Pathways to Prosperity in Malawi

A Poverty Assessment

Overview
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This Overview summarizes the main findings of three recent pieces of analytical work on poverty in Malawi: The *Malawi Poverty Assessment*, the policy report *Pathways to Prosperity in Rural Malawi*, and the *Poverty and Social Impact Analysis of the Malawi Farm Input Subsidy Program*. The Overview is organized in three parts. The first part describes the evolution of monetary poverty and shared prosperity in the country between 2004 and 2010. Nonincome dimensions of poverty are reported up to 2015, when available. The next section discusses the proximate causes for the observed poverty trends observed in the same period. The final section suggests some policy alternatives to remove the obstacles imposed by these proximate causes and therefore reduce poverty and promote shared prosperity in Malawi.

Recent Trends in Poverty and Shared Prosperity in Malawi

**Progress in Some Areas**

Over the past decade, gains in access to primary education in Malawi have been steady and positive. Between 2004 and 2013, primary school completion rates rose by 17 percentage points to reach 75 percent (World Development Indicators). The proportion of households with school-aged children attending school also has increased steadily since 2004, reaching 63 percent in 2013. Between 2004 and 2010, the proportion of households with a member who had completed primary school increased 8 percentage points from 41 percent to 49 percent. Additional improvements occurred between 2010 and 2013.

Child malnutrition has trended downwards. According to the Malawi Demographic and Health Surveys, between 2004 and 2015, the prevalence of stunting among children under five (a measure of long-term nutritional deprivation in children) fell from 53 percent to 37 percent. Underweight prevalence (which measures short-term changes in child nutrition) also dropped—from 19 percent to 12 percent (Malawi Demographic and Health Surveys 2004, 2010, and 2015).

Children under-five mortality also has dropped. Data from the Demographic Health Surveys reveal that the under-five mortality rate declined from 133 deaths per 1,000 live births in 2004 to 64 deaths per 1,000 live births in 2015. Between 2004 and 2010, the greatest reduction in under-five mortality was
made in the rural areas, where the number of deaths per 1,000 live births fell from 164 to 130. A downward trend also was observed in the prevalence, incidence, and deaths associated with HIV/AIDS, malaria, and tuberculosis, particularly since 2000.

As a result of the progress accomplished in some health and education aspects, Malawi has partially or fully achieved four of eight of the Millennium Development Goals (MDGs), the set of 2015 targets to address poverty in its many dimensions. These were MDG1c (reducing undernutrition), MDG2a (achieve universal primary education), MDG4 (reducing child mortality), and MDG6 (combating HIV/AIDS, malaria, and other diseases).

The fraction of people who were deprived in multiple dimensions has declined. The share of the population deprived in some dimensions of education (completion of primary education), health (children under-five mortality and undernutrition), access to key services (electricity, improved sanitation, safe drinking water) and holding of assets (ownership of radio, television, bicycle) declined from 71 percent in 2004 to 61 percent in 2010. Improvements took place in both urban and rural areas, although the proportion of rural people with

Box O.1 Data Sources Used in These Reports

Most of the analysis undertaken for the poverty reports pulls from three data sources, all representative at the national, urban/rural, and region levels. They are the Second Integrated Household Survey (IHS2) from 2004 to 2005, the Third Integrated Household Survey (IHS3) from 2010 to 2011, and the Integrated Household Panel Survey (IHPS) from 2013. The IHS2 and IHS3 samples were stratified by month and administered throughout the year (typically starting in March and ending 1 year after). A subsample of the IHS3 sample was selected for follow-up in the IHPS, thus becoming a panel. However, the IHS3 subsample and IHPS sample were administered only from March through December, that is, the nonlean season in Malawi. Findings from IHS2 and IHS3 are comparable because they represent conditions experienced throughout the year. Similarly, findings from the IHS3 panel subsample (but not from the full IHS3 sample) and the IHPS are comparable. To simplify, this note uses 2004 to designate the IHS2 and 2010 to designate the IHS3 cross-section.

The official monetary poverty estimates for Malawi are derived using the cross-sectional IHS data, so the latest available figures are for 2004 and 2010 (the Fourth Integrated Household Survey [IHS4] from 2016 to 2017 is currently in the field). The poverty reports also estimate poverty measures using the panel data for the period 2010 to 2013, but mainly to understand poverty dynamics. The poverty rates for 2010 based on the IHS3 panel, and for 2013 based on the IHPS, are not official and should be understood as the lower bound for actual poverty in Malawi in that year, given that the lean months when poverty increases are not captured in them.

Additional nationally representative surveys such as the 2004, 2010, and 2015–16 Malawi Demographic and Health Surveys also are used or referenced in the poverty reports. A final primary data source used is the Rural Livelihoods Survey, which was gathered in the context of the evaluation of the Malawi’s Social Action Fund Public Works Program (MASAF-PWP).
multiple deprivations is more than twice the proportion of people in urban areas under this circumstance (67 percent versus 30 percent, respectively, in 2010).

**Persistent Challenges**

Notwithstanding the improvements in nonincome dimensions of poverty, monetary poverty in Malawi remains pervasive and largely stagnant, especially in rural areas. In 2010, using a basic needs basket that cost 37,000 kwachas per person per year, 51 percent of the population stayed poor. Approximately 25 percent lived in extreme poverty, defined as the inability to satisfy food needs. The poverty head count in figure O.1 shows that, between 2004 and 2010, poverty in rural areas (where most Malawians live) increased from 56 percent to 57 percent. Extreme poverty increased at a greater rate from 24 percent to 28 percent. The depth of poverty, which measures the average consumption shortfall of the poor from the poverty line, and its severity—measured by the poverty gap squared—also also went up between 2004 and 2010. Approximately 95 percent of the country’s poor are located in rural areas, so the overrepresentation of poverty in rural settings kept national poverty stagnant, declining only from 52 percent to 51 percent; whereas the share of extreme poor rose, from 22 percent to 25 percent. Using the international poverty line of US$1.90 per person per day, Malawi’s poverty rate in 2010 remained high—71 percent—and close to stagnant relative to 2004. The majority of the internationally poor live in rural areas.

In addition, the actual number of monetary poor has increased. Population projections indicate that, between 2004 and 2010, Malawi’s rural population increased from 10.8 million to 11.9 million; and the urban population

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**Figure O.1  Rural Poverty Remains High and Stagnant, 2004–10**

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<thead>
<tr>
<th></th>
<th>Head count</th>
<th>Depth</th>
<th>Severity</th>
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<td>20</td>
<td>10</td>
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<tr>
<td><strong>2010</strong></td>
<td>40</td>
<td>25</td>
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**a. Rural extreme poverty**

**b. Rural moderate poverty**

*Source:* World Bank estimates using the cross-sectional Second and Third Integrated Household Surveys.
Box O.2 Population Growth Poses an Enormous Challenge for Poverty Reduction in Malawi

Malawi’s population grew rapidly from 12.4 million in 2004 to 16.7 million in 2014. During this period, Malawi maintained a growth rate close to 3 percent per annum, adding to its population an average of a little under half a million people each year. This increase in population is owed largely to a substantial decline in mortality (as a result of improved nutrition and access to health care) and persistently high fertility rates. In approximately two decades, the country’s population is expected to double, from 17.2 million in 2015 to 34.4 million in 2038 (UNDSA 2015).

Fertility has remained persistently high in Malawi, particularly among rural poor women. In 2010, 60 percent of women (the poorest three quintiles) still were experiencing rates above six births per women, whereas the richest top 20 percent had half of this number. Despite the notable increase in using contraception, poor women were 30 percent less likely to use family planning than the wealthiest women. Women across the bottom four wealth quintiles had higher desired fertility (four children or above) than women in the wealthiest group but also were less likely to meet their ideal fertilities (figure BO.2.1). Differences in fertility also indicated inequities in access to family planning, and rates of early marriage and childbearing.

Early childbearing and child marriage contribute to high fertility and are extremely high in Malawi. The country’s adolescent fertility rates continue to be among the highest in the world because 50 percent of girls marry before age 18, and 33 percent start childbearing as adolescents (United Nations 2014). Poor adolescents also are more likely

Figure BO.2.1 Observed and Desired Fertility Rates Are Higher Among Poor Women, 2010

Source: Malawi Poverty Assessment; World Bank 2016.
Note: Q = quintile.
to marry young and become mothers. In 2010, among women ages 20–24 years in the bottom two quintiles, 60 percent of them marry as adolescents—approximately 2.3 times more than young girls in the wealthier group (26 percent). Similarly, 40 percent of poor young women are pregnant or are already mothers before 18, compared with 22 percent among the richest group (figure BO.2.2). In addition to the poor-wealthy divide, disparities exist between urban and rural groups in early fertility patterns in Malawi. If Malawi were to eliminate early childbirth alone, the country’s total fertility rate would decrease by 0.48 births.

Malawi is one of Sub-Saharan Africa’s most densely populated countries, ranking 10th in Sub-Saharan Africa in 2014. In an already population-dense country with limited land resources, Malawi’s population is exerting pressure on natural resources, and the situation is likely to worsen with additional population growth. Population growth also poses a significant obstacle to meet the growing demands for public services such as education and health, which would require greater revenue generation and investments for public service provision. Furthermore, the high birth rate also lowers productivity because it impairs women’s ability to engage in more productive farming or nonfarm work while they spend many of their prime years pregnant, lactating, and otherwise raising children. Moreover, Malawi’s young age structure generates an extremely high proportion of dependents as a share of the working-age population. Such a ratio is associated with higher poverty levels.
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Box O.3  Why Has Progress in Nonmonetary Poverty Not Translated into Lower Monetary Poverty?

Despite the improvements across many nonmonetary indicators in the recent past, many of those indicators are still critically high. Malnutrition remains a challenge—in 2015, about 37 percent of children under five are stunted reflecting significant nutritional imbalances in their diets, which lack proteins, vitamins and other nutrients. Stunting is a major cause of adverse cognitive development, which is associated with delayed school enrollment, reduced grade attainment, and school performance and in later life worse labor market outcomes through lower earnings and productivity. Given the personal and social cost of stunting, the existing prevalence rates are unacceptably high, for all income groups. Similarly, in more than one-third of households with school-age children by 2013, those children were not in school. Therefore, some of the improvements on health and education may have not reflected in monetary improvements just because such improvements took place from a very low base. Equally important, improvements in nonmonetary aspects take time to traduce into better incomes (for example, for an expanded cohort of better educated children to reach the labor market).

In addition, average progress in nonmonetary dimensions of welfare has not always reached the poor in Malawi. Between 2004 and 2010, the richer segments of the population experienced from a higher base greater gains in educational achievements than the bottom 40 percent. There were equally large gaps between the nutritional status of children living in wealthier and in poorer households. In 2010, 55 percent of children in the bottom quintile of the consumption distribution were stunted, compared with 38 percent in the top quintile. Similarly, underweight prevalence in the poorest quintile was nearly double that of the top quintile (17 percent versus 9 percent). Between 2010 and 2013, trends in child nutritional status also revealed a growing disparity between wealthier and poorer households. The top 10 percent experienced reductions in stunting, underweight, and wasting whereas the bottom 40 percent experienced increases in all three indicators. Access to critical public services—electricity and running water—and nonsolid cooking fuels was virtually nonexistent for households in the bottom 40 percent of the consumption distribution (figure O.3). Hence, average accomplishments in some health and education outcomes and access to services did not always reach the poor and when they did, those accomplishments happened at a lower pace and from a lower baseline.

The progress on some health and education outcomes could be partially explained by strong public investments in both sectors, not by private consumption. The education sector accounted for the largest share of Malawi’s total government expenditures. In 2013 the share was 19 percent. Between 2008–09 and 2012–13, education expenditures increased in both nominal and real terms at a faster rate than did the national budget. During this period, expenditures on the education sector grew at an annual rate of 35 percent, compared with the annual rate of 21.4 percent for total government expenditures (World Bank 2013). Similarly, Malawi allocated 8 percent of GDP to its health sector, far above the Sub-Saharan Africa average (5.7 percent) (World Development Indicators 2015). Between 2004 and 2010, the immunization of children ages 12–23 months...
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Box O.3 Why Has Progress in Nonmonetary Poverty Not Translated into Lower Monetary Poverty? (continued)

against measles increased by 13 percentage points from 80 percent to 93 percent. During the same period, the percent of children immunized against three infectious diseases—diphtheria, pertussis, and tetanus—remained close to 90 percent. Also during the same period, births attended by a skilled health professional increased from 56 percent to 71 percent. And while inefficiencies may exist in the spending performance in the education and health sectors, the amounts spent have likely achieved some positive results.

rose from 1.4 million to 2.1 million. High population growth and stagnant progress in monetary poverty meant that the absolute number of people living in poverty increased by 700,000 (from 6.4 million to 7.1 million). Almost all of the increase in the number of poor people in the country came from rural areas in which the population grew and the proportion of poor increased.

Poverty likely has increased, given the recent large-scale floods in 2015 and drought and floods in 2016. As mentioned earlier, no comparable survey with the IHS3 for 2010 has been completed ever since (the Fourth Integrated Household Survey [IHS4] from 2016 to 2017 is currently in the field), but other sources of data allow to make poverty projections. For example, a joint World Bank macro poverty forecast exercise has projected that poverty in Malawi measured by the population living below $1.90 per day (at 2011 international prices), would barely drop from 70.9 percent in 2010 to 69.6 percent in 2016. This forecast may even overestimate reductions in poverty because it does not take into account the effect of the recent weather shocks afflicting Malawi. A study using the IHS3 panel and IHPS surveys found that shocks can increase poverty: In 2010, when only household characteristics (number of members, location, and sociodemographic profile) were used to predict the likelihood of falling into poverty, 22 percent of households were expected to become poor in 2013. This proportion almost doubled to 42 percent when expected shocks, particularly rainfall shocks, also were considered (McCarthy, Brubaker and de la Fuente 2016). Furthermore, poverty increased eight percentage points between 2013 and 2015 in a sample of 558 rural households affected by the floods that struck Southern and Central Malawi in early 2015 (McCarthy, Kilic, de la Fuente and Brubaker 2016).

Poverty reduction in urban areas also has been uneven. Between 2004 and 2010, poverty in urban areas declined from 25 percent to just over 17 percent, as did ultra-poverty from 7.5 to 4.4 percent. However, this progress essentially was wiped out by 2013, when poverty ratcheted back up by 8 percentage points to 26 percent. In 2013 the poverty gap and the poverty gap squared also deteriorated for the urban poor.
Food insecurity in Malawi remains widespread, especially among the rural poor. Stagnant-to-moderate increases in monetary poverty are consistent with the drop in rural per capita caloric intake observed during the same period from 2,333 in 2004 to 2,192 in 2010; and from 1,606 to 1,532 for the bottom 40 percent. In 2013, a large 81 percent of poor rural households consumed fewer than 2,100 kilocalories per capita per day (kcal/person/day), considered the benchmark a person needs to lead a healthy life. It is not surprising that in 2013, 65 percent of households reported experiencing food insecurity for at least 1 month per year—a 15 percentage point increase since 2010. More notably, in 2013, 84 percent of rural poor households reported experiencing food insecurity for at least 1 month per year—a 17 percentage point increase since 2010.

Inequality is rising. Between 2004 and 2010, the consumption Gini index increased from 0.39 to 0.45. At the same time, the share of consumption claimed by the bottom 40 percent fell from 18 percent to 15 percent. Inequality also grew between urban and rural areas. Consumption in urban areas grew for virtually all consumption percentiles, with the poorest enjoying relatively lower, but still positive, growth rates. In contrast, in rural areas, approximately two-thirds of the population experienced negative real consumption growth while only the top 5–10 percentiles experienced significant growth (figure O.2).

Gaps in access to key assets, services (access rates to water, sanitation, and electricity), and opportunities (health, nutrition, and education) across income groups, also reproduce between boys and girls and between female- and male-headed households (figure O.3).

Figure O.2  Growth Was Not Shared by Rural Malawi, 2004–10

Figure O.3 The Bottom 40 Percent in Rural Areas Has Experienced Little or No Improvement in Key Nonmonetary Dimensions, 2004–10

a. Primary school completion

b. Access to electricity

c. Access to running water

d. Access to nonsolid cooking fuels

e. Access to means of transport other than bicycles

Box O.4  Is Malawi Closing the Inequalities on the Basis of Gender?

Gender equality plays a role in advancing development and reducing poverty. Full and equal participation of women and men, girls and boys is key to unleashing the productive potential of a household, community, and nation. Box O.4 summarizes the achievements, or lack thereof, of Malawi in closing its gender inequalities.

Poverty
The most recent household surveys from Malawi reveal that 25 percent of poor households were led by women in 2004 and that this proportion rose slightly to 26 percent in 2010.

Access to Basic Goods and Services
Along with their male counterparts, female-headed households saw improvements in access to public services and ownership of assets between 2004 and 2013. However, compared with male-headed households, female-headed households had less access to a number of goods (bicycles, telephones, televisions), access to public utilities (electricity and piped water), and improved housing conditions (flooring and sanitation).

Education
Malawi reached gender parity with respect to primary school enrollment and completion rates and has narrowed the gender disparity in enrollment at the secondary school level, reaching a parity index of 0.91 in 2014, up from 0.80 in 2004. The parity index of gross enrollments is the female gross enrollment ratio over the male gross enrollment ratio. Malawi has yet to achieve gender parity in other educational outcomes, including parity in literacy rates between men (74 percent) and women (70 percent) ages 15–24 years. Furthermore, the proportion of female-headed households with at least one member of their households having completed primary or secondary school was lower than that of their male counterparts. However, the proportion of female-headed households with school-aged children in school appeared to be on par with male-headed households.

Child Health
Although both male and female under-five mortality declined, mortality rates for male children were higher than for female children. There also was a slightly higher prevalence of undernutrition among male children compared with female children. The nutritional outcomes of children under five also were more favorable in female-headed households, in which a lower proportion of households had a child under five who was stunted, underweight, or wasted in comparison to male-headed households. Such a disparity in nutritional outcomes based on the gender of the household head could be explained by how men and women with decision making power choose to allocate household income and resources on their children.

Agriculture
In a study of gender differentials in agricultural productivity in Malawi, Kilic and others (2015) observed that productivity on female-managed plots was 25 percent lower than on male-managed plots. There was a substantial difference in endowment of assets and access to
Why Does Poverty Persist?

Elusive Growth
Malawi’s sectoral growth has not been conducive to reduce poverty. Growth in sectors of the economy where the poor are concentrated will have a greater impact on poverty. Malawi’s average GDP per capita growth rate from 2004 to 2013 was a respectable 2.4 percent per year, comparable to the Sub-Saharan Africa average. However, between 2004 and 2011, such growth was not driven mainly by agriculture, the sector in which most of the rural population was employed. GDP grew by 51.7 in that period, but services and industry explain approximately two-thirds of overall economic growth. The rate of growth of agriculture was below the national average.

Economic growth has been very volatile placing a heavy burden on the poor. The coefficient of variation, which captures the volatility in GDP per capita, between 2000 and 2014 was three times higher for Malawi (2.6) than for Sub-Saharan Africa (0.85). Malawi’s GDP was significantly more volatile than that of Sub-Saharan Africa. Volatility in Malawi’s GDP growth was due partly to macroeconomic instability—exchange rate volatility and high inflation, cost of capital, and fiscal deficits—and partly to large-scale weather shocks, which struck the country twice in the last few years. In addition to this difficult macroeconomic environment, structural impediments to sustained and inclusive growth created conditions under which agricultural incomes grew little; nonfarm opportunities remained limited; and safety nets turned out to be imperfect. Thus, Malawi’s volatile and tepid growth did little to increase the consumption of the poor.

Low Agricultural Productivity
Agriculture constitutes the backbone of the Malawian economy, contributing more than 30 percent of its GDP and employing 85 percent of its workforce. Most producers are subsistence farmers who cultivate small plots of land.
In 2013, approximately 90 percent of rural households drew income from crop production (mainly through subsistence farming), which constituted about half of their total household income.

Raising the crop and farm wage incomes of poor households in Malawi through increased agricultural productivity can improve their welfare. Empirical estimates show that, between 2010 and 2013, a 10 percent increase in agricultural productivity improved the per capita consumption expenditure of rural agricultural households by 1.3 percent. Poverty measures such as the poverty gap and severity of poverty also declined with increases in agricultural productivity. Increased agricultural production is likely to increase the demand for farm labor through increases in area cultivated or intensity of cultivation, which can, in turn, lead to higher wages. Increased agricultural output can also decrease food prices, to the benefit of net food buyers, which in Malawi are more than 50 percent of households (Palacios-Lopez and other 2016). Increased agricultural production creates consumption links with the rural nonfarm economy as farmers and farm laborers spend increased incomes on goods and services. The Poverty Assessment also found that, were maize yields to increase by 50 percent, the poverty rate among rural agricultural households would decrease by 7 percentage points. Correspondingly, the 50 percent increase in maize yield would lift approximately 622,015 people out of poverty.

Unfortunately, the necessary growth in agricultural productivity required to alter the trajectory of rural poverty has not been achieved. Maize yields increased between 2010 and 2013, but by only 8 percent, and the growth was higher for the nonpoor. Maize yields for the poor were 31 percent less than for the nonpoor. There also were substantial differences in the productivity of major crops across poverty status (figure O.4). Moreover, average maize yields remained relatively low at 1.4 tons per hectare in comparison to other African countries including Rwanda and Uganda, as well as countries outside of the Region. On the basis of its agro-nomic potential, some recent estimates suggested that under specific climatic conditions and input application Malawi could achieve an average of approximately 4.5 tons per hectare in the longer term (Benson and Edelman 2016).

Since 2005, the provision of subsidies to purchase inorganic fertilizer and seeds through the Farm Input Subsidy Program (FISP) has been a centerpiece of Malawi’s agricultural development strategy to increase maize production. FISP has been justified on the basis that soil nutrients, particularly nitrogen, are essential for maize production, and that most smallholders in Malawi lack the cash resources or access to credit that would enable them to purchase inorganic fertilizer at commercial market prices.

However, access to inorganic fertilizer has been modest among the poor. Although the stated aim of FISP was to make inorganic fertilizer available to smallholder, resource-poor farmers, in 2013, approximately only 33 percent of the households in the bottom quintile obtained subsidized inorganic fertilizer. In contrast, nearly 50 percent of households in the top three consumption quintiles obtained it (figure O.5). This persistence of FISP’s nonpoverty focus partially explains the modest yield growth and crop income for the poorest.
Even if they receive inorganic fertilizer, poor farmers receive lower yields from its use than better off-households because they adopt fewer complementary investments in agriculture and have more limited access to information. Nonpoor households in Malawi obtain an extra 5 kilograms of maize per kilogram of nitrogen applied than do poor households (Darko and others 2016). The reason is that wealthier households have a greater abundance of land, labor, and management skill with which to make use of inorganic fertilizer. The Poverty Assessment shows that less than 20 percent of poor households had
simultaneous access to inorganic fertilizer, improved seeds, and extension services, despite the fact that the combined use of these complementary investments appears to raise the productivity of maize more than using each alone. Furthermore, more than half (53 percent) of the maize yield differential between the chronically poor and those who escaped poverty between 2010 and 2013 is explained by changes in the returns to organic fertilizer application, family labor utilization, access to extension services, and the application of the right type of basal fertilizer. Access to and use of adequate information could therefore bring higher yields. However, compared with those who escaped poverty, households who stayed in poverty during both periods had lower levels of education and lived in more remote villages, which resulted in information being more difficult to obtain and to use adequately.

One program, the FISP, consistently accounted for more than 50 percent of the total agricultural public expenditures in Malawi. Consequently, the FISP budget crowded out complementary public investments to, for instance, provide information to introduce and diffuse new technologies that could be important drivers of robust agricultural productivity growth. Inefficient patterns of public spending on agriculture thus are at the root of poor agricultural productivity in Malawi.

**Limited and Fragile Opportunities in Nonfarm Activities**

Many households in primarily agricultural economies such as Malawi usually are unable to sustain income from a single source such as livestock or crops from rain-fed agriculture. They often need to diversify sources of income into nonfarm activities to minimize losses from highly risk-prone agricultural incomes.

In rural areas, contracting income from nonfarm self-employment activities (NFSE) was among the key factors that raised poverty between 2004 and 2010. Participation of rural households in NFSE dropped from 30 percent in 2004 to 16 percent in 2010. The importance of NFSE income as a share of total household income also dropped from 9 percent to 5 percent in the same period. Figure O.6 shows the contribution of various income sources to changes in rural poverty in Malawi from 2004 to 2010. The green bar shows that the fall in NFSE income was responsible for approximately 1.4 percentage points of the net increase in poverty. Drops in transfers were responsible for 1.6 percentage points of the net increase in poverty.

Changes in crop and farm wage income reduced poverty, but they were not sufficiently strong to outweigh the losses in welfare resulting from drops in nonfarm and livestock income and transfers.

Participation in NFSE and their returns are lower for poor households. Approximately only 19 percent of the rural poor in Malawi owned a business in 2013 (compared with the national average of 31 percent). Similarly, in 2013 the average returns from NFSE to the rural poor in Malawi were 3,200 kwachas per month in 2013, less than 50 percent of the average returns to the nonpoor (7,300 kwachas per month).
The reduced participation of the poor in NFSE is explained by limited access
to credit and their remoteness to markets. The Poverty Assessment identified
access to credit and the closeness to roads and a population center of 20,000 or
more as pull factors that encourage Malawian households to engage in NFSE.
Between 2004 and 2010, access to credit in rural areas remained stagnant at
approximately 12 percent each year, with the poorest experiencing negligi-
ble to negative growth in access in those areas (Benfica 2014). In 2013, 22
percent of rural households applied for credit. Only 31 percent of these 22 percent
were successful in obtaining it. Nonpoor households and male-headed house-
holds were more likely to receive credit (and less likely to be turned down)
than were poor and female-headed households, respectively. Male-headed
households received more credit than female-headed households partly
because they were, on average, better off and thus deemed to have better pros-
pects of repaying (World Bank 2016). Roads and population centers also were
farther from the poor, imposing on them higher transaction costs for participat-
ing in markets.

The opportunities for existing NFSE to grow and generate higher profits
remain precarious and limited. Many rural household enterprises were operated
informally from home by young uneducated males. Three of every four business
owners had no formal education and little capital to enhance production.
In 2010, the average business was approximately 12 years old, but by 2013,
this average declined to 9 years. This decline may indicate that, although many

Figure O.6 Reductions in Self-Employment Income Increased Rural Poverty in Malawi, 2004–10

enterprises were created between 2010 and 2013, some older ones disappeared. Thus, household enterprises appear to have relatively short lifespans. This appearance is consistent with the fact that, in 2013, only 8 percent of household enterprises were formally registered. Perhaps because of the short or uncertain lifespan of these enterprises, owners did not invest time and resources in registration and, more important, in enhancing productivity.

In urban areas, income opportunities from nonfarm wage employment, which comprised the lion’s share of urban incomes, are also highly volatile. Nonfarm wage income was the driving force behind the reduction of poverty in urban areas between 2004 and 2010, when more people found increased nonfarm wage opportunities and returns were sustained at relatively high levels. However, this progress was undone from 2010 to 2013, when urban poverty increased, largely because the participation and returns from these activities dropped. The 2012 kwacha depreciation was needed for correcting macroeconomic imbalances that resulted from bad policy choices in the past, but also affected urban poverty by decreasing the demand for nontradable goods, and therefore the returns within nontradable sectors. Less demand in these occupational sectors (professional, technical, and related workers; administrative and managerial workers; and clerical and related workers) depressed wages. And since the nonfarm sector of Malawi is dominated by small and low return activities, the production of mostly nontradable commodities and services would need to be reorganized, by activating its tradable engines, to better seize the opportunity of a devaluation.

**Imperfect Safety Nets in a Context of High Economic Insecurity**

Low-productivity agriculture and limited opportunities to earn nonfarm income constrain household income growth in Malawi. It is not surprising that incomes are low. They also are risky because of the constant threat of weather shocks and the high seasonality in prices of the main crop, maize. At the same time, financial markets do not provide credit, insurance, or savings products at sufficient scale to enable households to protect themselves from changes in incomes. Therefore, social protection interventions in Malawi that set a floor for income levels and protect households from income shocks could become important tools against poverty and rising inequality.

Despite their importance, the coverage of the main safety net programs remains limited. Public spending on social protection in Malawi is low by international standards. In 2014–15, the annual budget for social protection programs accounted for approximately 0.8 percent of GDP, which was approximately only two-thirds of the average spending on social protection in Africa. Malawi’s social programs comprise largely cash transfers, school meals, and public works. In 2013 each of the social safety net programs covered less than 10 percent of the poor population. Even the exceptions, the School Feeding Program and the Malawi Social Action Fund-Public Works Program (MASAF-PWP), reached less than 25 percent of the poor.
In addition to limited coverage, many social assistance programs in Malawi experienced high leakage rates. For instance, in 2013, 6 of every 10 beneficiaries of MASAF-PWP and/or of direct cash transfers from Government at the time were not poor. Although the existing mechanisms for redistribution within communities could have attenuated this leakage, the existing evidence to support this claim remains anecdotal.

A key social program in Malawi has had little effect on welfare. One of the largest social protection programs in Malawi, the MASAF-PWP, has the potential to serve as a key safety net for poor households. However, a large-scale randomized controlled trial implemented during the 2012–13 agricultural season showed that, in those years, the program failed to fulfill its protective role in food security or to increase its beneficiaries’ opportunities to exit poverty. Along with inadequate targeting and significant rationing, the relatively small size of the transfers (compared with similar programs in other countries) associated with infrequent projects may have contributed to the lack of impact.

The Social Cash Transfer program, which aims to tackle extreme poverty by providing cash to labor-constrained households, shows positive impacts, but limited coverage of the extreme poor population. Impact assessments of the pilot Social Cash Transfer program conducted in 2007 show that the transfers increased both consumption and productive asset investment. Results from another impact evaluation that covered more than 3,300 households from 2013 to 2016 further confirm the effectiveness of the program in multiple domains including food security, asset holdings, health and education, and psychological well-being. The program keeps expanding to cover some of the poorest labor-constrained households in each district.

**Proposed Policy Actions to Foster Poverty Reduction in Malawi**

To summarize, despite progress in some aspects of well-being, poverty in Malawi has remained stubbornly high, affecting more than half the population. The accumulated evidence suggests four proximate causes. First, growth across economic sectors and population groups is tepid and volatile. Second, agricultural productivity is low, especially among the poor and when compared with other low-income Sub-Saharan African countries. Third, opportunities for nonfarm self-employment are limited and the returns to such activities are lower for the poor. Fourth, the most prominent safety net programs have low impacts or limited coverage among the population. Therefore, the assessment team proposes policy actions that remove the obstacles imposed by these proximate causes. Ultimately, these reforms are complementary. The expectation is that they will lay the foundation for a more prosperous path based on increased economic productivity in agriculture, more inclusive financial markets and opportunities in the nonfarm sector, and better functioning safety nets.
Create the Conditions for Macroeconomic Stability

Sustained and inclusive growth remains essential to reduce poverty and ensure shared prosperity in Malawi. At the core of laying the foundation for growth is to establish macroeconomic stability. Stability includes taking control of inflation, expected to average 24 percent between 2014 and 2016; reducing the cost of capital; and addressing the weak fiscal environment by maintaining the upward trends in revenue mobilization and coupling them with expenditure discipline.

Avoiding macro turbulences can go a long way to prevent people from losing their jobs or getting lower wages. The 2012–13 spikes in food prices and subsequent economic contraction brought deleterious consequences, particularly to urban households. These factors underscore the importance of strengthening the business environment and the necessity of avoiding shocks associated with the macroeconomic environment, exchange rates, and inflation.

Stabilizing the macroeconomic environment also will bring immediate relief to the budgets of the poor by controlling inflation. However, bringing deficits under control either through reducing spending or increasing revenue could impose adverse impacts on the poor. Therefore, policy action to correct fiscal challenges should build in safeguards for prooor spending.

Address Rapid Population Growth and Unprecedented Increase of a Young Population

The highest priority in addressing population growth is to accelerate fertility decline. Succeeding will, first, positively affect economic growth because a one-child difference in fertility rates by 2050 could lead to differences of 31 percent in real GDP per capita by that year. Second, accelerating fertility decline will determine the share of children in the population. The resulting ratio will greatly affect the level of public resources and investments required. Third, lowering fertility would have a positive effect at the household level on the health and education of children and mothers, especially young mothers.

Policies in two key areas would reduce fertility and increase the demographic dividend: The first area is to expand female education, particularly secondary education, which is the level at which education’s significant effect on fertility emerges. Poor women and women with no education exhibit the highest fertility rates across socioeconomic groups. In 2010, their fertility rates reached 6.9 and 6.8 births per woman, respectively. Malawian women with complete or incomplete primary educations have fertility patterns similar to those with no education. In contrast, women with secondary education or more have the lowest levels of fertility (3.6 births per woman).

The second area is to increase access to family planning and reproductive health, especially among the poor, who report higher than desired fertility, and among adolescents to curb early child marriage and early childbearing. Improvements in these areas are desirable regardless of the potential economic payoffs, but they must receive much higher priority than they do today.
Controlling for socioeconomic and other characteristics, if Malawi were to eliminate early childbirth alone, the country’s total fertility rate would decrease by 0.48 births, or 8 percent (Onagoruwa and Wodon 2016). Likewise, postponing childbearing by 1 year is estimated to decrease a woman’s expected number of children by 4.5 percent on average (National Statistical Office and ICF Macro 2011).

Increase Agricultural Productivity
Higher crop incomes for the poor are unlikely to be achieved or sustained without improving the productivity of agriculture. To date, agricultural growth has been achieved through factor accumulation—primarily through expanding resources such as land cultivated and labor. However, in a country with one of the highest population densities in Africa and shrinking farmlands, gains from continuing such practices are approaching their limit. In all likelihood, future agricultural growth will have to come from increased agricultural productivity, which in turn could raise farm wages and reduce maize prices. Four actions are recommended to improve agricultural productivity.

Focus the objective of the Malawi Farmer Input Subsidy Program (FISP) on increasing productivity, while leaving the safety net function to other programs. The FISP was introduced in the 2005–06 growing season with the stated goals of increasing agricultural productivity, improving food security, and reducing poverty. Despite its target of reaching smallholder, resource-poor farmers, FISP has reached poor and nonpoor alike. At the same time, growing evidence shows
that FISP’s poverty and food security impacts have stayed low and that yields have not improved much beyond the initial boost when the program was launched. Smallholders need complementary inputs such as land, labor, and some level of soil fertility and management ability to make use of FISP inputs. These complementary inputs are likely to be in short supply among the poorer segment of Malawi’s smallholder population. Thus, although the FISP goals are admirable, households who should be targeted to increase maize productivity and maize production likely are not the same households who should be targeted to reduce rural poverty. Having multiple goals puts considerable pressure on FISP because, given the program’s substantial budget share, the expectation is that it will deliver both increased maize productivity and reduced poverty to rural Malawi.

Expand access to new technologies such as irrigation and improved seeds along with supplementary services such as information and training on new technologies to boost yields. A study looking at the contribution of specific investments to the value of agricultural revenue on a nationally representative sample of smallholder households interviewed three times between 2004 and 2009 finds that use of improved maize seed has one of the highest returns at the national and regional levels (Lunduka and Ricker-Gilbert 2016). As Table O.1 shows, the national benefit-to-cost ratio on improved seeds is 2.48, meaning that for every kwacha spent on extension, 1.48 kwachas are gained in additional benefits. This positive ratio shows the potential value of research and development investment in improved maize varieties that are higher yielding and more resistant to droughts and floods. By contrast, the cost of subsidized fertilizer far exceeds the benefits to farmers across the board, with benefit-to-cost ratios for subsidized fertilizer at a low 0.42. Other interventions including irrigation, extension advice, and road investments have higher returns than subsidized fertilizer in the Southern region (table O.1).

### Table O.1 Benefit-Cost Ratios of Selected Interventions in Agriculture in Malawi, by Region, 2004–09a

<table>
<thead>
<tr>
<th>Intervention</th>
<th>National</th>
<th>North</th>
<th>Central</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidized fertilizer</td>
<td>0.42</td>
<td>0.20</td>
<td>0.19</td>
<td>0.37</td>
</tr>
<tr>
<td>Extension advicec</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1.35</td>
</tr>
<tr>
<td>Irrigation incomeb,c</td>
<td>—</td>
<td>0.96</td>
<td>—</td>
<td>1.45</td>
</tr>
<tr>
<td>Road distance from hometc</td>
<td>4.63</td>
<td>0.28</td>
<td>6.00</td>
<td>8.66</td>
</tr>
<tr>
<td>Use of improved maize seeds</td>
<td>2.48</td>
<td>1.21</td>
<td>6.00</td>
<td>1.27</td>
</tr>
</tbody>
</table>


**Note:**

a. The benefit-cost ratios come from separate regression models for households in the northern, central, and southern regions, along with all households in the national data set. Because the coefficient estimates for the benefits are not calculated from the same households across, there can be different conditional mean estimates.

b. Irrigation was proxied by the amount of income a household earns during the dry season. The only way to earn farm income in the winter is through access to irrigation, given that it typically does not rain during that time of year. The main production modules of the Agricultural Input Support Survey are conducted during the rainy season, so there are no questions regarding irrigation investment.

c. — = intervention did not have a statistically significant effect on production.
One way to expand access to improved technologies and information is to balance the composition of agricultural spending by scaling back FISP. FISP consistently has accounted for more than 50 percent of Malawi’s total agricultural public expenditure. Scaling back FISP would improve Malawi’s fiscal position and free resources for reallocation to complementary investments, which have higher returns to agricultural productivity. These investments should not necessarily always be focused on the poorest but on maximizing spillovers.

In the medium term, consider transitioning to a cash subsidy under FISP, combined with supplementary services such as training and information on new technologies or seeds, because such a bundle is likely to be superior to the current subsidy program. As noted earlier, in 2013 the difference in maize yields between the chronically poor and those who escaped poverty was 320 kg. Approximately half of this yield gap is explained by differences in the returns to family labor utilization and extension services obtained. Recent work with farmers from the National Smallholder Farmers Association of Malawi finds that providing transfers and intensive agricultural extension support could alleviate the capital and information constraints facing farmers in rural Malawi and boost their productivity (Ambler and others 2016). Before switching to cash, the policy makers could consider a pilot cash subsidy program from which they could learn.

**Increase Incomes from Nonfarm Activities**

As previously discussed, a major constraint to adopting improved agricultural technologies that would increase productivity and to expanding into nonfarm activities is the lack of credit. The Making Access Possible Initiative in Malawi identified proximity, eligibility, and affordability as the major obstacles to access credit in Malawi. Overcoming these hurdles to financial inclusion could facilitate self-employment activities. In countries who lack an identity system, fraud is rather common. Lenders in Malawi tell anecdotes of past borrowers purposefully defaulting and trying to obtain fresh loans from the same or other institutions. The response of lenders has been to restrict the supply of such services.

Adopt and scale up digital finance. The introduction of digital IDs can enhance the reach of mobile banking and deepen financial inclusion. Applying biometric technologies (fingerprinting, for instance) to approve credit can build a history of financial transactions, enable banks to identify good borrowers, and ease the banks’ fear of lending, thus making credit more accessible. The combination of digital finance and digital IDs also can transform public service delivery and create potentially large savings for the government. Under the right environment and incentive, digital finance can take off rapidly and reach massive scale in a short time.

Improve rural physical connectivity and protect local demand to increase the prospects of staying in business. Nonfarm self-employment activities rely heavily on increased local demand so connecting people better to markets that demand the services offered by these activities can help these individuals venture into self-employment. Connecting remote communities with population centers
through public roads can facilitate the expansion of nonfarm businesses. Well-functioning safety nets also could protect the welfare of those affected by disasters and help them to avoid joining the ranks of the self-employed out of necessity. For persons already self-employed, effective safety nets could improve their prospects of staying in business.

**Improve the Efficiency of the Safety Net Programs**

Provide larger transfers to more poor people. The Poverty Assessment shows that social protection interventions are much in need in Malawi but that the current social protection system, although recently expanded, is characterized by both low expenditure by international standards and limited population coverage. Both the MASAF-PWP and Social Cash Transfer program covered approximately 650,000 households per year in 2013–15. The Social Cash Transfer program covers 18 out of 28 districts and there are plans to expand into the rest of the districts soon, but the program still reaches a relatively small share of the extreme poor population: The SCT program is aiming to reach its goal of 319,000 households in 2016, covering the 10 percent poorest labor-constrained households in each district. Yet, already in 2010 more than 3 million people in rural areas could not afford the value of a basic food bundle. The ongoing strengthening and further expansion of the Social Cash Transfer program as a means toward putting in place an effective safety net for the extreme poor remains desirable. On the other hand, compared with public works programs in other developing countries, the total transfer amount from MASAF-PWP is relatively small. Although the daily wage from MASAF-PWP is comparable

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**Box O.6 Digital IDs Can BeScaled Up in Malawi**

Starting in 2015, loans with fingerprinting verification have been offered in Malawi on a larger scale through the Malawi Microfinance Network. At the moment, two multilateral financial institutions are doing fingerprinting, but the hope is that other multilateral financial institutions will see the benefit and want to fingerprint as well. Such scale-up will be piloted to test whether fingerprinting leads borrowers to produce more farm output and thus raise household welfare; and to establish whether the introduction of fingerprinting leads to lender responses. A web service, accessible from anywhere with an internet connection, will enable multilateral financial institutions and credit reference bureaus to search for and recall registered information on a particular borrower. While immediately useful for information sharing within an institution (to identify multiple borrowers), the end goal is that the unique ID would be tied to one credit-sharing institution that encompasses all multilateral financial institutions.

Meanwhile, NovaTeqni Corporation, a biometrics and secure payment technology firm, has just announced plans to develop an advanced biometric-enabled system—Farmers Registration and Administration System—for the tobacco farming industry. The system will issue smart cards with biometrics data for instant identification and will start with a six-month pilot, which could be scaled up to all farmers.
to wages provided by other programs, the maximum number of working days per year is much lower, yielding a comparatively low total transfer amount. For comparison, MASAF-PWP offers households a sum of US$0.62 PPP a year, whereas the Productive Safety Net Program in Ethiopia provides US$15.44 PPP. This amount is US$12.67 PPP in India, and up to US$225.97 PPP in Ghana. Scaling back FISP subsidies alone, as proposed, could lift some of the fiscal pressures that have prevented larger transfers or higher coverage within social programs. In the medium to long term, these programs should be consolidated with a common registry and common administration. Such a reform likely would reduce costs.

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**Box O.7 Can the Malawi Social Action Fund Public Works Program Cater for Shocks?**

Given the recurrent onset of shocks in the country (food price spikes, late onset of rains, excess/deficit rainfall) and the fact that Malawi suffers from one of the greatest seasonal maize price variabilities (including highest maize prices during the lean season) in Sub-Saharan Africa, public insurance-type programs likely are needed in Malawi. At present, the assignment of the Malawi Social Action Fund Public Works Program (MASAF-PWP) is not flexible enough to enable households to participate as a response to shocks. PWP beneficiaries are not more likely to tap into the program when experiencing production or weather shocks. The take-up of PWP is unresponsive to the overall number of shocks (weather, production, food price, or household idiosyncratic) experienced by households during the preplanting and lean seasons. The only exception is that households who are randomly offered the program are marginally more likely to respond to contemporaneous food price hikes during the lean season, confirming the extent of unmet demand for insurance during the season with the highest needs. The inability to cope with shocks limits the potential of the program to serve a consumption-smoothing function as safety net. The lack of responsiveness is likely to ensue from an inflexible assignment of public work projects to households at a given time of the year (with beneficiaries identified through a village selection process during the preplanting season).

There is scope for designing a new program or enhance the insurance role of MASAF-PWP. A rapid rollout of the program during the lean season, responsiveness of geographical targeting in response to large weather shocks, and improved access and flexibility of households to take-up safety nets support in response to shocks could go a long way in ensuring consumption smoothing in the aftermath of shocks.

In addition, decoupling the FISP subsidy from maize can lead to crop diversification and thus help households diversify their portfolios and better protect their productivity gains from risk. Because FISP targets maize production, naturally, farmers’ incentives have been to shift land, labor, and other input resources to maximize maize production. This shift has brought substantial risks to farmers and to the country. Shocks that have led to the failure of maize production then led to large individual and aggregate losses, worsened food security, and diminished poverty reduction. However, decoupling the subsidy from maize would enable households to diversify to other crops that do not depend heavily on FISP-supported inputs. The existing FISP vouchers should be flexible enough to enable farmers to redeem them for any input combination that they desire.
Improve targeting for greater effect on poverty. Although, based on anecdotal evidence, some redistribution toward the poorest may happen within communities, household survey data suggest that the targeting of most of the existing social protection programs has been largely ineffective and must be revisited because it is not propoor. For MASAF-PWP, one way to improve targeting is to verify the existing community-based targeting through proxy means testing. Alternatively, the program should further explore the possibility of rolling out self-targeting starting with a pilot. Self-targeting would require lowering the wage. A lowered wage has the potential to attract those who will have low opportunity cost of time and who could benefit from participation—often the very poor. However, to ensure a number of total transfers sufficient to improve household welfare, there should be no limit on the number of days an individual participates in the program. In addition, recent reforms under MASAF-4 that offer more days of work (currently 48 days) to a household during the lean season and maintain the beneficiary roll to be the same households in each work cycle should be continued and evaluated.

Evaluate the value of assets produced under MASAF-PWP. To date, there has been no evaluation of the assets produced by the public works. Therefore, a thorough evaluation of the assets should be undertaken. If the assets are found to have no value, and the conditions to work are still built into the program design, then the program can focus on a narrow set of assets that create value to communities (for example, conservation of water-catchment areas) and reassess their value. The alternative is to remove the condition to work and convert MASAF-PWP into a cash program.

In sum, reducing poverty in Malawi requires four elements: (1) stabilize strong, consistent growth; (2) raise the labor incomes of the poor through increasing the productivity of agriculture and facilitating movement into new, more remunerative nonfarm activities; (3) give larger and well-directed transfers to the poor through reforming existing safety net programs to help protect their incomes and assets against shocks; and (4) expand female secondary education and family planning to adolescents to reduce child marriage and early childbearing and thus hasten the transition to smaller families that could harness the income gains achieved through the other policies above.

Notes


2. Although national production estimates suggested important increases in maize production and productivity from 2005 to 2010, several farm-level studies have found relatively modest increases in maize production and yields over the same period (Chibwana and others 2010; Holden and Lunduka 2012; Ricker-Gilbert and Jayne 2012).
3. Rationing is the controlled distribution of scarce resources, goods, or services; or the artificial restriction of demand.

4. On average, it takes 87 minutes to go to a bank branch in rural areas (versus 27 minutes in urban areas). In addition, it costs 801 kwachas on average to pay for public transportation to go to the bank. The cost of opening an account at a bank is 2 percent of average income.

References


