Enhanced employment and productivity: essential conditions for a demographic dividend in Ethiopia

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Introduction

Ethiopia aspires to become a middle income country within the next 15 years or so, building on and further accelerating the rapid improvements of the past 15 years. The aim of this paper is to assess the potential role of demographic change between now and 2032 in achieving or thwarting this aspiration. Fertility has declined sharply and, as a consequence, a favourable shift in age structure will occur. The proportion of total population in the working ages will increase faster than the proportion of population of infants and children aged less than 15 years. The potential economic and social benefits flowing from this change are known as the demographic dividend and expectations have been raised that age structure changes will automatically bring rapid progress.

However, the dividend is not guaranteed. In North Africa and Latin America, similar shifts in age structure as those occurring in Ethiopia did not result in rapid advances. Further, age structure is not the only significant demographic feature that will change over the next 17 years. The population will continue to grow. Indeed, in absolute numbers, annual increases will be greater than in the past. As a legacy of past high fertility, the number of young people seeking employment and livelihoods will be particularly large. They will be much better educated than in the past and this represents a significant opportunity to raise productivity but also a risk that their aspirations will be dashed. The challenge will be to match the educational system to employment opportunities.

This paper is divided into three main sections. In the first, population changes over the next 17 years will be outlined. In the second section, the opportunities and challenges posed by demographic change will be analysed, with a focus on employment and productivity. The third section concerns the implications of changes for provision of services, with an emphasis on vulnerability.

Demographic change 2015-2032

In this section, the medium population projection of the Central Statistical Agency (CSA) is used, unless stated otherwise, as the source for describing the likely demographic changes that Ethiopia will experience over the next 17 years. This CSA projection envisages a slightly sharper decline in fertility and a slightly lower rate of population increase than the medium projection of the United

Nations Population Division. All projections are surrounded by a degree of uncertainty. The future size of the population aged less than 15 years depends on continuation of the steep fall in fertility. While unmet need for family planning is high particularly in rural areas (27.5% in 2011), contraceptive protection is worryingly dependent on one method, the injectable. According to the 2011 DHS, 34% of injectable users discontinue within 12 months and evidence from the 2003 DHS shows that only about 40% of women who stop use of this method switch to an alternative within three months (Ali et al. 2012). The projected fall in the total fertility rate from about four to three births per woman between 2015 and 2032 may require promotion of a broader method-mix.

However, most of the people who will be alive in 2032 have already been born. As future death rates are typically easier to forecast than future birth rates, many features of the population in 2032 can be anticipated with a high degree of confidence. Key demographic changes are outlined below.

The population will continue to grow. Despite the decline in fertility, the total population will continue to grow by about two million a year for the entire period because the inevitable increase in the number of married couples of reproductive age will maintain a high birth rate. Between 2015 and 2032, population will grow from 90 million to 126 million, an increase of 40% (Table 1). The annual rate of increase, however, will drop from 2.3% to 1.7% over the 17 year period.

The absolute growth in population numbers will continue to rise despite a falling percent rate of increase. According to the UN Population Division, the decadal increase in the 1950s was 4 million, rising to 12.8 million in the 1980s and further to 21 million in the first decade of this century. This upward trend will continue with a projected increase of 24.4 million in 2010-20 and 26 million in 2020-2030

The urban population will grow faster than the rural population. As noted by CSA, the pace of urbanisation is difficult to forecast, partly because it depends on government policies. Nevertheless, it is certain that the urban population will grow faster than the rural. CSA projects that the urban population will increase by 103% (ie a doubling) between 2015 and 2032 while the rural population will increase by 25%. At the beginning of the projection period, the rural population is expected to grow by about 1.3 million per year and the urban by about 0.8 million. By the end of the projection period, the absolute annual increase of the urban population will be greater than that of the rural population: 1.3 million versus 0.8 million. In 2015, about 20% of population is living in urban areas. By 2032, this proportion will have risen to about 28%. Ethiopia, however, will remain a predominantly rural country.

The population will become more educated. The CSA does not present projections of the population by education status, though it has changed radically in the recent past and will continue to change with possibly profound implications. One projection suggests that, between 2015 and 2030, the mean years of schooling of the adult population aged 25 years or more, will almost double from 3 to 6 years ((Lutz et al. 2014). Because of the recent expansion of primary and secondary schooling, the gains in education status will be largely confined to younger adults over the next 17 years. However, the educated young people will not have high skill because evidence such as National Learning Assessment results published by the Ethiopian Ministry of Education and Young Lives Study (Woldehanna and Pankhurst, 2014) shows that the quality of education has declined. Grade repetition (7%) and dropout of children from school are still very high (12%). The primary education completion rate is about 58% and the prospect of an increasingly skilled labour force is still bleak.

The regional distribution of population will change little. CSA assumes that the level of inter-regional migration observed in the early 2000s will continue, with net in-migration to Addis, Dire Dawa, Gambella and Benishangul-Gumz, balanced by net out-migration mainly from Amhara.

Age/sex category	Population size (000s) 2015	Population 2015 %	Population size (000s) 2032	Population 2032 %	Absolute change 2015-2032	Percent change 2015-2032
0-4	12,982	14.4	13,612	10.8	630	4.9
5-14	23,074	25.6	26,704	21.1	3,630	15.7
15-64	51,281	56.9	81,042	64.3	29,586	57.7
65+	2,771	3.1	5,129	4.0	2,358	85.1
Total	90,075	100	126,487	100	36,412	40.4
Ages 5-18	31,200	34.6	36,925	29.2	5725	18.3
Women 15-64	25,729	28.6	40,680	32.2	14,951	58.1
Men 15-64	25,727	28.6	40,362	31.9	14,635	56.9
Women Repr. ages 15-49	22,760	25.3	34,468	27.3	11,708	51.4
Urban	17,455	19.4	35,440	28.0	17,985	103.0
Rural	72,619	80.6	91,047	72.0	18,428	25.4

Table 1: ETHIOPIA Demographic Changes (2015-2032).

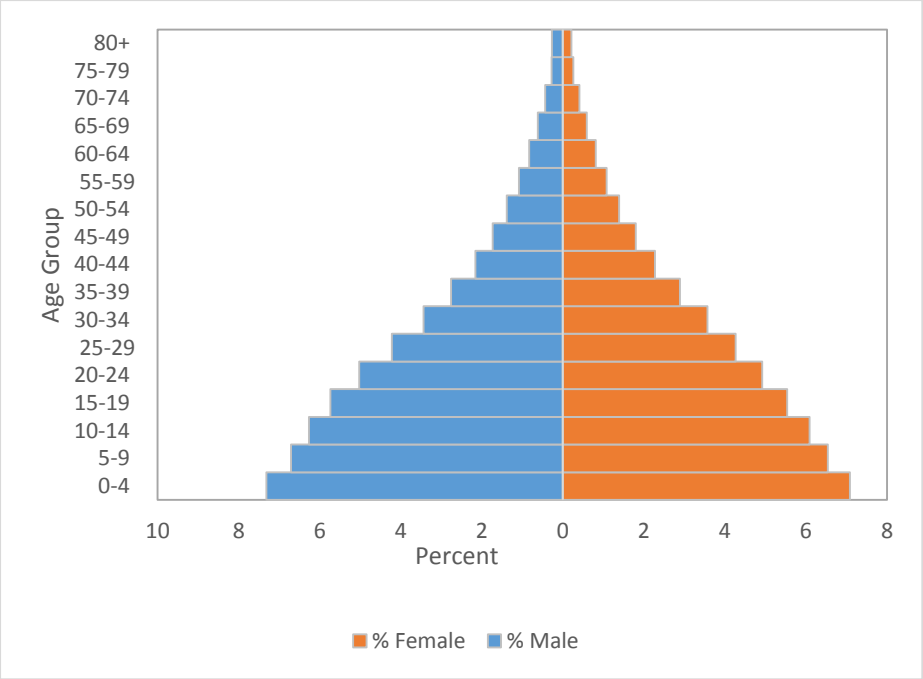
Fertility will fall but the number of births per year will remain constant. The Total Fertility Rate (TFR) is expected to fall from 4.0 births per woman in 2015 to about 2.7 births by 2032. The child-woman ratio will corresponding drop from 0.57 to 0.4. However, the annual number of births will remain unchanged at about two million, because of the rise in the number of married couples. Smaller family sizes may mean a greater increase in household numbers than in population numbers.

Mortality will decline. CSA expects that life expectancy will improve from 62 to 68 years. Much of this change stems from a drop in the under-five mortality rate, from an assumed 96 in 2015 to 55 per thousand in 2032.

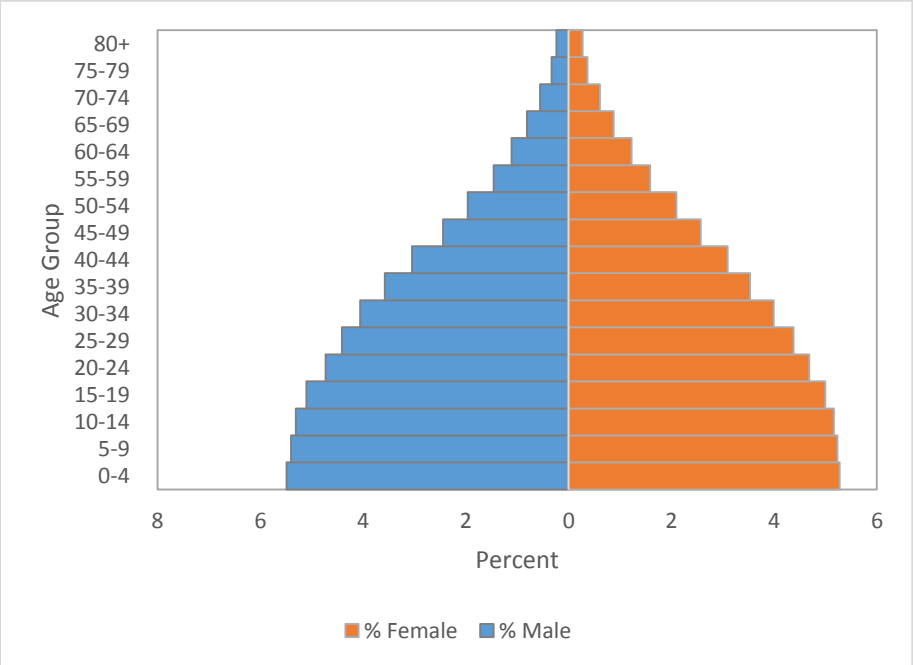
Changes in age structure will occur. Because fertility was high until recently, the adult population will continue to experience fast growth. The working age segment (15-64 years) will increase by 29.6 million (or nearly 58%) over the next 17 years, from 51 to 81 million. The average annual increase will be 1.7 million. Similarly the number of women in the reproductive age span will grow by 51%. The percent increase in the old age population (65 and over) will be even greater at 85% but the absolute increase will be only 2.3 million.

Because of the recent past and expected continuation of fertility decline, the number of young people will grow much more slowly than the adult population. Between 2015 and 2032, the number of children aged under five years will increase by a mere 5%, those aged 5-14 years by 16% and youth (5-18 years) by 18% (see graph 1 and 2).

Because of differential growth in age bands, the age structure of the population will change. In 2015, 57% of total population are in the prime working ages of 15-64 years. This proportion will rise to 64% by 2032. The proportion of old people will grow from 3% to 4%, while those aged 14 years or less will shrink from 39.6% to 31.9%.



Graph 1: Population Pyramid of Ethiopia 2015.
Source: Central Statistical Agency (2013) Population Projections for Ethiopia, 2007-2037, Addis Ababa.
Note: the data used for the above graph were derived from from interpolation of the population projections for the 2012 data (page 60) and for 2017 data (page 61).



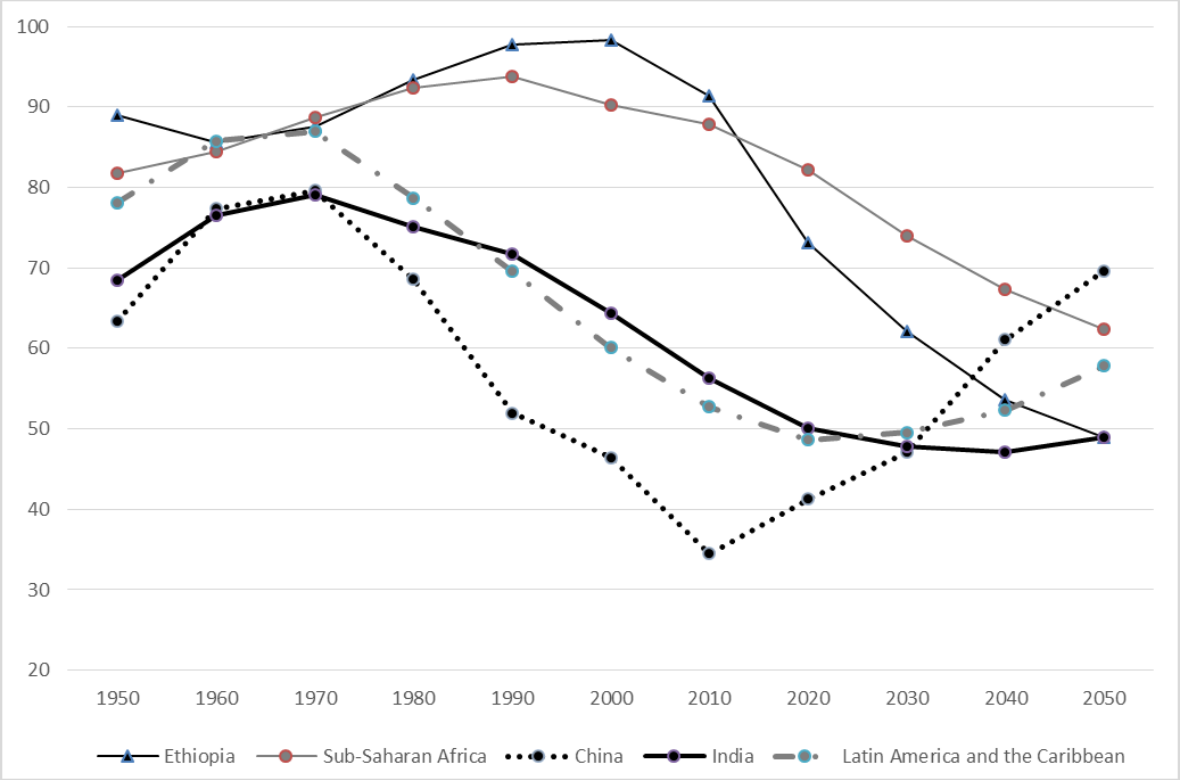
Graph 2: Population Pyramid of Ethiopia 2032.
Source: page 64, Central Statistical Agency (2013) Population Projections for Ethiopia, 2007-2037, Addis Ababa.
Note: the data used for the above graph were derived from from the population projections for the 2032 (page 64).

Such changes in age structure are usefully summarised by a measure termed the dependency ratio, the ratio of less economically age groups (under 15 and over 64 years) to the working age population. In 2015, the dependency ratio is 0.75 (ie 75 dependents per 100 people of working age) and this is expected to fall to 0.56 by 2032. Because falling dependency ratios are believed to represent a major opportunity for accelerated economic advance, the Ethiopian situation is compared to other countries and regions in the next section and the usefulness of the concept is analysed.

Dependency ratios considered further

Graph 3 compares trends in dependency ratios in Ethiopia with China, India, Latin America and sub-Saharan Africa, using estimates from the United Nations Population Division. For Ethiopia, the ratio peaked between 1995 and 2000 at .99 and by 2030 is expected to be .62, slightly higher than the CSA estimate but nevertheless representing a fall of 37%. In comparison the ratios in China and India peaked in 1965 at .81 and fell by 34% and 17%, respectively in the next 30 years. The ratio in Latin America also peaked in 1965 at .89 and fell by 27% in the next 30 years. In sub-Saharan Africa, the ratio peaked much later in 1990 and is projected to drop by only 13% by 2020. These international comparisons illustrate several points. First, Ethiopia's dependency ratio, at its peak, was exceptionally high. Second, the projected decline from the peak is pronounced and certainly much sharper than in India or Latin America. Third, the change in age structure is expected to be much more rapid in Ethiopia than in the entire region of sub-Saharan Africa.

Because Ethiopia's fertility decline and hence decline in dependency ratio has been much sharper than elsewhere in sub-Saharan Africa, its demographic dividend should be greater than in other countries. The results of modelling of the impact of demographic change on real GDP per capita growth between 2011 and 2030 certainly suggests that this is the case (Ahmed et al. 2014). The model suggests that Ethiopia's gain might be a 2.3 percent point increase in GDP per head under a high economic growth baseline assumption and 1.7 points under a low growth assumption. Under the model, this effect operates through increased savings and investment and through an increased labour force. The comparable estimate for sub-Saharan Africa is only 0.4 percent points under the high growth assumption. This is good news for Ethiopia though the results of abstract modelling should be interpreted with great caution. Furthermore, when set against recent growth of 7% or more in GDP per head, the estimated demographic dividend, even for Ethiopia, is modest.



Graph 3: Total Dependency Ratio: ratio of population 0-14 and 65+ per 100 population. Estimates: 1950-2010, Medium fertility projection: 2020-2050.

Source: United Nations, Department of Economic and Social Affairs, Population Division, (2015). World Population Prospects: The 2015 Revision.

The interest of economists in dependency ratios stems from an assumption that individuals outside the age range of 15-64 years are largely unproductive and have to be supported by those of working age. How valid is this assumption in Ethiopia? The 2013 National Labour Force Survey provides age-specific estimates of the number and percent of people who are productively active (ie have worked for money or home consumption for at least one hour in the past seven days) and the average number of hours worked by those who are active. Table 2 shows that in rural areas the majority (72%) of children aged 10-14 years are economically active and they work for an average of 28 hours per week. This level of productive input is certainly lower than that of the adult population, who record an activity rate of 89% and weekly hours of 33, but the differences are not great. However, children are not as physically strong as adults so the difference in productive output may be greater than suggested by these estimates. Moreover, child labour is officially illegal and certainly to be forbidden.

Age group	Percent economically active			Mean hours worked		
	Total	Rural	Urban	Total	Rural	Urban
10-14	64	72	21	28	28	24
15-19	72	80	42	30	29	38
20-64	88	89	81	34	33	42
65+	54	58	35	29	28	36

Table 2: Activity rates and mean hours worked in 2013.

In urban areas, the situation is very different. Only 21% of those aged 10-14 are economically active and the activity rate of 15-19 year olds (42%) is much lower than for the adult population aged 19-64. This rural-urban divide no doubt reflects higher school enrolment in urban Ethiopia and lack of opportunity to assist with family enterprises such as farms.

In Ethiopia, both schooling and urban residence will increase between 2015 and 2032 and these two trends will reduce the proportion of young people aged 10-19 who contribute to production. Thus the decline in the dependency ratio will be offset, or diluted, and this consideration serves as a warning against simple expectations that changing dependency ratios will, of themselves, boost living standards.

Socio-economic opportunities and challenges of demographic change

Provided that employment and productivity does not drop, an increase in the proportion of the total population in the prime working ages will be economically beneficial. A 1% increase in this proportion will bring a 1% boost to GDP per head (Eastwood and Lipton 2011). In the case of Ethiopia, this "automatic" benefit amounts to 0.4% per year on average between 2015 and 2032. Compared with the 10.3% growth of GDP for 2013/14, this benefit fades into insignificance. However, several econometric analyses have found that declining fertility and dependency ratios can give rise to economic growth rates that are much greater than the "automatic" bonus and indeed can initiate a virtuous circle of increased savings and investment leading to job creation and improved productivity, increased human capital in terms of better health and education, and greater involvement of women in economic production (Kelley and Schmidt 2005; Bloom and Williamson 1998). This evidence is strongest for Asia and weakest for Latin America and North Africa, where falling and dependency ratios brought no acceleration in economic welfare. In North Africa, to the contrary, increases in the number of educated young adults against a backdrop of faltering economies and unemployment may have been responsible for the political turmoil of the Arab Spring. The demographic dividend is thus not automatic but contingent on a range of factors, the most important of which is appropriate economic and social policies.

Favourable changes in age structure over the next 17 years certainly offers opportunities for social and economic progress but the continued growth of population also brings challenges. Both opportunities and challenges are discussed below. The two biggest challenges facing Ethiopia in the next 17 years are the creation of productive opportunities in the form of paid employment or self-employment to match the steep annual increase of about 1.7 million in the population aged 15 (or 18) years or more, and equipping the increased labour force with the right skills required by the growing economy. As shown in Table 1, the increase in absolute numbers will be equally divided between rural and urban areas, but the percent increase will be much greater in urban areas. Given the high rate of school dropouts, low primary education and secondary education completion rates, equipping the young with appropriate skills will be a big challenge.

Employment and productivity in rural Ethiopia

"*Since 1770, virtually every example of mass poverty reduction has begun with an increase in agricultural productivity*". (Lipton 2005, cited in World Bank 2007)

Productive employment among the rural agricultural population will remain of central importance, as underscored by the quotation. It is sometimes overlooked that the Green Revolution, which hugely increased agricultural yields, must have played an important role in Asia's economic miracle. Sub-Saharan Africa has had no Green Revolution. Food production has increased because of an expansion in cultivated area rather than from increased yields. By 2032, Ethiopia will remain a predominantly rural, agricultural nation. As recognised by government, growth in livelihoods and incomes, and poverty reduction, depends mainly on the future path of the rural population.

Five crops (teff, wheat, maize, sorghum and barley) account for 75% of cultivated area and 64% of calories consumed (Taffesse et al., 2011). In recent years, production of these cereals has exceeded population growth by a wide margin, assisted by adequate rainfall, use of fertilizer and improved seed varieties, and advances in infrastructure that have enhanced marketing (Minten et al. 2014). Approximately half of recent increased production is attributable to improved yields and half to expansion of area cultivated. Together with the effects of the National Nutrition Programme, these favourable trends are largely responsible for the fall in the percent of under-five children who are stunted, from 58% in 2000 to 40% in 2014.

Smallholder farms account for 96% of land and 95% of cereal production (Taffesse et al., 2011). Farm sizes have been shrinking and approximately 60% are under one hectare and 40% under half a hectare, with an average of 1.2 hectares. The average farm size per agricultural person was estimated to be 0.2 hectares in 2000 compared with an African average of 0.4 (Gendreau, 2011). In 2007/8, only 1% of cereal crop area was irrigated and the rest were dependent on rainfall. In the same year, 39% of farmed area received inputs of fertilizer but uptake of improved varieties of seed has been disappointing.

In the highlands where the majority of population lives, there is little prospect of bringing more land into production. Indeed further population pressure in these areas runs the risk of further land degradation. Deforestation, soil erosion and loss of soil nutrients are already severe problems. Forest cover in the whole country fell from 16% in the 1950s to 2% by the end of the century (Berry, 2003). By the mid-1980s, about half the land in highland areas was significantly eroded. The estimated annual loss of cultivable land due to water erosion was 30,000 hectares.

Livestock is a critical component not only for pastoralists but also for cultivators. Ethiopia has the largest livestock population in Africa but productivity in terms of meat or milk production per head is low by African standards and extremely poor by world standards (Negassa et al 2012). Population growth has serious implications for the future of livestock. In the highlands, communal grazing land is shrinking and the whole way of life of nomadic pastoralists is jeopardised.

Official unemployment in rural areas is negligible simply because it is a "luxury" confined to the more educated middle class who can depend on family support while being out of work. However, 27% of rural people complain of underemployment (Broussar and Tekleselassie, 2012). The risk is that further growth in the rural population will exacerbate the situation.

The government's vision as laid out in the 2009 National Employment Policy and Strategy of Ethiopia is to transform largely subsistence family farms into commercial enterprises by modernisation (use of improved seeds, fertilizer, application of technology etc), improved infrastructure and enhanced marketing opportunities. Such commercialisation would invigorate the rural economy. Rural service sector activity is highest where agricultural growth is highest and agricultural income is the source of nearly two-thirds of start-up funds for non-farm enterprises (World Bank 2011). This strategy is feasible for larger family farms, with access to burgeoning towns, whose inhabitants' needs for a

variety of food, including poultry and vegetables, can be met by diversification into high value produce. It is less feasible for small family farms in remoter rural areas. On a plot of less than 0.5 hectares, most production will be for domestic consumption with little or no surplus for sale. Indeed, many very small farmers cannot produce sufficient for their own needs. They have to supplement by seeking off-farm work but remain extremely vulnerable to the price of staple foods.

The second strategy for rural livelihoods is to increase off-farm job opportunities, particularly in the months not occupied by planting or harvesting. These activities are already planned in the next generation of PSNP activities as part of livelihood enhancing activities (MoA, 2014). Off-farm activities are common in Ethiopia though less so than in most African countries. The percent of farming households engaging in such work ranges from 25% in Oromia to 81% in Tigray (Van den Berg and Kumbi 2006). Most takes the form of self-employment except in Tigray where many people participate in food-for-work programs. Because of the dominance of family farms, opportunities for paid employment in agriculture are limited. Informal sector work in services and sales or agro-processing presumably must fill the gap, though again these opportunities are likely to be far more limited in remote areas than in areas close to urban centres.

Increased agricultural yields are usually associated with secure water supplies, application of fertilizers and improved seed varieties, astute crop rotation, mechanization and consolidation of very small farm plots into larger units, proximity to markets and attractive prices, and access to credit. Policies are already in place to address most of these conditions. One historical constraint, insecurity of land tenure, has been addressed, at least in part, by a programme of land registration starting in the late 1990s. A report in 2003 concluded that "*our results highlight not only that land rights in Ethiopia are highly insecure but also that higher tenure security and transferability could enhance investment and agricultural productivity". (*Deininger et al 2003 p.18). However, a more recent analysis by the same lead author adduced evidence that participation in land registration increased the sense of security, the propensity to invest in in water and soil conservation and raised output by 9 percentage points (Deininger et al. 2011). It also gave women more land rights than hitherto, though men apparently gained more in productivity than women. However, because land tenure is not freehold, it cannot be used as collateral for credit or sold on the open market. Land rental is also constrained. A further positive trend is improvements in education. A meta-analysis concluded that educational attainment is the main driver of agricultural efficiency in Africa (Ogundari, 2014).

A clear potential for future gains in agricultural productivity exists. Cereal yields per hectare, though similar to those in other East African countries, are only half the world average. Improvements in infrastructure and growing demand from the urban population are favourable trends. However, a major constraint is likely to be the preponderance of very small farm plots. Small scale farmers tend to be risk-averse because they have no cushion against adversity and thus less likely to innovate. They are disadvantaged compared with larger, more commercial farms in terms of access to finance, marketing and storage (Collier and Dercon, 2014). Continued rural population growth will lead to even smaller plots, equivalent to near-landlessness. Off-farm jobs will be needed increasingly. The constitutional right to land for rural people aged 18 years or more cannot be delivered and rural youth are particularly disadvantaged (Bezu and Holden, 2014). The well-educated rural population are more likely to move to the modern urban sector (industry and service) while the less educated and school dropouts will remain in agriculture (Tafere and Woldehanna, 2012). Hence modernising and increasing the productivity of agriculture will be challenging if the rural labour force is largely dominated by less educated and unskilled labour.

The biggest threat to agricultural productivity gains is climatic. Rainfall in Ethiopia is erratic. In 2011, severe drought affected much of the Horn of Africa, though its consequences were mitigated by massive coordinated action by UNICEF and other agencies (UNICEF, 2012; Slim, 2012). It is certain that rains will fail in some future years. The strongest prediction of climate science is that weather will become more extreme, with more floods and more prolonged dry periods. Floods pose a threat because of soil erosion on the cultivated slopes of the highlands and droughts an even more obvious threat. Water capture and storage are clearly essential to reduce vulnerability, as are tree planting and terracing. In view of the tiny fraction of land currently under irrigation, it will take decades for an appreciable fraction of arable land to have this advantage. The task ahead is immense.

Employment and livelihoods in the urban sector

Much more attention has been paid to the urban than the rural employment situation. The 2013 National Labour Force Survey documents positive trends. Unemployment in urban areas fell from 26.4% in 1999 to 16.5% in 2013 and an astonishing large drop occurred in the share of informal employment, from 50.6% to 25.8%, over the same period. However, the percent of employed people receiving a wage remained static at about 40%, with an approximately equal split between government and private sector jobs. The share of self- employed and unpaid family workers remained constant at about 54%. In 2013, the three main occupational groups were sales and service workers (29.5%), elementary occupations (20.8%) and crafts and related trades workers (13%). The proportion working in the manufacturing sector (14%) was about the same as those engaged in agriculture, forestry and fishing (13.5%).

The proportion of employment represented by microenterprises (defined as those with less than 10 workers) is exceptionally high in Ethiopia, at over 90% in both manufacturing and services. The equivalent share in Ghana is about 60% and in India 70% (World Bank 2012). While a few such enterprises evolve into larger businesses, experience suggests that most are doomed to remain small. Compared to larger units, incomes are low and innovation modest.

Despite the recent record of success in reducing urban unemployment, it is uncertain whether similar progress can be maintained for the next 17 years in the face of an urban population increasing annually by 0.8 million rising to 1.3 million towards the end of the period, a percent rate of increase in excess of 4%. It is clear that public sector employment, which accounts for an appreciable proportion of regular wage employment, cannot be expanded on a sufficient scale. Employment will have to come from the private sector and/or from self-employment and small family enterprises, much of which will be in the informal sector. A recent World Bank report concluded that, at best, only one in four of Africa's youth will find a wage job and thus the challenge is to improve the productivity of the workforce who will be in the informal sector (Filmer and Fox, 2014). This rather gloomy prognosis is underscored by the fact that the worldwide number of jobs in manufacturing has fluctuated between 150 and 200 million between 1990 and 2008 with only modest underlying growth (World Bank, 2012). Thus Ethiopia will have to compete with other low wage economies in Africa and Asia for manufacturing jobs.

The 2009 National Employment Strategy lays out the conditions conducive to private sector investment and job creation: a favourable business environment (for instance bureaucratic efficiency, fair taxes, macro-economic and political stability), infrastructure, a productive and internationally competitive labour force, and incentives. Labour-intensive construction is mentioned as a likely source of jobs and the urban population increase will certainly fuel demand for building apartments and houses. Labour intensive manufacturing (eg textiles, leather, chemicals) is signalled as the other major potential source of regular jobs. Ethiopia grows cotton for textiles, has the second largest head of cattle in Africa for leather industries, and extensive areas of bamboo for furniture

manufacture. Currently, the manufacturing sector is characterised as narrow and weak and its recent growth has been disappointing. The weak performance of manufacturing is alarming. According to the eminent development economist, Paul Collier, "*Job generating industrialisation has, up to now, been the only reliable way out of national poverty*" (Collier 2015). Ethiopia has a huge wage advantage over competitors such as Vietnam and even over other African countries, such as Tanzania and Zambia, but lack of managerial skills and low productivity which offset low wage costs. For instance in the furniture sector, Chinese workers produce 4.5 chairs per day, Vietnamese 1.9 but Ethiopians only 0.3 (Dihn et al., 2012). The high cost of raw materials is a further barrier to the development of an internationally competitive manufacturing sector. Timber, for instance, costs US$667 per cubic meter in Ethiopia, compared to $344 in China and $146-246 in Vietnam (Dihn et al., 2010). Other materials such as steel and cotton also tend to be more expensive in Ethiopia than internationally because of inefficient local production and high import tariffs.

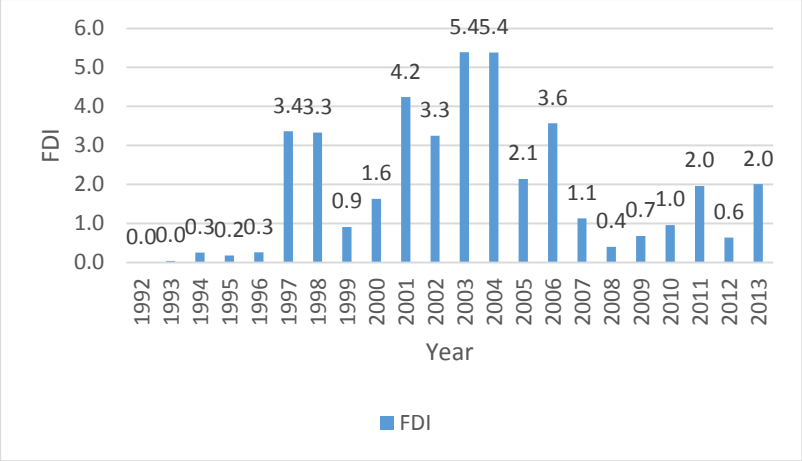
Growth in self-employment will occur more spontaneously out of necessity, but much will be insecure and yield low incomes. Access to credit will help and steps in this regard have already been taken by government. The aspiration here is that talented and ambitious small family enterprises will grow into companies offering employment to others.

Two crucially important factors will shape employment prospects: adequate capital and the skills of the working age population. Both are considered below.

Capital formation: Foreign direct investment, domestic savings and remittances

"Without the creation of a surplus for investment there is no way for countries to escape a low-level subsistence equilibrium" World Bank 2006 pXV

A crucial component of the demographic dividend narrative is that falling dependency ratios boost savings that can be invested in industrialisation and modernisation of agriculture and, as affirmed in the quotation above, capital is an essential ingredient for an escape from poverty. The three main sources of capital are foreign direct investment (FDI), domestic savings and remittances. According to IMF and World Bank sources, FDI into Ethiopia, expressed as a percentage of GDP averaged 2.6% between 2000 and 2013, ranging from over 5% in 2003/4 to 0.4% in 2008, the year of the international financial crash (http://data.worldbank.org/indicator/BX.KLT.DINV.WD.GD.ZS) . There is no sign of an upward trend over the past 13 years. FDI inflows into Ethiopia are exceptionally low. The four year average for 2010-13 was 1.4% (See graph 4). The corresponding averages are 4.6% for Tanzania, 4.4% for Uganda but only 0.4% for Kenya. Comparable estimates for low wage economies in Asia include Vietnam (5.7%), Cambodia (7.9%) and Nepal (0.5%). FDI in Ethiopia accounted for only 15.8% of total licensed investment projects between 1992 and 2012 (Ethiopian Investment Commission, 2014).



Graph 4: Foreign Direct Investment as percentage of GDP, Ethiopia.
Source: World Bank
World Bank definition: Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors, and is divided by GDP.

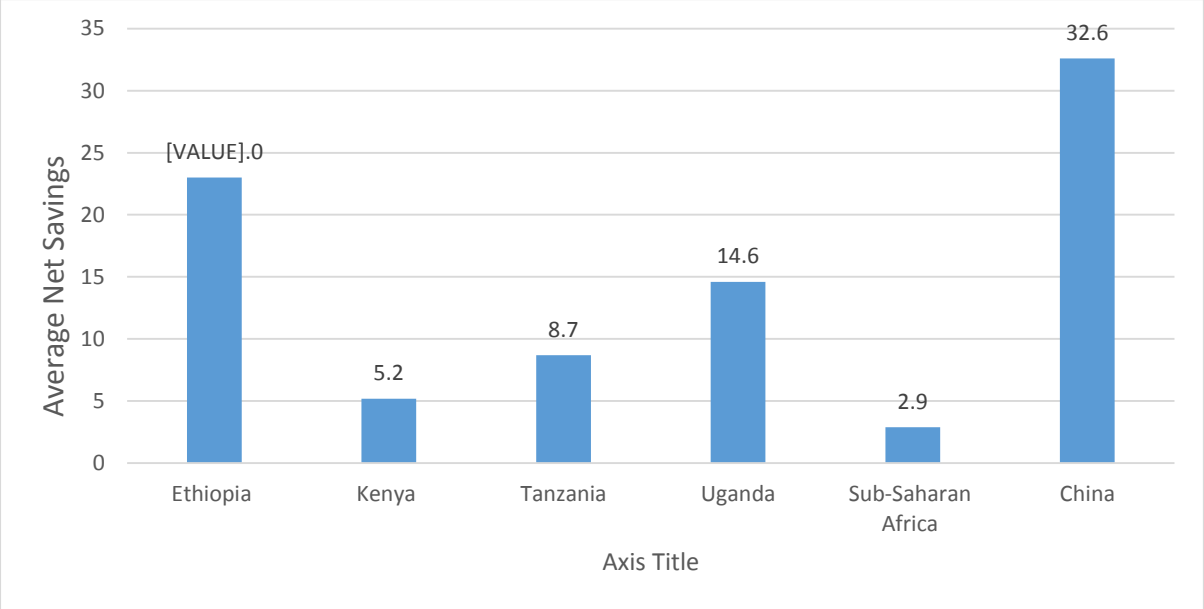
Low levels of FDI are a concern because Ethiopia badly needs the expertise that typically accompanies it. Otsuka and Sonabe (2011) contrast the experience of Bangladesh and Ethiopia in trying to develop export-oriented garment industries from scratch. In Bangladesh a technical cooperation agreement was reached with a leading Korean company who provided training and expertise, which led to long term success. By contrast in Ethiopia, no attempt was made to harness foreign skills. Despite preferential incentives and finance to export-oriented firms, these firms performed more poorly than producers catering to the local market, because managers lacked experience of international markets. A more successful example cited by Otsuka and Sonabe concerns the leather shoe industry in Addis Ababa where production and management knowledge from Italy is being used. Another success story concerns horticulture. Rose growing for the export market started with a single company but the industry has grown to 12 or so firms employing 50,000 workers (Dinh et al. 2012). Indeed, Ethiopia is now the fourth largest world exporter of flowers (Ethiopian Investment Commission, 2014).

An in-depth analysis of two relative successes (floriculture and cement) and one relative failure (leather-processing) concludes that active State policies and the creation of new institutions are essential for progress (Oqubay 2015). Each manufacturing sector is distinctive and thus no single blueprint for success can be identified. Effective linkages between the policy arena, institutions and specific industrial structures are required and, above all, flexibility to learn from mistakes is needed.

FDI is strongly influenced by the business environment. In terms of overall ease of doing business Ethiopia is ranked 132 out of 189 countries but 5th out of the 30 poorest countries (World Bank Group 2015a and www.doingbusiness.org/rankings. This index is composed of 10 dimensions. Ethiopia scores well on construction permits and resolving insolvency but poorly on starting a business and trading across borders. By comparison with other countries in sub-Saharan Africa, it is ranked 14th out of 47, well below Rwanda and Ghana but similar to Tanzania and Kenya. An empirical analysis of foreign firms suggests that exchange rate volatility, bureaucratic delays and corruption act as deterrents to foreign investment (Teka, 2014). According to the World Bank (2012), Ethiopia has much lower wage costs than competitors such as China and Vietnam and, in well

managed firms, labour productivity is comparable. But these advantages are wiped out by delays in moving goods through customs, poor access to foreign exchange, and the high cost of letters of credit. It is also likely that lack of a coastline and sea ports and weak domestic demand are also powerful obstacles. Creation of an industrial zone near the port of Djibouti is an attractive possibility. These rankings and considerations indicate that Ethiopia could further improve attractiveness for foreign investors and no doubt a combination of continued rapid economic growth, improved infrastructure and an increasingly educated labour force will enhance FDI. An important step towards increasing FDI is the 2014 investment guide that outlines financial incentives for foreign investors and lists opportunities in agriculture, manufacturing and infrastructure (Ethiopian Investment Commission, 2014).

Domestic savings can be measured in various ways. One common measure is gross national savings less consumption of fixed capital. This indicator of net savings shows higher values for Ethiopia than for most of sub-Saharan Africa. Expressed as a percentage of GNI, savings have risen and stand at an average of about 23% for 2010-2012. The equivalent estimates for Kenya, Tanzania and Uganda are 5%, 9%% and 14%, respectively and, for all developing countries in sub-Saharan Africa, the estimate is about 3%. Ethiopia's level of savings does not match the high rates achieved in East Asia and some countries in South Asia. The average net savings in China, for instance were over 30% of GNI in 2010-2012. Reliance on domestic savings has an advantage over FDI that profits are not expatriated. However, Ethiopia badly needs the skills and technology that foreign firms can offer.



Graph 5: Average Net Savings, 2010-2012, as Percent of GNI: Selected Countries and Africa.

Footnote: Source World Bank Development Indicators. Net savings is gross savings less consumption of fixed capital.

Remittances by expatriate Ethiopians is a third possible source of funds for investment. Between 1995 and 2008, remittances grew from US $27 million to $387 million but in relation to population size or GDP these sums are very small (Nyamongo et al., 2012). The equivalent 2008 estimate for Kenya and Uganda, for instance are $1686 million and $723 million, respectively, and both these countries have much smaller populations than Ethiopia.

Despite relatively small FDI flows and remittances, gross fixed capital formation (which includes the value of land improvements, new plant, infrastructure etc) is higher in Ethiopia, at 32-36% of GDP in recent years than in most African countries, according to World Bank indicators. A rate of 25% is considered necessary to sustain an economic growth rate of 7% per year, so Ethiopia is exceeding this benchmark.

Youth, education and skills

In the past 15 years, rapid progress has been made in primary and secondary school enrolments. The change is documented clearly in successive DHSs. In 2000, among women aged 20-24 years, 70% had received no schooling, 18% had incomplete or complete primary schooling, 12% had reached secondary school and only 0.6% had some form of tertiary schooling. By 2014, the corresponding figures were no school (34%), primary (21%), secondary (16%), and tertiary (9.5%). This is a remarkable transformation. Furthermore, the gender gap has narrowed though not disappeared. The educational attainment of men aged 20-24 years in 2014 was: no school (19.5%), primary (53%), secondary (15%), tertiary (9%). Boys are more likely to attend primary school than girls but the proportions reaching secondary and tertiary levels are now very similar. It is uncertain whether this situation is a reflection of higher ability or application among girls than boys or whether boys are more likely to be withdrawn from school at an early age to help with work on family farms. Whatever the cause of the gender imbalance in the past, the difference is set to disappear. In 2000, the net attendance ratios at both primary and secondary school ages favoured boys. By 2014, both ratios in rural areas favoured girls. Only in urban areas did more boys aged 15-18 attend secondary school than girls.

Human capital, notably education and health, is widely considered to be one of main engines of economic success, perhaps even the most important one (Cuaresma et al. 2014). Literacy and numeracy are hugely important attributes for success in modern life. Today about one-quarter of young men and women seeking jobs and livelihoods will have some secondary or higher education and this proportion will rise over the next 17 years. Over the same period, illiteracy among the young is likely to disappear. Demographic change will assist education expansion. As shown in table 1, while total population is set to grow by 40% between 2015 and 2032, the age group 5-18 years, approximately the age range for primary and secondary schooling, will grow by a more modest 18%. However, concerns remain about the quality and nature of education. In common with other African countries Ethiopia has been criticised for a secondary school curriculum that is too academic. It prepares children for progression to tertiary education that few will attain but does not instil the skills needed by employers (Joshi and Verspoor, 2012). Improved university training for teachers and a system of continuous professional development are recommended.

The improved educational status of young people leaving school or college coexists with a year on year increase in the numbers entering the prime working ages. In 2017, for instance the number of 15-19 and 20-24 years olds will be 10.6 and 9.4 million, respectively, compared with 6.7 million aged 30-34 and 4.3 million aged 40-44. In that year 38% of all persons aged 20-64 years will be in the 20-29 age band. By 2032, the proportion will have fallen slightly to 34%. This predominance of young adults is termed the youth bulge and some analysts have adduced evidence that, when combined with unemployment and underemployment, the bulge leads to civil unrest and violence, as may have occurred in the Arab Spring.

As noted earlier, unemployment is mainly a “luxury” of the middle classes whose families can support unproductive members. For this reason unemployment is largely an issue for urban educated individuals. In 2013, only 2% of rural people aged 10 years or more were reported as unemployed compared with 16.5% in urban areas. Similarly, unemployment levels rise steeply with

education up to preparatory level (11-12 years of schooling) before declining at higher levels. In 2013, nearly 25% of men and women with preparatory schooling were unemployed, compared with about 4% among those with primary schooling and 10% of those with a diploma. Underemployment among youth is also a problem. In 2011, about half of employed youth wished to work longer hours (Broussar and Tekleselassie, 2012).

A survey commissioned by the World Bank provides detailed information on unemployed youth in Addis (World Bank 2015b). They comprise two main types. The first is born in Addis, typically with some secondary education. They live in slum localities with their parents. The second type is better educated migrants who live alone or with relatives and are more actively seeking jobs than the former category. Both aspire to permanent jobs though few will be successful and many, particularly among the less educated, will end up as self-employed in the informal sector. In the past the preference was for a government post but increasingly they are looking for a private sector job. About one-quarter of the better educated, active job seekers, find regular employment within four months but the success rate for others is much lower. During the period of job search, many youth support themselves by casual manual jobs.

Partly because young people are becoming better educated, urban unemployment is much higher (around 20%) among men aged 15-24 than among those aged 30 or more (around 6%). For women unemployment peaks at 30% in the age group 20-24 but remains high at around 20% at older ages. This problem of youth unemployment is by no means particularly severe in Ethiopia. Rather it is widespread in poor and rich countries. In part it reflects an understandable gap between leaving school and settling on an occupation and the decline in unemployment with age is an inevitable necessity: in particular, men, as they age, have to find some form of livelihood, even if a suitable job with a regular wage has proved elusive. However, the high level of unemployment among better educated youth underscores the imperative of matching the educational system to labour force requirements. African governments have been criticised for placing too much emphasis on formal academic teaching and paying insufficient attention to technical and vocational training. As noted by Joshi and Verspoor (2013), secondary schools in Ethiopia need to equip students with the appropriate skills to enter the labour force rather than preparing them primarily for university and college. One factor contributing to high unemployment among educated urban youth is their lack of skills. Private companies complain about shortage of skilled labour (World Bank 2009). To its credit, the Ethiopian government has introduced a scheme for skills- based training (TVET) which is intended to assist the creation of small and micro-enterprises. However, it does not appear to have been a success. Enrolment has declined since 2008. In 2013, only 238,000 were enrolled against a target of 813,000 (Federal Ministry of Education 2012/3).

Another predicable consequence of educational expansion is that it will accelerate the flight from rural to urban areas and from agriculture to other forms of livelihood. The aspirations of young men with secondary or higher education typically do not include the hard toil of family farming. A study of rural youth aged 15-29 years in Oromia and SNNP found that only 9% chose agriculture as their preferred future occupation; the majority chose an urban salaried job (Bezu and Holden, 2014). Whether or not this aspiration is realistic, it was clear from the study that, apart from the lucky minority whose parents have large landholdings, there was little prospect of farming because local authorities simply had no land for allocation. Much of Ethiopia's rural youth will have no option but to migrate to urban areas or seek off-farm livelihoods in rural areas.

Implications of change for service provision, with a focus on the most vulnerable

From a low base, Ethiopia's growth and expansion of basic services in recent years have been among the most impressive in Africa.

Substantial improvements have been made in health services and outcomes. In the last 15 years Ethiopia has: halved the incidence of malaria; deployed 34,000 more health extension workers; and, doubled the number of women using contraceptives (FDRE, 2010). Ethiopia is one of few African countries to have improved its ratio of health staff to population (Kinfu et al., 2009) These accomplishments are having a positive impact on health outcomes. The 2011 Ethiopian Demographic Health Survey reported a 28% decrease in under-five mortality, from 123 in 2005 to 88 deaths per 1,000 live births in 2011; and a fall in total fertility from 5.6 in 2005 to 4.8 children per women in 2011. Also, a more recent (2012) UNICEF survey indicates that Ethiopia's under-five mortality rate has further declined to 68 deaths for 1,000 live births implying achievement of MDG-4 target of reducing the level of child mortality by 2/3rd from the 1990 baseline level. However, the progress on MDG-5 (pertaining to maternal health) has been slow. The percentage of women who received delivery care from a skilled provider remains low at 16%, and the maternal mortality remains high at 676 per 100,000 births.

Similarly, in the education sector there has been an impressive expansion of both formal schools (primary and secondary) and through alternative routes to education, such as alternative basic education centres (ABECs) and non-formal and adult education. The largest impact was seen in the Net Enrolment Rate (NER) in Primary 1-4, which increased for boys from 69.9% in 2004-2005 to 98.2% in 2012-2013 and for girls from 65.1% in 2004-2005 to 92.8% in 2012-2013, though with marked regional disparities (Education Statistics Annual Abstract, 2012-2013). However, limited progress was made in the second cycle of primary school; the NER in Primary 5-8 was 38.3% for boys in 2004-2005, rising to 47.2% in 2012-2013. Though the gap between the enrolment rates of boys and girls is narrowing, the drop-out rate for girls remains a concern. In 2004-2005 the drop-out rate for girls was 13.6% while by 2012-2013 the rate was 15.4% against a target rate of 4.3% by 2012-2013 (MOE, 2013).

Recent studies on Early Childhood Education (Calman and Tarr-Whelan, 2005; Murray, 2010) have found that investing in better-quality early childhood programmes can positively impact children, their families, taxpayers, and the government. Participation in early childhood programmes is beneficial because it leads to improved outcomes, including better nutrition, health and education, in both the short and long term. In addition, investment in early childhood programmes offers a high pay-off in human capital (including learning and better nutrition). Ethiopia's population of 4-6 year olds is around 7.7 million. Of this about 2.45 million children (34%) have access to some form of Early Childhood Care and Education (ECCE) service. Investment in ECCE should be supported to foster future growth opportunities.

In the past 15 years the proportion of stunted children under the age of five has declined from 58% in 2000 to 40% in 2014. Despite the considerable decline, the prevalence of stunting in Ethiopia remains high. As a reference, according to the World Health Organization, a stunting prevalence rate of 40% or higher is considered as a major public health problem. Ethiopia remains one of the most undernourished populations in the world. However, progress in reducing child undernutrition

between 2000 and 2014 has been steady with stunting prevalence reduced by 1.4 percent points per year between 2000 and 2011, although progress slowed to 1.0 point per year between 2011 and 2014 (Headey, 2014). A study on the Cost of Hunger in Ethiopia suggests that to achieve sustainable economic growth, special attention should be given in early life and undernutrition (AU, 2013). This study highlights challenges of cost of undernutrition in health, education and labour productivity. The 16 per cent repetition rate of all repletion in primary school are associated with repletion of stunted children: improving nutrition could lower the costs to the education sector. The study also shows that undernutrition generates health costs equivalent to 0.5% of the total public budget allocated to health and the total losses to the economic could be as high as 16.5% of the GDP (AU, 2013).

Substantial challenges remain in meeting the needs of the- hard-to-reach population and dropout is a major issue with both human and economic costs (MoE, 2010). According to a study conducted by the Ministry of Education half the resources being deployed are on pupils who drop out before completing eight years of primary education (MoE, 2010). A Social Assessment of the Education Sector found complex issues faced by excluded children, such as the high opportunity costs of education for families that benefit from their children's help in household activities and the challenges of the ABECs to appropriately target the most in need (DFID, 2011).

The country has register a 2 digits economic growth in the past 10 years and according to the recently published Growth and Transformation Plan Annual Progress Report for the financial year 2012/2013 more than 65% of public expenditure has been spent on pro-poor sectors such as education, water, health, agriculture, roads and energy (MOFED, 2014). The progress so far recorded is attributed to strong commitment by the Government of Ethiopia and its development partners' to the MDGs and the success in mainstreaming MDGs into the national development plan (UNDP, 2012).

The proportion of people classified as below the poverty line decreased from 56% in 1999/2000 to less than 30% in 2011 according to the latest assessment (MOFED, 2014). Despite the recent successes the absolute number of people poor remains at the level of 2000 with 25 million of people below the poverty line.

The reduction in poverty can be attributed in part to the Productive Safety Nets Programme (PSNP) launched in 2005. This programme aims to mitigate extreme poverty and food insecurity in the most vulnerable woredas (districts). The PSNP, other Food Security Programme (OFSP) and Household Asset Building Programme (HABP) reflect the government's pro-poor development agenda and comprises 1.1.% of GDP (FDRE, 2010). The PSNP offers cash or food transfers to 6-8 million chronically food insecure (CFI) Ethiopians for six months of the year. Around 85% receive transfers in exchange of labour in public work, whereas 15% are 'direct support' beneficiaries (disabled, elderly, pregnant or lactating women) who receive unconditional transfers. In 2010 the HABP was introduced to provide complementary livelihood services such as credit, advice to build asset or diversify their income. According to the 2014 Mini-DHS, 11% of rural households receive assistance from PSNP.

Another promising development, still at a pilot stage, is a community-based health insurance scheme, initiated in response to generally low health service uptake and the fact that nearly 40% of health care costs are born by patients. The scheme is subsidised by central government with contributions of 2-3% of household income from participants. An initial evaluation is encouraging (Mebratie et al., 2015). Participation was high by international standards; no evidence of social

exclusion of the most vulnerable households was found; over 90% of participating households intended to renew membership and over half of non-participants indicted an intention to enrol.

Demographic and related changes are likely to have profound implications for population welfare and service provision between 2015 and 2032. For some services demand will stabilise and thus provide an opportunity for improvement in quality or coverage. For others, demand and need will increase. Inevitably at times of great demographic and economic change there will winners and losers.

One salient feature of the current demographic situation in Ethiopia is the very pronounced differences in child bearing between population strata. In 2011-2014, rural fertility was twice the level of urban fertility. The poorest one-fifth of women had a fertility rate of 5.1 births compared with 2.4 among the richest one-fifth. Women in Somali region had a rate of 7.3 compared with 4.0 in the most populous regions and lower still in Harari and Dire Dawa. These differentials matter because, in Ethiopia as elsewhere, there is a strong link between the number of dependent children and poverty and food insecurity. There is thus a danger that, if they persist, they will entrench disadvantage. An important priority is to strengthen family planning services for high fertility groups and regions.

In other respects, the expected continuation of fertility decline represents opportunities and advantages. The stabilisation of the annual number of births will automatically reduce the number of maternal deaths and make more possible improvements in the currently low uptake of antenatal care and facility deliveries. An increasing proportion of all births will be first born and, as shown by the 2014 DHS, first born children are much more likely to be delivered in a facility than subsequent births.

Infants and young children will also benefit from lower fertility, because household resources and maternal attention will not be diluted across many siblings. Children from small families typically receive more education and health care than those from larger families. Nationally, the population aged 0-4 years will grow very little between 2015 and 2032, thus permitting improvements in relevant services, such as immunization, nutrition and pre-school education.

The number of children of primary and secondary school age, broadly 5-18 years, will increase moderately by 5.7 million, or 18%, between 2015 and 2032. The welcome trend towards higher enrolments will no doubt continue but, of equal if not greater importance, is improvement of the quality and relevance of schooling. As mentioned earlier, the school system has been criticised for being too academic and for failing to impart the skills needed for work. The apparent fall in the numbers participating in the technical and vocational skills programme (TVET) should be a major concern. The causes (eg poor quality, remoteness from practical realities, lack of recognised and respected qualifications) need to be established and remedied. Alternatives in the form of large scale apprenticeship schemes should be considered. The stakes are high, because the future of Ethiopia depends to a large extent on the ability of youth to find productive employment. Even with an expanding economy, it is probable that only a minority of the large number of school leavers will find a formal job with a regular wage. Land shortage implies that the fraction who become self-employed farmers will decrease. Self- or family employment in sales, services and manufacturing will continue to dominate the non-agricultural labour force and this likelihood raises the key question of whether or not entrepreneurship can be taught. Whether or not, facilitating the transition from school to productive employment is a top policy issue.

Special measures to protect the very poor and most vulnerable will continue to be a high priority. Vulnerability stems from death of an adult and severe illness. In rural areas, climate is the major source of vulnerability while, in urban areas, steep rises in food prices and unemployment are the main sources. Poverty has fallen but it is of concern that consumption of the poorest tenth, mostly

farmers, actually deteriorated between 2005 and 2011 and thus inequality widened (World Bank 2015). The level of poverty is higher in rural areas than in towns and cities but not by a large margin (30.4% versus 25.7% in 2011).

The PSNP is currently the main safety net for the poor and vulnerable. However, it is geographically restricted to selected rural woredas and does nothing to alleviate urban poverty. Households in PSNP woredas contain a higher proportions of individuals living in absolute poverty and vulnerable to poverty than on-PSNP woredas. However, in absolute numbers, more people in absolute poverty live outside than inside PSNP woredas (12 versus 9.9 million) and more are vulnerable (15 versus 13.9 million) (World Bank 2015b). A cogent case can be made for extending PSNP to all areas though it is doubtful whether such an ideal is affordable. The current PSNP scheme comprises half the agricultural budget and, at 7% of total expenditure, costs the same as the whole health service.

As Ethiopia urbanises, safety nets for the urban population will assume greater importance. A proposal is currently discussed with MOFED and MOLSA amongst the donor working group (PSNP DWG 2015). Disability and old age are stronger determinants of poverty in towns and cities than in the countryside because of the relative lack of support from kin networks or neighbours. It is also a concern that, despite rapid economic growth, unemployment among urban youth remains stubbornly high. The high rate of rural-urban migration, fuelled by the aspirations of educated youth and by inability to access land for agriculture, poses the risk that urban unemployment and severe underemployment may remain as persistent problems. Programmes to assist the search for jobs, practical advice on how to gain a livelihood from self-employment, and apprenticeships are among the possible remedies.

Concluding Comments

Provided that fertility decline continues at its recent brisk pace, Ethiopia's dependency ratio will fall from around .75 in 2015 to .56 in 2032. The rate of population increase will drop but growth in absolute population size will be greater than in the past. The change in age structure represents a small automatic boost to incomes per head, provided that employment and productivity does not fall. It could facilitate a major stimulus to economic welfare if (a) the opportunity to improve human capital through better education and health is seized and (b) productivity of the labour force is raised. As outlined in the previous section, condition (a) has already been partially fulfilled and further progress can be expected with confidence. The one note of caution concerns the quality and relevance of the education system. The priority should be to equip young men and women with the skills and attitudes necessary to succeed with work. Condition (b) is partly dependent on (a) but also encounters the prospect of rapid increases in the size of the work force.

Ethiopia faces four challenges. Despite an increased pace of rural-urban migration, the country will remain predominantly agrarian over the next 17 years. The majority of less educated, poor and vulnerable people are farmers. Thus inclusive economic growth and population welfare depends on the future of agriculture. The **first challenge** is to press ahead with agricultural modernisation and improved productivity, which in turn will increase off-farm rural livelihoods. Progress in terms of fertiliser use and infrastructure has already been achieved. The growth of the urban population will fuel demand for food and thus the prospect for family farms near urban centres is bright, provided that adverse weather does not intervene. However, because many of the small farmers are net buyers and income elasticity of food is high for the poor, any increase in income will result into higher consumption of own production and less marketing surplus. This will exacerbate the problem of meeting the urban demand for food. The future for small-scale farmers living in more remote areas remains problematic. 40% of smallholder farms are less than one hectare in size and many do not reliably produce enough food for domestic consumption, let alone a surplus for sale. Expert opinion is divided about the future of small family farms in a modernising agricultural sector. Yields per hectare tend to be higher than for larger farms but doubts exists about the ability of small family farmers to make full use of technical and marketing innovations Future rural population increase will inflate the numbers who are landless or farming unviable small plots and thus exacerbate problems. Vulnerable households in PSNP woredas are partially protected but a central policy issue concerns the larger number of such households living in non-PSNP woredas.

The **second challenge** concerns the need for rapid increases in formal sector wage employment, mainly in manufacturing. A shift from agriculture to manufacturing has proved to be the route out of poverty in Asia, and historically in Europe. Ethiopia, like most other African countries, has witnessed little growth in manufacturing despite buoyant economic growth in recent years. Thus far, Asia has benefitted from the opportunities of globalisation, and in particular international flows of capital, and has become the world's factory. A key unresolved question is whether Ethiopia can exploit her abundant and increasingly educated labour force and low wages to compete successfully for a share of manufacturing.

Even if current efforts to improve Ethiopia's industrial base are successful, it is clear that the creation of modern sector jobs cannot keep pace with the annual increase of 1.7 million in the potential labour force. The majority of young school leavers will be forced into self-employment, family employment or micro-enterprises in the informal sector, unless they are lucky enough to gain access to sufficient farming land to provide a viable living. The **third challenge** is to enhance the productivity of the informal sector, with the ultimate goal of ensuring that some young people succeed in creating businesses that grow and provide employment for others. There is no blueprint

for success. While helpful policies, such as micro-credit, skills training and apprenticeships can be put in place, much depends on the hard work and entrepreneurial capabilities of young people themselves.

The **fourth challenge** is the prospect of increased public expenditure on education, health and other services for children under 15 years of age. The demographic dividend is usually expected to result into relatively lower cost of education and health services for children. Until now the direct public expenditure incurred on children was not that high because the government was not able to afford to provide the standard services. Growing demand of people to get education, health and other social services for their children will drive up the future cost of these services.

In conclusion, demographic changes over the next 17 years certainly will help with continued poverty-reduction and economic growth but by no means guarantee it. Therefore, the Ethiopian government requires a focused policy in order to reap the demographic dividend. Ethiopia need to have a national skill development mission, increased attention to quality of education, generate employment in the urban sectors and substantially reduce the rural disguised unemployment.

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