births and children they wanted and therefore bore. Later research however (see in particular Nag 1980; Dyson and Murphy 1985) found another interesting feature of the situation at the onset of a sustained fertility decline in historical as well as contemporary populations. This was an almost universal relatively short but still noticeable *rise* in birth rates before the fertility transition actually took off. It is not possible to definitively attribute cause and effect to this phenomenon or to call such rises in fertility a precondition for fertility decline, but it is not inconsistent with such hypotheses either as we expand later in this section.

In the case of Africa, while none of the TFR trends in Table 3 show a rise in fertility, the relatively slow pace of decline in overall fertility at the national level is at least partly a result of rises in the fertility of sub-groups of the population. Disaggregated fertility estimates from the demographic and health surveys find such a rise in fertility, sometimes in the recent past, sometimes currently, for such groups, and especially so for rural populations, in several countries for which trend data are available.

The universally observed pre-decline rises in fertility have been attributed to some of the very factors that precede fertility decline. Most of them have to do with modernization and the shedding of traditional practices that put something of a break on what is called *natural* fertility- the fertility levels that result when there is nothing being done to consciously have fewer births. Even when there is no such conscious behaviour, social practices ensure that no population reaches birth rates as high as those biologically possible in principle. These social practices include a host of social and cultural behaviours to do with the timing of marriage/sexual activity, the length of infant breastfeeding (which acts as a natural contraceptive up to a point), and norms about the temporary cessation of sexual activity at several life cycle stages (especially important is the norm about post-partum abstinence in many parts of Africa) as well as at several other culturally defined periods, norms about widow remarriage, and so on. Different norms and practices operate at different times and in different places but they all end up in a situation in which there are hardly any instances of populations with sustained fertility levels above a TFR of 7 or so.

Modernization is usually accompanied by a breakdown of many of these norms and practices and therefore a potential rise in natural fertility. Sometimes, even without a change in these behaviours, changes in economic conditions that also accompany modernization can also increase natural fertility. One of the most important such changes is of course the fall in mortality that accompanies development. Falls in adult mortality in particular have the

potential to increase marital fertility even in the absence of changes in widow remarriage norms because they increase the length of time that women spend within marriage. Similarly, declines in illnesses that cause sub-fecundity can also, other things remaining unchanged, increase fertility.

As for these rises in fertility actually hastening the fertility transition, it could well be that as the rise is perceived widely enough, at first deliberate efforts are made to return to pre-rise fertility levels, usually by substituting birth control practices or these previously fertility suppressing social practices; once this first step has been taken, it is quite plausible that the *idea* of fertility control that it entails encourages reflection on the value of and perhaps the need active effort to bring down birth rates even further to get them in tune with the same modern realities that raised them to begin with.

Dyson and Murphy did not have many African instances of pre-decline fertility rises in their global review in the mid 1990s, but something like this may be happening or on the verge of happening in Africa today. We do know that there have been important changes in breastfeeding and post-partum abstinence behaviour (even if lip service continues to be paid to the norms themselves); the last decade has finally seen a waning of adult mortality, especially from HIV/AIDS; the UN tells us that many parts of Africa have seen recent rises in fertility; anthropologists like Bledsoe (1984) have pointed out that the use of modern contraception in sub-Saharan Africa in the recent past has merely been substituting for traditional birth spacing practices, a conclusion now supported by the mismatch between couple protection rates and total fertility rates in Table 3 alluded to in the last section.

To the pessimist, this mismatch is disappointing; it shows that contraceptive use cannot be an indicator of a demand for fewer births. This is true, but to the optimist, the big rises in contraceptive use in this region also strongly suggest that at the next step, that is when family size desires fall more rapidly, negative attitudes to or fears of contraception will not be a major hindrance to achieving this lower desired fertility.

But all this also hinges on the success of the new family planning programme initiatives. The goal of FP20/20 to provide voluntary contraception to 100 million more women over the next 7 years is not ambitious enough to the extent that it does not take into account the rise in women needing contraceptive services as the population of the developing world continues to grow. Still, if the initiative is visible enough and innovative enough, there are bound to be spillover effects that will serve to further lower the unmet need for birth control in Africa.

3.3.4 *Magnifying the demographic dividend: Africa's relative advantage*

In practical terms, the demographic dividend is important because it implies that each person of working age (*in principle*, this means each worker) now has fewer non-working age people to support and there is therefore a fall in what is known as the dependency ratio. But the phrase '*in principle*' in the above sentence is important here because of course not all persons of working age are actually productive. In particular, in most parts of the world, many women of working age are not part of the labour force and this means that, strictly speaking, they add to the dependents that each worker has to support.

One of the reasons for this absence from the labour force of many women of working age is the time and energy devoted to pregnancy and childbearing. And so when family planning access allows women to have only the number of births they want to have, some of their time and energy are freed up and can be put to other uses. If these women decide to now join the labour force, in effect they are magnifying the potential effect of a demographic dividend by creating what one may call an additional 'female demographic dividend'. This female demographic dividend is a result not of a fall in the number of young dependents (ie babies or the numerator in dependency ratio calculations) but of a rise in the number of *productive* adults (ie working women or the denominator in the dependency ratio). We have plenty of evidence of this process. At a general level, in most parts of the world there is a negative relationship between fertility and female labour force participation rates. But two of the most compelling examples of the direct link between fertility control/contraceptive access and women's labour force participation come from the mid-twentieth century USA and late twentieth century Ireland.

In the case of the United States, research shows that during the 1960s and 1970s, state-wise differences in the timing of legal access to the contraceptive pill by young unmarried women were mirrored by state-wise differences in rises in women's age at marriage as well as rises in women's entry into more careerist educational streams (Goldin and Katz, 2002, Bailey 2006). And in Ireland, the liberalization of contraceptive access in 1980 seems to be associated with a jump in women's labour force participation rates between 1980 to 2000, a factor which lowered the dependency ratio independently of the lowering caused by a drop in fertility rates (Bloom and Canning 2003).

But a relationship between fertility decline and increased participation of women in the labour force as well as the increased productivity of women workers is not inevitable. In many parts of the world historical and cultural factors do not support and may even actively discourage women's participation in the labour force. The best example of such normative disapproval of women in the marketplace is seen in countries in South Asia where the tendency is for women to withdraw from the labour force once household social or economic conditions rise (see, for example, the recent World Bank report on *Gender and Economic Empowerment in India*). In these situations, without active policies to entice women into the labour force, the potential gains from a demographic dividend can be only partially realized.

But much of Africa has an advantage on this matter. As Table 5 shows, some 54 per cent of African women aged 15+ are labour force participants, with the number rising to as much as 62 percent for sub-Saharan Africa as a whole and 76 percent in Eastern Africa. Compare this to 40 per cent in South Central Asia and 38 percent in Central America and one can see that it should be much easier to fast forward the returns from a demographic dividend in Africa than from most other parts of the world.

One additional factor in its favour is the fact that these historically high levels of female labour force participation in Africa have also been high for participation in activities outside the home, again unlike in other parts of the world where many of the women who are economically productive tend to seek home-based work. Work outside the home has many other advantages—monetary and non-monetary, micro and macro level—in its favour and

here again, well thought out policies to exploit this tendency can get more out of a demographic dividend than they would in societies in which women prefer work opportunities that allow them to operate from home.

One final note of caution. The female demographic dividend rests on the availability of more jobs and better jobs. Otherwise, women will continue to work but work in low-productivity occupations, often unpaid (as is the case today in many parts of the continent) or else they will merely take over some of the jobs currently being done by men; thereby keeping the size of the active labour force more or less unchanged and/or increasing the possibility of social and political tensions as male unemployment manifests itself in male discontent that is destabilizing.

The potential gains from such increased female productivity as fertility falls can be immense. A recent World Bank study on India for instance estimates that GDP in India would be 25 per cent higher if female labour force participation rates were to match male rates.

4 Concluding remarks

This paper examines the changing age structures of populations across Africa and their possible effects on economic development. It reflects on the possibility of imminent fertility declines in the continent by examining not just current trends in fertility but also the underlying conditions that might be favourable for new or further fertility declines in the near future. While many of these background conditions are still nascent, some of them are strongly suggestive of more immediate and rapid fertility declines to come in several parts of Africa.

In turn this means that the shifts in age structure that accompany fertility declines and that make up the idea of a demographic dividend might also be something that the continent is more ready for than is generally assumed. Under the right economic and social conditions, in turn, this means that perhaps we can be even more optimistic about economic development in the region than the recent relatively good economic growth allows us to be. Such optimism could be strengthened even further by the fact that historical and cultural conditions specific to Africa might make the continent more able to exploit the demographic dividend. In particular, we expect the historically high levels of female labour force participation in sub-Saharan Africa to provide a double fillip to making a potential demographic dividend into an actual economic bonus.

How exceptional is the African experience of a demographic dividend? Our paper suggests that Africa is different in two ways that might be called cultural and two ways that may be referred to as temporal, all three of which should have a bearing in the timing and the nature of the demographic dividend. First, the demand for high fertility is probably stronger than predicted by the usual socioeconomic correlates of fertility; this represents a potential bottleneck. But secondly and at the same time, once such a decline occurs, many parts of the continent are probably better poised to convert the resultant change in age structure into a dividend because of the historical and cultural approval of women's participation in the labour force.

The temporal difference is much less *intrinsic* to Africa and has two components. First, because socioeconomic development has come later to the region than to other parts of the developing world, it has the advantage of the rest of the world's hindsight as well as the advantage of being able to absorb social change faster than might be dictated by its economic circumstances. This question of timing probably explains Bongaart's (2013) conclusion that fertility decline in Africa has begun more recently than in other parts of the developing world but has begun at lower levels of socioeconomic development than was the case in these other regions. Temporality also enters the picture in the sense that the African fertility decline is occurring at a time when is much more international attention to women's reproductive needs and rights and ensuring access to safe and effective contraception is an important part of this new commitment.

Finally, one might mention one more positive factor that might make Africa different: this is the more rapid pace of urbanization on the continent; urban growth is currently about 3.5 per cent annually and between 2000 and 2050 the urban population is expected to double. While this does present several challenges to development (and there is no shortage of research and writing on these challenges), it is also offers opportunities to increase investments in human capital and in productivity somewhat more easily than in rural areas, both of which considerably brighten the prospects for a demographic dividend.

In spite of all that has been said in the last few paragraphs, one needs to not overdo the idea of African exceptionality. By giving in to the tendency to describe each region as exceptional, as we at times do, we ensure that it is not exceptional to be 'exceptional'. Most of the African region's problems and potential solutions are very similar to those encountered in different parts of the non-industrialized world at different times; circumstances change or can be made to change and when they do, the responses of the population are unlikely to be very different from those in other parts of the world. In that sense, given that Africa is a latecomer to economic development, perhaps it has more lessons to pick up from the experience of other countries than to offer these countries as they go about trying to meet their own socioeconomic challenges.

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Table 1: Population aged 20-64 years (% of total population)

	1980	1990	2000	2010	Total Population, 2010
Eastern Africa	40.56	40.00	40.39	41.51	342,595,134
Burundi	41.52	40.02	36.32	42.27	9,232,753
Comoros	41.04	41.20	43.60	45.28	683,081
Djibouti	39.65	41.94	45.15	50.69	834,036
Eritrea	41.47	41.19	39.00	44.16	5,741,159
Ethiopia	42.23	40.33	39.53	40.98	87,095,281
Kenya	36.39	37.27	41.09	44.30	40,909,194
Madagascar	39.89	40.91	41.69	42.81	21,079,532
Malawi	40.08	41.34	40.87	39.88	15,013,694
Mauritius	49.39	55.74	59.49	62.89	1,230,659
Mayotte	36.40	39.25	42.13	43.28	204,353
Mozambique	42.95	39.07	42.44	40.98	23,967,265
Réunion	45.11	53.01	56.04	58.16	844,579
Rwanda	39.18	37.64	38.22	43.55	10,836,732
Seychelles	43.44	48.39	54.23	62.00	91,208
Somalia	42.80	41.84	39.93	39.00	9,636,173
South Sudan	42.78	42.59	42.19	42.79	9,940,929
Uganda	39.53	38.85	37.25	37.61	33,987,213
United Republic of Tanzania	40.44	40.64	41.34	41.50	44,973,330
Zambia	39.59	40.20	40.44	39.79	13,216,985
Zimbabwe	37.29	39.95	41.66	42.40	13,076,978
Middle Africa	41.95	40.83	40.25	40.90	124,977,662
Angola	40.35	39.75	39.35	39.23	19,549,124
Cameroon	41.86	40.01	40.30	42.31	20,624,343
Central African Republic	43.70	42.52	42.81	44.66	4,349,921
Chad	41.65	39.18	37.67	37.73	11,720,781
Congo	41.32	41.86	43.73	44.38	4,111,715
Democratic Republic of the Congo	42.32	41.37	40.40	40.87	62,191,161
Equatorial Guinea	36.70	49.25	45.36	47.47	696,167
Gabon	46.20	43.05	43.15	45.61	1,556,222
Sao Tome and Principe	37.31	36.56	38.78	44.16	178,228

Southern Africa	44.32	46.28	51.67	54.38	58,802,729
Botswana	40.26	41.76	46.66	50.99	1,969,341
Lesotho	40.70	40.72	42.48	45.98	2,008,921
Namibia	39.68	41.74	45.60	47.22	2,178,967
South Africa	44.92	47.05	52.77	55.36	51,452,352
Swaziland	37.79	38.38	40.13	44.95	1,193,148
Western Africa	42.61	41.45	42.38	42.94	305,088,164
Benin	40.99	40.29	41.17	42.99	9,509,798
Burkina Faso	40.73	38.84	39.28	40.64	15,540,284
Cape Verde	34.74	39.16	41.15	50.30	487,601
Côte d'Ivoire	42.91	42.74	44.36	44.44	18,976,588
Gambia	43.20	41.27	40.32	40.95	1,680,640
Ghana	41.08	42.51	44.64	46.74	24,262,901
Guinea	45.07	43.02	42.18	43.27	10,876,033
Guinea-Bissau	44.25	39.99	42.46	44.40	1,586,624
Liberia	42.35	41.53	42.76	43.50	3,957,990
Mali	43.09	38.96	39.32	39.89	13,985,961
Mauritania	40.97	41.42	43.30	45.86	3,609,420
Niger	40.88	40.28	39.89	37.74	15,893,746
Nigeria	43.23	41.87	42.79	43.00	159,707,780
Senegal	40.65	39.09	40.35	42.31	12,950,564
Sierra Leone	43.71	41.82	43.30	44.93	5,751,976
Togo	40.55	40.10	41.48	44.39	6,306,014
Northern Africa	42.08	44.30	48.13	53.65	199,619,977
Algeria	39.48	41.87	49.45	58.21	37,062,820
Egypt	44.45	45.96	48.19	53.37	78,075,705
Libya	40.86	43.94	50.78	56.53	6,040,612
Morocco	40.84	45.01	49.75	56.71	31,642,360
Sudan	39.76	40.67	42.52	44.18	35,652,002
Tunisia	42.80	47.43	53.13	60.46	10,631,830

Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). World Population Prospects: The 2012 Revision, DVD edition.

Table 2: Trends in childhood mortality

	Under five mortality rate				Annual rate of reduction 1990-2012
	1980	1990	2000	2012	
Eastern Africa					
Burundi	199	164	150	104	2.1
Comoros	165	124	99	78	2.1
Djibouti	205	119	108	81	1.8
Eritrea	192	150	89	52	4.8
Ethiopia	212	204	146	68	7.9
Kenya	115	98	110	73	1.4
Madagascar	175	159	109	58	4.6
Malawi	255	244	174	71	5.6
Mauritius	40	23	19	15	1.9
Mozambique	235	233	166	90	4.3
Réunion					
Rwanda	209	151	182	55	4.6
Somalia		177	171	147	0.8
Tanzania					
Uganda	172	178	147	69	4.3
Zambia	155	192	169	89	3.5
Zimbabwe	116				
Middle Africa					
Angola	265	213	203	164	1.2
Cameroon	173	135	150	95	1.6
Central African Republic					
	188	171	164	129	1.3
Chad	228	209	189	150	1.5
Congo	104	100	118	96	0.2
Democratic Republic of the Congo	213	171	171	146	0.7
Equatorial Guinea		182	143	100	2.7
Gabon	116	92	86	62	1.8
Northern Africa					
Algeria	134	50	35	20	4.1
Egypt	176	86	45	21	6.4
Libya	70	43	28	15	4.7
Morocco	144	80	50	31	4.3
Sudan	136	128	106	73	2.6
Tunisia	100	51	30	16	

Western Sahara

Southern Africa

Botswana	82	48	85	53	(-)0.5
Lesotho	132	85	114	100	(-)0.7
Namibia	98	73	73	39	2.9
South Africa	90	61	74	45	1.4
Swaziland	138	71	121	80	(-)0.5

Western Africa

Benin	212	181	147	90	3.2
Burkina Faso	240	202	186	102	3.1
Cabo Verde	80	62	38	22	4.6
Cote d'Ivoire	168	152	145	108	1.6
Gambia	214	170	116	73	3.8
Ghana	150	128	103	72	2.6
Guinea	277	241	171	101	3.9
Guinea-Bissau		206	174	129	2.1
Liberia	240	248	176	75	5.4
Mali	300	253	220	128	3.1
Mauritania	155	128	111	84	1.9
Niger	310	326	227	114	4.8
Nigeria	228	213	188	124	2.5
Senegal	213	142	139	60	3.9
Sierra Leone	318	257	234	182	1.6
Togo	176	143	122	96	1.8

Source: 1980, World Bank; 1990, 2000, 2010, UN Inter-Agency Group for Child Mortality Estimation.

Table 3: Trends in fertility and contraceptive use

	Couple Protection Rate (CPR)		Unmet Need for FP		Total Fertility Rate		
	Around 1990	Around 2010	1990s	2000s	1990	2000	2010
Eastern Africa							
Burundi	8	22	25	29	7.54	7.06	6.30
Comoros	21	26	36		5.57	5.32	4.92
Djibouti		18			6.09	4.47	3.60
Eritrea	8	8	30	29	6.49	5.94	4.97
Ethiopia	5	29	37	25	7.25	6.53	4.90
Kenya	33	46	38	26	6.04	5.01	4.62
Madagascar	17	40	32	19	6.26	5.55	4.65
Malawi	13	46	37	26	7.00	6.25	5.64
Mauritius	75	76	6	4	2.32	1.99	1.47
Mozambique	6	12	25	19	6.24	5.78	5.41
Rwanda	21	52	38	19	7.27	5.90	4.84
Somalia	8	15			7.40	7.61	6.87
Tanzania					6.21	5.69	5.43
Uganda	5	30	30	38	7.09	6.87	6.16
Zambia	15	41	30	27	6.47	6.07	5.81
Zimbabwe	43	59	19	16	5.18	4.07	3.72
Southern Africa							
Botswana	33	53	27		4.70	3.41	2.76
Lesotho	23	47		23	4.92	4.09	3.21
Namibia	29	55	22	21	5.23	4.03	3.23
South Africa	50	60	17	14	3.66	2.87	2.47
Swaziland	20	65		13	5.74	4.21	3.56
Central Africa							
Angola	8	6			7.17	6.84	6.22
Cameroon	16	23	22	21	6.43	5.62	5.02
Central African Republic	15	19	19		5.78	5.45	4.63
Chad	4	3	17	21	7.31	7.35	6.60
Congo, Rep.		45		20	5.35	5.13	5.07
Congo, Dem. Rep.	8	18	27	24	7.13	7.09	6.25
Equatorial Guinea	2	9	25	22	5.90	5.77	5.14
Gabon		33		28	5.42	4.60	4.21

Northern Africa							
Algeria	51	61			4.76	2.51	2.82
Egypt, Arab Rep.	48	60	23	12	4.35	3.31	2.88
Libya	45				4.97	3.05	2.53
Morocco	42	63	24	12	4.06	2.70	2.58
Sudan	10	9	29	29	6.15	5.44	4.64
Tunisia	50	60		12	3.54	2.08	2.13
Western Africa							
Benin	16	17	28	27	6.74	5.98	5.10
Burkina Faso	8	16	25	30	7.01	6.59	5.87
Cape Verde	24	61	14	17	5.31	3.70	2.43
Cote d'Ivoire	11	13	30		6.36	5.38	4.91
Gambia	12	18			6.11	5.92	5.80
Ghana	17	24	37	36	5.62	4.67	4.05
Guinea	2	9	25	22	6.58	5.94	5.17
Guinea-Bissau		14			6.65	5.85	5.12
Liberia	6	11	33	36	6.50	5.88	5.02
Mali	5	8	21	20	7.06	6.84	6.84
Mauritania	4	9		32	5.98	5.38	4.84
Niger	4	11	19	16	7.76	7.73	7.58
Nigeria	6	14	22	19	6.49	6.10	6.02
Senegal	7	13	37	29	6.63	5.56	5.05
Sierra Leone	3	8		28	6.53	5.92	4.94
Togo	34	15	28	19	6.33	5.29	4.79

Source: CPR and Unmet Need: United Nations Population Division online; TFR: World Bank, Gender Statistics.

Table 4: Countries classified according to potential for fertility decline

A. High CPR (>30%); Low Unmet Need (<15%)

Eastern Africa: Mauritius

Middle Africa: XX

Northern Africa: Egypt, Morocco, Tunisia

Southern Africa: South Africa, Swaziland

Western Africa: XX

B. High CPR (>30%); High Unmet Need (>15%)

Eastern Africa: Kenya, Madagascar, Malawi, Rwanda*, Uganda, Zambia, Zimbabwe*

Middle Africa: Congo, Gabon

Northern Africa: XX

Southern Africa: Botswana*, Lesotho, Namibia

Western Africa: Benin

C. Low CPR (<30%); High Unmet Need (>15%)

Eastern Africa: Burundi, Comoros, Eritrea, Ethiopia*, Mozambique

Middle Africa: Cameroon, Chad, Democratic Republic of the Congo, Equatorial Guinea

Northern Africa: Sudan

Southern Africa: XXZ

Western Africa: Burkina Faso, Cote d'Ivoire, Ghana*, Guinea, Liberia, Mali, Mauritania, Niger**, Nigeria**, Senegal, Sierra Leone, Togo

D. Low CPR (<30%); Low Unmet Need (<15%)

Eastern Africa: XX

Middle Africa: XX

Northern Africa: XX

Southern Africa: XX

Western Africa: XX

Source: Derived From Table 3. *close to entering one category up; **close to belonging to one category down; XX: none.

Table 5: Gender differences in labour force participation rates

	% 15+ economically active 2005	
	Female	Male
SSA	61	80
Eastern Africa	78	87
Burundi	91	88
Comoros	74	85
Djibouti	62	79
Eritrea	63	83
Ethiopia	81	90
Kenya	76	88
Madagascar	84	89
Malawi	75	79
Mauritius	41	75
Mozambique	83	91
Réunion	47	67
Rwanda	85	87
Somalia	64	87
Tanzania	87	90
Uganda	81	91
Zambia	66	86
Zimbabwe	65	79
Middle Africa	62	86
Angola	73	90
Cameroon	48	86
Central African Republic	69	87
Chad	67	88
Congo	58	83
Democratic Republic of the Congo	62	85
Equatorial Guinea	45	91
Gabon	63	84
Northern Africa	27	76
Algeria	37	80
Egypt	22	75
Libya	25	79
Morocco	26	80
Sudan	31	74
Tunisia	26	71
Western Sahara		
Southern Africa	48	62
Botswana	46	65
Lesotho	56	69
Namibia	54	81
South Africa	48	61
Swaziland	36	58
Western Africa	50	76
Benin	67	78
Burkina Faso	78	91
Cabo Verde	54	81
Cote d'Ivoire	51	82
Gambia	71	85
Ghana	74	75
Guinea	79	89

Guinea-Bissau	60	84
Liberia	67	76
Mali	38	67
Mauritania	59	81
Niger	39	88
Nigeria	39	73
Senegal	65	89
Sierra Leone	65	68
Togo	64	86
Central America	38	81
South America	53	79
Western Asia	28	73
South Cenral Asia	40	84
Southeast Asia	59	84
East Asia	70	84
Northern Europe	58	72
Western Europe	50	65
Eastern Europe		65
Southern Europe		65
Oceana		72
North America	60	75

Source: Population Reference Bureau (2005); 2005 Women of Our World.